

Youth development in rural library: ICT gratification as mediating effect

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ABSTRACT

This study investigates the relationship between ICT facilities and behavioural factors with positive youth development among rural youth in Malaysia, considering gratification of ICT usage in rural library as the mediating effect. The youth in rural areas are inclined to involve in negative affairs due to non-established beneficial activities. Therefore, the government has taken initiatives to equip rural libraries with ICT facilities and services to support social and academic activities amongst youth. A total of 400 respondents comprising rural library users in Peninsular Malaysia aged between 15 to 40 years were surveyed through multi-stage cluster simple random sampling. A survey method was employed and the analysis was conducted using Structural Equation Modelling (SEM). The results revealed that gratification of ICT usage among youths in rural library do not significantly mediate the relationship between ICT and specific behavioural factors in positive youth development. The finding indicates that respondents were not entirely depending on ICT facilities provided in the rural libraries in their undertakings. This study highlights several implications and recommendations for policy makers and practitioners towards improving ICT provisions in rural libraries in Malaysia.

Keywords: ICT usage; ICT gratification; Rural libraries; Rural youth; Positive youth development

INTRODUCTION

Several government initiatives have been implemented to foster Malaysia towards becoming one of the developed nation in the world. Rural areas are not neglected in national efforts on planning and development of such initiatives. Equal developments between urban and rural areas are indispensable in national development programme. Rural libraries have been part of government initiatives in promoting community development through increasing the quality of social and economy of rural communities in Malaysia. Albeit the initiatives, the aim is to provide the rural communities with learning centres, information services and readily information together with comprehensive and complete recreational facilities in order to improve literacy rate (Muhammad 2004). Furthermore, Malaysian government intends to reduce the gap between rural and urban communities particularly in information acquisition. Elaborating the importance of rural library to the users and

community development, it is said that rural libraries should continuously provide access to the information and knowledge (Goulding 2008). Report by the National Library of Malaysia (NLM) indicated that there were about RM30 million (USD 10 million) of operating budget spent annually for 475 rural libraries in strengthening the library ICT infrastructure and facilities. This shows that the government is really committed in sustaining the quality of life of the rural areas (NLM 2015). As of June 2015, the number of rural libraries under the jurisdiction of NLM has rapidly increased to a total of 501. There are 5,345,674 copies of accumulative collection in the rural libraries and a total of 596,734 of ICT usage have been recorded (NLM 2015) as shown in Table 1.

Table 1: Rural Library Parameters (NLM 2015)

Parameters	2015
No. of library	501
Membership cumulative	447,893
No. of visitors	2,268,978
No. of users	1,851,025
No. of borrowing collection	1,330,607
No. of ICT usage	596,734
Collection cumulative	5,345,674
No. of organize activity	35,150
No. of public participant	616,058

Rural libraries which are equipped with ICT facilities and services (inclusive of Internet) act as agents in community development by creating activities that positively impact the economy and social life of rural communities (Bashir et al. 2011; Samah et al. 2011). The use of ICT could give impact on the growth and advancement of a society such as in economy, education, communication and mobility which could promote opportunities for positive development (Thioune 2003). As such, rural libraries have the same effect of telecentres, and to what extent the rural communities, especially the youth have fully utilized the facilities and services provided needs investigation.

However, Elbert and Alston (2005) reported that youth in rural areas often have less accessibility to technology assets than their counterpart in the urban, therefore this affects them in educational growth, job opportunities and skill development. As a result, delinquent behaviours among rural youth were on the rise (Caldwell and Smith 2006). Positive Youth Development (PYD) has provided a broad and balanced view of youth development by providing a paradigm shift that moves away the prevailing focus of maladaptive behaviour amongst adolescence (Cowen 2000; Damon 2004; Brown 2005). PYD that was introduced by Lerner et al. (2005) emphasizes on positive vibes among the youth. According to Malaysian Youth Council, youth are those in age ranged between 15 to 40 years old. In line with Act 668 Youth Societies and Youth Development Act (2007), they are the key players in development of a country (KBS 2007). In accordance to that, for social and economy growth, appropriate infrastructures for youth could be a contributing factor for rural youth development. In Malaysian context, most of youth feel that they can make a little change at the community level, while only few of them feel the opposites. This is evident in a survey conducted by The Asia Foundation on 2012 which has reported the sense of empowerment amongst rural youth was particularly strong (48%) compared to urban youth (37%) (The Asia Foundation 2012).

This paper reports on the role of ICT that could facilitate the development of youth towards more positive lifestyle. This study was conducted to ascertain the ICT usage amongst youth in rural libraries towards their PYD. PYD is a strength-based and resource-focused approach,

which emphasizes explicit definitions of positive outcomes, and embraces an optimistic view of youth (Roth and Brooks-Gunn 2003; Damon 2004). PYD is a concept about involvement of young people in community services, systems and activities. The main goal of PYD approach is to help young people in acquiring knowledge and developing their skills towards healthy, happy, responsible, and productive adults they need to become (Bean, Winzeler and Baber 2005). Limited studies were reported on PYD and its relation to the gratification of ICT usage. Therefore, the roles of ICT in shaping the development of youth in rural areas particularly through the rural advancement initiative provided by rural libraries is interesting to be investigated. Apart from the general Internet usage survey as reported by the Malaysian Communication and Multimedia Commission (MCMC 2016), there has been lack of empirical evidence in terms of utilization of ICT services in rural libraries in Malaysia as reported in previous literature (Norshila, Masitah and Wan Nor Haliza 2011; Samah et al. 2011; Omar et al. 2012; Mazuki et al. 2014; Omar et al. 2014; Samsuddin et al. 2015; Zaremohzzabieh et al. 2015; Omar et al. 2016).

The objective of this paper is to investigate the associations between ICT facilities factors as well as behavioural factors, and PYD through the mediating effect of gratification of ICT usage among youth in rural libraries of Malaysia. There are 5C's which were initially introduced (competence, connection, character, confidence, and caring) but an additional element which is 'contribution' was suggested later by Bers (2006) that made up a final of six 'C's elements. It is of interest to determine the significance of gratification of ICT usage towards PYD based on of 6Cs' dimensions (competence, connection, character, confidence, caring and contribution). This study also attempted to discover whether ICT usage can increase the 6Cs' dimensions of PYD among rural youth and reflect into their actions to avoid negative activities such as drug abuse, alcohol consumption and teenage pregnancy as suggested by Lerner (2004). The following research questions were put forward to conduct the investigation:

- a) What is the relationship between ICT factors and behavioural factors on gratification of ICT usage?
- b) What is the relationship between gratifications of ICT usage on PYD?
- c) What is the relationship between ICT factors and behavioural factors on 6C's dimension of PYD?
- d) What is the relationship between ICT factors and behavioural factors on 6C's dimension of PYD mediated by gratification of ICT usage?

