Studying the Factors that Influence the Adoption of Educational Technology in Mogadishu Secondary Schools Using UTAUT Model

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***Abstract*—This study employed the Unified Theory of Acceptance and Use of Technology (UTAUT) to pinpoint the factors that influence how educational technology is used in secondary schools in Mogadishu. Participating in the study were 235 principals and instructors. The participants were chosen through random sampling. The study's findings demonstrated that four hypotheses—performance expectance (PE), effort expectance (EE), social influence (SI), and facilitating conditions (FC)—progressively affect behavioral intention (BI), which serves as the mediating factor for our independent variables, and consequently there is a positive correlation between behavioral intention and behavioral use (BU) of technology in education. The p-value of each hypothesis is < 0.05, indicating that the null hypotheses were disproved—the lack of ICT infrastructure forces Mogadishu secondary students to continue learning in the conventional manner. Researchers recommended the importance of addressing the challenges of inadequate funding for both public and private schools and suggested conducting further study. The output that can be expected from this study is to change the current situation.**

***Index Terms*—Education, technology, UTAUT model**

I. Introduction

By both developed and developing countries, educational technology is now widely acknowledged as a significant factor in the spread of knowledge. It will favor future encounters, enhancing their competence, rationality, and comfort in our globalized environment [1, 2]. The term "technology" can refer to anything from computers to pencils [3]. The use of contemporary instructional facilities for school administration and management and the teaching and acquisition of ICT-related skills for improving the presentation of classroom work are all examples of technologies as tools in the educational setting [4].

According to Al-zaidiyeen *et al*. [5], teachers' perceptions, beliefs, knowledge, and abilities play a critical role in the successful integration of ICT. Infrastructure in schools, school management's attitudes on ICT use, and so on [6] are also essential factors. According to studies, policies that achieve their goals usually engage stakeholders in policy-making [7].

Insufficient empirical data has hampered attempts to measure or assess the use of technology in education in Africa [8]. There are dissimilarities between countries, and even within the country. This research assembles various possible problems to determine the most complications and potential improvements. Machmud *et al*. [9] noted that countries face issues when deploying new technologies, including national policies, infrastructure, the economy, and human resources.

The new generation is one of the most frequent users of technology and is seen as high achievers who rely heavily on technology, particularly for study and learning [10]. We may know where we are and what we want to accomplish regarding educational technology. The tricky part is figuring out how to get there [11].

In the teaching–learning process employing computers and Internet connections, the instructors' views toward technology will be crucial [5]. Computer-assisted instruction is a possible alternative that could favor student learning results [12]. Teacher shortages, for instance, are thought as a challenge that may be solved by technology [13].

Somalia appears to have a healthy ICT infrastructure; it is concentrated in metropolitan areas, especially in Mogadishu, the capital, but there is limited use of ICT in Somalia's educational system, most of which are located outside of Mogadishu [14]. Investment and privatization policies in education should emphasize equipping schools correctly and effectively to cope with modern teaching and learning trends [2].

Unfortunately, the introduction of technology into the school curriculum was only lately, and no technological infrastructure is available in the educational system. Administrators are unable to implement government policies toward educational technology. In terms of [15] policy development versus policy execution, we share common challenges with other developing countries [16], inadequate training, reluctance to adopt new behaviors, as well as a lack of infrastructure and technical support. There are restrictions from school administrators that cause a lack of educational technology implementation. Manduku *et al*. [17] indicated that ICT in school management has been elusive since most school administrators are either computer illiterate or technologically illiterate, yet current worldwide technological advances necessitate modernization and digitalization of practically every sector, whether educational or commercial.

Schools and educational systems can profit from the same computing and telecommunications technologies and services that have made corporations more productive and cost-effective [18]. Acquiring a positive attitude, accessibility and establishing supporting educational technology policies will take the secondary graduates into a better situation than we are now encountering.

