

## **Adoption of distance education during the pandemic of covid-19 by Moroccan university students: A qualitative study applying UTAUT model**

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## **Adoption of distance education during the pandemic of covid-19 by Moroccan university students: a qualitative study applying UTAUT model**

### **Abstract:**

If there are any doubts about the importance of digital transformation in higher education, The Coronavirus has silenced them. In a changing world, operating digitally is the only way to continue the process of education during confinement and to assure the interactions between students and universities.

This article aims to explore the first experience of a group of university students with distance education during Covid 19 crisis. More specifically, this study describes their perceptions and the determinants of their satisfaction and answers the question of recommending distance education even after the pandemic era.

We have opted for a qualitative descriptive design guided by a phenomenological approach.

A convenience sample of 20 Moroccan university students from different universities regardless of factors such as gender, age, study level and university's location is chosen to conduct this study;

Based on the Unified Theory of Acceptance and Use of Technology (UTAUT) and by making some adaptations to make it more suitable to the context of the sample population and the pandemic context, we developed an interview guide.

Study results revealed three major themes including: (1) Moroccan university students resist in the first to use distance education during the confinement, (2) they were not totally satisfied with their digital experience due to many reasons such as non-availability of resources and technical interruptions, (3) the majority of them recommend the hybride way of study.

This study highlights the importance of preparing and conducting a change management strategy to embrace and sustain the adoption of distance education and mobilize technical resources and infrastructure to ensure the success of this new practice in Moroccan universities.

**Keywords:** Distance education, pandemic, Moroccan university students, UTAUT.

**JEL Classification:** A20

**Paper type:** Empirical research

## Introduction:

Morocco, like other countries affected by the Corona virus pandemic, had to resort to distance learning to ensure educational continuity and allow learners to continue their schooling normally. However, with this state of health emergency, students and teachers, found themselves in the obligation to acclimatize, in record time, with the requirements of this type of teaching. The state of health emergency declared in Morocco in March 2020, has led to confinement and suspension of face-to-face courses.

In addition, it must be realized that during periods of epidemics, distance learning becomes the only possible alternative to ensure educational continuity and in this regard, the rapid reaction of the Moroccan government to the first health crisis was welcomed, because the decisions were taken in a difficult and unpredictable context. Thus, the decision to introduce distance learning, led to a rapid, total and profound reorganization of teaching methods by forcing everyone to adapt to the requirements imposed by this unprecedented situation.

Faculty and students are faced with an "obligation to adapt". Indeed, for all these actors, it is not a choice, but an imperative necessity Coronavirus poses a new, unexpected and unprecedented challenge to all stakeholders in education. Changes that may seem too radical or unthinkable must now be considered as serious options for serious people. As politicians and policymakers around the world grapple with what to do about a new "war," educational leaders must also make decisions of a magnitude that will reverberate across generations.

The digitalization of universities requires, first of all, a radical transformation of the premises and equipment adapted to the evolution linked to digital technology for each university (Clardy, 2009). this being said, access to broadband must be established within all universities. For this, digital coordination schemes must be put in place within each group of institutions.

The integration of information and communication technologies is profoundly changing teaching methods, but many studies emphasize the complexity of analyzing the pedagogical changes brought about by the integration of ICT Manganot (2000). The integration of ICT in the educational system is now a priority, so access and flexibility are two prerequisites for successful integration of ICT in the university.

However, the adoption of e-learning sometimes poses financial, technical and social problems. In addition, some students are reluctant and refuse to adopt this technology or have difficulties in trying to use it effectively, because this new technology may require a lot of effort for its implementation and financial means for the purchase of the computer tool and the establishment of an efficient wifi network. In view of this, we can think that users may not be willing to accept e-learning. This leads us to wonder what would motivate students to engage in the "digital" learning process. More precisely, we need to understand the attitudes of students towards e-learning