RESEARCH FRAMEWORK

This research was designed based on several ICT usage theories/models toward rural youth development. Theory of Planned Behaviour (TPB) and Extended Technology Acceptance Model (ETAM) were used as guidelines in measuring factors of the ICT usage in rural library services. TPB by Ajzen (1991) is the most suitable model in explaining human behaviour regarding their needs. ETAM is adapted to overcome gaps and strengthen the TPB theory with some of the variables were considered significant in explaining behaviour towards ICT and development. ETAM is a job related study that been used by in previous studies such as in Hu, Clark and Ma (2003) that examined how people accept technologies in their job scope. The approach of using this theory assumes that rural library users' use of ICT services is purposive and they seek information or doing task to satisfy their needs (Katz, Blumler and Gurevitch 1974). In providing practical solutions to rural library administrators, the current study examined ICT use in rural libraries through behavioural measurements, assuming that when someone forms an intention to act, he will be free to act without limitation.

Behavioural factor is an important factor to be studied because it provide deeper understanding what really need to be seen on individual in strengthening their Internet use. Previous studies have found there is a significant relationship between actual usage and intention behaviour (Davis, Bagozzi and Warshaw 1989; Ajzen 1991; Eagly and Chaiken 1993; Hu, Clark and Ma 2003; Venkatesh et al. 2003).

Although Joorabchi, Hassan and Osman (2013) have conducted a study on Internet use and PYD with gratifications of Internet usage as mediator, their study only used selected dimensions of PYD as dependent variables and several constructs (e.g. purposes, attitudes, Internet skill, problems and patterns of Internet) as independent variables. This study has hypothesized behaviour factor as well as ICT factor as significantly related with overall important outcomes of PYD namely competence, connection, character, confidence, caring and contribution. To date, no study has reported to investigate the direct and indirect effect of behaviour factor and ICT factor towards PYD. This study aimed to delineate direct and indirect relationship between ICT factor as well as specific behaviour factor and PYD by highlighting the mediating role of gratification of ICT usage.

Positive Youth Development (PYD)

Previous studies on youth focuses on their negative behaviours such as teenage pregnancy, drug misuse, and crimes (Brown 2005; Theokas et al. 2005) rather than its positive counterpart (Moore et al. 2004; Lerner et al. 2005; Klein et al. 2006). PYD has contributed a broad and balanced view of development, by providing a paradigm shift from the prevailing focus on maladaptive outcomes in adolescence (Brown 2005; Damon 2004 and Cowen 2000). Therefore, PYD that was introduced by Lerner et al. (2005) emphasizes on the positive vibes among the youth. According to Lerner et al. (2005), PYD suggests that if people beneficially engage with people and institutions in their social world, they will be in the right path for the positive future in contributing to themselves, their family, community, and civil society. PYD as dependent variable in this study was an outcome of gratification in using ICT at rural libraries among youth in Malaysia. The working definitions of the PYD 6C's in the context of rural libraries were opportunities and contributions, derived along the rural library usage which also able to develop sense of caring for others especially among rural youth. The rural libraries create an approach where policies and programmes are directed at providing supports to rural youth as they build their capacities and strengths to meet their personal and social needs in terms of competencies. Besides that, it does create the same experiences and practices that adults use to do in fulfilling their healthy development in aspects of connections and supports.

Gratifications of ICT Usage

Gratifications of ICT usage in this study was derived from Uses and Gratification Theory to explore why and how people use media to fulfil their needs and motives (Rubin 1984). A number of studies were reported on the effectiveness of ICT in benefiting socio-economic aspects in various community such as farmers (Hassan et al. 2011), fisherman (Shaffril et al. 2012, Bolong et al. 2013), village leaders (Samah et al. 2011) entrepreneurs (Hassan et al. 2011), rural community (Hassan et al. 2008), school students (Ismail, Ahmad and Affandy 2013) and teachers (Kumar, Rose and D'Silva 2009). Nonetheless, there were lack of study related to ICT usage among rural youth were conducted.

Behavioural Factor

Behaviour factor is a positive or negative evaluation that youth experienced in various aspects of ICT usage in rural library. It is suggested that behaviour factor has a multidimensional nature in this study to overcome each theory or model gap. In providing

practical solutions to rural library administrators, the current study examined ICT usage in rural libraries through behavioural measures adapted from TPB such as Attitude, Subjective Norm and Perceived Behaviour Control (Ajzen 1991) and several variables from ETAM which include Perceived Ease of Use and Perceived of Usefulness and Self-efficacy, adapted from Hu, Clark and Ma (2003).

ICT Factors

Malaysian Communication and Multimedia Commission (MCMC) (2014) reported that the Internet usage of Malaysian household was from urban area with 82.2 percent and 17.8 percent from the rural. Information seeking through Internet has increased from 48 percent in 2012 to 90 percent in 2016 (MCMC 2016). Workplaces, schools, libraries, cybercafés, and premises with free Wifi, have been identified as places for people who are not subscribed to the Internet connectivity to access the network. Bertot et al. (2009) in their study reported users’ alternative Internet access points and applications they accessed. This has shown that the availability of facilities and access are the dimensions for the ICT factors in rural community.

Research Hypotheses

Based on the above discussions, a research framework (shown in Figure 1) was developed, and the following seven hypotheses were established:

- H1: There is a significant relationship between ICT factors and gratification of ICT usage.
- H2: There is a significant relationship between behavioural factors and gratification of ICT usage.
- H3: There is a significant relationship between gratifications of ICT usage and PYD.
- H4: There is a significant relationship between ICT factors and 6C’s dimension of PYD.
- H5: There is a significant relationship between behavioural factors and 6C’s dimension of PYD.
- H6: There is a significant relationship between ICT factors and 6C’s dimension of PYD, mediated by gratification of ICT usage.
- H7: There is a significant relationship between behavioural factors and 6C’s dimension of PYD, mediated by gratification of ICT usage.