Secondary schools with high ICT resources and effective

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use of them achieve better outcomes than those with equivalent resources but unproductive use of them [14]. The limitations in educational technology utilization are somewhat familiar in most African countries. According to Kipsoi *et al*. [18], the existing study statistics shows that most developing nations are lagging behind in the information revolution.

UTAUT is a special research design that has been applied in many earlier studies to examine user acceptance of new technology [19]. Prior studies analyzed whether schools were adopting technology utilizing a number of technology-based models, and those UTAUT models focused on higher education because COVID-19 forced universities to employ e-learning, but there is a nonappearance of UTAUT model application in lower education; hence, the research revealed that the model is applicable to study this level of education. Therefore, the study examines the most pressing issue that Mogadishu schools are facing, and the findings will serve as a guiding tool for all stakeholders from policy-makers to school administrators.

II. UTAUT Model and Research Hypothesis

The idea, improvement, and original experimental tests of UTAUT are provided by Venkatesh et al. 2003 [20]. They created a concept labeled the Unified Theory of Acceptance and Use of Technology (UTAUT) in "User response of information technology" [21]. The model was shaped by coalescing eight major technology theories to generate a single generally acknowledged model for the use of technology [11]. UTAUT is an effective model for defining and imagining users' approval behavior toward the adoption of new technologies in various scenarios in numerous studies [22].

Numerous ideas and models have reportedly been created to study how users embrace new technology and decide whether to use them [22]. These models include the Technology Acceptance Model (TAM, 1989), the Motivational Model (MM, 1992), the Model of PC Utilization (MPCU 1991), the Theory of Planned Behavior (TPB, 1991), and the Combined TAM and TPB (C-TAM-TPB, 1995) [21]. The most prominent theory is TAM, which explains the factors that influence user acceptance of computer technology [10]. The UTAUT model is derived from the aforementioned models, and it was created by Venkatesh et al. (2003) and began by developing an instrument using previously verified items [11]. Reviewing 69 published papers, it was determined that the UTAUT is a valid and reliable model due to the studies' considerable empirical support [22]. The model is current and consistent with technological improvements. The four main constructs of the UTAUT model pushed researchers to adopt this model.

To make the study a tool for developing a response to the current ground situation, researchers preserved the existing variables of UTAUT, which postulates these hypotheses. H1: Performance expectance has influenced the desire to use technology. H2: Effort expectance has influenced the desire to practice technology. H3: Social influence has influenced the desire to use technology. H4: Facilitating conditions have influenced the desire to custom technology. H5: Behavioral intention of technology use in education will positively influence its utilization.

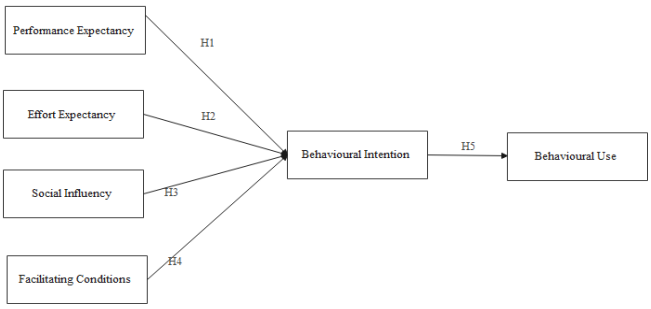

Fig. 1. Proposed research model

H1: Performance expectance has influenced the desire to use technology.

Performance expectance (PE) gauges how much users anticipate using the system will help them perform their jobs better [11, 21, 23].

It is commonly acknowledged that integrating technology into education provides high-quality teaching and learning, independent learning skills, and competencies since it behaves as a catalyst for fundamental change in current school practices and a veritable vehicle for preparing students for the future [3].

Only knowledge and skills necessary for future work are being taught to students [24]. The proficiency and expertise of the school's principal and teachers can sometimes determine how well technology is accepted. Most secondary school teachers lack the essential skills to use technology in curriculum implementation adequately [25, 26]; therefore, the conventional chalk and duster approach to secondary school pedagogy continues to dominate.