To study user attitudes, a number of models have been developed to examine the acceptance and intention of individuals to adopt new technologies in the world of information systems. Within this framework, Davis (1989) attempted to determine what leads people to accept or reject information technologies. The most widely used model in the technology adoption field is the Technology Acceptance Model (T.A.M) (Davis, 1989). The idea of TAM is to provide a theoretical basis for explaining the impact of external variables (i.e., objective characteristics of the system, training, self-efficacy) on internal beliefs, attitude toward use, behavioral intentions, and actual system use (Ibrahim & Jaafar, 2011). Another popular and recent model in information technology acceptance is the Unified Theory of Technology Acceptance and Use (UTAUT). This theory was proposed by Venkatesh et al. (2003) and attempts to integrate and empirically compare elements from different models in technology acceptance. In addition, it can provide a useful tool for managers to evaluate the success of the new technology (Ibrahim & Jaafar, 2011).

In our research we will use this model to analyze the behavior of Moroccan students towards the use of new technologies in education.

The purpose of this paper is to investigate the factors that influence university students' acceptance of e-learning.

The main purpose of this study is to identify Moroccan university students' experience on adopting distance education during the pandemic of Covid-19 based on UTAUT model determinants. We aim to answer the following questions :

What are the determinants of Moroccan University Students' adoption of Distance Education during Covid-19 and what makes the experience of using Distance Education during the pandemic of Covid-19 a successful or a failed experience? Do Moroccan University Students recommend using IT in higher education after Covid-19?

The sections of this paper are structured as follows: the first part is dedicated to the literature review. We will define the concept of distance education, present the contributions of distance education, identify the disadvantages of online education and cite the factors that favor distance education. The second part will be dedicated to methodology. Research findings and discussions will be presented in the last sections.

## **1. Literature Review:**

### **1.1. Definitions of distance education:**

Moore (1973) proposes that distance education is a family of educational methods in which teaching is carried out separately from learning. Holmberg (1977) specifies the role of institutions in production, communication and especially guidance: "distance education covers different forms of study without continuous and immediate supervision of students, but with planning and guidance from the teaching institution.

Keegan summarized these definitions in 1980 as follows: "Distance education is defined by six characteristics: separation of teachers and learners, role of the teaching institution in the planning and preparation of instructional materials, use of technology and media, interaction between teacher and learner, possibility of occasional face-to-face sessions, and an industrial form of teaching" [Keegan 1980]. After 1980, new notions are introduced in distance education. In 1987 Delling defines it as the distance course is an artificial "dialogue" learning medium where the distance between the learner and the supporting institution is crossed solely or primarily by an artificial signal transmitter (Delling 1980). He thus highlights the role of dialogue in distance education. And finally the most recent definition (Moore 1990) "Distance learning is the set of devices providing instruction by communication of print or electronic information to persons engaged in planned learning at a place or time different from that at which the instructor(s) intervene" (Moore 1990).

### **1.2. Key success factors for the deployment of a distance-learning system:**

Previous works on E-learning have analyzed the technological means used for its implementation, the methodology adopted, the attitudes and satisfactions of the learners and the key success factors of a distance learning approach (Bronfman, 2003). Elements related to the conditions for successful distance education emphasize the contextual nature (Babrteit et al., 2019). Therefore, it is necessary to take into account the socio - economic and cultural elements of learners and trainers (Njenga, 2018). Other authors highlight the fact that distance education leads to innovations, changes and resistance in the training method (Gil, 2000), places and times of training (Aparicio et al, 2016). The authors Wu et al, (2010) in a study on the determinants of student satisfaction in blended learning have highlighted 6 factors: self-efficacy in digital tools, quality of training content, learners / trainer interactivity and learning climate.

In an analysis of distance education devices during the current health crisis (Covid-19), the World Bank, based on the PISA 2018 report, states: "While the use of digital platforms and technology tools dedicated to education (EdTech) seems to be able to minimize huge learning losses, especially among vulnerable students, at the same time it risks further widening inequalities" (World Bank, 2020). This report concurs with the findings of previous research on the key success factors of e-learning by providing elements specific to underdeveloped countries such as user capacity, the degree of preparation of educational institutions, the existence of an effective e-learning platform, the possession of teachers of the technical and pedagogical skills to carry out distance learning (Bronfman, 2003; Masrom et al, 2008; Lassoued and Hofaidhllaoui, 2013; Aparicio et al, 2016, Barteit et al., 2019).