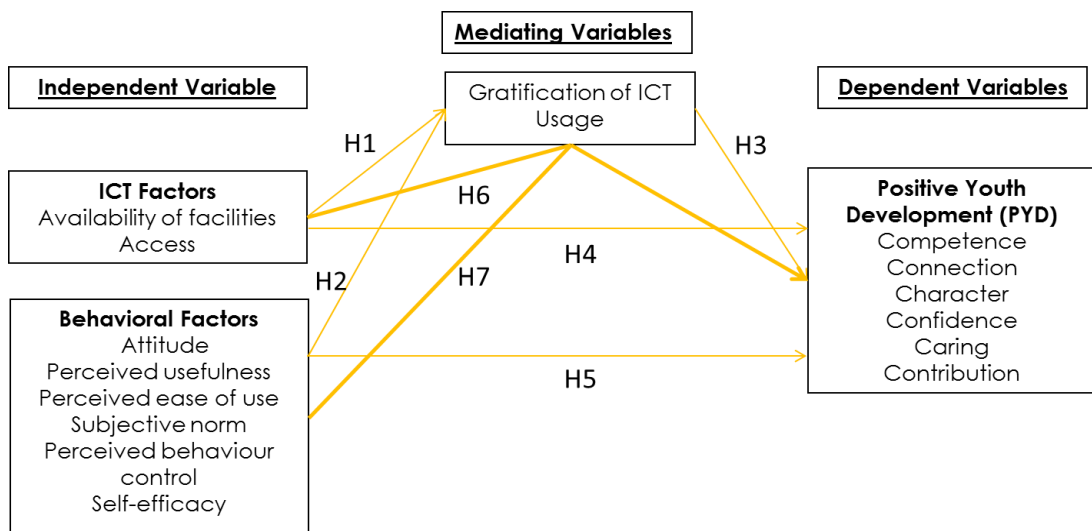


Figure 1: Factors that Influence Positive Youth Development in Rural Library

RESEARCH METHOD

In conducting this study, a quantitative approach was employed by means of a survey. There were 30 items used to measure gratification of ICT usage. Another 30 items were used to measure PYD dimensions that was adapted from several studies (Omar et al. 2016; Samsuddin et al. 2016). These items were translated to the Malay language and five point Likert Scale option ranging from 1 = strongly disagree to 5 = strongly agree were used to gather the data as shown in the survey instrument (Appendix 1).

The study population is approximately 447,893 library patrons, based on data from membership record in Malaysian rural libraries. Based on this number, a total sample size is 399 (using Yamane's (1967) sampling calculation). A total of 16 rural libraries equipped with ICT services were selected in a multi-stage cluster sampling that includes four states (Perak Pahang, Melaka, and Pulau Pinang) which represents the Central, East, South and West zones in Peninsular Malaysia. A simple random sampling approach was used to gather the data by taking the first 25 library visitors as the respondents in each rural library. The data were collected by several trained enumerators who assisted the respondents in answering the survey. A total of 400 responses consisted library users aged between 15 to 40 years of age were gathered.

Structural equation modelling (SEM) was employed using a maximum likelihood methods of AMOS version 21 to examine the research framework. SEM were used in the analysis to measure individual constructs, the measurement model, and the structural model, in examining the direct and indirect relationships among constructs within selected combination of theories. The first step in data preparation in SEM for this study was by conducting Confirmatory Factor Analysis (CFA); while the second step in the measurement model examines the relationship between the observed variables and the latent variables of the model.

Validity and Reliability

The convergent validity of the constructs was evaluated by assessing the adequacy of factor loadings of items on the respective latent construct. The factor loading value should be more than 0.5 (Byrne 2010; Hair et al. 2010); Average Variance Extracted (AVE) value should be more than 0.5 (Fornell and Larcker 1981); and the level of Composite Reliability (CR) should be above 0.7 (Hair et al. 2010 and Kline 2011); as illustrated in Table 2. The results indicated all items exhibited high factor loadings ranged from 0.62 to 0.95. The AVE value of all constructs ranged from 0.511 to 0.697 which exceeded the minimum criterion of 0.5. With respect to construct reliability, values for all constructs ranged from 0.837 to 0.931, above the suggested threshold of 0.7, revealing the adequate internal consistency among items in each scale. Therefore, the convergent validity of all constructs was justified.

Discriminant validity refers to the extent in which a construct is truly distinct from other constructs (Hair et al. 2010). Problems occur when observed variables in each construct correlate more highly with variables outside their parent factors or when latent variable is better explained by some other observed variable. In this study the discriminant validity was examined by two methods of test to determine that the two constructs are not measuring the same thing: (a) All correlation coefficient between two constructs indicates lower than .90 and thus meet the discriminant validity (Fornell and Larcker 1981; Hair et al. 2010); and (b) results showed the value of square root of AVE for all latent constructs were higher than the correlation coefficient between the focal construct and other constructs. Therefore, the results established the discriminant validity of the constructs. This is shown in Appendix 2.

Table 2: Descriptive statistics, AVE and CR of the Research Scales

Variables	Initial items	Final no. of items	Factor loading range (>.5)	Mean	SD	Average Variance Extracted (AVE > 0.5)	Construct Reliability (CR > 0.7)
Competence	5	3	.70-.80	3.89	.68	.604	.916
Connection	5	3	.71-.90	3.87	.77	.623	.905
Character	5	3	.74-.89	3.90	.76	.658	.931
Confidence	5	4	.76-.85	3.98	.72	.663	.928
Caring	5	3	.76-.83	3.89	.76	.646	.919
Contribution	5	3	.65-.88	3.84	.74	.626	.898
ICT	12	5	.67-.83	3.25	.86	.547	.837
AT	10	6	.64-.84	3.69	.71	.522	.885
PU	10	4	.63-.95	4.03	.76	.697	.918
PEOU	10	6	.63-.80	3.72	.70	.528	.887
SN	9	5	.64-.80	3.58	.73	.556	.868
PBC	18	7	.63-.86	2.15	.85	.575	.889
SE	5	3	.64-.82	3.83	.75	.511	.887
GIU	30	9	.62-.79	2.28	.97	.529	.864

Note. ICT=ICT Factor, AT= Attitude, PU= Perceived usefulness, PEOU= Perceived ease of use, SN=Subjective norm, PBC=Perceived behaviour control, SE=Self efficacy, GIU=Gratification ICT Usage.

Model Fitness of Measurement Model and Structural Model

As suggested by Hair et al. (2010), 3 to 4 fit indices were used in order to provide adequate evidence of model fit. As shown in Table 3, the goodness of fit indices suggests a good fit of the overall measurement model of the data after eliminated some of the items. The results showed that the Comparative Fit Index (CFI) and Incremental Fit Index (IFI) were well above the acceptable level of 0.9, and the value of relative chi-square was well below 5 which are indicative of an acceptable fit between hypothetical model and the collected data (Marsh and Hocevar 1985; Bentler 1990). In addition, the value of Root Mean Square Error of Approximation (RMSEA) was 0.046 which is unequivocal evidence of close fit. The structural model analysis was used to conduct the path analysis and test the hypothesis of the study.

The results of assessing the structural model fits indicated that the data fit the model. It shows that the fit indices such as IFI were above 0.90 the level of acceptability or recommended value (Bentler 1990; Hatcher 1994); CFI (0.900) and Tucker-Lewis Index (0.892) were very close to acceptable criterion above 0.90; related chi-square (χ^2/df) was well below the cut off value of 5 which is an indicative of an acceptable fit between hypothetical model. The collected data and the RMSEA was 0.046 which is unequivocal evidence of close fit both below 0.08 (Byrne 2010) and 0.05 (Hu and Bentler 1999).

Table 3: Goodness of Fit Indices of Measurement and Structural Model

Model	CMIN (χ^2)	(χ^2/df)	GFI	CFI	IFI	TLI	RMSEA
MM	3419.357 (p =.000)	1.841	.791	.902	.903	.893	.046
SM	3450 (p =.000)	1.849	.789	.900	.901	.892	.046

Note. MM=measurement model, SM=structural model.

