International Journal of Language and Literary Studies
Volume 6, Issue 1, 2024
Homepage : http://ijlls.org/index.php/ijlls

Moroccan Teachers' Acceptance and Use of Microsoft Teams During COVID-19

Ousama Saki
Ibn Zohr University, Agadir, Morocco
ousama.saki@edu.uiz.ac.ma

Hanane Darhour
Ibn Zohr University, Agadir, Morocco
h.darhour@uiz.ac.ma

Said Sibouih
Ibn Zohr University, Agadir, Morocco
saidsibouih@gmail.com

Abdelwahab Elfiaa
Ibn Zohr University, Agadir, Morocco
elfiaaabdelwahab0@gmail.com

DOI: https://doi.org/10.36892/ijlls.v6i1.1555

APA Citation: Saki , O. ., DARHOUR, H. ., Sibouih, S. ., & Elfiaa, A. (2024). Moroccan Teachers' Acceptance and Use of Microsoft Teams During COVID-19. International Journal of Language and Literary Studies, 6(1), 86–102. https://doi.org/10.36892/ijlls.v6i1.1555

Received:
05/01/2024

Accepted:
26/02/2024

Keywords:
COVID-19, distance education, Microsoft Teams, Moroccan teachers, the Unified Theory of Acceptance and Use of Technology .

Abstract

This study examines Moroccan teachers' acceptance and use of Microsoft Teams, Morocco's official educational platform for distance education. To investigate the factors that affect teachers' decision to accept and use this platform, the study employs an exploratory quantitative research design and adopts the Unified Theory of Acceptance and Use of Technology (UTAUT) as the conceptual framework. Quantitative data were collected from 160 high school teachers through an anonymous survey and were analysed statistically using SPSS Version 20. The overall results indicate that many participants never used Microsoft Teams, and a significant proportion expressed uncertainty about its utility. Generally, the participants had positive perceptions of this educational platform in terms of its user-friendliness, yet limited social influence and lack of facilitating conditions hampered its widespread use. The study emphasizes the significant role of the civic responsibility construct as a driving force for teachers' motivation to use Microsoft Teams. Based on these results, the study provides some recommendations to policymakers and education stakeholders on how to boost teacher acceptance and use of Microsoft Teams.

1. INTRODUCTION

1.1. The Context of the Study

In December 2019, a group of pneumonia cases was discovered in the city of Wuhan, China. Later, it was identified as a novel coronavirus disease and subsequently named COVID-

19. After thousands of people worldwide were infected by this disease, the World Health Organisation declared on 11 March 2020 that the outbreak could be characterised as a pandemic. In an attempt to contain the spread of the virus, many countries worldwide imposed a lockdown. All non-essential services and socio-economic activities were forced to stop. People were allowed to leave home only for necessary purposes, such as buying supplies or getting medical treatment. Educational institutions were forced to close as well, leaving hundreds of millions of students across the globe affected by this abrupt school closure.

Morocco was seriously affected by the spread of COVID-19. After recording increasing numbers of infections, the Moroccan government imposed a national lockdown and suspended education at all levels from 16 March 2020 until the beginning of the 2020-2021 academic year. In order to save the rest of the academic year and ensure lesson continuity, the Moroccan Ministry of National Education recommended distance education and informed the public of the official digital resources and online platforms.

This abrupt movement to distance education impelled Moroccan teachers to create e-resources and use social media platforms to reach out to their students, especially students at certification levels. Amidst this abundance of digital resources scattered here and there, Morocco's Ministry of National Education expanded its educational website Telmid-TICE, which covers lessons across all subjects and levels, and launched Microsoft Teams to enable synchronous learning. For students without internet access, especially in rural and underserved areas, the said ministry broadcasted their lessons on three national TV channels: Tamazight TV, Athaqafia TV, and Laayoune TV.

1.2. Statement of the Problem

The widespread of COVID-19 pandemic has revolutionized education worldwide, especially in developing countries where distance education is still in its initial stages. Like many other countries, Moroccan education was affected by this health crisis and was forced to go virtual, being the only possible alternative during lockdowns and school closures. This unavoidable circumstance forced Moroccan education officials to rapidly improve the information and communication technology infrastructure and launch Microsoft Teams as the official online platform for distance education.

However, investing in infrastructure alone does not guarantee general acceptance and widespread technology usage. Successful integration of technology into education depends largely on teachers' acceptance and interest. Previous research has proved that many factors prevent teachers from embracing technology. Given that the implementation of synchronous distance education in Morocco is still in its preliminary stages, studies on teachers' acceptance and use of this technology are scarce. Therefore, an understanding of the factors that impede a full adoption of and a smooth transition to distance education is paramount.

