

ICT AND FAMILY SURVIVAL IN LAGOS STATE, NIGERIA.

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Abstract

The contribution of information and communication technology in various sectors of the economy which family survival is not excluded is well recognized globally. Despite this, the question of whether ICT enhances family survival still wagging in the tongue of researcher. However, this paper attempts to investigate the extent at which ICT contributed to family survival on the bases of communication, livelihood and learning. Qualitative research method was used in this study. The population of this research are the productive age couples in Lagos State with a sample size of 180 comprising 60 respondents from each of the three senatorial zones in the state. The researcher also uses an in-depth interview with the chosen sample to gain all the data needed for this research. PPMCC and Linear Regression Analysis Method was used to analyze the hypotheses. The study concluded that ICT enhanced family survival. It also concludes that ICT positively Influence the family effective communication and source of livelihood. The result of hypothesis tested showed that there is significant relationship between ICT products and family learning. Based on the findings of this study, the study recommended that government should provide more ICT infrastructure and that ICTs should be widely affordable and very reasonable in order to aid more family communication, livelihood and learning.

Keywords: ICT, ICT Products, Effective Communication, Livelihood, Learning, Lagos, Computer

Introduction

The emergence of information and communication technology (ICT) has revolutionized the way we access, process, retrieve, store and disseminate information for family survival and business enterprise across the globe. The advances and incorporation of information and communication technologies (ICTs) in everyday family life has earned a place of prominence in the research field hence, ICT revolution is gradually affecting the advancement of knowledge and transforming the Nigeria educational system in unexpected ways (Adewoyin 2007), most importantly on family survival. Information and communication technologies (ICTs) include hardware (e.g., computers, smartphones, game consoles) and software (e.g., email, videoconferencing, online social networks) that

sustain the digital culture (Stafford and Hillyer, 2012). ICT can be defined as computer-based tools and techniques for gathering and using information (Adewoye and Salau, 2021). According to Stafford and Hillyer, (2012), about 20 years ago families were using face-to-face, that was the central mode of communication, besides the use of television, radio, telegram, video home system and books. Nowadays, the world is a global village with the advent of internet, the internet is an extension of broader social roles and interests in the offline world (Colley and Maltby, 2008), which can enhance the social lives of its users (Amichai-Hamburger and Hayat, 2011). According to the latest publication of the Eurostat (2014), in 2013, 79% of European Union households (28 countries) have computers with internet access, 94% of the households in Norway, 88% in the U.K. But it is among the youngest (12–17 years old) that the percentage of internet use is most widespread: 95% of American teenagers are online and 74% access the internet on cell phones, tablets, and other mobile devices. Recently, the advances and incorporation of ICTs into everyday life have potentially created new interaction scenarios and rearrangements in current family and social relational models, based on a network society (Stern and Messer, 2009, Stafford and Hillyer, 2012).

In Nigeria, the contribution of information technology in various sectors of the economy which family survival is not excluded is well recognized. The increase use of ICT in family circle lead to the question of whether it actually contributed to family survival or not most especially in the area of effective communication, source of livelihood, learning, security and others. While many have observed that ICT created more problems to the family than its benefits some share the view that it contributed more to family survival. Therefore, ICT as a tool for family survival deserve a place of prominence in the research field. Hence, the study carried out an empirical research to examine the effect of ICT on survival of family.

Research Hypotheses

H01: There is no significant effect between ICT and family communication.

H02: ICT does not have any significant effect on family source of livelihood.

H03: There is no significant relationship between ICT products or support and family learning.

An Overview of Information Communication Technology and Implementation

Information and Communication Technology (ICT) is defined as the technologies that offer access to information through telecommunications (Rahman, 2016). Information Communication Technology can play an important role in bringing about sustainable economic development. The contemporary information and communication technologies have succeeded in making the world a "global village," where people/family can communicate with one another across the world as if they were living next door. Richardsson and Kraemmergaard (2006) outlined five main areas of Technology applications in support of firm and rural development. These are: - Educational development, Economic development of product, Community Development, Research and Education. Information and Communication Technology (ICT) involves application of computers hardware, software, communication devices and tools, in the collection, storage, retrieval, analysis and transmission of information (Marcelle, 2000). Implementation of Information Communication technology over the years has become important not only for business but for governance and personal use. Information Communication has not only altered the way people live, work and play but has also created a new infrastructure for family survival, scientific advances and social interaction. At the same time, it has brought about complex issues that transcend mechanical boundaries including the emergence of the digital divide among nations, races and communities. Information Communication.