RESULTS

Demographics Information

Of the 400 rural library users sampled, more than half of the respondents (57.8%) have had completed at least their secondary education. With respect to the employment status, more than two-third (66.5%) of the respondents were unemployed (students and housewives), and 33.5 percent of the respondents were employed. In terms of visiting frequency, 38.2 percent of the respondents visits the library two to five times a month, and some visit more than six times a month (38.2%). About 34.3 percent earned approximately RM2001 and above per month, 22.5 percent were categorized receiving household income between RM1501 to RM2000, 31.3 percent were at RM801 to RM1500, and 12 percent of the respondents make less than RM800. Therefore, the average mean of household income was RM2301.87 monthly.

Hypothesis Testing

The maximum likelihood estimation technique was used to estimate the model. The results of the hypothesized path analysis of the structural model are presented in Table 4.

(a) H1: There is a significant relationship between ICT factors and gratification of ICT usage

The finding indicates that there is no significant relationship between ICT factors (ICT) ($\beta = -.114$, $p = .129$), perceived usefulness (PU) ($\beta = -.109$, $p = .487$), perceived ease of use (PEOU) ($\beta = -.010$, $p = .945$), perceived behaviour control (PBC) ($\beta = .099$, $p = .339$) and self-efficacy (SE) ($\beta = -.058$, $p = .885$) and gratification of ICT usage.

Table 4: Regression Weights in the Direct Hypothesized Model

Independent Variables	Dependent Variables	Standardized Regression weights Beta	P Value
ICT		-.114	.129
AT		.347*	.021
PU		-.109	.487
PEOU	GIU	-.010	.945
SN		.263**	.006
PBC		.099	.339
SE		-.058	.885
	Competence	.085	.332
	Connection	.032	.707
	Character	-.002	.982
GIU	Confidence	-.023	.835
	Caring	.068	.548
	Contribution	.084	.392

Note. ICT=ICT Factor, AT=Attitude, PU=Perceived usefulness, PEOU=Perceived ease of use, SN=Subjective norm, PBC=Perceived behaviour control, SE=Self efficacy, GIU=Gratification ICT Usage. P value: ** = < .01; * = < .05

b) H2: There is a significant relationship between behavioural factors and gratification of ICT usage

There is a significant relationship between behavioural factors which are attitude (AT) ($\beta = .347$, $p = .021$), and subjective norm (SN) ($\beta = .263$, $p = .006$) and gratification of ICT usage.

Therefore, based on the structural model, H1 was not supported, while H2 was partially supported with two factors which are AT and SN. Thus, 34 percent AT towards ICT usage relates to gratification of ICT usage with a positive effects. While 26 percent of SN related to gratification of ICT usage with a positive effects.

The findings suggest as the level of attitude towards ICT usage increases, the level of gratification of ICT usage would also increase. This is in line with Omar et al. (2012) who reported attitude plays an important role in creating a better usage of rural library services. Shiro (2008) also mentioned rural community have a positive attitude towards government projects and programmes such as ICT facilities provision as shown in a higher level of usage on services provided. As the level of subjective norm increases, the level of gratification of ICT usage would also increase. A positive level of subjective norm among the rural community encourages the usage of ICT services among rural youth as provided in the rural library that later gratify their needs. In other words, subjective norm which is also categorized as community characteristics can influence the local services such as ICT services in rural library to be fully utilized and sustain by the community itself (Samah et al. 2013).

c) H3: There is a significant relationship between gratification of ICT usage and PYD

The results in Table 5 revealed that gratification of ICT usage has no significant relationship with any of 6C's dimensions of PYD: competence ($\beta = .085$, $p = .332$), connection ($\beta = .032$, $p = .707$), character ($\beta = -.002$, $p = .982$), confidence ($\beta = -.023$, $p = .835$), caring ($\beta = .068$, $p = .548$), and contribution ($\beta = .084$, $p = .392$). Hence, H3 was not supported by the results of SEM analysis.

The finding refutes the study by Joorabchi, Hassan and Osman (2013) who reported a significant result on five PYD dimensions (Competence, Connection, Character, Confidence, and Caring)

Gratification of ICT usage did not contribute to any of the 6C's dimensions of PYD among rural youth community which leads to their positive development. This suggests that the respondents did not solely depend on ICT factors probably due to persistently practicing conventional life style. ICT is probably used as an alternative facility to develop new skills and support their daily information tasks but it is not mandatory compared to their counterpart in urban area who often reported on ICT (smartphones and gadgets) dependency.

Table 5 shows the results of gratification of ICT usage as a direct path and mediating effects between ICT factors and behavioural factors (attitude, perceived usefulness, perceived ease of use, subjective norm, perceived behaviour control, and self-efficacy) on 6C's dimension of PYD (Competence, Connection, Character, Confidence, Caring and Contribution).

Table 5: Gratification of ICT Usage as Mediating Effect

IV	DV	Direct effect	Total effects	Indirect effect	95% Bootstrap BC CI		Hypothesized Relationship	
					LB	UB	Direct	Mediate
ICT		-.067	.057	.000	-.045	.032	X	X
AT	Competence	-.104	-.385*	.000	-.051	.133	X	X
PU		-.217	-.153	.000	-.029	.029	X	X

IV	DV	Direct effect	Total effects	Indirect effect	95% Bootstrap BC CI		Hypothesized Relationship		
					LB	UB	Direct	Mediate	
PEOU		-.272	-.209	.000	-.048	.020	X	X	
SN		.158	.033	.000	-.052	.084	X	X	
PBC		.183	.332**	.000	-.029	.026	X	X	
SE		1.281**	1.543**	.000	-.012	.000	√	X	
ICT	Connection	.032	.030	.003	-.031	.052	X	X	
AT		-.301*	-.394*	-.008	-.067	.120	√	X	
PU		-.107	-.302	.002	-.023	.054	X	X	
PEOU		-.219	-.319	.000	-.036	.026	X	X	
SN		.173	.076	-.006	-.067	.073	X	X	
PBC		.307**	.361**	-.002	-.050	.018	√	X	
SE		1.206**	1.702**	.001	-.007	.000	√	X	
ICT		Character	.058	.103	-.008	-.109	.013	X	X
AT			-.387*	-.391*	.024	-.033	.213	√	X
PU	-.147		-.520**	-.007	-.065	.010	X	X	
PEOU	-.210		-.279	-.001	-.058	.024	X	X	
SN	.032		.057	.018	-.033	.142	X	X	
PBC	.332**		.358**	.007	-.011	.052	√	X	
SE	1.541**		1.716**	-.004	-.108	.031	√	X	
ICT	Confidence		.032	.032	-.004	-.071	.013	X	X
AT			-.400*	-.303*	.012	-.035	.148	√	X
PU		-.295	-.111	-.004	-.049	.011	X	X	
PEOU		-.319	-.217	.000	-.043	.017	X	X	
SN		.074	.174	.009	-.031	.093	X	X	
PBC		.360**	.307**	.003	-.011	.040	√	X	
SE		1.700**	1.209**	-.002	-.068	.033	√	X	
ICT		Caring	.105	-.068	-.010	-.084	.004	X	X
AT			-.404*	-.102	.030	-.012	.165	√	X
PU	-.511**		-.219	-.009	-.052	.008	√	X	
PEOU	-.278		-.272	-.001	-.036	.04	X	X	
SN	.055		.158	.022	-.010	.112	X	X	
PBC	.356**		.183	.008	-.007	.040	√	X	
SE	1.717**		1.281**	-.006	-.170	.038	√	X	
ICT	Contribution		.015	.013	-.010	-.110	.009	X	X
AT			-.290	-.283	.030	-.025	.201	X	X
PU		-.170	-.176	-.009	-.062	.011	X	X	
PEOU		-.425	-.425*	-.001	-.044	.031	X	X	
SN		.177	.178	.022	-.022	.148	X	X	
PBC		.340**	.341**	.008	-.010	.049	√	X	
SE		1.471**	1.470**	-.005	-.155	.041	√	X	