### **1.3. Benefits of distance education:**

The advantages of distance education are numerous, including:

#### **1.3.1 Accessibility and flexibility**

Accessibility is the most frequently cited argument in favor of online learning. This type of education allows people to learn without time or space constraints and, for some, it is the only way to take university courses. For example, a worker can update or improve his or her knowledge even if he or she has a fixed work schedule. Another person can study a program even if he or she lives in a remote area (MARCHAND and Louise, 2001).

#### **1.3.2 Enriched learning**

According to Schramm (1992), for some authors, online learning has many advantages over classroom teaching. They state, among other things, that this teaching takes into account individual differences in learning, which allows the teacher to adjust. The teacher would be freed from his usual work and would have more time to devote to his students and could therefore follow them more closely. This learning process would bring the student closer to the teacher. In connection with the teacher-student relationship, two advantages are also often noted in the scientific literature. These are the speed and immediacy of communication.

### **1.4. Disadvantages of distance education:**

Several researchers have studied the disadvantages of distance education and have identified some of the limitations of this new mode of education, which remains the only solution in this period of crisis.

#### **1.4.1. An education that does not suit everyone**

In distance learning courses, the focus is no longer on teaching but on learning. Is this approach appropriate for all students? Some authors do not think so. A high degree of autonomy is essential for success in distance education courses. Moreover, student motivation can be greatly affected by this type of teaching. It could even have important consequences in the educational path of students such as failure or drop out. Dropping out seems to be the Achilles heel of this type of education. Students who take distance education courses drop out earlier and in greater numbers (Jean-Marc Dion, 1994).

#### **1.4.2. Social relationships**

For Louise (2001), sociability and learning to live together are largely done in schools in our societies. If the classroom is virtual, it is obviously not as easy to integrate into a group or to form friendships. The virtual environment would even present dangers of isolation. For example, cut off from real contact with other students and the teacher, some students may withdraw into themselves. We must not forget that the school has a socializing function.

### **1.4.3. Inequalities**

According to Jean Loiser (2003), online education is the cause of certain inequalities. These inequalities can be situated on two levels, namely financial and technological. The diffusion of new technologies, while potentially offering itself as universal, could in practice accentuate cultural and social inequalities between students. A person coming from a privileged environment would thus have an advantage over someone who does not fall into this category. First of all, not all students have the financial capacity to acquire infrastructure that is efficient enough to take full advantage of this learning method. E-learning implicitly transfers the costs of the training infrastructure from the institution to the learners. For this reason, there is some reluctance to use this type of teaching, as the poorest people are the ones who could suffer the consequences (MARCHAND Louise, 2003).

In addition, some people would not have the technical skills necessary to follow a course given virtually. In this regard, several studies carried out in the United States reveal the existence of significant gaps between clients from low socioeconomic backgrounds or cultural communities often associated with disadvantage and their peers from the "middle classes", not only in terms of familiarity with computer environments, but also in terms of the use they make of them (KARSENTI et al., 2001).

### **1.5. Conditions for Distance Learning:**

While taking into account the fact that distance education should only be offered for the purpose of accessibility to education for certain populations and in a complementary manner, without replacing face-to-face teaching, it is important to consider the conditions that allow the quality of this type of training to be promoted.

#### **1.5.1. Technological Conditions**

School authorities need to make wise choices about the platforms used to deliver distance education. Beyond financial considerations (costs associated with using the platform and making changes to it), there are certain elements that must be taken into account. (Dallaire, Gravelle, & Beaudoin, 2017). In addition, the reliability of the system and the rapid availability of technical support can greatly reduce irritants during computer and technical problems. Moreover, it is essential to set up a computer and technical support structure within the institution, both during the development and delivery of the course in asynchronous mode and during the delivery of teaching in synchronous mode, and to ensure that a qualified person can respond to needs and solve technical problems at any time.