ICT Products: Computer

Computer does not only relate to all human endeavors but encompasses almost all facets of human endeavors. It is an electronic device which stores information on disc or magnetic tape; analyses it and produces information as required from the data on the tape. Today, computer technology in schools is one of the most far-reaching and fast-growing developments in education available for family survival. Development in science and technology has brought into lime light the indispensable roles of computer in the area of information technology, it is a new instructional system. The incursion of the electronic computer system into the educational parlance, according to Sherman (2005) provides the wherewithal to solve family learning problems even more rapidly and accurately. Computer has been found to be an effective device for presenting an instructional program either within the university or training centers. Computers can be used to diversify, develop and improve the pedagogical relation of teaching and learning of which family is a great beneficial. Computer could be said to be a man-made machine made up of electronic components that operates information at a very high speed to produce results that are meaningful to the user.

Telephone

The smartphone is an indispensable device in the area of mobile learning which has become a part of every person's life. According to Technorati (2019) "A smartphone is a mobile phone with highly advanced features. A typical smartphone has a high-resolution touch screen display, WiFi connectivity, Web browsing capabilities, and the ability to accept sophisticated applications." Ebiye (2015) regards a smartphone as a smart device used for fast access to knowledge, geared towards students achieving their teaching and learning and academic research objectives. The global explosion of smartphones and its related devices has greatly transformed teaching and learning in developed nations where developing nations are not the exception (Tagoe, 2014). The proliferation of smartphones has changed the style of learning and lifestyle of family, students could no longer solely depend on paper-based materials.

According to Fordjour, Zakaria, and Afriyie (2015), a "smartphone is a mobile phone with more advanced computing capability and connectivity than a feature phone which has limited functionality". Besides, smartphones perform phenomenal roles as far as teaching and learning are concerned, students can easily access their lecture materials on their smartphones, quickly access information online to meet their information needs via learning management systems, access academic databases, and a website to mention but a few. So also, in the study of Ifeanyi and Chukwuere (2018) it was revealed that smartphones help students to communicate with their classmates as well as their courses masters/ tutors, family also benefit from the effective communication. While, Ifeanyi and Chukwuere (2018) postulated that the use of smartphone on students has both a negative and positive effect depending on how it is used.

Family Survival

When we look into families as a unit of analysis we realize that the difficulty in establishing patterns of ICTs use is even broader. Attempts to define families often refer to a specific family model, the traditional family or nuclear family, mostly understood as a breadwinner (husband) and a homemaker (wife) who live together with their

biological children. Family can be defined as a group of persons united by the ties of marriage, blood, or adoption, constituting a single household and interacting with each other. Children and young people today are growing up in a world that is surrounded by media, Information and Communication Technology (ICT) are an integral part of their daily lives that tie individuals and families together (Cristiano and Atay 2020, Atay 2020).

The gradual and generalized access to internet that has been experimented by present day societies has encouraged the development of a new space that sets out countless operations, going from information exchange to business transactions (Cano and Maestre, 2015). This situation has generated a significant change on the lives of people, transforming the communicational ways, the labor market relations and the mechanism of negotiation for organizations (Sánchez et al., 2012). Most individuals intend to remain at the forefront of the advances generated around the ICT (Bonder, 2008), and families are not an exception, as they are the most important institution of a person and are also the basis of future societies.