Note: BC = Bias – corrected confidence interval; 5,000 bootstrap samples was requested; ICT=ICT Factor, AT=Attitude, PU=Perceived usefulness, PEOU=Perceived ease of use, SN=Subjective norm, PBC=Perceived behaviour control, SE=Self efficacy. P value: ** = < .01; * = < .05

d) H4: There is a significant relationship between ICT factors and 6C's dimension of PYD

The results indicated that ICT factors have no significant relationship with any of 6C's dimensions of PYD, namely Competence ($\beta = -.067$, $p = .530$), Connection ($\beta = .032$, $p = .762$), Character ($\beta = .058$, $p = .636$), Confidence ($\beta = .032$, $p = .813$), Caring ($\beta = .105$, $p = .447$), and Contribution ($\beta = .015$, $p = .903$). Therefore, H4 was not supported.

e) H5: There is a significant relationship between behavioural factors and 6C's dimension of PYD

H5a: There is a significant relationship between behavioural factors on Competence
There is a significant relationship between SE and competence ($\beta = 1.281$, $p = .000$). Therefore, based on the structural model the H5a was supported only on one factor which is self-efficacy.

H5b: There is a significant relationship between behavioural factors on Connection.
There is a significant relationship between AT ($\beta = -.301$, $p = .047$), PBC ($\beta = .307$, $p = .002$), and SE ($\beta = 1.206$, $p = .000$) and connection. H5b was supported only by three behavioural factors (AT, PBC, and SE).

H5c: There is a significant relationship between behavioural factors on Character.
There is a significant relationship between AT ($\beta = -.387$, $p = .028$), PBC ($\beta = .332$, $p = .004$), and SE ($\beta = 1.541$, $p = .000$) and character. H5c is supported by three behavioural factors (AT, PBC, and SE).

H5d: There is a significant relationship between behavioural factors on Confidence.
There is a significant relationship between AT ($\beta = -.400$, $p = .037$), PBC ($\beta = .360$, $p = .004$), and SE ($\beta = 1.700$, $p = .000$) confidence. H5d is supported by three behavioural factors (AT, PBC, and SE).

H5e: There is a significant relationship between behavioural factors on Caring
There is a significant relationship between AT ($\beta = -.404$, $p = .041$), PU ($\beta = -.511$, $p = .008$), PBC ($\beta = .356$, $p = .006$), and SE ($\beta = 1.717$, $p = .000$) and caring. H5e is supported by four behavioural factors (AT, PU, PBC, and SE)

H5f: There is a significant relationship between behavioural factors on Contribution
There is a significant relationship between PBC ($\beta = .340$, $p = .003$) and SE ($\beta = 1.471$, $p = .000$) and contribution. H5f is supported by two behavioural factors (PBC, SE)

The results revealed that attitude, perceived usefulness, and perceived behaviour control had a significant direct relationship with certain 6C's dimension of PYD. Self-efficacy was significantly and positively associated with all the 6C's dimension of PYD (Competence, Connection, Character, Confidence, Caring, and Contribution).

Bootstrapping approach was used in this study to examine possible mediation effect of gratification of ICT usage in relationship between ICT factors and behavioural factors and 6C's dimension of PYD. Bootstrapping method provides an estimation of the magnitude and significance of indirect effect. However, 5,000 bootstrap samples were required as recommended by Hayes (2009) and 95% confidence intervals (CI) for Bias-corrected option.

If the result shows a zero value is not between the lower and upper bound, the indirect effect is not significant.

H6: There is a significant relationship between ICT factors and 6C's dimension of PYD, mediated by gratification of ICT usage.

Table 6 shows the Standardized Indirect Effect (SIE) of ICT factor on 6C's dimension of PYD through the mediation of gratification of ICT usage was not significant, which Competent ($\beta = .000$, $p = .931$), Connection ($\beta = .003$, $p = .607$), Character ($\beta = -.008$, $p = .373$), Confidence ($\beta = -.004$, $p = .492$), Caring ($\beta = -.010$, $p = .182$), Contribution ($\beta = -.010$, $p = .264$). Therefore H6 is not supported.

H7: There is a significant relationship between behavioural factors and 6C's dimension of PYD, mediated by gratification of ICT usage.

The findings revealed that the Standardized Indirect Effect (SIE) of behavioural factors (attitude, perceived usefulness, perceived ease of use, subjective norm, perceived behaviour control and self-efficacy) on 6C's dimension of PYD through the mediation of gratification of ICT usage in rural library among rural youth was not significant. Therefore H7 is not supported. This contradicted with previous study done by Joorabchi et al. (2013), who reported gratification of Internet usage mediates the relationship between behaviour factors (attitude) and PYD.

DISCUSSIONS

Providing adequate ICT infrastructure and access to the rural community would affect users' satisfaction and leading to their positive behavioural outcome as reported by Bashir et al. (2011). However, finding of this study shows otherwise. This is possibly because most rural residential areas nowadays have access to the Internet and the residents are equipped with their own ICT facilities at homes (Omar et al. 2012). This might also be due to the existence of several programmes or activities conducted in rural libraries, apart from having ICT facilities, that might be useful in developing personal youth development amongst rural youth.

Positive attitude would lead to positive self-development in building good relationship among family members, friends and other people in the surroundings. Positive characters such as being a matured youth in handling tasks and solving problems, having confidence in facing communities and sense of caring towards others would create a better individual (Lerner 2004). Omar et al. (2012) has also reported positive attitude as one of the factors related to rural library services that play an important role in creating better usage of the library. The negative correlation as reported from this study indicates that once youth's attitude towards ICT usage is positive, they might develop negative effects such as addiction and dependency on the Internet and social media as indicated by Munoz-Miralles et al. (2016). This would have an impact on social communication, changes in character, less self-confidence, and less sense of caring among family members.

