

**FACTORS INFLUENCING INFORMATION AND COMMUNICATION TECHNOLOGY
ADOPTION AMONG SECONDARY SCHOOL TEACHERS IN RURAL AREAS OF
TANZANIA**

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Abstract: *Globally, the role of ICT is critical to successful teaching and learning. The realization of educational innovations depends chiefly on the skills and knowledge of teachers. Research studies on ICT adoption are scanty in African countries which Tanzania is part of. Thus, this study focused on identifying the factors influencing ICT adoption among secondary school teachers in rural areas of Tanzania. Guided by Theory of Acceptance and Use of Technology (UTAUT), descriptive comparative and survey design was adopted, with a sample of 333 teachers from 150 secondary schools. Questionnaires and Interview guide were utilized for data collection. The findings revealed various factors that influence ICT adoption among secondary school teachers in rural areas in Tanzania. However, some factors were more significant that is; physiological factors (Estimate = 0.428, P-value = .000), demographic factors (Estimate = -2.467, P-value = .000) and professional development factors (estimate = 0.953, P-value = .000). The study concluded that there exist numerous factors that influence ICT adoption among secondary school teachers in rural areas in Tanzania. The study recommended that education stakeholders' should utilize available information on factors affecting ICT adoption to boost learning in rural of Tanzania and Africa in general.*

Keywords: *ICT Adoption, Rural Areas, Secondary School Teachers*

1.0 INTRODUCTION

Background to the Study

The use of ICTs plays crucial part in enhancing knowledge acquisition. The advent of Information and Communication Technology (ICT) and its easy accessibility globally and locally has become mainstream in present education system throughout the world (Paudel, 2021, Kushiator, Rahman, & Antwi, 2020). In contemporary world, the new digital learning technologies are integrating global content and intensifying learning scopes within and further than existing classroom models (Wilks, Cutcher and Wilks 2012 cited in (Kushiator, Rahman, & Antwi, 2020). ICT in education is comprehended as a means of increasing access to education especially to the rural population and making teaching and learning enjoyable, since it offers more opportunities in familiarizing learning and teaching to individual needs to both teachers and students, this has resulted in an unprecedented push to this technical innovation (Teräs & Suoranta, et. al, 2020).

ICT is associated with increasing learners' creativity, ability to reflect on what is learned and development of problem-solving skills according to (Paudel, 2021,). It provides opportunities for teachers to improve their teaching practices through improved educational content and better pedagogies and can improve learning processes by providing interactive educational materials (Kushiator, Rahman, & Antwi, 2020). ICT facilities are also believed to facilitate smooth communication and relations between students and their teachers. More so, there is an impression that Information communication Technologies support excellent education and successful teaching- learning environment for learners and teachers (Mwenisongole & Mulengeki, 2020).The repercussion is that the capability to applicably use computer imageries and assimilate them into the learners' creative works has become crucial Consequently, there is an increasing demand on learning institutions to use ICT to instruct the skills and knowledge to students who require it in the 21st century. In this faith, the government of Tanzania came up with different support policies on ICT integration in education (GOT, 2010).

Statement of the Problem

Despite the need and efforts, there are still challenges and gaps in incorporating ICT in educational delivery in Tanzania secondary institutions. It has been reported that teachers still face difficulties in adopting the use of ICT in teaching as a consequent of several dynamics which comprises of lack of adequate computer skills, negative attitudes towards ICT and limited infrastructure, lacks adequate strategies to prepare teachers to integrate ICT in teaching and learning, systems and digital content, (Ndibalema 2014; Kayombo 2016; Kitta and Fussy ,2013) They also reviewed several gaps which exist between the ICT policy and the real practice or implementation of ICT objectives in education which included limited teachers' awareness and training in ICT integration, and electricity and ICT facilities supply in most schools. Various studies have also reported the importance of technology in enhancing teaching and learning especially in urban areas, Hare, (2007; Sugiyama, 2005), however, there is scarcity of literature on the factors influencing the adoption of ICT among secondary schools' teachers especially in rural areas of Tanzania. Thus, this study identifies the factors influencing adoption of ICT among secondary school teachers in rural Tanzania.