Technology has the potential to motivate and interest students in learning by allowing them to connect their classroom experiences to work practices; developing, enhancing, and perpetuating their abilities; and assuring future workers' economic viability [27]. In recent years, there has been a substantial increase in the usage of ICT in developing countries, particularly in Africa [28].

Additionally, the COVID-19 pandemic has rekindled academic debate and brought educational technology to the forefront of public consciousness. During the pandemic, many concerns expressed to mainstream educational audiences (educators, managers, parents, politicians, and the general public) mirrored issues presented in previous research [29]. Therefore globally, educational systems are under increasing pressure to include new ICT technologies into their curricula to provide students the knowledge and skills they need for the twenty-first century [30].

H2: Effort expectance has influenced the desire to use technology.

The level of easiness/comfort involved in technology use is referred to as effort expectancy [21]. Researchers worldwide have identified stages in teachers and students' learning about and gaining confidence in using ICT [14]. Users are generally advised to use new technology if they believe it will be beneficial and useful in their daily lives [19]. According to the analysis of the relationship between

instructors' perspective toward integration of technology into the curriculum and their use of technology in the classroom, as lecturers' views toward technology integration into the curriculum improve, their ICT use may also improve, and vice versa [30].

It is worth noting that most teachers' and administrators' perception of education is not harmful. Lau and Sim [31] concluded that most teachers and administrations are optimistic about using ICT in school. Educators' attitudes on employing technology in the teaching process are among the many factors that affect achieving meaningful use of computer technology in education. [6, 32] claim that teachers' ICT perception and beliefs are not the only element influencing their intention to use ICT during the teaching and learning process, but they are one of them. This demonstrates that the sea technology is easy to use.

H3: Social influence has influenced the desire to use technology.

Social influence refers to the degree to which users' significant people (such as family and friends) believe they should utilize a particular technology [21]. In reaction to social pressure, an individual's intention is altered—that is, he/she desires to comply with the social influence [33]. When utilizing information technology, people are impacted by members of their community and social networks, including friends, family, and coworkers [21].

In our context, social influence will constitute public policy which significantly impacts the school establishers. Various stakeholders influence educational technology implementation in the school system. Government, parents, students, teachers, and principals will constitute the real stakeholders of ICT implementation. According to Yusuf [24], an efficient educational technology employment policy will be required to maximize ICT potential. To implement the educational technology policy, stakeholders should be included in policy formulation to feel that they own the policy. According to McGarr and Johnston [34], many distinct stakeholders must be served by educational technology policy. Kiptalam and Rodrigues [8] found that there is also very little information available about the ICT supply chain in schools, including the nature and level of government ministry involvement, parent and residential community involvement, and the role of the business sector.

The operation of educational frameworks and ideas and government decision-making in the field of education are all governed by a set of principles and guidelines known as education policy [35]. Formulation of policy is something, and its implementation is somewhat else. This is typical in developing nations, including Somalia. Nigeria has been unable to successfully execute the National Policy on Education for nearly four decades [15]. In Africa, there is what is known as a symbolic policy which frequently comes with little or no commitment to practical implementation and does not come with much money [34].

Technology's role in teaching and learning is quickly becoming one of the most significant and hotly contested issues in current education policy for many countries [9]. In Nigeria, the strategy proposed a national model curriculum for ICT in education, which governments will be pushed to adopt/adapt across all secondary schools, both public and private, in their respective states [36].

Rather than technology, Somalia's education policy initiatives have focused on revitalizing the educational system, increasing enrollment, and lowering the school dropout rate [14]. The government's policy on the effective distribution of these educational materials has not been positive and has never been properly planned, managed, overseen, or evaluated [2].

H4: Facilitating conditions have influenced the desire to use technology.