In terms of perceived usefulness on ICT usage, there was a similar relationship between caring in PYD. Although the youth could share knowledge and feelings with others while they are surfing the websites and connecting via Facebook, the respondents do not perceive that using social networks was useful and could bring benefits to others. Yusliza et al. (2009) and

Ramayah (2006) have proven that the level of ICT usage would be higher if the services were useful to them. The negative relationship in this study could be related to less sense of caring if someone has higher perceived usefulness on ICT usage such as being free to condemn, hack and immorally stalk others using social media tools. Meanwhile, the higher level of perceived ease of use of ICT in the rural library among the rural youth leads to a decrease in the contribution of PYD. This result somehow differs with Joorabchi, Hassan and Osman (2013) which reported that subjective norms have influenced on PYD in Competence, Connection, Character, Confidence, Caring, and Contribution. Subjective norms, which is similar to social influence, have shown that in PYD, rural youth nowadays tend to be more prepared and matured in making decision. They could clearly differentiate good and bad without the influence of family members, friends and their surroundings. This was supported by Lerner et al. (2005), who described that youth would develop positively when their ecology encourages their positive outcomes such as community contribution and engaging citizenship. Lerner et al. (2005) also mentioned that once youth have mutual beneficial relations with their surroundings (people and institutions), they would be influenced positively in contribution (self, family, community, and civil society). However, although subjective norms were significantly approved in previous studies (Spencer 2000; Hildreth 2007) as contributors in influencing rural library services usage, the current study has demonstrated rural youth have less relation to the 6C's of PYD dimensions.

Perceived behaviour control is highly related to rural PYD, in terms of ICT usage. Indirectly the rules and regulations in rural library have disciplined the youth community to use ICT wisely. Although the level of perceived behaviour control is low, it is in positive relationships with PYD among rural youth community, which explained that rural youth are not fully depending on ICT like their urban counterparts. ICT facilities and services provided by rural libraries were not merely important in developing positive attitude among the youth. This corroborated with Omar et al. (2012) who reported that the main purpose of rural youth visit to the libraries was not because of the ICT facilities and services but to find reading materials and as a meeting or community gathering place. Several previous studies argued that ICT was the main motivation among rural youth to visit the libraries (McQuaid, Lindsay, and Greig 2004; Tenopir et al. 2009; Alexapolous, Koutsouris and Tzouramani 2010).

Self-efficacy is a perception on one's ability to solve task and achieve goal (Sainz and Eccles 2012). Digital competence, the ability to solve problems, the confidence in using technology, and leadership character are the positive impacts that were found to be correlated with self-efficacy towards PYD in the current study. This is in agreement with several other studies conducted (Yang and Cheng 2009; Devolder, van Braak, and Tondeur 2012; Hatlevik, Guðmundsdóttir and Loi 2014) that concluded rural youth have to be prepared in developing their inner strength towards positive level of self-efficacy to face challenges in the future.

Although Joorabchi, Hassan and Osman (2013) reported a positive mediation effect on gratification of Internet usage among urban youth that includes university students as the respondents, this is in contrast with the current study. One of the reasons is probably due to the different setting and surroundings taken place in the study. The rural community under investigation were not fully depending on the Internet in their daily task. They are still practicing casual conversation among friends and ask opinion from the elderlies and develop themselves through best practice reflected by their parents and teachers. Furthermore, when the youth communicate well and involve themselves in positive activities with the adults, these would positively impact their development, sustain adult-youth relationship, build skills, promote leadership abilities and strengthen ties in the communities (Eccles and Gootman 2002; Lerner 2004). In addition, such community based programmes would

facilitate the growth and accentuate the youth strengths and at the same time enhanced the 6C's of PYD among rural youth community (Roth and Brooks-Gunn 2003).

Although there were a few arguments among researchers from previous studies (McQuaid, Lindsay, and Greig 2004; Kuate 2008; Tenopir et al. 2009; Alexapolous, Koutsouris and Tzouramani 2010; Norshila, Masitah and Wan Nor Haliza 2011) that the main purpose of youth using rural library services is mainly for seeking information using computer and the Internet, but within the context of this study, gratification of ICT usage was not supported as mediating effect towards PYD among rural youth community. The information seeking behaviour which has significantly changed among youth (Tenopir et al. 2009) has not affected them when it comes to rural library as a place to access information sources. If they have preference to seek virtual information elsewhere, there are other options of information service platforms in rural areas, such as telecentres, wireless village services, cybercafés, Rural Internet Centres, Medan Infodesa and Community Broadband Centres which are available across the country (Omar et al. 2012). These ICT centres may offer an alternative way for the rural youth to gain experience and skills in using ICT successfully which indirectly would have significance towards their PYD and search for livelihood as they transition into adulthood.

CONCLUSION

This research focuses on the gratification of ICT usage as mediating effect on PYD in rural library setting. Although the mediating variable was reported in previous studies to have a positive effect on the urban community, this study has evidence that the gratification of ICT usage as mediating effect in the rural community for PYD is insignificant. However, ICT services in rural library should be continued in the future to narrow the gap of digital divide among the rural community. This study has provided a better understanding on the factors that could influence PYD in rural areas. Consequently, intervention programmes to promote positive youth development in the lens of the 6C's dimensions (Competence, Connection, Character, Confidence, Caring and Contribution) could be embraced to reduce problematic behaviours among youth either in urban or rural areas.

For future research, this study could be carried out in a wider range of population taking consideration to use census sampling approach. Broadening the setting might result in getting different results and would be better in generalising the findings. Furthermore, apart from rural library as a place of ICT provisions, other telecentres in rural areas such as 1 Malaysia Internet Centre (PI1M) can be considered as the location to be studied.

ACKNOWLEDGEMENT

This research was conducted under Putra Grant - Putra Graduate Initiative (IPS), Universiti Putra Malaysia and with cooperation from Perpustakaan Negara Malaysia (PNM) Research Department.

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Appendix 1: The Survey Instrument

SECTION A

DEMOGRAPHIC PROFILE

Please mark (√) in the space provided adjacent / fill suitable information

		√
1. Gender	1. Male	<input type="checkbox"/>
	2. Female	<input type="checkbox"/>
2. Age	years	
3. Ethnic	1. Malay	<input type="checkbox"/>
	2. Chinese	<input type="checkbox"/>
	3. Indian	<input type="checkbox"/>
	4. Others (Please specified)	<input type="checkbox"/>
4. Education Level	1. Not attending school	<input type="checkbox"/>
	2. Primary school	<input type="checkbox"/>
	3. PMR	<input type="checkbox"/>
	4. SPM/SPMV	<input type="checkbox"/>
	5. Skills certificate/STPM	<input type="checkbox"/>
	6. Diploma	<input type="checkbox"/>
	7. Bachelor Degree	<input type="checkbox"/>
	8. Master/PhD	<input type="checkbox"/>
5. Are you working? (if yes please go to question 6, if no please go to question 7)	1. Yes, Occupation	<input type="checkbox"/>
	2. No	<input type="checkbox"/>
6. Average household income in a month	RM	
7. How many times you visit the rural library in a month? (frequency) times	