Tony Bates, a strong proponent of ADT, in the chapter on teacher and training support in his book *Teaching in the Digital Age*, recognizes this: "technology should lighten the workload of teachers, not increase it as it currently does" (Bates, 2016). It is essential to take this into account and provide decent and respectful working and practice conditions for all staff involved in any of the stages of distance course production and delivery.

#### **1.5.2 Working conditions and Pedagogical Support**

As noted above, the increased workload involved in distance education should be reflected in the terms of collective agreements. Moreover, it is important that the conditions for carrying out and delivering distance education be clearly framed in collective agreements and that elements such as remuneration, the allocation of courses and supervision, the number of students per course group, the material conditions of execution, and copyright be agreed upon fairly through sound negotiation (Fauteux, 2014). In addition, teaching and coaching staff must be provided with appropriate pedagogical support, as suggested by the SEC: "several groups point to the importance of the pedagogical dimension specific to each mode of training and the

need for teachers experimenting with distance education to be supported by specialized staff and to benefit from developmental activities." (Board of Education, 2015).

Relevant training and development activities should be offered to the personnel involved, not only to enable them to master the technical skills related to distance education, but also to discern its particularities that differ from face-to-face teaching (Grenon & Larose, 2017, p. 37).

### **1.5.3. The choice of Courses that can be Mediated**

According to the CES, "Distance learning is less appropriate for some learning...including those requiring hands-on workshop or laboratory work and those of an affective or empathetic nature" (Conseil supérieur de l'éducation, 2015, p. 23).

The choice to offer distance education should not only take into account the skills to be developed or the level of feasibility in virtual mode depending on the type of equipment required and technologies available, but also the characteristics of the students, such as their autonomy and technological knowledge (R. Grégoire, 2017).

### **1.5.4. Preferred Pedagogical Approaches**

The pedagogical method to be favored in distance education is to give a greater place to the "emotional and social" aspect of learning by improving supervision, providing personalized feedback, and promoting interaction between students, as if distance education proponents were seeking "to recuperate what makes face-to-face courses strong!" (Comité école et société - FNEEQ (CSN), 2017). As noted earlier, it is important to encourage interaction and spontaneous exchange. In distance education, this could be achieved by forming small groups of students (Lafleur, 2017, p. 26).

Group stability as the course progresses, opportunities for face-to-face meetings (hybrid mode, seminars, out-of-class activities), opportunities to share and collaborate (teamwork, forums, synchronous portions of the course) are also tools that reduce isolation and facilitate interactions (FADIO, 2018).

Other authors also suggest adopting pedagogical activities that engage, promote deep processing of knowledge, facilitate attention and focus, allow for self-paced learning and review of the course as needed, or provide structure to help organize one's study (Chovino, 2018; Dallaire et al., 2017; Normand, 2017).

Students seem to be particularly in need of guidance and assistance when they begin a distance education course. This is why, during the first few courses, it may be important to establish certain rules on how to function in the course (organization of work, handing in of assignments, ways of communicating, advice on netiquette, etc.) (Grégoire, 2017)

### **1.5.5. The Fundamental Importance of Supervision**

These various pieces of advice reflect an important element that must be taken into account in distance education: the quality of the supervision provided to students in order to promote success and perseverance. According to Lafleur (2017), student support is one of the conditions for effective distance education. In her portrait of the limitations and challenges of this mode of instruction, Loisier (2013) also speaks to the importance of support and coaching: "...coaching and support are necessary, and are even critical of the retention and success rate of the student enrolled in ADF." In fact, he suggests "implementing personalized and accessible coaching" (Loisier, 2013). The quality and availability of support are essential and must integrate technological, technical and pedagogical support that is fast, continuous and efficient (Dallaire et al., 2017; Loisier, 2013; Simard, 2018)

It is essential to use all possible means in distance education to facilitate the pedagogical link with the teaching or coaching staff and to recognize the contribution that personalized and individualized tutoring provides: "The essence of perseverance rests on the tutor and his or her

ability to detect the characteristics and difficulties of all kinds (cognitive, motivational plans, etc.) of the student" (Loisier, 2013). Dussarps' (2015) investigation of dropouts in distance education also confirmed that the availability of teaching or coaching staff and the support provided are particularly important for persistence. Daigneault (2018) suggests that supervisors use motivational strategies to help students persist in their distance education courses, such as having them identify personal objects related to the course, providing concrete examples of important course concepts, providing positive feedback and reinforcement, and most importantly, providing the opportunity to be in communication whenever the need arises. Because the "need" may arise at any time, however, we believe it is best to set reasonable and clear limits on the availability of faculty and staff to avoid abuse and to ensure that the support needed by the student is properly recognized in the assignment.