The extent to which someone believes as true that there is a technological and organizational infrastructure in place to enable system utilization is referred to as facilitating conditions, which are beneficial for the work at hand [21, 33].

Accessibility refers to the degree to which products, systems, services, settings, and facilities can be employed by people with a different range of characteristics and abilities to achieve a specific purpose in a definite context [4]. Lack of ICT infrastructure, especially in developing nations, is a significant barrier to using and implementing information and communications technologies in schools [14, 25, 37]. In most industrialized countries, the cost of computer hardware and software continues to fall, but in developing countries like Nigeria, the cost of modern teaching resources such as computers is several times more than in more developed countries [25].

The federal government of Somalia does not provide enough ICT infrastructure to Mogadishu secondary schools, which is the reason for this outcome [38]. In Central South Somalia, slightly more than half of all schools (51.8%) are classed as "permanent" structures. Only 8% of secondary school infrastructure in Central South is in "good" condition, 53% is in "fair" condition, and 39% is in "poor" condition [39].

Many establishments in Nigeria, especially educational institutions, keep documents in files and store them in dusty filing cabinets. Many of these files are eaten by rodents and insects, rendering them unrecoverable [25]. This shows that our educational systems face a challenge in transforming the curriculum and teaching–learning process to provide students with the necessary abilities to perform effectively in a dynamic and constantly changing world [30].

What makes the situation worse is that most Mogadishu schools are privately run. This does not mean that privatization hinders the development of the students, but here there is a commercialization of education which adversely affects the quality of education as a whole. Kundu and Bej [36] conducted a survey in Indian private schools, revealing that most school owners are primarily interested in making a sizable profit at the expense of both students and teachers. Ministry of Education [39] found that most Central South teachers, 47.3%, are paid by "private" institutions, 24.8% by "community," 8% by the Ministry of Education, 6.1% by NGOs, 2.7% by "others," and 10.9% by "undefined" sources.

Without a clear vision and strategic plan from the school administrator, there may be inadequate coordination of activities in adopting ICT, and only motivated teachers will struggle to make it work to support learning [37]. Therefore,

change is necessary and essential for improving the teaching–learning process, and all stakeholders should be encouraged to embrace it and ensure that ICT integration in the classroom is improved [36]. To do this, school leaders should set aside money for technology utilization in education. Singh and Muniandi [40] argued that the responsibility for technology planning, budgeting, decision-making, staff development, and policy formulation and implementation falls squarely on the shoulders of school administrators.

Inadequate planning, a lack of training, a lack of resources, and a lack of funding are some of the reasons why technology integration has failed in many parts of the world [40]. For the ICT curriculum to be implemented in secondary schools, ICT resources and facilities must be available and accessible, and instructors must be adept at using them frequently in the classroom [4].

Education facilities, employees, and children are all at risk from violence and attacks that are both a result of Somalia's violent past and have the potential to perpetuate forms of violence that undermine the efforts to build a peaceful and secure Somalia [39]. Computers need a secure place; some areas in Mogadishu frequently face threats from thefts and even robberies since the infrastructure of most secondary schools in Mogadishu is not meant for education, so our scenario is different. [4], Location is another contentious factor in implementing the ICT curriculum in secondary schools.

One of the biggest problems Somalia and the rest of the developing world confront is a lack of comprehensive educational planning to help them achieve long-term economic development, increase inclusive growth, and decrease poverty [41]. The practice of ICT and associated technologies is still in its initial phases of progress and implementation, and secondary schools are using an inadequate and diverging curriculum that is dependent on an education system that is not responsive to the rapidly changing ICT landscape [8].