SECTION B: USAGE OF ICT FACILITIES IN RURAL LIBRARY

INSTRUCTIONS Please read all the following statements and circle the numbers that most suitables according to the scales given scale 1 (Never) to 5 (Very frequent)	(1)	(2)	(3)	(4)	(5)
	Never	Seldom	Sometimes	Often	Very frequent

Gratification of ICT usage in rural library

(Leisure, filling time, entertainment, cognitive (information / news gaining, education/ work related, communication)

I used ICT facilities provided by the rural library for :						
1	Internet surfing (reading blog/ portal)	1	2	3	4	5
2	Downloading image/ video	1	2	3	4	5
3	Downloading songs	1	2	3	4	5
4	Downloading related documents (cth: recipe, journal, article, etc.)	1	2	3	4	5
5	Eliminate boredom	1	2	3	4	5
6	Fill the free time	1	2	3	4	5
7	Online reading (novel/ books/article/ magazine/ comic/ anime)	1	2	3	4	5
8	Sending image/video	1	2	3	4	5
9	Received image/video	1	2	3	4	5
10	Listening to music	1	2	3	4	5
11	Watching video	1	2	3	4	5
12	Playing games(offline/ online game)	1	2	3	4	5
13	Reading online newspaper	1	2	3	4	5
14	Getting news/ latest information on current issues (politic, crimes, sports, health and others)	1	2	3	4	5

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15	Getting information on association activities	1	2	3	4	5
16	Getting information about courses from association/ ministry/ university	1	2	3	4	5
17	Getting information about businesses/ entrepreneurship	1	2	3	4	5
18	Getting information related on education/ completing assignment/ completing tasks	1	2	3	4	5
19	Completing school assignment/ completing tasks	1	2	3	4	5
20	Online learning (academic/ self-knowledge)	1	2	3	4	5
21	Getting information on job vacancies	1	2	3	4	5
22	Getting information about courses to improve the quality of work	1	2	3	4	5
23	Working online	1	2	3	4	5
24	Doing e-government businesses (e-filing, e-tax, e-license, to check for results)	1	2	3	4	5
25	Doing banking transactions through e-banking facilities	1	2	3	4	5
26	Doing online trade and sells	1	2	3	4	5
27	Reading email from teacher/ lecturer/ employer/ employee	1	2	3	4	5
28	Sending email from teacher/ lecturer/ employer/ employee	1	2	3	4	5
29	Communicate with friends through social media and email	1	2	3	4	5
30	Communicate with families through social media and email	1	2	3	4	5
31	Others. Please specified	1	2	3	4	5

SECTION C: ICT FACILITIES FACTOR

INSTRUCTIONS		(1)	(2)	(3)	(4)	(5)
Please read each item below and give your answer by circling the appropriate number on a scale from 1 (Strongly disagree) to 5 (Strongly agree)		Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
How well do you assess overall the following ICT facilities factors:						
INFORMATION COMMUNICATION TECHNOLOGY (ICT)						
1	Numbers of computer provided were sufficient	1	2	3	4	5
2	Computer provided free from any difficulties	1	2	3	4	5
3	Computer provided always maintained and repaired	1	2	3	4	5
4	Provided computers equipped with Internet	1	2	3	4	5
5	Provided computers are up to date	1	2	3	4	5
6	Computer facilities are satisfactory	1	2	3	4	5
7	Internet facilities are satisfactory	1	2	3	4	5
8	Internet speed in rural library were satisfactory	1	2	3	4	5
9	The time allocated for the computer use in the library are inadequate	1	2	3	4	5
10	The time allocated for the Internet use in the library are inadequate	1	2	3	4	5
11	I was allowed to use the facilities ICT provided by the library without barriers	1	2	3	4	5
12	People (residents and foreigners) are allowed to use ICT facilities in the rural library	1	2	3	4	5
13	Others. Please specified	1	2	3	4	5

SECTION D: BEHAVIOR FACTOR

The following questions are related to behavioral factors including attitudes, perceived ease of use, perceived usefulness, subjective norms, perceived behavioral control and self-efficacy when using ICT in Rural Library.

INSTRUCTIONS		(1)	(2)	(3)	(4)	(5)
Please read each item below and give your answer by circling the appropriate number on a scale from 1 (Strongly disagree) to 5 (Strongly agree)		Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
ATTITUDE						
1.	I feel comfortable using ICT (computer/internet/ smartphone etc.) because it is user friendly	1	2	3	4	5
2.	Using ICT gives me confidence in managing daily life	1	2	3	4	5
3.	I feel left out if not using the ICT	1	2	3	4	5
4.	I enjoy using ICT for daily tasks	1	2	3	4	5
5.	I prefer to use ICT than other equipment	1	2	3	4	5
6.	I encourage other villagers and my family to use ICT	1	2	3	4	5
7.	I like to promote the use of ICT to others	1	2	3	4	5
8.	I like to teach others on how to use ICT	1	2	3	4	5
9.	I feel like I become more productive when using ICT	1	2	3	4	5
10.	I do not care on ICT training and courses in enhancing my knowledge and ICT skills	1	2	3	4	5

PERCEIVED USEFULNESS					
While using ICT in rural library I could ...					
1. Increase my knowledge	1	2	3	4	5
2. Share my knowledge	1	2	3	4	5
3. Improve my skills related to education/ job	1	2	3	4	5
4. Simplify my daily routines	1	2	3	4	5
5. Save my money/ cost	1	2	3	4	5
6. Save space	1	2	3	4	5
7. Save times	1	2	3	4	5
8. Improve work/ study quality	1	2	3	4	5
9. Doubling the quantity of work/ study	1	2	3	4	5
10. Delaying the process of two-way communication	1	2	3	4	5

PERCEIVED EASE OF USE					
In rural library ...					
1. ICT services and facilities provided are easy to use	1	2	3	4	5
2. Sending emails is easy	1	2	3	4	5
3. Using social media is easy (Facebook, Tweeter, Instagram, WhatsApp)	1	2	3	4	5
4. Uploading and downloading files is easy (songs, videos, documents)	1	2	3	4	5
5. Using Internet search engines is easy (Google, Yahoo)	1	2	3	4	5
6. Using e-government services (eg: e-tax, e-license, checking examination results) is easy	1	2	3	4	5
7. Using online banking through internet is easy	1	2	3	4	5
8. Reading online newspaper/ magazine/ novel/ journal is easy	1	2	3	4	5
9. Listening music/ watching video through Internet is easy	1	2	3	4	5
10. Getting news/ latest information on current issues (politic, crime, sports, health and others) is not easy	1	2	3	4	5