## **2. The UTAUT Model:**

The UTAUT model is an integrated model proposed by Venkatesh et al. (2003), it is based on a systematic analysis and a comparison that synthesized several elements of models and studies related to behavioral intention used in technology acceptance contexts. The objective was to unify the previous and existing studies related to technology use acceptance.

The UTAUT model consists of ten components with 4 constructs that determine behavioral intention and use behavior and 4 moderators that affect the usage of IT :

Determining constructs are : performance expectancy, effort expectancy, social influence and facilitating conditions (Venkatesh et al., 2003) ;

Moderators are : age, gender, experience and voluntariness of use (Venkatesh et al., 2003).

### **2.1. Performance Expectancy**

Venkatesh et al. (2003) defined performance as the extent to which an individual believes that using an information system could benefit him or her in terms of job performance. They also organized five constructs from the previous models that refer to performance expected: perceived usefulness, extrinsic motivation, job compatibility, relative advantage and expectation. In addition, they also indicated that expected performance is the strongest predictor of behavioral intention to use the technology.

### **2.2. Effort Expectancy**

Venkatesh & al. (2003) defined effort expectancy as the degree of comfort individuals believe they have when using an information system. The constructs of the previous models that relate to the concept of effort expectancy are ease of use and complexity. This means that the ease of use of a designed information system is one of the key factors in the acceptance of information technology (Wu, Tao, & Yang, 2008).

### **2.3. Social Influence**

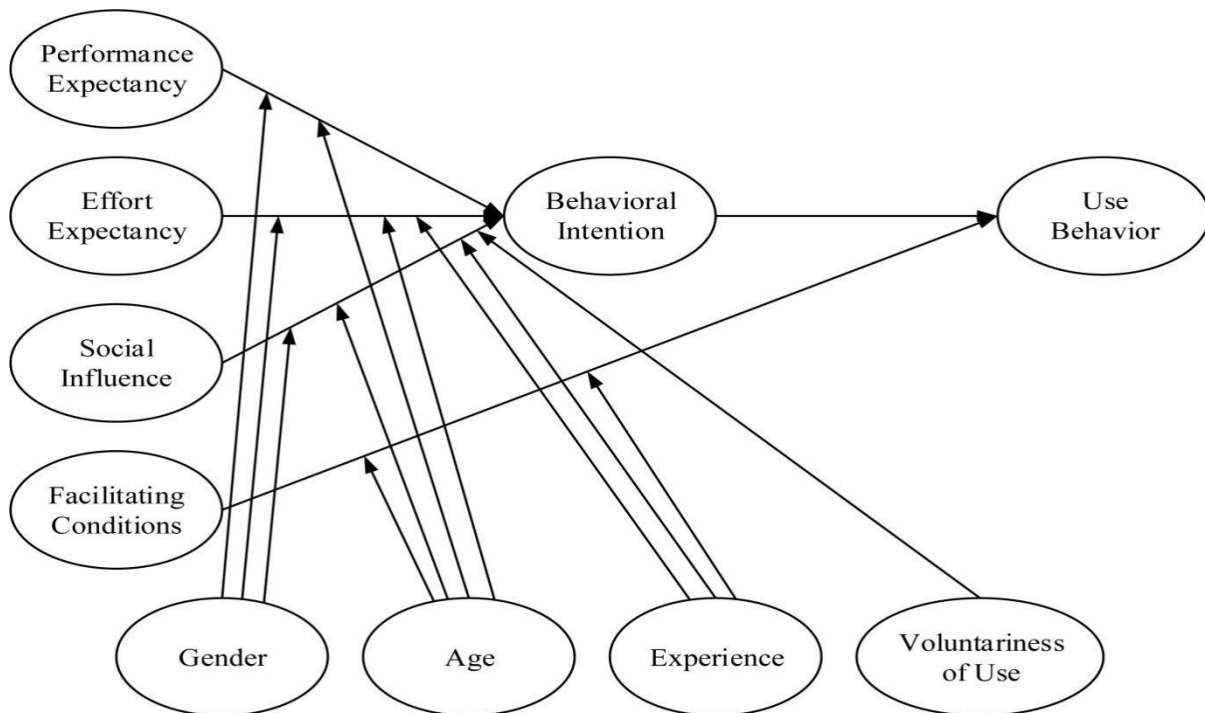
For Venkatesh & al. (2003) social influence is defined as the extent to which an individual perceives that it is important that others believe he or she should use the new information system.