In contrast to developing nations, however, recent follow-up and assessment studies demonstrate that, despite most advanced countries making significant efforts to integrate ICT into their educational systems, the outcomes are not what they had hoped for [42]. The European Commission, for example, stressed the inventive use of ICT as a priority and catalyst for achieving educational change in its Education and Training 2020 strategic framework [43]. In 1985, over 1 million computers were utilized in American secondary schools, with over 15 million students using them [25]. However, some studies in the USA reported that the absence of computers, free time for studying, and classroom time for pupils to utilize computers were the most significant hurdles to high school teachers' use of ICT [44]. This is why many governments worldwide, both developed and developing, invest extensively in ICT-driven school curricula yearly [4].

H5: The behavioral intention of technology use in education positively influenced its behavioral use.

If the key UTAUT variables that the researchers employed are met, the desirability of technology usage will be potential, hence technology utilization. According to Semerci and Aydın [6], teachers' attitudes toward ICT use are regarded as the driving force behind their ICT use behavior in many studies. The same author defines attitude as a factor affecting an individual's behavior and the consistency and integrity of an object's feelings, thoughts, and actions [6]. The operative use of technology in the sphere of education is dependent on several aspects.

The collapse of Somalia's state and ensuing civil war resulted in the nation's educational system collapsing. As a result, an entire generation was deprived of schooling. In the decades that followed, many places in Somalia started implementing some kind of education, the majority of which were private [41].

Most of the literature on educational technology talks about the integration of technology in education but in our case is different because recently, the Ministry of Education of Somalia introduced into the curriculum a subject known as technology; unfortunately, most of the teachers in Mogadishu schools teach this topic alongside other disciplines and they do not use anything except textbooks, chalk, and blackboard. This indicates that we are far beyond ICT-integrated learning.

Prior studies on educational technology have been conducted, but they are scant and did not use the ATAUT paradigm to examine the adoption of technology in the field of educational technology.

III. Methodology

This study aimed to reveal the main determinants of educational technology utilization in Mogadishu schools. The factors are not equally important as the study found. The determinants are performance expectance, effort expectance, social influence, and facilitation conditions. The study concerns Mogadishu's public and privately owned schools; the city is the most populated town in Somalia. The study is built on the UTAUT model that can be matched with the research hypothesis. Minor changes to the wording of some questions were made after careful consideration based on feedback from pilot respondents [45].

This paper presents research design and execution. In the first section, the study demonstrates UTAUT model, which is the basic model we used for this study. Secondly, we create research hypotheses, which clarify the associations between various components in the research model (UTAUT). Thirdly, we identify, describe, and interpret the definitions of the internal variables in the research model.

A. Sample Size and Sampling Technique

According to the directorate of education in the Banadir region in which Mogadishu City is located, the total number of secondary schools in Mogadishu is 603. Only 22 are public, and 583 are privately owned schools. The researchers selected the sample from the population using simple random sampling to ensure the sample's representativeness of both private and public secondary schools.

The researchers picked up the sample from the population by employing simple random sampling to maintain the sample's representativeness of both private and public secondary schools. The questionnaire was distributed

through online platforms of public and private secondary school academic staff, and all respondents had an equal probability of being included in the sample.

According to Hernández-Ramos *et al.* [42], the sample size for a finite population was calculated based on population size. Krejcie and Morgan's sample size estimation is suitable for survey research with finite populations [46]. Our study population is 603 secondary schools.

Using Krejcie and Morgan's table of sample determination, researchers discovered that sample size "n" ≈ 235.

B. Instruments and Data Collection

To measure the factors, a questionnaire was created [47]. It was designed into two parts. The first part was intended to gather demographic information from the respondents. It was six questions concerning gender, age, level of education, occupation, length of educational job experience, and the level of use of technology in school administration or instruction. In contrast, the second part was composed of 19 items based on the UTAUT model variables suitable to the hypothesis formulated by researchers on a five-point Likert scale. The term was given after its creator Rensis Likert, and it is one of the most widely used categorized scales [48].

C. Participants and Data Analysis

The study participants were managers and schoolteachers, as shown in the table below. Other stakeholders are left. The needed information revolves around the attitude, stakeholder influence, and accessibility of technology experienced by both teachers and school managers. SPSS and Smart PLS 3.0 software package were used for data analysis to evaluate the study model [28].