General Objective

The study examined factors influencing Information and Communication Technology (ICT) adoption among secondary school teachers in rural areas of Tanzania with a specific objective to identify the factors that influence ICT adoption among secondary school teachers in rural areas of Tanzania.

Research Question

What are the factors that influence ICT adoption among secondary school teachers in rural areas of Tanzania?

2.0 LITERATURE REVIEW

Research findings by, URT (2015) revealed that half of the surveyed teachers were unable to use computers in preparing their lesson plans which meant that ICT adoption in teaching and learning in secondary schools is not really promising. The study also identified other factors that may be related to the teachers' ICT framework which lacks adequate strategies to prepare teachers to integrate ICT in teaching and learning. According to URT (2015), this literature concentrates on the factors influencing ICT adoption in general.

ICT Competence

Pelgrum (2001) highlights that the success of educational innovations depends largely on the skills and knowledge of teachers. Also, he found that teachers' lack of knowledge and skills was the second most inhibiting obstacle to the use of computers in schools (Pelgrum and Law *et al.*, 2003). Similarly, in the United States, Knezek and Christensen (2000) hypothesized that high levels of (attitude), skill and knowledge (proficiency), and tools (level of access) would produce higher levels of technology integration that will reflect on student achievements positively. Their model postulated that educators with higher levels of skill, knowledge, and tools would exhibit higher levels of technology integration in the classroom. Therefore, teachers should develop their competence based on the educational goals they want to accomplish with the help of ICT. Evidence suggests that majority of teachers who reported negative or neutral attitude towards the integration of ICT into teaching and learning processes lacked knowledge and skills that would allow them to make "informed decision" (Bordbar, 2010).

In qualitative multiple case-study research on primary school competence and confidence level regarding the use of ICT in teaching practice conducted in five European countries, Peralta & Costa (2007) found that technical competence influenced Italian teacher's use of ICT in teaching. However, the teachers cited pedagogical and didactic competences as significant factors if effective and efficient educational interventions are likely to be implemented. In Syria, for example, teachers' lack of technological competence has been cited as the main barrier (Albirini, 2006).

Motivation

Many claims have been made in the literature about the motivational effects of ICT on teachers' level of ICT use. Razavi and Rahimidoost (2005), Husseini and Safa (2009), Atashak and Mahzadeh (2010), Karimi, et al. (2011), and Farajollahi, Moenikia and Abbasi (2013) believe that interest and motivation to use ICT is among the factors which affect level of ICT uptake by teachers. The question that can be posed here is that what constitutes motivation? Husseini and Safa (2009) defined ICT motivation in terms of ICT attractiveness, belief in ICT usefulness, a successful use of a technology in the past, feeling the need to use a technology, and encouragement from colleagues. Farajollahi, Moenikia and Abbasi (2013) referred to motivation to learn and Karimi, et al. (2011) highlighted the importance of the purpose teachers have for using ICT.

Cox, Preston, and Cox (1999) stated the most important motivational factors to use ICT as: perceived ability to use IT, level of resources available and their satisfaction with IT, and whether using IT in teaching is considered to be interesting and enjoyable. The most significant negative factor affecting ICT use by teachers was difficulties experienced in using IT. Some other motivational factors which were reported by teachers are

that ICT will improve the lessons, presentation of materials, content of the lesson, teaching and learning and it will make the tasks of teaching and learning more enjoyable and fun (Cox et al., 1999). As it is clear, there are different factors affecting teachers' motivation to use ICT which PU and PE are considered the most significant ones.

Cultural Perception

Culture needs to be taken into account as an important element in the implementation of ICT

(Albirini, 2006), and culture may have an impact on how teachers relate their beliefs to ICT use (Chai, Hong & Teo, 2009). Cultural differences have been identified when comparing Iranian teachers' attitude toward ICT and those of other teachers around the world. "The social and cultural contexts in which ICT resources are perceived and used by teachers are key influences in the development of a range of personal and professional practices" (Loveless, 2003, p. 314). The findings of Afzalkhani and Lawwaf's (2013) study showed that using IT needs cultural backgrounds being made ready and culture is one of the obstacles of using it in education. The weakness in culture affects lack of using novel teaching methods based on information technology. Similar results were found by Atashak and Mahzadeh (2010) and Farajollahi, Moenikia and Abbasi (2013). Teachers in Atashak and Mahzadeh's (2010) study said that they do not use ICT because they believed that ICT might threaten their values. Teachers' individual perspectives related to culture are rooted in first-order barriers such as the school policy in preparing the socio-cultural context of ICT use.