### **2.4. Facilitating Conditions:**

The UTAUT model proposes two direct influences on technology use, namely the intention to use and a new construct proposed by Venkatesh et al, (Venkatesh V. , Morris, Davis, & Davis, 2003) , called "facilitating conditions". It constitutes the fourth basic determinant of information technology use. This construct is defined as "the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the System" (Venkatesh V. , Morris, Davis, & Davis, 2003).



Figure 1: The unified theory of acceptance and use of technology model



Source: Venkatesh et al., 2003

### 3. Methodology

This research contributes to the literature on distance education by analyzing the discourse. In order to identify the meaning that students give to their experience of adopting and using distance learning during the pandemic, a qualitative research approach is conducted.

Collected from Moroccan students who explored this practice. This study supports the recent interest in the adoption of distance education by Moroccan public universities as well as the acceptance of students of this new mode of education and the various difficulties encountered. To do this, we opted for a qualitative study (Miles & Huberman, 2003). This choice will allow us to better understand the phenomenon studied as well as its specificities within the Moroccan public universities which had never foreseen the exploration of this practice given the teaching style which characterizes them. The qualitative study among the above-mentioned target group is also justified by the fact that this phenomenon is still new in public sector universities. After defining the concept of distance education, the contributions of the literature will be synthesized through the formulation of research questions on the implementation of this practice as well as the consequences that are expected. The second part will present the methodology and observations from the qualitative study. The contributions of this research as well as future research avenues will be discussed at the end of this contribution.

The qualitative data was collected through 20 semi-structured interviews with Moroccan students:

The interviewees in question have already experienced distance education, especially during the period of confinement that began in March 2020.

The semi-structured interviews lasted between 1.5 and 1.45 hours on average and were fully transcribed.

In particular, interviews were conducted and a phenomenological method was chosen to understand how students make sense of the phenomenon of adopting distance education during pandemic situations. This method describes how things appear to people through their

experiences in order to provide a detailed explanation of their experiences (Finlay, 2009). It can be conducted on a small number of participants (Creswell, 2003).

- **Design**

We have opted for a qualitative descriptive design guided by a phenomenological approach, as this approach is congruent with the purpose of our study, which is to explore the first experience of university students with distance education during Covid-19 crisis.

- **Participants**

We have chosen a sample of 20 Moroccan university students from different universities regardless of factors such as gender, age, study level and university location.

A convenience sample is chosen to conduct this study; it is a type of non-probability sampling method where the sample is taken from a group of people easy to contact or to reach.

- **Mesures**

Based on comprehensive literature review and by using the “Unified Theory of Acceptance and Use of Technology (UTAUT)” as a research-based model with making some adaptations on it we developed the interview guide.

The interview guide contained open general questions and open-ended questions about the interviewee’s first reactions after the announcement of implementing distance education by Moroccan universities during the pandemic period. Interviewees are intended to describe their feelings of resistance, acceptance or reticence to this decision. Also, the interview guide contains questions, among others, related to their experience with technology in personal life and using it for studying and different problems and difficulties they had during their experience.

