

# A conceptual framework for the Adoption of Social Network Technologies (SNTs) in Teaching – case of Ghana

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## Abstract

Social Networking Technologies (SNTs) have changed lots of former procedures in this modern era. One of its greatest influences is in the area of teaching and learning. This research work seeks to identify in the Ghanaian context with unavailability of some ICT infrastructure and other determinants, how this advantageous tool could be adopted and implemented to benefit the area of teaching and learning in the private Universities. To determine the adoption factors three (3) different theoretical frameworks were considered, namely; Unified Theory of Acceptance and Use of Technology (UTAUT), Unified Theory of Acceptance and Use of Technology (UTAUT) Extension Model and Technology Acceptance Model. The research method adopted was quantitative and hence paper form questionnaire was used for the data collection. Several recommendations were made to enhance the adoption of SNTs for the purposes of supplementing teaching in the tertiary education in Ghana.

**Keywords:** *Social Networking Technologies, theoretical framework, ICT Infrastructure, Adopting factors.*

## 1. Introduction

There have been tremendous changes in the line of former process with the introduction of Information Technology tools. Technology is constantly re-shaping our experience and, in education, it is challenging the way which teaching and learning activities are structured and delivered (Mistry, 2011). This has been aided by the advances in the technologies running on the global internet.

Tertiary education students use information technology tools for several purposes such as connecting to friends, family, reading news, event notification, entertainment, etc. Technology has become an integral part of our lives, and one way that many students stay connected is through the use of social networking sites such as Facebook, MySpace, Twitter, LinkedIn, etc.” (Kister, 2011).

These Social Networking Technologies when introduced into education cultivates several advantages such as faculty and staff sharing learning materials with students, making teaching and learning location independent, enhances creativity and innovation, very easy to learn to use, they are free, provision of multimedia tools for enhancing the understanding of the students. According to the Underscience Publishers(2011), Facebook usage is around 90% across campuses and many educational institutions new students are given orientation on how to capitalize on social networking to improve their experience of their course, and to enhance their final results.

However, this is not practiced in the Universities in Ghana. Therefore, this research will seek to investigate the factors that influence the adoption of Social Networking technologies in the private Universities in Ghana to enhance teaching and learning.

For the above objective to be achieved, this research would attempt to prompt the few research work done in Social Networking and its usage in the Universities in Ghana. The majority of the literature has focused on Social networking technology usage in US, UK and some Asian countries like Taiwan and China. Some of the research work done in these countries include Selwyn N. (2012), Ahmed I. and Qazi T.F. (2011), Kiser and Porter (2011), Redecker et al (2010), Bonzo (2010), Yang and Tang (2003) and many more.

However, few researchers have contributed to the knowledge of Social Networking around Africa. Some of the few done in Africa include Social Networks and Technology Adoption in Northern Mozambique (Bandiera & Rasul, 2005) and that done in Ghana is the work of Asiedu (2012) titled “A case of online social networking in the workplace in Ghana”. From this perspective, this research would contribute to the knowledge base of Social Networking technologies and their usage in Ghana and Africa at large.

## 2. Statement of Problem

“Some educators feel that social networking is innately disruptive to the education process. Students may access them on their laptops or cell phones during class. Some educators respond by banning these electronic devices” (Kister, 2011). However, Online social networking sites, such as Facebook, can help students become academically and socially integrated as well as improving learning outcomes (Under Science Publishers, 2011), and yet they are not being used by lecturers and students for teaching and learning. Therefore, the research looks into how social networking technologies could be adopted and implemented to enhance effective teaching and learning in the private Universities in Ghana.

## 3. Objectives

- i. To assess the factors influencing the adoption of social networking technologies for teaching and learning in Private Universities in Ghana.
- ii. To propose a conceptual framework for which the Ghanaian Private Universities can consider for the adoption of SNTs for teaching.

## 3. Research questions

The questions the research seeks to answer are:

- i. What are the factors that influence the adoption of Social Networking Technologies in private Universities in Ghana?
- ii. How can Social networking technologies be adopted and implemented in Universities for effective teaching?”