IV. Results

The first part of the results presents demographic information of those participants (see Table I).

TABLE I: Characteristics of Participants

Gender		
Male	211	89.8
Female	24	10.2
Total	**235**	**100**
Age		
20–30	176	74.9
30-40	51	21.7
41 and above	8	3.4
Total	**235**	**100**
Education		
Secondary	11	4.7
Diploma	15	6.4
Degree	164	69.8
Master	44	18.7
Ph.D.	1	0.4
Total	**235**	**100**
Occupation		
Public School manager	3	1.3
Public School teacher	10	4.3
Private School manager	72	30.6
Private School teacher	150	63.8
Total	**235**	**100**
Experience		
1–5 years	119	50.6
6–10 years	76	32.3
11–15 years	24	10.2
16–20 years	12	5.1
21 and above	4	1.7
Total	**235**	**100**

Source: Primary data, 2022

Second, the reliability and validity of all notions were evaluated. As measured by Cronbach's alpha and composite reliability, internal consistency is commonly used to indicate reliability (CR) [19]. In recent years, the usage of structural equation modeling (SEM) has considerably increased. This is primarily because the method has improved its ability to assess the reliability and validity of multi-item construct measures and test structural model relationships [49]. All five UTAUT hypotheses were found to be significant by structural equation modeling in the context of technology utilization of Mogadishu schools.

The data in Table II show that Cronbach's alpha of each latent variable is greater than 0.7, indicating that each group of observed variables has high overall reliability. This demonstrates the extent to which the particular scales and conceptions have demonstrated good validity and reliability [50].

TABLE II: Outer Loadings

	BI	BU	EE	FC	PE	SI
BI1	**0.797**	0.445	0.661	0.533	0.457	0.477
BI2	**0.894**	0.592	0.585	0.677	0.621	0.648
BI3	**0.828**	0.581	0.373	0.549	0.638	0.557
BU1	0.517	**0.843**	0.482	0.557	0.565	0.521
BU2	0.509	**0.839**	0.422	0.545	0.572	0.546
BU3	0.561	**0.873**	0.528	0.623	0.626	0.678
EE1	0.604	0.496	**0.889**	0.544	0.531	0.534
EE2	0.478	0.435	**0.846**	0.492	0.483	0.496
EE3	0.580	0.529	**0.875**	0.605	0.575	0.579
FC1	0.553	0.550	0.513	**0.817**	0.563	0.539
FC2	0.549	0.523	0.601	**0.849**	0.572	0.598
FC3	0.579	0.590	0.443	**0.835**	0.569	0.585
FC4	0.660	0.598	0.558	**0.850**	0.588	0.623
PE1	0.561	0.593	0.547	0.596	**0.826**	0.589
PE2	0.555	0.549	0.444	0.559	**0.820**	0.582
PE3	0.600	0.615	0.464	0.603	**0.848**	0.598
PE4	0.519	0.500	0.554	0.477	**0.781**	0.477
SI1	0.500	0.573	0.536	0.563	0.532	**0.796**
SI2	0.646	0.587	0.542	0.612	0.595	**0.881**
SI3	0.496	0.560	0.469	0.552	0.487	**0.813**
SI4	0.559	0.550	0.494	0.587	0.646	**0.811**

Source: Primary data, 2022

Note construct identifiers: PE = performance expectancy; EE = effort expectancy; SI = social influence; FC = facilitating conditions; BI = behavioral intention; BU = behavioral use

Fig. 2 indicates how variables are related to their items and loading factor for each variable is between 0.781 and 0.894, which is reasonable. One of the factors for showing of content validity is that loading factors should be higher than

