UTAUT: An Assessor of Electronic Transcript System (E-ETS)

Ejiofor C. I[1] & Mgbeafuluike .I .J[2]
Department of Computer Science, Chukwuemeka Odumegwu Ojukwu University [1,2]
Corresponding Author: Ejiofor C.

ABSTRACT: *Transcript is an inventory system holding students' academic records. This system has been implemented using both conventional and electronic approaches in most organization. The survivability of this system depends largely on technological adoption exemplified through user acceptance. In other to ascertain the acceptance level of transcript processing system, in certain institutions, the Unified Theory of Acceptance and Use of Technology (UTAUT) model was adopted using structured interview approach as data gathering technique. Twenty (20) anonymous system users cutting across all genders were employed with experience ranging between 1 – 15 years of system usage and aging ranging between 25 – 40 years. All system users were employed on a voluntary basis using the construct of UTAUT: performance expectancy, effort expectancy, social influence and facilitating condition.Four graphs depicts UTAUT construct were exemplified, with performance expectancy obtaining 100%, effort expectancy 45%, social influence 55% and contributing condition 50%. The results show that while systems are essential, the effort expectancy and social influence are integral to system survivability.*
Keywords: Transcript, UTAUT, UTAUT constructs

I. INTRODUCTION

The advent of computers and information systems has bought about tremendous and continuous changes toward human and non-human endeavors (Lai, 2012). The technological changes foster by computer based software systemsand its applicationshave been felt virtually in most spheres of human endeavors and organizational structures (Joakim, 2006; Lai, 2012). In fact, distance is no longer perceived as a barrier to human success due to the application of software application system. These systems are built with the aim of solving real world problems accurately and promptly. This global or local application of information and computer systems in most sectors such as the financial, mining, education, health and agriculture has resulted in greater revenue generation with minima overhead cost (Zhou, 2009). Tertiary institution have been seen overtime as the pinnacles for knowledge disseminations, accommodating novel ideas with the aim of creating hallmarks in addressing environmental issues. These issues possibly are resolved through design, creation and application of system eccentric services such as: time-table arrangement, student hostel registration, student admission clearance and even student course registration (Bohanec, 2009; Dangolani, 2011). The paramount importance of student academic records in assessing and ascertaining student academic strength and future progression has made transcript processing an integral facet of organizational functionalities and service dissemination (Zhou, 2009).

Transcript is an inventory system holding student academic records. These systems accommodate both student's grades and scores earned within semesters and sessions(Bohanec, 2009; Dangolani, 2011). Transcript indeed has evolved from the manual based approaches applied in obtaining student academic records through meticulous applied approaches such as searching, sorting and rearranging student academic records. These records are held within faculties, departments and at the discretion of several lectures which may be converted into an electronic, automatic software systems (Zhou, 2009). These automated systems, cumulatively and holistically retrieve all students' record through interactive framework that integral students records within a centralized or decentralize repository (Lai, 2012).

Ascertaining the level of software system user acceptance and technological adoption will necessitate system survival, propagation, usage and eliminate any need for obsolescence (Paul, 2013 and Ali, 2015). Although severalsoftware system user acceptance models exist (Rajesh , and Rajhans, 2014) with varied application (Lin, 2005; Choa, 2005;Liu, 2006; Said et al., 2007; II et al., 2008; Jayantha, 2011, Paul, 2013 and Ali, 2015), it is the intent of this research paper to adopt the Unified Theory of Acceptance and Use of Technology (UTAUT) in ascertaining the acceptance and user adoption of Enhanced Transcript System (ETS).