This study focused on effective communication, source of livelihood and learning as its measurement of family survival. Family communication due to the proliferation of new technologies, the number of ways in which it is possible to communicate has undergone exponential growth in recent years (Stern and Messer, 2009). Traditional forms of communication such as face-to-face or using landlines, have today assumed new technological formats to include email and cell phones (Coyne et al., 2012, Stern and Messer, 2009). Today, ICT is increasingly considered as a critical and powerful supporting tool in successfully handling complex business processes, optimizing transaction and reduction of cost which at the end aid survival of family. According to Bakeer et al., (2012) youth and their families are able to identify livelihood skills, that they are interested in self-employment opportunities, and that their contribution to family well-being is the major expense for Yemeni youth. Research findings in the past decade have shown that ICT is an effective means of broadening livelihood opportunities (Lewis, 2004). ICT can be used not only as a simple device for communication but also as a way to support them in reducing poverty and inequality in socioeconomic conditions throughout the world (Sobeih, 2007). Moreover, ICT are potentially helpful in creating new livelihood opportunities for many family. ICT has opened new career opportunities for students who are driven to explore and learn at their own pace and time (Adewoye and Salau, 2021). ICT helps both teachers and students to learn about their respective subject areas. Since students are familiar with technology, learning better with technology-based environment become easier, the issue of ICT integration, specifically in the classroom or at home is vital to family support. Parents necessarily need to be educated, and gain experience of using the information and communication technologies, so they can support and direct their child in this area (Stevenson, 2011).

Empirical Review

ICT and family effective communication

Mauritzson-Sandberg, and Nordmark, (2004) the study examined the impact of new ICT applications on the daily life situation of the families of today. The two studies presented in this paper focuses primarily on the communication within families with children. The first study aims at mapping the patterns of communication within targeted families and their attitudes to, and need for, different ICT applications. In the second, trial set-ups of

different ICT applications are evaluated. The results show that, although the families were assessing themselves as positive to, and experienced in using, ICT the response was moderate.

Wang, Chu, and Chan, (2015) examined Information and Communication Technologies for Family Communication and Its Association with Family Well-Being in Hong Kong. A total of 1502 adult were surveyed. Socioeconomic disparities in using these information and communication technologies (ICT) methods for family communication were observed, a notable proportion of respondents are using new ICT methods.

Rudi, Dworkin, Walker, and Doty, (2015) the study examined parents' use of four widely used ICTs to communicate with family including differences in use by child's age. The study is using sample of parents 1322. Results show parents' use of various ICTs is dynamic, reflecting developmental differences in the child and relational differences in the family system. Findings revealed that the use of ICTs for parent-child communication increased with child's age, communication with co-parent via text message was more likely among parents of school-aged children, and parents of adolescent children were less likely to use text or email to communicate with non-resident family than parents of school-aged children.

ICT and family source of livelihood.

Zaremohzzabieh, Abu Samah, Omar, Bolong, and Mohamad Shaffril, (2014). the study examines the conceptual debate about the development of resource strategies, including ICTs, for young people to mobilize their livelihood assets for community development and information-sharing purposes and also to overcome the barriers to using ICTs by suggesting a model and prescriptive guideline. The study revealed that ICTs can improve the sustainable livelihood of the youth community if the emphasis is on making ICTs widely affordable and very reasonable, relevant, secure and safe. The study recommended that Given the large youth population, for the increasing use of ICTs to develop sustainable future careers and livelihoods, policy-makers and government must re-examine their role in supporting young people.