SUBJECTIVE NORM					
1. Related agencies promotes and encourages the use of ICT the villagers	1	2	3	4	5
2. Related agencies provide financial assistance to the rural library to handle activities with ICT usage	1	2	3	4	5
3. Related agencies encouraged me to use ICT in completing daily tasks and current activities.	1	2	3	4	5
4. The quality of ICT services and facilities available at rural library in my village is good	1	2	3	4	5
5. Majority of the villagers encouraged me to use ICT in rural library	1	2	3	4	5
6. My family members encouraged me to use ICT in rural library	1	2	3	4	5
7. My friends encouraged me to use ICT in rural library	1	2	3	4	5
8. My JKKK committee encouraged me to use ICT in rural library	1	2	3	4	5
9. My surroundings encouraged me to use ICT in rural library	1	2	3	4	5

PERCEIVED BEHAVIOR CONTROL					
I didn't use ICT in rural library because of ...					
1. Do not have the skills to use ICT/ do not know how to use	1	2	3	4	5
2. Not interested in using ICT	1	2	3	4	5
3. Does not requiring the ICT usage	1	2	3	4	5
4. Cannot afford (the cost of use/ transportation)	1	2	3	4	5
5. I am not proficient in English language	1	2	3	4	5
6. Do not have time/ busy	1	2	3	4	5
7. Insufficient computer facilities provided	1	2	3	4	5
8. Lack of information on signage to ICT facilities and what other services provided	1	2	3	4	5
9. Facilities and equipment provided were outdated	1	2	3	4	5
10. Facilities and equipment provided were always damaged and were not repaired	1	2	3	4	5
11. Internet speed were unsatisfactory	1	2	3	4	5
12. Most preferred other Internet services (eg: TM, Celcom, Digi, Maxis, U Mobile)	1	2	3	4	5
13. Prefer to other ICT center	1	2	3	4	5
14. The limited time in using ICT	1	2	3	4	5
15. There are several websites been blocked	1	2	3	4	5
16. No privacy	1	2	3	4	5
17. The rural library closed when needed	1	2	3	4	5
18. My surroundings did not encourage me to use ICT	1	2	3	4	5

SELF EFFICACY					
1. Overall, I believe I can use ICT very well	1	2	3	4	5

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2. I believe I can use ICT application in harder level	1	2	3	4	5
3. I believe I can mastering knowledge and ICT skills	1	2	3	4	5
4. I am confident will continue to use ICT	1	2	3	4	5
5. I am sure I will solve all the problems associated with the use of ICT	1	2	3	4	5

SECTION E: BENEFITS OBTAINED BY INTERNET USAGE IN RURAL LIBRARY TOWARDS POSITIVE RURAL YOUTH DEVELOPMENT

The section was formed based on the framework of Positive Youth Development (Lerner et al., 2005), as a measure of the benefits to be gained when using ICT facilities in the rural library

- Competence - Connection
- Character - Confidence
- Caring - Contribution

INSTRUCTIONS Please read each item below and give your answer by circling the appropriate number on a scale from 1 (Strongly disagree) to 5 (Strongly agree)					
	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
	(1)	(2)	(3)	(4)	(5)

COMPETENCE					
Using ICT in the rural library,					
1. My competency level in creative thinking can be increased	1	2	3	4	5
2. My competency level in academic improve	1	2	3	4	5
3. My competency level in social life improve	1	2	3	4	5
4. My information searching technique improve more effectively	1	2	3	4	5
5. My critical thinking skills can be improved in healthier way	1	2	3	4	5

CONNECTION					
Using ICT in the rural library,					
1. My relations with my families are better and friendlier	1	2	3	4	5
2. My relations with my close and distant relatives are better	1	2	3	4	5
3. My relations with my colleagues are better (school, universities, workplace)	1	2	3	4	5
4. My relations with teachers/ lecturers/ employer are better	1	2	3	4	5
5. My relations with neighbours and villagers	1	2	3	4	5

CHARACTER					
Using ICT in the rural library,					
1. Has taught me to be a person with integrity	1	2	3	4	5
2. Developed me to be responsible	1	2	3	4	5
3. Developed me to be moralized	1	2	3	4	5
4. Developed me to be more respectful toothers	1	2	3	4	5
5. Raised my awareness on ethics of Internet usage	1	2	3	4	5

CONFIDENCE					
Using ICT in the rural library,					
1. Give me high level of confidence in gaining knowledge	1	2	3	4	5
2. Game me the confidence to communicate with the community	1	2	3	4	5
3. Allow me to be more independent	1	2	3	4	5
4. Taught me to respect the dignity	1	2	3	4	5
5. Give me confidence to use ICT	1	2	3	4	5

CARING					
Using ICT in the rural library,					
1. Make me a person with high human values	1	2	3	4	5
2. Make me a person with empathy / understanding	1	2	3	4	5
3. Allow me to share feelings with others	1	2	3	4	5
4. Made me understand the meaning of justice and hardship	1	2	3	4	5
5. Encourage me to help others who need help	1	2	3	4	5

CONTRIBUTION					
Using ICT in the rural library,					
1. Giving me the oppourtunity to share knowledge with community	1	2	3	4	5
2. Give me the oppourtunity to provide views and opinions	1	2	3	4	5
3. Allow me to get involved in local community programs	1	2	3	4	5
4. Allow me to contribute energy and money to the community	1	2	3	4	5
5. Involve me in the planning/ implimentation of program activities for the local community	1	2	3	4	5

Appendix 2: Discriminant Validity of the Latent Constructs

Constructs	AVE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Competence	0.604	0.777													
Connection	0.623	0.699	0.789												
Character	0.658	0.741	0.716	0.811											
Confidence	0.663	0.717	0.691	0.814	0.838										
Caring	0.646	0.653	0.573	0.719	0.735	0.804									
Contribution	0.626	0.718	0.634	0.739	0.723	0.770	0.791								
ICT	0.547	0.225	0.254	0.309	0.254	0.282	0.259	0.740							
AT	0.522	0.610	0.464	0.544	0.488	0.426	0.514	0.380	0.722						
PU	0.697	0.581	0.529	0.637	0.540	0.389	0.552	0.313	0.662	0.835					
PEOU	0.528	0.557	0.524	0.615	0.531	0.488	0.487	0.451	0.650	0.642	0.727				
SN	0.556	0.561	0.531	0.539	0.507	0.480	0.542	0.524	0.518	0.476	0.642	0.746			
PBC	0.575	-0.289	-0.122	-0.194	-0.180	-0.125	-0.159	0.054	-0.255	-0.300	-0.159	-0.163	0.758		
SE	0.511	0.715	0.487	0.667	0.601	0.552	0.561	0.276	0.622	0.631	0.607	0.488	-0.351	0.831	
GIU	0.529	0.264	0.182	0.151	0.124	0.201	0.240	0.105	0.296	0.132	0.204	0.272	0.023	0.171	0.727

The squared root of AVE of each construct (on the Diagonal) and Correlation Coefficient (on the Off-Diagonal)

Note. ICT=ICT Factor, AT= Attitude, PU= Perceived usefulness, PEOU= Perceived ease of use, SN=Subjective norm, PBC=Perceived behaviour control, SE=Self efficacy, GIU=Gratification ICT Usage