0.700. This implies that the observed variables must explain the latent variables [51].

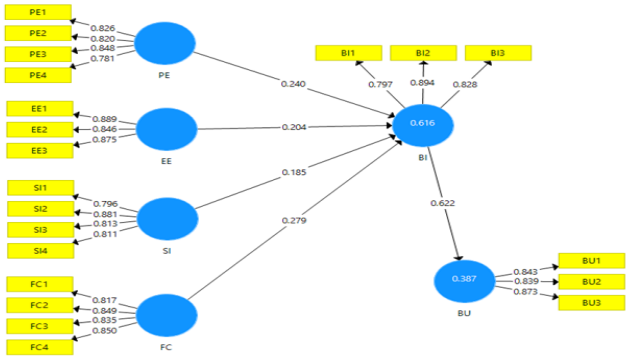

Fig. 2. UTAUT model in smart PLS.

Table III is to analyze the model, Cronbach's alpha, composite reliability, and average variance extracted. If the composite reliability values fall between.80 and.90, it is thought satisfactory [19]. We have in Table III a CR value between.879 and.904. The outcomes for Cα, CR, and AVE values are standard. When all loading elements were more significant than 0.50, the average variance extracted (AVE) was calculated, demonstrating reasonable validity [50]. In the case of a reflective construct, statisticians believe that the value of AVE must be greater than 0.5. The AVE value for all variables in the current investigation is greater than the threshold, indicating satisfying convergence [19].

TABLE III: CONSTRUCT RELIABILITY AND VALIDITY

	Cronbach's alpha	Rho. A	Composite reliability	Average variance extracted (AVE)
BI	0.792	0.804	0.878	0.707
BU	0.810	0.813	0.888	0.725
EE	0.841	0.851	0.903	0.757
FC	0.859	0.863	0.904	0.702
PE	0.836	0.839	0.891	0.671
SI	0.845	0.856	0.895	0.682

Source: Primary data, 2022

The grade to which a single construct in the model differs from the alternative one in the same model is referred to as discriminant validity [49]. This implies that various groupings should vary. Adequate discriminant validity is demonstrated in PLS path modeling analysis when a construct differs from other constructs in the model in terms of the variance it shares with its measures (indicators) [52]. Discriminant validity has been demonstrated because all diagonal values are higher than non-diagonal values, as shown in Table IV.

TABLE IV: FORNELL-LARCKER CRITERION IS SHOWN AS BOLD AT DIAGONAL

	BI	BU	EE	FC	PE	SI
BI	**0.841**					
BU	0.622	**0.852**				
EE	0.642	0.562	**0.870**			
FC	0.702	0.676	0.631	**0.838**		
PE	0.683	0.691	0.611	0.684	**0.819**	
SI	0.672	0.686	0.618	0.701	0.687	**0.826**

Source: Primary data, 2022

TABLE V: HYPOTHESIS TESTING

Hypo	Relationship	Coefficient	Mean	STD	T-statistics	P values	Decision
H1	PE →BI	0.243	0.240	0.072	3.373	**0.000**	Sig
H2	EE → BI	0.199	0.203	0.055	3.645	**0.000**	Sig.
H3	SI → BI	0.187	0.185	0.077	2.422	**0.008**	Sig.
H4	FC → BI	0.279	0.277	0.066	4.225	**0.000**	Sig.
H5	BI →BU	0.623	0.624	0.045	13.770	**0.000**	Sig.

Source: Primary data, 2022

Table V demonstrates the significance level, t-statistics, sample mean standard deviation, and path coefficient (p-value). Since all pathways exhibit significant outcomes, the t-statistics are larger than 1.96 and the p-value is less than 0.05. PE significantly improves behavioral intention BI (= 0.243, t-statistic = 3.373, p = 0.000), which is consistent with Hypothesis 1. Given that EE significantly enhances behavioral intention BI (= 0.199, t-statistic = 3.645, p = 0.000), Hypothesis 2 is supported. Hypothesis 3 is reinforced by discovering that SI has a substantial affirmative influence on behavioral intention BI (= 0.187, t-statistic = 2.422, p = 0.008). The effect of FC on behavioral intention BI is very positive (= 0.279, t-statistic = 4.225, p = 0.000), and Hypothesis 4 is validated by this. Behavioral use (BU) and behavioral intention (BI) are significantly positively correlated (= 0.623, t-statistic = 13.770, p = 0.000), supporting Hypothesis 5 [51].