II.   UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY (UTAUT)

Unified Theory of Acceptance and use of technology was postulated by Venkatesh (Venkatesh, 2003) by consolidating the previous acceptance model with the main of achieving comprehensiveness in technological acceptance. This model is built on four key constructs which are: performance expectancy, effort expectancy, social influence and facilitating conditions. Figure 2.1 captures this model.
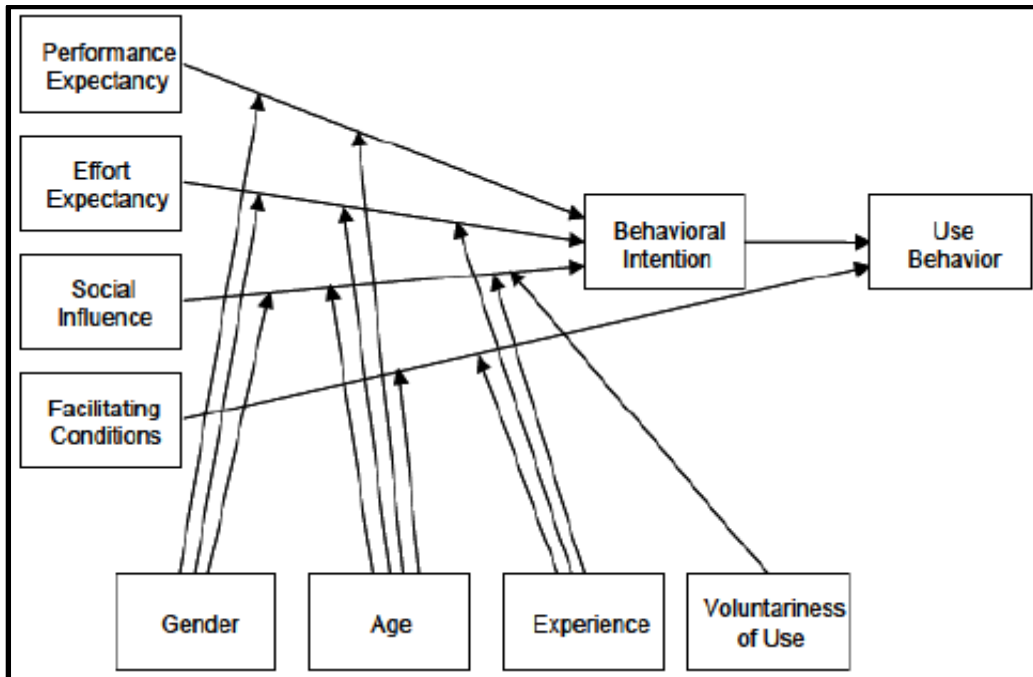

Figure 2.1: Graphical description of UTAUT Model (Venkatesh, 2003)

Venkatesh in developing the unified model integrated and tested all the constructs that were previously used in previous models. Out of the seven fundamental components used previously, four was adopted as the most appropriate determinant for technology usage as shown in Figure 2.1. These four includes: Performance expectancy, effort expectancy, social influence and facilitating conditions. The rest three construct were identified as less importance in ascertaining technology usage such as self-expectancy, attitude and anxiety. Therefore these three components were removed from UTAUT model. UTUAT was identified as most appropriate due to its ability in explaining 70% of variances opposed to 30% of previous model (Venkatesh, 2003).

Table 2.1 portray recent studies on UTAUT model.

SN	Authors	Goals
1.	Lin (2005)	Investigate, portability among mobile phone user
2.	Choa (2005)	Investigate WLAN usage among network user
3.	Liu (2006)	Conceptualize three models: TAM, C-TAM-TPB and UTAUT
4.	Said et al. (2007)	Understanding the acceptance of desktop application using UTAUT
5.	II et al. (2008)	Extend UTAUT model for investigating technological acceptance
6.	Jayantha (2011)	Extension of UTAUT through new construct addition
7.	Paul (2013)	Investigate English as a factor in attaining knowledge
8.	Ali (2015)	Extending UTAUT, model in perceiving customer usage of bank services

III.   APPLYING UTAUT FOR ASSESSING THE ENHANCED ELECTRONIC TRANSCRIPT SYSTEM (ETS)

The fully adaptation of UTAUT model for assessing the acceptance of the enhanced electronic transcript system was exemplified within this research paper. This paper focused on assessment subsequent to system usage by system user. The user experience refers to individual experience after system usage. The data gathering technique for this research paper was based on a structured interview carried out among twenty (20) identified anonymous personnel (computer expert) who were offered the privilege of using the system. The interview was post examined after each individual had sufficiently utilized the system. The interview questions were not gender bias, neither did it focus on age limitation but was posed toward experience in system and software usage.In moderating the construct, equal number of gender was selected: ten (10) male and 10

(female). The Age of experts was selected with the range of twenty four (24) to forty-one (41). The experienced of users were sort after based on years ranging from one (1) to fifteen (15). The voluntariness was based on Yes or No.