## 4. Literature Review

In this section an in depth study of three previous works done in this area is briefly discussed with respect to their limitations as far as their proposed frameworks. Firstly, Hwee (n.d.) proposed a framework generalizing his findings found as results of studying only one secondary school in the whole of Singapore and generalize the finding. The sample size is not enough representation of all the numerous schools in Singapore. The author identified key factors of trust, comfort level, command of language, attitude towards work and image, as additional factors that would influence the adoption of Social Networks.

Secondly, Venkatesh et al. (2003) combined eight technology acceptance models to propose a framework known as the Unified Theory of Acceptance and Use of Technology (UTAUT). This model encompasses the following factors performance expectancy, expectancy effort, social influence, facilitating conditions and

behavioural intention. In addition to these factors other moderators (gender, age, voluntaries, and experience) were used to measure the influences on the factors. Though extensive work was done in this area the following setbacks were identified: lacks other key contextual factors when it comes to the use and implementation of social networks. . Indicators such as policy and culture and financial support were not discussed in the work of Venkatesh et al. (2003) and the authors were silent on the acquisition and implementation factors.

Finally, the work presented by Monguatosha et al.(2011) discusses two critical factors in addition to the existing factors on the UTAUT model. In their work, budgeting and accountability (BA) and organizational culture (OC) was added as additional factors that could influence the use of SN’s adding up to facilitation conditions. The Technology Acceptance Model (TAM) was used in the proposition made by Monguatosha et al.(2011).

To propose a conceptual framework for private Universities in Ghana, all the three frameworks were combined and yet there was and identified gap that needs to be filled. In the frameworks mentioned above, the researchers were silent on acquisition, implementation and maintenance of ICT infrastructures. They were also silent on culture, and on policies (i.e. Government policies, institutional policies) and its influence on the adoption of technology. Therefore a new research framework for effective learning and teaching is proposed which will cater for the gap left even when the three models have been combined. The additional factors are discussed below.

#### 4.1 Policies

Policies are very important when it comes to the issue of sustainability and implementation of lay down principles of institutions. In this regard several policies listed below affect the use of SNT in TL in private universities.

- i. **Government policies:** The private universities are directly affected by policies made by the government with respect to the initiatives on ICT. According to Canaves (2011), some regimes view social networking sites as a threat to stability and restrict their citizens' access to Facebook, Twitter, YouTube, and the like. For example in China, there is a ban on usage of Facebook and Twitter. This policy does not permit any institution to implement SNT's in TL.
- ii. **Institutional policies:** Policies made by institutions can permit, limit or ban the use of social media technology by all parties involved. According to ASTD Research (2011) on social learning, social tools are often held to higher standards than traditional business tools because they are new, and negative stories can go viral quickly. Rather than ban the use of social tools, educate people how to use them effectively for work. They are the future of collaboration and learning at work, so the more you prepare people for how to use the tools respectfully and how to apply good social practices, the better. Several organizational factors such as a technology strategic plan, administrative support, professional development, and an incentive policy, can influence the adoption of technology (Anderson, Vamhagen & Campbell (1998), Barone & Hagner, 1998, & Green, 1998).

#### 4.2 Culture

According to ASTD Research (2011) on Social Learning, the major obstacle institutions normally have to adopting new technology is that "We've never done it that way. Our organization will never embrace social media. Social media can't be governed and it's against our compliance rules." In most organizations when a new strategy is to be implemented and counters the corporate culture—the corporate culture will push back and almost always win.

This type of challenge is often identified when leaders and employees say, "We've never done it that way." This attitude represents a fear of something new. Cultures may be more resistant to adoption if they are less technologically-dependent, or if the organizations are more hierarchical. Demographics, such as generational differences, may also play a role in this dynamic.

This means that culture would be one of the key factors or indicators when SNT's are to be implemented in institutions for TL. In an institution, all the parties (lecturers, students and staff) or individuals that make up the institutional community have different cultural beliefs as well as the institution itself.