Teacher Workload

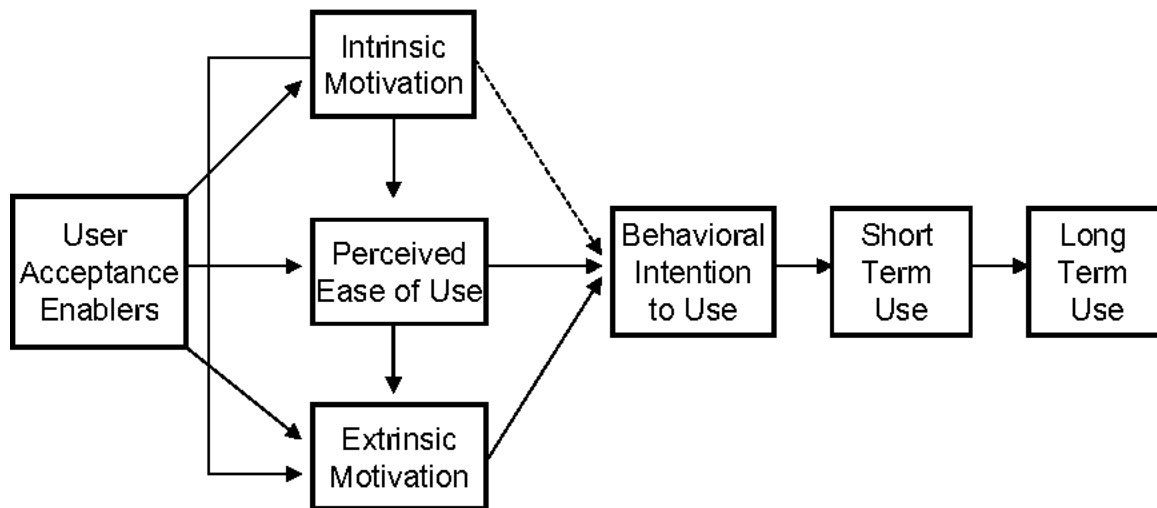
According to Mumtaz (2000), lack of time is a factor that hinders technology integration in schools. This barrier becomes manifest in two ways: (a) release time and (b) scheduled time (Mumtaz, 2000). Results of a study conducted by the National Center for Education Statistics (2000) with in-service teachers revealed that 82% of the participants thought that lack of release time was the most significant factor that prevented them for using computers in their classes as well as prepare materials for use with their classes. Teachers felt that, with their regularly scheduled classes, they did not have enough opportunities to practice using computers in their classes. Also, lack of time scheduled on the timetable to use computers with students is a factor mentioned by teachers as a barrier to using computers in their classes. Approximately 80% of the teachers surveyed in the aforementioned study thought there was not enough time scheduled for students to use computers. Even though some of the teachers had a genuine need to use computers with their students, there was no available time to do it. Hence, the lack of time required to successfully integrate technology into the curriculum is a recurring issue.

Becta's study (2004) found that the problem of lack of time exists for teachers in many aspects of their work as it affects their ability to complete tasks, with some of the participant teachers specifically stating which aspects of ICT require more time. These include the time needed to locate Internet advice, prepare lessons, explore and practice using the technology, deal with technical problems, and receive adequate training.

Theoretical Frame work

The study was guided by Theory of Acceptance and Use of Technology 1 (UTAUT 1) by Venkatesh et al., (2003).