The questions basically focused on the pinnacles of UTUAT, specifically the construct: performance expectancy, effort expectancy, social influence and facilitating conditions. The following were the questions (a-d) used with response elicited in the form of Yes or No. Table 3.1, shows the components of UTAUT utilized within this research paper.

a.   Performance Expectancy: Can this system motivate users in processing transcript?
b.   Effort Expectancy: Can the system be used by anyone?
c.   Social Influence: Can the system push user to encourage other to use it?
d.   Voluntariness: Will this system integral into it environment?

Table 3.1: UTAUT Fundamental Components

SN	UTAUT Construct				UTAUT Moderator			
	Performance Expectancy	Effort Expectancy	Social Influence	Facilitating Condition	Gender	Age	Experience	Voluntariness
Case 1	Yes	No	Yes	No	Male	25	1	Yes
Case 2	Yes	Yes	Yes	Yes	Female	30	5	Yes
Case 3	Yes	No	No	No	Male	28	3	Yes
Case 4	Yes	Yes	No	No	Female	35	10	Yes
Case 5	Yes	No	No	No	Male	26	2	Yes
Case 6	Yes	No	Yes	No	Female	40	15	Yes
Case 7	Yes	Yes	Yes	Yes	Male	31	6	Yes
Case 8	Yes	No	Yes	Yes	Female	39	14	Yes
Case 9	Yes	Yes	No	Yes	Male	25	1	Yes
Case 10	Yes	Yes	Yes	No	Female	30	5	Yes
Case 11	Yes	Yes	Yes	Yes	Male	29	4	Yes
Case 12	Yes	Yes	No	No	Female	28	3	Yes
Case 13	Yes	No	No	Yes	Male	33	8	Yes
Case 14	Yes	No	No	Yes	Female	26	2	Yes
Case 15	Yes	No	No	Yes	Male	38	13	Yes
Case 16	Yes	No	Yes	No	Female	37	12	Yes
Case 17	Yes	No	Yes	Yes	Male	27	2	Yes
Case 18	Yes	No	Yes	Yes	Female	33	8	Yes
Case 19	Yes	Yes	No	No	Male	34	9	Yes
Case 20	Yes	Yes	Yes	No	Female	35	10	Yes
Total	Yes= 20 No= 0	Yes= 9 No= 11	Yes= 11 No= 9	Yes= 10 No= 10				

IV.   RESULT AND DISCUSSION

The result and discussion are based on the fundamental obtained from user through a structured interview approach. Table 3.1, shows the result of performance expectancy, effort expectancy, social influence and facilitating condition. Figure 4.1 – 4.4 exemplify the finding of Table 4.1
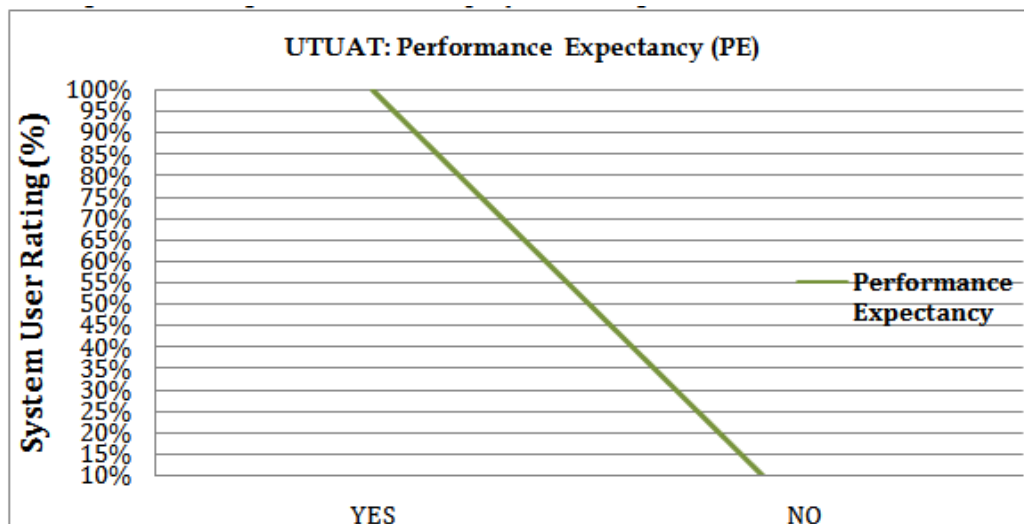