V. DISCUSSIONS

The drive of this research is to determine whether the UTAUT model is suitable in our context of educational technology utilization. Thus, this study looked at the impact of independent variables like performance expectancy, effort expectancy, social influence, and facilitating conditions on the desire for technology use (DU), as well as the influence of desire for technology use on technology utilization (TU). According to Tezci [53], technology is not a teaching instrument. When teachers employ it in the learning-teaching process, it becomes significant. In most secondary schools in our nation, educational technology utilization is not part of the skills students are taught, although it is one of the secondary courses. Schools use computers for little administrative purposes rather than teaching and learning processes.

Researchers discovered that most public and private secondary schools in Mogadishu lack ICT infrastructure and instruction due to inadequate funding for public and private secondary schools. This resulted in employing traditional ways of teaching and learning in schools.

The results of this study highlight the significance of enhancing the current situation and offering helpful advice for the successful integration of technology in school education to advance our students' skills. This study considers the UTAUT model as a valuable tool for probing the significant factors contributing to educational technology utilization in developing countries.

The study showed an increasing association between performance expectance and effort expectance in one direction and the desire of technology utilization in another direction. Ringstaff and Kelley [3] proved that literature had found a significant and positive relationship between effort expectancy and the intention to use technology and a direct relationship between the two. In social influence, the study focused on how education stakeholders are crucial to constructing ICT infrastructure. All the independent variables have a significant and positive impact on influence on the use of ICT through mediator behavioral intention [54]. The Banadir regional education directorate, the Ministry of Education, and other foundations which support education should collaborate to close this gap since schoolteachers and their principals desire to use technology in teaching.

The various software or hardware conditions that allow students to access or use technology are called "facilitating conditions." Traditional education can be stressful and rigorous, so parents always send their kids to more expensive private schools to acquire the necessary skills [55]. This is due to the absence of ICT infrastructure in most Mogadishu schools.

Finally, the primary mediating variable of individual user behavior toward technology adoption, behavioral intention, had four precursors: performance expectance, effort expectance, social influence, and facilitating conditions [45].

VI. Conclusion and Recommendations

In this study, the researchers used the UTAUT model to examine the determinants of technology utilization in Mogadishu secondary schools. Most studies regarding educational technology utilization in Somalia employed the UTAUT model for higher education. The study's findings revealed determinants of educational technology we put forward are essential factors for establishing sound educational technology infrastructure in Mogadishu secondary schools, and the null hypotheses are rejected.

Our country's secondary schools do not use technology through teaching; it is not part of the skills that students are taught, although it is one of the subjects in secondary. Schools use computers for menial administrative tasks rather than teaching and learning processes. As with any other innovation, using technology in teaching, learning, and managing educational institutions necessitates the development of a new set of talents, attitudes, and tutorial approaches. Because the research is not without restrictions and is confined to Mogadishu City, further study can be done to observe the technology utilization in other regions of the country.

The introduction of ICT infrastructure in Mogadishu public and private secondary schools is essential for students' future skills. Most privately held schools cannot allocate a budget for building computer labs on the school property, so the government should take its role in supporting what is beyond their capabilities, so the provision of computers to the schools fosters the talents and the innovation of the students. Likewise, public schools should be supported improving educational technologies to enhance the adoption of the technology.

Conflict of Interest

The authors declare no conflict of interest.

Author Contributions

Mohamed Jama authored the various sections of the research from the introduction to the conclusion, while Salah Ali was reviewing each part after it has been completed. Finally, they worked together to examine the final text before submission.

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