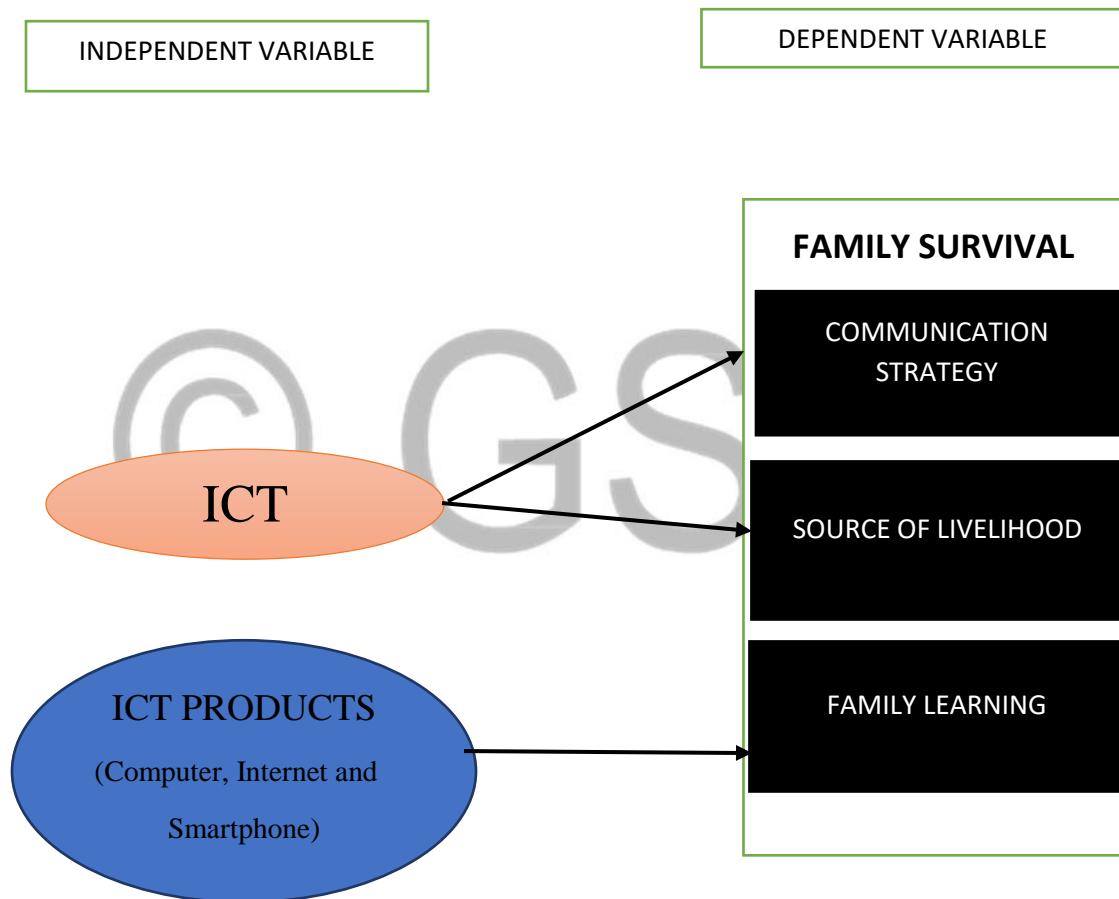
Malanga, and Banda, (2021) the study aimed to assess the impacts of ICTs on livelihoods of women microenterprises in Malawi. It was an interpretive qualitative approach in which semi-structured interviews, observation and field notes were used to collect data with about 25 women purposively selected from various microenterprises in three rural areas of Karonga district in Malawi to participate in the study. The study found that, ICTs to some extent contributed to the livelihoods of women microenterprises such as improved access to information; diversification of business opportunities, improved communication, improved marketing, and reduced transport costs. As a result, this led to sustainable use of resources, improved well-being, and empowerment for women.

ICT Support Products and Family Learning

AlShareef, (2018) investigated the importance of using mobile learning in supporting teaching and learning English among students at secondary stage. Data was obtained from 210 respondents comprising 195 teachers and 15 supervisors. There is a strong approval of the possible uses of mobile learning to support teaching and learning of the English language among students at the secondary grade, the study further recommended that there is need to

activate the use of mobile learning devices and urge students to make use of it to support the teaching and learning of English language in various stages of education.

Adewoye and Salau (2021) examined the impact of ICT on teaching and learning a case study of some selected universities in Nigeria. This study adopted the simple random sampling technique in the three selected public universities from Lagos State, Ogun State and Oyo State. PPMCC and multiple regression analysis was used to analyze the data obtained. The results reveal that that: there is a positive relationship between ICT and teaching and learning in Nigerian universities, the study further concludes that there is positive relationship among factors influencing the adoption of ICT (personal characteristics, organizational capacity, support factor and availability factor) and Teaching and learning in Nigeria university. In the light of the above conclusions, the study recommended that Nigerian universities should continue to promote the uses of ICT for teaching and learning.



Source: Compilation by Researcher 2021.

Research Method

Qualitative research method was use in this study. The research method that is used in this research was a qualitative method. The qualitative method does not rely on the number of population and sample, but it is rather on how to achieve the deepest information from the informant no matter how small the population and the sample number is.

In qualitative research, researcher plays an integral part of the data, which mean the researcher actively participated in choosing the suitable data for the research (Kriyantono, 2006).

Population and Sample

The population of this research are the productive age couples in Lagos State with a sample size of 180 comprising 60 respondents from each of the three-senatorial zone in the state. The researcher was using a purposive sampling technique to choose the right sample for this research. The researcher also uses an in-depth interview with the chosen sample to gain all the data needed for this research.