- **Data Collection**

First, we obtained the approval to conduct this qualitative research from the students. Then, we conducted the interviews through WhatsApp video calls, as the country was under national curfew we couldn’t conduct interviews face to face.

Interviewees received transcription of their responses to ensure the truthness of collected data. Discussions and transcriptions were conducted in French and then translated into English.

## **4. Findings**

- **Characteristics of participants**

The study participants were 20 Moroccan university students; 8 were males and 12 were females aged 18 to 30 years.

Based on the qualitative study performed applying the UTAUT model, the analysis revealed the following themes.

- **Performance expectancy**

The majority of students agree with the decision of the Moroccan government to adopt Distance Education and find it highly recommended continuing studies while avoiding the propagation of the pandemy. “*It was usefull, i think this is the only solution that could help in such situations*’ a participant declared.

- **Effort expectancy**

A participant said, « *it was hard to study online, it needs more effort and arrangements, I think that distance education needs more effort than traditional education* ».

The majority of students declared that they made more efforts during the confinement to continue their studies in such situations.

- **Social influence**

*Participants were faced with this sudden decision and they felt obliged to obey it. A participant expressed his first reaction when he knew that they had to move to distance education saying, “It was a shocking announcement, moving from face-to-face education to distance education was beyond our expectations, but we had no choice, we were just obliged to do as they told us”*

Results showed that social influence is highly presented because of the pandemic context, it's the main factors that determine the decision to adopt distance education by all the students participating in the present study.

- **Facilitating Conditions**

Results revealed that facilitating conditions made by the government and universities are not enough. The majority of students are not satisfied with the conditions and tools proposed by their universities, they insist on making more efforts to assure that all students have good connectivity with high quality technology tools.

*A participant said: “I had to deal with many problems, I was stressed and helpless, I used to share my laptop with two of my brothers, and now the three of us need to study online all day. How can we make it happen? Our parents can't afford a laptop for every one of us, so decision makers should take into consideration that technical materials are not affordable”. Some participants acclaimed that “having a laptop is not enough, dealing with poor network was one of the big problems of many of us”, “we weren't able to continue our courses due to technical interruptions caused by limited connectivity”, a participant said:, he added “ The internet home is used by all family members, my parents work online and we, children, study online, how can that be working?”*

Most problems declared by the interviewees are limited connectivity and poor network, technical problems that interrupt them during distance courses, experience of professors who have not used IT tools in education before and affordability of IT tools. A participant declared: *“Even our teachers weren't able to deal with this change, they were so anxious, especially those experiencing teaching online for the first time, it was hard, sometimes we skip taking courses due to technical problems coming from our teachers”*

- **Behavioral intention & Use behavior.**

The majority of participants described experiencing distance education during the pandemic period as a tough experience, they had several feelings such as stress, confusion and anxiety during this period. « *When they announced that we are moving to distance education, many emotions and thoughts came to my mind* », *“I wasn't able to understand the way it can be working”*. *“Is it the right solution? Will we have problems while passing exams? » « Do I have what it takes to study online ?” “I was so stressed and anxious .»*

Study results showed some resistance to using Distance education from students in the first, this resistance disappeared directly after knowing that there are no other alternative solutions, which can be explained by the involuntarios of use that moderate the process of distance education's adoption and use behavior. “ I wanted to say NO in the first, but then I just accepted

the decision like all my colleagues, because there is no other choice, we just have to deal with the situation, we start to buy what we need and then we did what it takes to make this experience successful and easy for us” a participant declared.

It is noteworthy that the current study showed that the percent of satisfied students is not equal to those recommending Distance education after the pandemic situation. *“The experience was good, but I will not be able to take online courses for the rest of my life”*.

Students might be satisfied with the experience of distance education forced by the pandemic context but they don't recommend the continuity of use after the pandemic.

- **Moderators**

The current study demonstrates how financial situations can moderate the process of use. Students with low budgets declared that they can't afford the expenses of using IT in higher education. The majority of students declared: *“ Distance education need good quality tools, many parents can't afford it if they have many children, university and school students”, “ it was a good experience but expensive as well, personally, i was living with my family but i wasn't using the home the internet because of its poor debit especially that i have two little brothers studying at primary schools and they also have to take online courses , so i bought my own and i had to deal with its monthly expenses”* .