Figure 4.1: UTUAT: Performance Expectancy (PE)

Figure 4.1: portray the graph for UTUAT: Performance Expectancy (PE). The graph shows clearly the responds of all twenty (20 equating to 100%) system users, agreeing that the system is a complementary tool which will enhance performance with no user disagreeing.
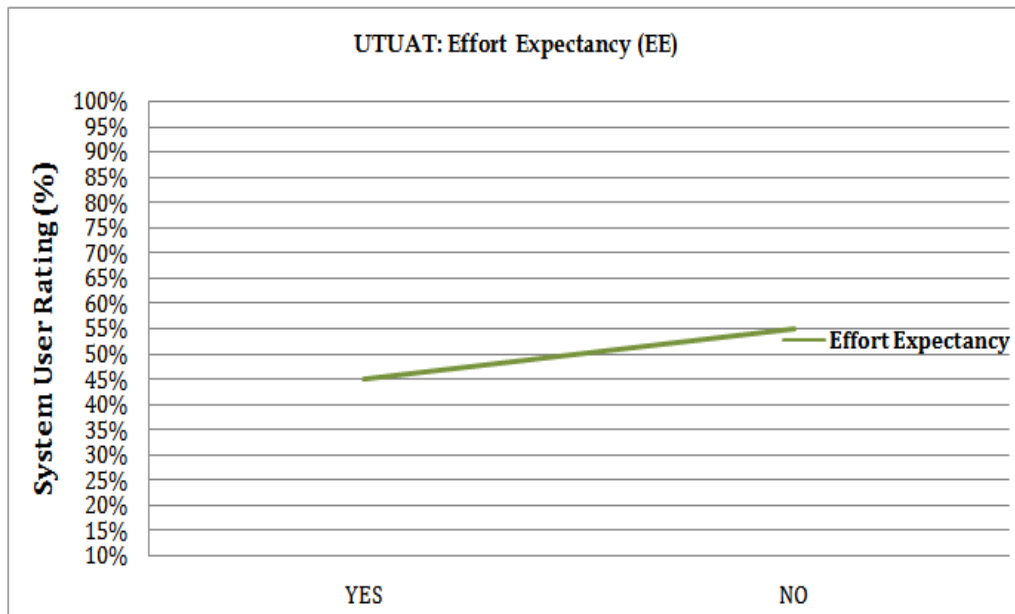

Figure 4.2: UTUAT: Effort Expectancy (EE)

Figure 4.2: portray the graph for UTUAT: Effort Expectancy (EE). The graph shows clearly that all nine system users (9 equating to 45%) agreed that the system can be used by anyone while eleven system users (11 equating to 55%) disagreed that the system cannot be used by anyone.
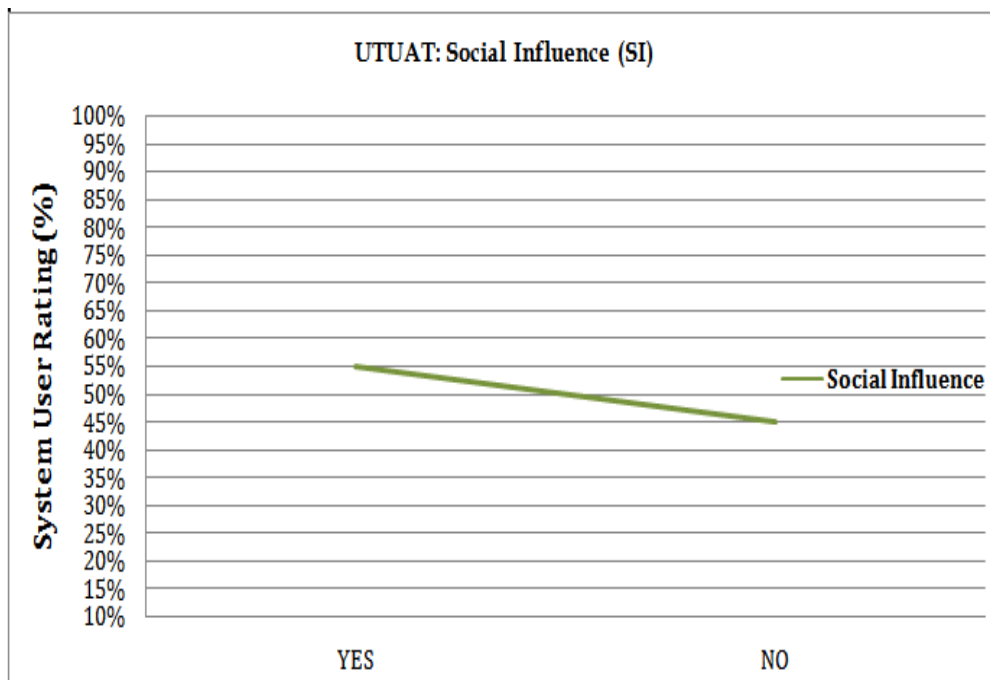