Theoretical Model



Enhanced Technology Acceptance Model

Adopted from Venkatesh and Davis (2000)

3.0 RESEARCH METHODOLOGY

This research employed a descriptive, comparative and survey designs. The study was conducted in selected secondary schools in rural areas of three regions of Iringa; Tanzania which has a total of 150 secondary schools with a total of 2000 secondary school teachers. Slovin’s formula was used to arrive to a sample size of 333. Two hundred and sixty four questionnaires (264) were returned. Stratified sampling was employed to arrive at secondary schools while Simple random sampling was used to sample the teachers. Content validity of research instrument was established through expert judgment while test-retest methods was used to establish the reliability of the instrument. Data was analyzed using descriptive statistics, in order to identify the principal components from the data collected.

4.0. RESULTS AND DISCUSSION

The study was aimed to identify the factors that influence ICT adoption among secondary school teachers in rural areas of Tanzania was the first one. The investigation to identify these factors consisted of questionnaire items on four main variables including performance expectancy, effort expectancy, social influence and facilitating conditions of ICT adoption. The collected data on these factors was analyzed using descriptive statistics involving frequencies and percentages and presented in the following subsections.

Performance expectancy of ICT adoption in rural areas of Tanzania

The study investigated the influence of performance expectancy of ICT adoption among secondary school teachers in rural areas of Tanzania using various range of statements rated a 5-likert scale with 1- strongly disagree, 2- disagree, 3 neither agree or disagree, 4- agree and 5- strongly agree. The findings are presented using Table 1 next page.

Table 1 Performance expectancy of ICT adoption

Statements	SD		D		N		A		SA	
	F	%	F	%	F	%	F	%	F	%
1. I find the ICTs offered at my institution useful in my job	34	12.9	77	29.2	0	0.0	102	38.6	51	19.3
2. Using the ICTs available enable me to accomplish task more easily	27	10.2	81	30.7	0	0.0	68	25.8	88	33.3
3. Using the ICTs available increases my productivity	29	11	82	31.1	0	0.0	86	32.6	67	25.4
4. If I use the current ICTs, it will increase my chance of getting a rise	28	10.6	48	18.2	0	0.0	112	42.4	76	28.8

Table 1 shows that majority of the respondents 102(38.6%) agreed with the statement “I find the ICTs offered at my institution useful in my job”. On the contrary, a significant portion of the respondents 77(29.2%) indicated disagreement with the statement. However, a portion of 51(19.3%) indicated agreement with the statement which gives larger agreement with the statement. Notably, none of the respondents 0(0.0%) was neutral with the statement. This implies that the performance expectancy of ICT adoption in relation to availed ICT facility had an important role in ICT adoption among secondary teachers in rural areas in Tanzania.

The table also shows that majority of the respondents 88(33.3%) strongly agreed with the statement “Using the ICTs available enable me to accomplish task more easily”. Conversely, the second largest portion of the respondents were 81(30.7%) disagreed with the statement. However, with another portion of the respondents 68(25.8%) indicating agreement with the statement, the findings imply that ICT use was important in easier accomplishing of tasks allocated to teachers in the rural schools in Tanzania. This would be an impetus for ICT adoption which is derived from the behavioral intentions to use.

The study shows that majority of the respondents 86(32.6%) agreed with the statement “Using the ICTs available increases my productivity”. On the contrary, a relatively large portion of the respondents 82(31.1%) disagreed with the statement. Similarly, the table shows that 67(25.4%) of the respondents strongly disagreed with the statement. Notably, a portion of the respondents 29(11%) strongly disagreed with the statement. This implies that despite the most support the statement, there are extremes on agreement rating on the statement. The available ICT facilities increase productivity of the teachers, while others oppose. The differences and contradictions could be associated with the differences in some demographic characteristics which revealed significant differences across the research participants. The level of education, and level of experience could be the determiners of the levels of agreement on the increase of productivity using ICT facilities.

The study findings show that majority of the respondents 112(42.4%) and 76(28.8%) agreed and strongly agreed with the statement “If I use the current ICTs, it will increase my chance of getting a rise”. This implies that majority of the teachers agreed that there is greater likelihood of higher output would they put current ICTs into use. This reflects the findings of UNESCO (2002) who posit that putting ICT into use in labor force would significantly increase productivity.