There are individual factors that include the available time that university instructors can spend in learning how to use technology, their tolerance of possible failures in using technology, and their beliefs in the effectiveness of technology in enhancing teaching and learning (Anderson, Vamhagen & Campbell (1998), Adams, 2003, Ebersole & Vorndam, 2003 & Hannafin & Savenye, 1993).

#### 4.3 ICT Infrastructure conditions

According to Digital Education Revolution official website, ICT infrastructure provides a technology foundation within a school. It enables students, teachers and school staff to access a wide range of tools, services and digital resources to support teaching, learning and school administration. The term ICT Infrastructure in the context of this research defines the enabling environment for private universities to use in the adoption of social network technologies (SNT's) for effective teaching and learning (TL).

The adoption of technology at universities tremendously influences its operations and services rendered to its customers (faculty, students and staff). Previous studies have shown that, there are three types of factors influencing the adoption of technology at universities: technical factors, individual factors, and organizational/institutional factors (Nantz & Lundgren, 1998).

In terms of ICT infrastructure development, the factors must meet three key considerations (availability, accessibility and performance) if the institution or organization wants to achieve high throughput as proposed in this framework. With reference to this framework, the technical factors are defined to include variables like access to technology, technical support, etc. (Nantz & Lundgren, 1998; & Schifter, 2000). To effectively implement SNT's in institutions of higher learning the three indicators should be considered: security and privacy issues, hardware and software issues, and network and internet issues.

The social network environment is primarily used for socializing; the adoption of the environment for TL is a big issue to consider. Since the security and privacy issues are off concerning in the adoption of SNT for TL, institutions should increase the level of trust on the part of all the parties involved (lecturers & students). The hardware and software services should be in an institution intending to use SNT's for TL should be of minimum requirement.

The Network infrastructure according to Digital Education Revolution official website connects the access devices in the school with the required tools, services and digital resources. Many of these tools, services and digital resources will be external to the school. The network infrastructure components include: internal communications services, cabling and equipment, telecommunications services, server computers and associated storage devices, environmental management equipment and operating software for server computers, communications equipment and related hardware. For such a system a high speed Internet is required to aid in ease of accessibility (EOA) by the users of the system. The diagram below shows the conceptual framework derived from the study.

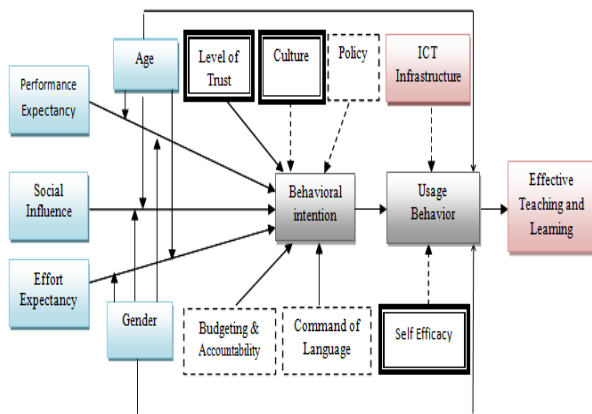


Fig. 1 Adopted Framework

## 5. Methodology

To achieve the said objective, the research design adopted was the descriptive research method. In this research the population is the Lecturers of all private Universities in Ghana. Sample size of eighty (80) lecturers was used. Stratified sampling method was used to group the University population into two (2) main categories: teaching staff and supporting teaching staff. Non-Random sampling was employed to select 400 respondents

for data collection. This technique was more efficient because it improves accuracy of estimates.

The research instrument used was questionnaire. The questionnaire was closed-ended with a few being open-ended. This was to enable the researchers to analyze the information easily since the respondents were many and also to give the respondents the opportunity to answer the questions with ease. The data collection tools used paper based questionnaires.

Data analysis was done using Statistical Package for the Social Sciences (SPSS). SPSS was chosen because it has couple of features that would enhance display of results in text and variations on graphical representations of results. It has proven to be good and commonly used by majority of researchers for statistical representations.