Data Collecting Method

Data collection method in this research were done in 2 ways: observation and interview Field research was conducted using observation and in-depth interview among the chosen productive age couple. It took about two months for data collecting through the in-depth interview for this research.

Data Analyses Method

The researcher questions were analyzed using descriptive statistics such as frequency tables and simple percentage, PPMCC and Linear Regression Analysis Method to analyze the objective and interpretation of data.

Result and Discussion

Table 1 depicted the demographic characteristics of 180 respondents. Age of the respondents are categorized into three groups from 30 years–to–59 years. Out of 180 respondents 30-39 age group are 38 (21.11%), 40-49 years of age are 84 (46.67%), 50- years age and above are 58(32.22%). Out of 180 respondents for study the majority of them are male 98 (54.45%) and rest of female 82 (45.55%). The marital status of the respondents indicated that the singles are nil (00%), married are 143 (79.44%), widows are 25 (13.89%) and divorcees are 12 (6.67%). As regards the education, majority are WASCE holders 59(32.77%), ND/NCE holders 36(20%) Ph.D. holders 10 (6%), graduate 57(31.66%) and M.Sc. holders are 18 (10%). With regard to whether they adopted and embrace ICT in their household, majority of respondents 156 (86.67%) are applying ICT in their teaching while 24 (13.33%) are those that are not applying ICT in their teaching.

Table 1: Demographic Distribution of Respondents

4.1 Descriptive Analysis of Demographic report

Table 4.1: Demographic Distribution of Respondents

Variables	Level	Frequency	Percentage (&)
Age	30-39	38	21.11%
	40-49	84	46.6%
	50-59	58	32.22%
	Sub Total	180	100%
Gender	Male	98	54.4%
	Female	82	45.5%
	Sub Total	180	100%

Marital Status	Single	00	0.00%
	Married	143	79.44%
	Widow	25	13.89%
	Separated	12	6.67%
	Sub Total	180	100%
Educational Qualification	WASCE	59	32.77%
	ND/NCE	36	20%
	B.SC/HND	57	31.66%
	M.SC	18	10%
	Ph.D	10	6%
	Sub Total	180	100%
Adoption of ICT in their Family	Yes	156	86.67%
	No	24	13.33%
	Sub Total	180	100%

Source: Field Survey (2021)

Test of Hypotheses and Interpretation of Results

Hypothesis 1: ICT does not have any significant effect on family communication.

The result in table 2 reports the regression result of the effect of ICT on family communication in Lagos State. The ICT was the independent variable and family Communication was the dependent variable of the study. The significance value of the F statistics (0.009) is less than 0.05, which means that the variation explained is not due to chance. A significant regression coefficient was found ($F= 53.221, p = .009$), with R^2 of .598 it indicates that 59.8% of the variances in the ICT are explained by the variances in the family communication

R, show the degree of relationship between independent variable ICT and dependent variable family communication which has a value of .773, indicates that there is a strong positive relationship between ICT and family Communication. With the linear regression, the error of estimate is low, with a value of about 0.43. Further, the study established that all the ICT was significant as its significant value was less than ($p<0.05$). Therefore, the null hypothesis should be rejected and the alternative hypothesis **accepted**. This means that ICT has positive significant effect with the family communication. The result of present study is in agreement with the empirical studies such as those of Wang and Chung, (2015) (who concluded that of significance is that traditional methods of communication (face-to-face and phone) were strongly associated with higher levels of perceived family well-being. Tadpatrikar and Sharma, (2021) who concluded that technology usage in families is very high, and maximum daily communication happens through technology. Rudi, Dworkin, Walker, and Doty, (2015) who revealed that the use of ICTs for parent-child communication increased with child's age.

Table 2: Linear regression table Showing the Significant effect between ICT and Family Communication.

$R=.773^a$	$R^2 = .598$		$Adj. R^2 = .587$	Std. Error of the Estimate=.43424	$F=53.221$
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		

(Constant)	4.627	.292		15.844	.000
Communication	-.204	.077	-.196	-2.660	.009

a. Dependent Variable: ICT Predictors: (Constant), Communication. Source: Researcher Analysis 2021.

Test of Hypothesis 2: ICT does not have any significant effect on family source of livelihood.