Effort expectancy of ICT and adoption in rural areas of Tanzania

The study investigated the factors that influence ICT adoption among secondary school teachers in rural areas of Tanzania through analysis of the effort expectancy of ICT. The questionnaire item on the variables was a close-ended with various statements rated on a 5-point Likert scale. The study findings were presented using Table 2.

Table 2. Effort expectancy of ICT adoption

	SD		D		N		A		SA	
	F	%	F	%	F	%	F	%	F	%
1. My interaction with the ICTs available is clear and understandable	24	9.1	84	31.8	0	0.0	116	43.9	38	14.4
2. It is simple for me to use the existing ICT technology	26	9.8	65	24.6	0	0.0	128	48.5	45	17
3. Whatever ICTs I come across, it will be simple to operate	19	7.2	84	31.8	0	0.0	113	42.8	48	18.2
4. The knowledge of using ICT is simple for me.	25	9.5	84	31.8	0	0.0	107	40.5	48	18.2

Table 2 shows that majority of the respondents 116(43.9%) agreed with the statement “My interaction with the ICTs available is clear and understandable”. However, a close portion of the respondents 84(31.8%) disagreed with the statement. With more respondents 38(14.4%) strongly agreeing with the statement than 24(9.1%) who strongly disagreed, the findings show that majority embrace the available ICT equipment and services in education. Despite the existence of these trends, the findings show diverse levels of interaction of the respondents with the available ICTs. The findings are consistent with Trucano (2005) who posits that the adoption and use of ICTs in education institutions in developing countries remains very limited.

The table shows similar trends for the other three statements including “It is simple for me to use the existing ICT technology; Whatever ICTs I come across, it will be simple to operate” and “The knowledge of using ICT

is simple for me”. The statistics mean that the effort expectancy of ICT adoption is evident among the respondents though with differences in embrace.

Social Influence Of ICT And Adoption In Rural Areas Of Tanzania

The study investigated the social influence of ICT and adoption in rural areas of Tanzania. The questionnaire items were rated on a 5-point likert scale from 1-strongly disagree to 5-strongly agree. The findings are presented using Table 3.

Table 3. Social influence of ICT and adoption in rural areas of Tanzania

	SD		D		N		A		SA	
	F	%	F	%	F	%	F	%	F	%
1. People who influence my action suppose that I apply ICT technology	33	12.5	74	28	0	0	119	45.1	38	14.4
2. People who are important to me think I should use the ICT	30	11.4	78	29.5	0	0	124	47	32	12.1
3. The senior management of this institution has been helpful in the use of the ICT	27	10.2	107	40.5	0	0	69	26.1	61	23.1
4. In general, the organization has supported the use of ICT	50	18.9	97	36.7	0	0	62	23.5	55	20.8

Table 3 shows that the majority of the respondents (teachers) 119(45.1%) agreed that “People who influence my action suppose that I apply ICT technology”. This was followed with 38(14.4%) who strongly agreed that the influence was true. However, few of the respondents 74(28%) and 33(12.5%) disagreed and strongly disagreed respectively. This reflects the similarities of the findings Dasgupta et al. (2007) among students who were inclined much on what others told them about the use of ICT.

Table 3 shows that majority of the teachers 124(47%) agreed that “People who are important to me think I should use the ICT”. The table indicates that a significant proportion of the teachers 78(29.5%) disagreed with the statement. This implies the influence of social influence on ICT adoption with varied views and in different measures. Through the interviews with ICT teachers, the study found that close associates of teachers highly

determined the teachers’ use and adoption of ICT in their daily teaching activities. Moreover, one head teacher as key informant stated;

It is imperative that the teachers adopt ICT in their work. It is, however, important to note that the adoption has been influenced by the group an individual teacher associate with. Some teachers who associate and socialize with ICT savvy teachers and staff are more likely to adopt the methods in teaching unlike those with a low tone of association [KI01]

This implies that both the ICT teachers and head teachers supported that individual teachers’ companies and associations influenced ICT adoption in their teaching.