## 6. Results/Discussions

In this section the two main objectives of the research are discussed and related to literature.

**Discussion of objective 1:** To assess the factors that influence adoption of Social Networking Technologies for teaching and learning. The following were identified as factors from literature, that they could influence the adoption of SNTs. They are discussed subsequently.

### 6.1 Performance expectancy

The table below shows the distribution of respondents by Performance expectancy. The questions below on performance expectancy are represented by the SN numbers in the table 1.

1. I will find SNTs useful in my teaching
2. Using SNTs enables me to accomplish more tasks quickly
3. Using SNTs increases my productivity
4. Using SNTs helps me to receive good evaluation by management

Table 1: distribution of respondents by performance expectancy

SN	CD	MD	SD	N	SA	MA	CA
1	0	8	2	16	2	22	30
2	0	0	12	2	18	32	16
3	0	0	12	7	12	17	32
4	0	0	12	13	9	31	15
Totals	0	8	38	38	41	102	93
%	0	2.5	11.9	12	12.8	32	29.1

To ascertain the Performance expectancy factor, several questions such as SN (1 - 4) were asked. From table 1 above, it is evident that the majority of the lecturers, constituting 73.7505% agreed that the use of SNTs will enhance their teaching performance.

However 14.38% disagreed and very few 11.875% were neutral. With the statistics provided, we accept that the adoption of SNTs will enhance the performance of lecturers in their teaching and hence will influence their behavior to adopt and use SNTs. The outcome of this research is an affirmation of the findings of (Hwee, n.d, Venkatesh et al. 2003) where they identified Performance expectancy as a leading factor in the adoption of technology.

### 6.2 Effort Expectancy

To critically assess effort expectancy as an influential factor to the adoption of SNTs, questions SN (5 – 8) as indicated in table II below were asked the respondents. The questions below on effort expectancy are represented by the SN number in the table.

5. My interaction with SNTs is clear and understandable
6. It is easy for me to become skillful at using SNTs
7. I find SNTs easy to use
8. Learning to operate SNTs is easy

Table 2: distribution of respondents by effort expectancy

SN	CD	MD	SD	N	SA	MA	CA
5	0	0	19	5	10	23	23
6	0	0	12	1	14	37	16
7	0	7	6	23	22	15	7
8	0	0	15	11	7	20	27
<b>Totals</b>	0	7	52	40	53	95	73
<b>%</b>	0	1.75	13	10	13.25	23.75	18.25

From table 2, the majority constituting 55.25% of the lecturers agreed that, little input will have to be made to know how to use SNTs. 14.75% of the respondents disagreed and 10% were neutral. With the statistics provided it is evident that the lecturers are already using it in a way; possibly not direct on academic purpose and hence are able to tell that little effort is required. This result is in line with that of Hwee (n.d.); where the students from his case study confirm that the little effort required in using the technology influenced their adoption.

### 6.3 Attitude towards the use of SNTs

To examine the attitude of lecturers towards the use of SNTs, questions such as SN (9 - 11) as shown in table 3 below were asked. The questions below on attitude towards the use of SNTs are represented by the SN numbers in the table 3.

9. Using SNTs is a good idea
10. SNTs makes teaching more interesting
11. Teaching with SNTs is fun

Table 3: distribution of respondents by attitude towards the use of SNTs

SN	CD	MD	SD	N	SA	MA	CA
9	0	0	0	11	23	26	20
10	0	0	0	18	17	45	0
11	0	0	29	5	7	24	15
<b>Totals</b>	0	0	29	34	47	95	35
<b>%</b>	0	0	12.08	14.2	19.58	39.5	14.5

From the table 3 above, the majority (73.75%) agreed that it's a good idea and it will make teaching more interesting and fun. However, very few (12.08%) disagreed and 14.167% were neutral. The higher value of agreement presupposes most lecturers are interested in the use of technologies for teaching. This result is agreement with that of (Hwee,n.d., & Venkatesh et al.,2003).

### 6.4 Social Influence

Table 4 below shows the distribution of respondents by their social influence. The questions below on social influence are represented by the SN numbers in the table 4.