The result in table 2 reports the regression result of the effect of ICT on **family source of livelihood** in Lagos State. The ICT was the independent variable and family source of livelihood was the dependent variable of the study. The significance value of the F statistics (0.008) is less than 0.05, which means that the variation explained is not due to chance. A significant regression coefficient was found ($F= 50.017, p = .008$), with R^2 of .526 it indicates that 52.6% of the variances in the ICT are explained by the variances in the family source of livelihood. This indicates that the relationship between ICT and family livelihood is very strong.

R, show the degree of relationship between independent variable ICT and dependent variable family livelihood which has a value of .726 (72.6%), indicates that there is a strong positive relationship between ICT and family source of livelihood. With the linear regression, the error of estimate is low, with a value of about 0.47. Further, the study established that all the ICT was significant as its significant value was less than ($p<0.05$). Therefore, the null hypothesis should be rejected and the alternative hypothesis **accepted**. This means that ICT has positive significant effect with the family source of livelihood. The result of present study is in agreement with the empirical studies such as those Malanga and Banda, (2021) who found that use of ICTs such as mobile phones enabled women microenterprises increase income revenue and profits; expanding more business opportunities; access to market prices and market information; less dependence on natural/physical capital assets and (Lewis, 2004) who concludes that research findings in the past decade have shown that ICTs are an effective means of broadening livelihood opportunities.

Table 3: Linear regression table Showing the Significant effect between ICT and Family Source of Livelihood.

$R=.726^a$	$R^2 = .526$		$Adj. R^2 = .516$	Std. Error of the Estimate=.46993	$F=50.017$
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
(Constant)	4.396	.206		21.366	.000
Livelihood	-.121	.045	-.197	-2.677	.008

a. Dependent Variable: ICT. b. Predictors: (Constant), Livelihood. Source: Researcher Analysis 2021.

Hypothesis 3: Relationship among factors influencing the adoption of ICT and learning.

The analysis reveals that there is significant positive relationship among ICT products (computer, Internet and Smartphone) and family learning in Nigeria. The relationship among ICT products and family learning in Nigeria. The results in table 4 indicate that there is a positive correlation between computer and family learning in Nigeria at a significance level of 0.05 and the strength is significant at 74.1%. The same findings showed a positive relationship between internet and family learning at a significance of 0.05 and the strength is strong at 80.8%. The results further revealed that there is a positive correlation between smartphone and family learning at a significance of 0.05 and the strength is at 76.2%. The result of present study is in agreement with the empirical studies such as those Adewoye and Salau (2021) which revealed that the three ICT products had a statistically significant in explaining teaching and learning in Nigerian Universities and Bada, Adewole, and Olalekan, (2009) who concluded the present age of technological advancement has brought changes into virtually all human endeavor including the teaching and learning processes.

HYPOTHESIS 3: H03: There is no relationship among ICT products and family learning.

Table 4: Pearson Product Moment Correlation Coefficient Showing the Relationship Among ICT Products and Family Learning.

		Learning	Computer	Internet	Smart Phone
Learning	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	180			
Computer	Pearson Correlation	.741**	1		
	Sig. (2-tailed)	.000			
	N	180	180		
Internet	Pearson Correlation	.808**	.778**	1	
	Sig. (2-tailed)	.000	.000		
	N	180	180	180	
Smart Phone	Pearson Correlation	.762**	.635**	.656**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	180	180	180	180

** . Correlation is significant at the 0.01 level (2-tailed).

Conclusion and Recommendations

The study concludes that ICT positively influence the family effective communication. The result of hypothesis tested showed that there is significant relationship between ICT products and family learning. Findings from the study show clearly that ICT positively influence the family source of livelihood. The study further revealed that majority of family adopted and embrace ICT in their household. Therefore, the study concluded that ICT enhanced family survival.

Based on the findings of this study, the following recommendations are proffered:

- Government should provide more ICT infrastructure and that ICTs should be widely affordable and very reasonable in order to aid more family communication, livelihood and learning.
- Parents should do more to improve on the usage of the ICT to improve on family survival.
- More awareness should be created to bring more people into the ICT fold/net.

Suggestions for Further Studies

We suggest the possible examination of other predictor variables of family survival such as security, planning and others.

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