#### **4. Discussions**

In the current study, we tried to explore the experience of using Distance education by Moroccan students during Covid-19 era. We examined primaries their expectations of distance education's performance, and then, we asked about perceptions of efforts employed on using IT in higher education and conditions made to facilitate the acceptance and use of distance education.

While analyzing the experience of higher education during COVID-19 crisis across 20 countries, Crawford et al. (2020) found that many countries shifted from traditional learning to distance education and online learning had faced similar challenges as those reported in the present study. Challenges such as lack of technical infrastructure and resources, poor and inaccessible internet and equipment's availability to students at home, as well as technical skills to fully engage in distance education, findings were reported by Al-Balas et al., (2020); Mansbach & Austin, (2018) and Marek& al., (2021).

Most of the participants in the current study were experiencing distance education for the first time and agreed that they were not ready for such changes. Several participants' recommendations to provide a successful distance education experience were congruent with the literature. Participants in the current study proposed to provide training for both students and teachers, to assure a qualified experience during taking courses (Farooq & al , 2020). Implementing a change management strategy will also be a solution to solve this problem, especially that most students complain about the lack of a clear change management strategy. Rumbley, (2020) explained that the sudden decisions made by institutions, who were dealing with the crisis day by day, is due to lack of a good planning strategy during the situation.

It's important to note that our study's findings were similar to most results reported by recent qualitative studies about distance education during COVID-19 pandemic. Most of it revealed the appearance of new variables such as insecurity, emergency and Fears, (M. Nabolsi et al., 2021). Those individual factors are intended to influence and moderate the process of acceptance and use of distance education during pandemic situations.

Finally, the results revealed that the context of Covid-19 requires this type of education and that even for satisfied students the implementation of distance education in Moroccan university after the pandemic of Covid-19 is not recommended until facilitating conditions are made. However, the majority of them encourage and prefer the decision of implementing traditional

education and distance education at the same time (the hybride way of study) as a substitute during these hard situations.

## 5. Conclusion

If there are any doubts about the importance of digital transformation in higher education, The Coronavirus has silenced them. In a changing world, operating digitally is the only way to continue the process of education during confinement and to assure the interactions between students and universities.

The use of ICTs in universities brings to light certain new questions related to the educational relationship. New forms of relationship and a new dialectic of power seem to be invented in the constantly evolving techno-pedagogical contexts. We can even speak of a new emerging relational culture, or a teacher culture and a student culture, both generated by the use of ICT and this remote presence.

Through the present work, we have tried to define distance learning, to highlight its advantages and disadvantages as well as the factors that allow Moroccan students to accept the use of this new teaching formula. The experience provoked by COVID 19 has brought to light a new practice that is adapted not only to specific contexts (crises, pandemics...) but to be experimented with even in the most serene situations in order to take advantage of the numerous benefits it can present for the university and the students.

This study has shown the applicability of UTAUT in explaining student acceptance of distance education. It is important for practitioners to motivate students on the benefits of this new teaching format in university studies. In addition, designers must design learning applications that are easy to use and improve student performance. The ease of use and usefulness of a learning system can add value to the existing learning management system through improved learning and increased student acceptance of distance education. The quality of service offered by e-learning systems should include user-friendliness, meeting all student needs, and up-to-date service, as this will drive student acceptance of distance learning.

In conclusion, the results indicate that students prefer to study in a hybrid mode i.e. part face-to-face and part distance learning. The results of this study can help to understand what factors need to be taken into consideration for students to accept the use of distance learning.

This qualitative study on a small sample size limits the generalizability of our findings. A possible future quantitative study of a larger sample size is highly recommended. Another important limitation is that the findings do not provide information about the potential and the intellectual abilities of interviewees students, a factor that we suppose that can affect the findings of this study.

The despites of all these limitations, this research contributes to determining new factors that can affect the process of acceptance and use of IT in higher education during the pandemic situations.

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