12. People who influence my behavior think that I should use SNTs
13. Fellow lecturers have been helpful in the use of SNTs
14. In general, the university has supported the use of SNTs

Table 4: distribution of respondents by social influence

SN	CD	MD	SD	N	SA	MA	CA
12	0	0	8	18	12	42	0
13	7	0	11	13	12	37	0
14	0	0	11	23	14	21	11
<b>totals</b>	7	0	30	54	38	100	11
<b>%</b>	2.91	0	12.5	22.5	15.83	41.66	4.58

From table 4 above, the majority of the respondents constituting 62.08% agreed that people around them such as fellow lecturers and staff influence their behavior to



adopt and use SNTs; also their various schools support the use of SNTs for teaching. On the other hand, 15.417% disagreed and 22.5% were neutral. Hwee (n.d.) had a similar result when his students adopted the SN's as their fellow students were using them.

### 6.5 ICT Infrastructure conditions

Table 5 shows the frequency distribution of respondents by ICT infrastructure conditions in their respective Universities. The questions below on ICT infrastructure are represented by the SN numbers in table 5.

- 15. I have the hardware and software resources necessary to use SNTs
- 16. A specific person (group) is available for technical support when SNTs difficulties are encountered
- 17. The internet and network infrastructure available for use of SNTs is consistent and of high speed
- 18. My personal records are safe when using SNTs since the institution has a secure system installed
- 19. SNTs is not compatible with other systems I use

Table 5: distribution of respondent by ICT infrastructure conditions

SN	CD	MD	SD	N	SA	MA	CA
15	0	0	32	11	11	17	9
16	0	0	0	20	25	31	4
17	0	9	11	21	10	19	10
18	0	14	20	21	18	7	0
19	0	0	0	16	30	33	1
<b>Totals</b>	0	23	63	89	94	107	24
<b>%</b>	0	5.75	15.75	22.25	23.5	26.75	6

From table 5 above, the majority (56.25%) agreed that they have hardware and software resources, a good internet and secured network infrastructure in their respective universities. Very few (21.5%) disagreed and 22.25% were neutral. This result implies that implementation of SNTs for teaching would be very much easier. Teachers trusting the web will boost the usability of the system.

### 6.6 Self efficacy

To assess self-efficacy as an influential factor to the adoption of SNTs by lecturers, questions such as SN (20 - 23) as shown in table 6 below. The questions below on self-efficacy are represented by the SN numbers in the table 6.

- 20. I feel apprehensive about using SNTs

- 21. It scares me to think that I could lose a lot of information using SNTs by hitting the wrong key
- 22. I hesitate to use SNTs for fear of making mistakes I cannot correct
- 23. SNTs are somewhat intimidating to me

Table 6: distribution of respondents by self-efficacy

SN	CD	MD	SD	N	SA	MA	CA
20	15	3	10	7	9	21	15
21	6	14	28	16	4	11	1
22	0	0	5	20	21	34	0
23	13	6	15	29	9	8	0
<b>totals</b>	34	23	58	72	43	74	16
<b>%</b>	10.63	7.188	18.13	22.5	13.4	23.13	5

From table 6 the majority (41.563%) agreed that they feel apprehensive and intimidated; and also think that they could lose their information when using SNTs as opposed by 35.948% and 22.5% are neutral. This implies that the self-efficacy of the lecturers to adopt SNTs will negatively influence their behavior to accept and use SNTs for teaching. The result here is contrary to that of Venkatesh et al. (2003), where they explained that Self efficacy is not a direct determinant to behavioral intension of a person to adopt technology. Definitely if the students are afraid to use the technology it has a negative influence on the adoption.

### 6.7 Policies: Government and Institutional

Table 7 below shows the frequency distribution of respondents by government and institutional policies. To analyze the adopting factor, policies, several questions such as SN (24, 25, and 26) as shown below were asked. The questions below on Government and Institutional Policies are represented by the SN numbers in the table VII.