Figure 4.3: UTUAT: Social Influence (SI)

Figure 4.3: portray the graph for UTUAT: Social Influence (SI). The graph shows clearly that all eleven system users (11 equating to 55%) agreed that the system can be used to influence other system users while nine system users (9 equating to 45%) disagreed that the system cannot be used to influence other system users.
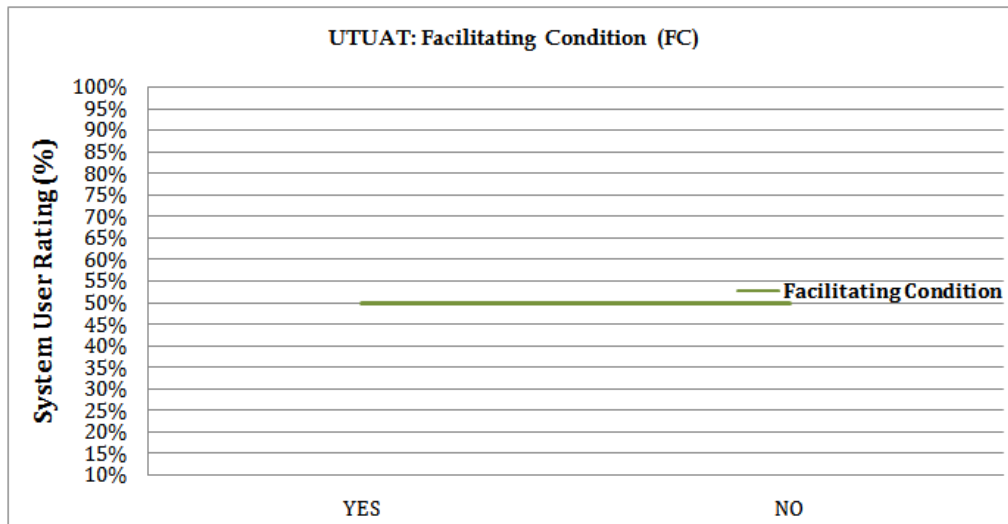
Figure 4.4: UTUAT: Facilitating Condition (FC)

Figure 4.4: portray the graph for UTUAT: Facilitating Condition (FC). The graph shows clearly that ten system users (10 equating to 50%) believe that the system will integral into its environment while ten system users (10 equating to 50%) believe that the system will not integral into its environment.

The graphs from Figure 4.1 to Figure 4.4 specify certain fundamental point which could be identified as the finding of this research.

a. Computer base software system has indeed been an integral tool due to the fact that most users believe the system is essential.
b. Needed training in enhancing variety of system user are necessary, because 55% believe the system cannot be used by everyone.
c. The condition facilitate the usage of this system cannot be fully ascertain, as there is a universe; bridge between users on this.

V. CONCLUSION

This research paper has explored the fundamental contribution of Unified Theory of Acceptance and Use of Technology (UTAUT) model in ascertaining user acceptance and technology acceptance of electronic transcript system. Twenty (20) qualified expert were utilized in ascertaining the four construct UTAUT and four moderators. The result shows clearly that effort expectancy and Social influence needed improvement while contributing factor are still fuzzy.

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