The table shows the majority of teachers 107(40.5%) disagreed that “The senior management of this institution has been helpful in the use of the ICT”. While their implies that there could be less support of the schools’ management in the adoption of ICT in teaching, comparatively significant portions of 69(26.1%) and 61(23.1%) agreed and strongly agreed with the statement that the senior management of their schools supported their use and application of ICT in teaching. This alsos points out the existing disparities among various schools’ management in the support for use of ICT. This is, however, linked to various reasons that may differ from one school to another which has been studied in the current research as challenges for ICT adoption in teaching.

The study entailed analysis on the influence of facilitating conditions towards ICT adoption in public rural schools in Tanzania. The results are presented in Table 4.

Table 4. Facilitating conditions towards ICT adoption

Statement		SD	D	A	SA	Total
1. I have the resources necessary to use the current ICT	F	56	126	61	21	264
	%	21.2	47.7	23.1	8	100
2. I have adequate ability to operate ICT technology	F	27	101	104	32	264
	%	10.2	38.3	39.4	12.1	100
3. The technology did not match the ICT I operate	F	48	110	72	34	264
	%	18.2	41.7	27.2	12.9	100
4. Some people are present to help me with ICT problems	F	32	80	120	32	264
	%	12.1	30.3	45.5	12.1	100
5. I could finish the work of ICT when nobody is available to assist	F	34	88	96	46	264
	%	12.9	33.3	36.4	17.4	100

Table 4 shows that majority of then teachers 126(47.7%) indicated that the disagreed with the first stamen about having necessary resources to use the current ICT. Majority of the teachers 104(39.4%), however, indicated that the had ability to operate ICT technology. Similarly, majority of the teachers 120(45.55) indicated that some people were present to help them with ICT problems. Finally, majority of the teachers 96(36.4%) indicated that they could finish the work of ICT when nobody was available to assist. The findings imply that there are majority who have adopted ICT through the facilitating conditions. However, the conditions may exempt the resources necessary to use the current ICT as majority indicated disagreement with the statement.

Triangulation of the results with the qualitative findings from the interviews with the principals indicated that the need for facilitating conditions in schools for adoption of ICT among teachers was key. One of the principals noted that the teachers mostly relied ion the support given to adopt ICT.

Other factors that influence ICT adoption

The study entailed analysis of other conceptualized factors that influence ICT adoption. The data from the factors including Behavioral intention in ICT adoption, Physiological factors in ICT adoption, Professional factors in ICT adoption and Demographic factors in ICT adoption were analyzed. The findings of the descriptive analysis using frequencies and percentages are presented in Tables 5 to 8.

Table 5. Behavioral intention in ICT adoption

Statement		SD	D	A	SA	Total
1. I guess I can operate ICT in three months	F	19	110	101	34	264
	%	7.20	41.67	38.26	12.88	100
2. I predict I will use the ICT in the next three months	F	21	95	100	48	264
	%	8	36	37.8	18.2	100
3. I plan to use the ICT in the next three months	F	17	108	88	51	264
	%	6.4	40.9	33.3	19.4	100

Table 5 shows that majority of the teachers 110(41.67%) disagreed that they can operate ICT in three months. While majority of the teachers 108(40.9%) also disagreed on plan to use ICT in the following three months, a significantly large portion 100(37.8%) of the teachers agreed on predicting that they would use ICT in the following three months. This implies that there exited mixed behavioral intentions in use of ICT. Majority of the teachers were not optimistic with the ICT use in their teaching. This would lead to negative intentions in use and application of ICT in teaching among the secondary schools in Tanzania.

Table 6 presented the physiological factors in ICT adoption.

Table 6. Physiological factors in ICT adoption

Statements	SD	D	A	SA	TOTAL
1. I like to use the recent ICT tools compared to the old one	24	79	120	41	264
	9.1	29.9	45.5	15.5	100
2. I feel excited in using ICT for my daily tasks	19	102	62	81	264
	7.2	38.6	23.5	30.7	100
3. I feel comfortable to use ICT because it is user friendly	38	105	78	43	264
	14.4	39.8	29.5	16.3	100
4. I have enough knowledge and skills on ICT use	51	76	101	36	264
	19.3	28.8	38.3	13.6	100
5. I can use ICT software like Microsoft word, excel comfortably without support	28	92	96	48	264
	10.6	34.8	36.4	18.2	100

Table 6 shows that majority of the teachers 120(45.5%) agreed that they would use the current ICT tool compared to the old ones. Similar trends were seen among the teachers on having knowledge and skills to use ICT 101(38.3%) and use of basic ICT apps comfortably without support 96(36.4%). however, the same table shows that majority of the teachers indicated that they would not feel excited in use of ICT 102(38.6%) and would not feel comfortable 105(39.8%). This implies that there is a mixture of physiological factors that may influence ICT adoption in teaching among the secondary school teachers in Tanzania. While some physiological factors positively influence the adoption, others do not.