- 24. Government policies on ICTAD influences my use of SNTs
- 25. I will always wait for government policies to be implemented before usage of SNTs
- 26. The University has policies governing the use of SNTs
- 27. The University's norms affect my intent to the use of SNTs

Table 7: distribution of respondents by policies

SN	CD	MD	SD	N	SA	MA	CA
24	20	6	4	25	21	4	0
25	5	11	24	22	7	10	1
26	21	9	7	22	15	6	0
27	20	0	0	22	17	13	8
<b>Totals</b>	66	26	35	91	60	60	9
<b>%</b>	20.6	8.12	10.9	28.4	18.7	10.3	2.8
	3	5	4	4	5	1	1

From table 7 above, the majority (39.95%) disagreed government nor institutional policies will influence their behaviour to adopt SNTs for teaching. Few constituting 31.8755% of the lecturers, however, agreed and 28.438% were neutral.

### 6.8 Culture

Table 8 shows the frequency distribution of respondents by cultural factor. To assess the influencing factor, culture, questions SN (28 & 29) were asked the correspondents. The questions below on Government and Institutional Policies are represented by the SN numbers in the table 8. 28. My cultural background does not support my use of SNTs

29. "We have not done it that way" How do you relate to this statement with the use of SNTs in teaching

Table 8: distribution of respondents by culture

SN	CD	MD	SD	N	SA	MA	CA
28	17	2	19	8	2	13	19
29	4	7	22	7	19	21	
<b>Totals</b>	21	9	41	15	21	34	19
<b>%</b>	13.1	5.6	25.6	9.3	13.12	21.2	11.8
	3	3	3	8	5	5	8

From table 8 above, the majority of the lecturers constituting 46.25% agreed that they have not used SNTs for teaching before and also, their cultural background does not support the use of SNTs. However, only 4.385% have used SNTs for teaching and their cultural background as well castigate the use of SNTs.

### 6.9 Trust level

The questions below on trust level are represented by the SN numbers in the table 9.

30. Someone will use my private information for something else

31. Lecturers will have a good reputation and hence only academic materials would be displayed and shared on SNTs

32. Information provided by colleagues and students cannot be verified

33. Fellow teachers will share very good academic materials related to my field of teaching.

Table 9: distribution of respondents by trust

SN	CD	MD	SD	N	SA	MA	CA
30	27	7	6	12	11	2	15
31	24	0	7	18	16	1	14
32	7	0	14	13	36	1	9
33	6	1	0	45	10	1	17
<b>Totals</b>	64	8	27	88	73	5	55
<b>%</b>	20	2.5	8.44	27.5	22.813	1.56	17.18

From table 9 above, most (41.563%) of the lecturers said they were afraid of what people would use their private information for, they do not trust that it is only academic materials that would be shared on the network. The minority constituting 30.938% of the lecturers have an opposing idea and 27.5% are not sure of the trust level of SNTs.

### 6.10 Budgeting and Accountability

Budgeting and accountability was identified as one of the factors influencing adoption of SNTs. Table 10 below, showcases the frequency distribution of lecturers by budgeting and accountability. The questions below on budgeting and accountability are represented by the SN numbers in the table 10.

34. Pay for the use of SNTs for effective usage of resources for teaching

Table 10: distribution of respondents by budgeting and accountability

SN	CD	MD	SD	N	SA	MA	CA
34	14	26	10	2	17	4	0
<b>Totals</b>	17.5	32.5	12.5	2.5	21.25	5	0

From table 10 above, the majority (62.5%) of the lecturers said they do not pay for the effective use of SNTs and their resources for teaching. On the contrary 26.25% of the lecturers said they pay for the use of the SNTs. This is actually true because, in most of the private universities, the students are charged for internet services and it covers for that of the faculty and staff.

### 6.11 Command of language

It was identified from literature that, by the command people have over the language for which SNTs are captioned, they are able use it very well. Table 11 above shows the distribution of respondents by command of language. The questions related to command of language is

indicated in the table 11 by SN numbers (35 and 36). These are the questions

- 35. English is my primary language which enhances my use of SNTs for learning
- 36. English is my secondary language which hinders my use of SNTs for learning

Table 11: distribution of respondents by command of language

SN	CD	MD	SD	N	SA	MA	CA
35	21	0	7	19	16	9	8
36	16	0	7	37	7	1	12
<b>Totals</b>	37	0	14	56	23	10	20
<b>%</b>	23.13	0	8.75	35	14.38	6.25	12.5

The majority (35%) of the lecturers neither agreed nor disagreed that language is a factor influencing adoption of SNTs for teaching purposes. 33.125% agreed and 31.88% disagreed. The difference between the agreed and the disagreed percentage is a close margin. Therefore, command of language is not a critical point to be considered for the adoption of SNTs in for the purpose of teaching. This is in conformity with the outcome of Hwee (n.d.) work.

### 6.12 Behavioral intension

Table 12 shows the distribution of respondents by their intension to adopt and use SNTs. To access behavioral intension of lecturers, the following questions, SN (37, 38 & 39) were asked. The questions below are related to behavioral intension as indicated in table 12.

- 37. I intend to use SNTs in the next semesters
- 38. I predict I would use SNTs in the next semesters
- 39. I plan to use SNTs next semester

Table 12: distribution of respondents by behavioural intension

SN	CD	MD	SD	N	SA	MA	CA
37	4	0	15	28	17	0	16
38	0	0	6	28	38	4	4
39	4	0	0	13	30	11	22
	8	0	21	69	85	15	42
<b>Totals</b>	3.33	0	8.75	28.75	35.42	6.25	17.5

From table 12 above, 59.17% of the lecturers said they intend to use the SNT for teaching as opposed to the few (12.08%) who do not intend using SNTs the next semester for teaching.

## 7. Conclusions

From the above discussions, three main theoretical frameworks were thoroughly reviewed and constructively critiqued to identify the gaps. Additional factors of ICT infrastructure conditions, policies and culture were considered to fill the gap. Upon data collection from the selected private Universities of study; the study came up that, all factors were influencing the adoption of SNTs for teaching with the exception of culture and trust. Policies, budgeting and command of language were identified to have a negative influence on the adoption of SNTs for the purposes of teaching.

## 8. Recommendation

For SNTs to be adopted by the Ghanaian private Universities the ICT infrastructure of the intuition would have to be improved. The speed of the internet should be enhanced, a much more robust network infrastructure should be established because students are particular with how secured the system is. Therefore, if ICT infrastructure is enhanced students and lecturers would have a sustained interest in the use of the SNTs for learning purposes.

University management should consider how to make laptops available for all of their students. When students have laptops to use, it will encourage them to have a strong affiliation with the technology. It boosts the frequency of usage. The absence of the laptops means, that students will have to cluster around machines in the schools computer laboratories to use these social networking technologies.

A good wireless network should be situated in the university. Access to network only through cables would affect mobility of the students and lecturers in the usage of the technology. At worse case, hotspots should be created on campus where students can cluster around and use.

The University management will have to include a comprehensive budget covering the maintenance of the entire infrastructure for running the SNTs. This will help that, for SNTs that require payment to use some features, like video conferencing and like could be enabled.

Students and faculty alike, need to be trained on how to use SNTs. The University management should therefore, regularly organize seminars and workshops that will enhance the knowledge base of the faculty and students on how to use the SNTs for teaching and learning.

A proper auditing group should be designated to measure the progress of the use of the technology. This will inform



the University the performance of the faculty and students as the technology was adopted.

There should be a developed policy that will govern the use of SNTs; such that students faculty alike will not abuse its usage.

Professors should encourage the use of SNTs for teaching and learning because they were identified to have a strong social influence on their colleagues and the students they teach.

University management should consider the use of SNTs by faculty in their faculty appraisal. This will motivate all professors in the universities to use the SNTs in their teaching.

A special ICT team should be designated to render assistance to students and faculty who will have difficulty in the use of the SNTs. This team will provide guidance on how to use the SNTs and all other technical assistance.

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