The analysis on the professional factors that influence ICT adoption was presented using Table 7.

Table 7 Professional factors in ICT adoption

Statements		SD	D	A	SA	TOTAL
1. I use computers to teach/learn in my school	F	44	122	83	15	264
	%	16.7	46.2	31.4	5.7	100
2. I use internet in our school	F	22	119	94	29	264

	%	8.3	45.1	35.6	11	100
3. I studied ICT course in my study	F	44	91	93	36	264
	%	16.7	34.5	35.2	13.6	100
4. I have enough experience in ICT use	F	25	79	114	46	264
	%	9.5	29.9	43.2	17.4	100
5. I lack ICT training to incorporate ICT in teaching	F	29	66	104	65	264
	%	11	25	39.4	24.6	100

Table 7 shows that majority of the teachers 122(46.2%) disagreed with the statement that they used computers to teach in their schools. Similar trends are shown in the question about use of internet in their schools where majority 119(45.1%) disagreed. However, the teachers in majority numbers agreed with the third, fourth and fifth statements. Majority of the teachers 93(35.2%) agreed that they studied ICT course in their studies, majority 114(43.2%) agreeing that they had enough experience in ICT use, while majority 104(39.4%) agreed that they lacked ICT training to incorporate in teaching. The responses indicate that the professional factors for ICT adoption were key in secondary schools in Tanzania.

Lastly, the demographic factors influencing the adoption of ICT in secondary schools in Tanzania were presented using Table 8.

Table 8. Demographic factors in ICT adoption

Statements		SD	D	A	SA	TOTAL
1. Young teachers are more competency in ICT skill than old Teacher	F	25	93	73	73	264
	%	9.5	35.2	27.7	27.7	100.1
2. ICT related course are taught by male teacher only in our school	F	50	124	49	39	262
	%	18.9	47	18.6	14.8	99.3
3. I use computers during teaching/learning thrice a week	F	44	125	70	25	264
	%	16.7	47.3	26.5	9.5	100

4. I use computer to do my assignment and my personal work	F	51	107	68	38	264
	%	19.3	40.5	25.8	14.4	100

Table 8 shows that majority of the teachers 93(35.2%) disagreed that younger teachers were more competent in ICT. The trends in the responses in the statements correspond to majority disagreeing with the each of them. Majority of the teachers 124(47%), 125(47.3%), and 107(40.5%) disagreed with the statements that ICT related courses are taught by male teacher only, that they used ICT to teach thrice a week and that they used computer to do assignment respectively. This implies a higher level of no ICT adoption among the secondary school teachers in Tanzania.

5.0. SUMMARY, CONCLUSION AND RECOMMENDATION

Summary of the Findings

The study found that there were majority of the teachers who had adopted ICT through the facilitating conditions. Moreover, the study reported that there existed mixed behavioral intentions that enhanced use of ICT among the teachers. Majority of the teachers were not optimistic with the ICT use in their teaching. The study findings showed a mixture of physiological factors that may influence ICT adoption in teaching among the secondary school teachers in Tanzania. The study also reported that the professional factors for ICT adoption were key in secondary schools in Tanzania.

Conclusion

There are various factors that influence ICT adoption among secondary school teachers in rural areas in Tanzania. The significant ones included physiological factors on performance expectancy, demographic factors on effort expectancy and professional development on facilitating conditions. This should be utilized by educational stakeholders to improve learning n Tanzania and globally.

Recommendation

The study recommends that the educational stake holders should invest in professional development, attitudes and beliefs of secondary school teachers as these are among the main factors towards technology a contribution and the ICT adoption.

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