1.3. Conceptual Framework

Several Technology Acceptance Models (TAMs) have been designed to help understand the factors influencing user acceptance and use of information technologies. Some of the models that have been designed to predict technology acceptance and use include the Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB), Diffusion of Innovation Theory (DOI), and Social Learning Theory (SLT). This research is guided by the Unified Theory of Acceptance and Use of Technology (UTAUT), which was developed by Venkatesh et al. (2003) and described in detail in their renowned "User acceptance of information technology: Toward a unified view" (Venkatesh et al., 2003). The UTAUT model

is adopted in this research because it is a culmination of prior research in the area of technology acceptance and use and because the authors allow and encourage future researchers to identify other variables beyond what is already incorporated in their model.

The UTAUT model is based on four significant constructs. The first construct is performance expectancy, which is described as "the degree to which an individual believes that using the system will help him or her to attain gains in job performance" (Venkatesh et al., 2003, p. 447). The second construct is effort expectancy; it designates "the degree of ease associated with the use of the system" (Venkatesh et al., 2003, p. 450). The third construct is social influence, defined as "the degree to which an individual perceives that important others believe he or she should use the new system" (Venkatesh et al., 2003, p. 451). Facilitating conditions, the fourth construct, represent "the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system" (Venkatesh et al., 2003, p. 453). During COVID-19, many teachers volunteered to teach online using Microsoft Teams. This inspired us to introduce a new construct which we refer to as "civic responsibility." We believe that teachers' motivation to teach amidst the health crisis stemmed from their sense of civic responsibility towards their students, communities, and the country at large.

1.4. Research Objectives and Questions

The emergency shutdown of educational institutions in Morocco led to the massive use of distance education. To maintain the continuity of learning during school closures, some teachers offered their lessons over Microsoft Teams, while others opted for others, such as Zoom, WhatsApp, Facebook, and YouTube. Since distance education is a novel experience in the Moroccan context, this study is an attempt to account for the factors that impact Moroccan teachers' acceptance and use of Microsoft Teams. The following research questions were formulated to guide this study:

1. To what extent do the four constructs of the UTAUT model (performance expectancy, effort expectancy, social influence, and facilitating conditions) impact Moroccan high school teachers' acceptance and use of Microsoft Teams?
2. To what extent does the civic responsibility construct impact Moroccan high school teachers' acceptance and use of Microsoft Teams?

To address these research questions and attain the objectives of this study, we begin by examining distance education in official pedagogical documents and reviewing previous research on teacher acceptance of online educational platforms. We then provide an overview of the research methodology and present the quantitative results section. The discussion chapter gives an explanation and interpretation of the results. Lastly, the article concludes with recommendations for decision-makers and education stakeholders on how to enhance teacher acceptance and use of Microsoft Teams.

2. REVIEW OF THE LITERATURE

2.1. Distance Education in Official Pedagogical Documents

This section discusses distance education in key pedagogical documents, mainly *The National Charter for Education and Training* and *The Strategic Vision 2015-2030*. The former was produced by a royal committee (Special Committee on Education and Training) commissioned by the late King Hassan II, and the latter was released by the Higher Council for Education, Training and Scientific Research. These comprehensive pedagogical documents

have provided practical recommendations for promoting distance education and e-learning in Morocco.

The National Charter for Education and Training (1999), which is considered the constitution of Moroccan education, discusses the necessity of making e-learning and distance education integral parts of Moroccan education. It points out that e-learning and distance education are the best remedies for (1) the learning difficulties students face, (2) the problems of schools and students in remote and isolated areas, and (3) the scarcity and unequal distribution of resources. Despite the importance of distance education and e-learning, the Charter stresses that they cannot be a substitute for traditional classroom instruction (p. 38).

In 2015, the Higher Council for Education, Training and Scientific Research released a project of reform entitled *For a School of Equity, Quality, and Promotion: A Strategic Vision of Reform 2015-2030*. This Strategic Vision, as commonly referred to by Moroccan education stakeholders, has come up with a clear roadmap for a gradual implementation of distance education in the Moroccan education system. For instance, it recommends launching a national program to equip schools, universities, and training institutions with information and communication technologies, connect them to the Internet, and provide them with the necessary e-resources and interactive educational programmes, besides creating a solid infrastructure, the Strategic Vision calls for including ICT in pre- and in-service teacher training. Like *The National Charter for Education and Training*, *The Strategic Vision 2015-2030* reiterates that distance education can only complement traditional classroom instruction, not substitute it (pp. 58-59).

2.2. Teacher's Acceptance and Use of Online Educational Platforms

To remain faithful to the theme of this paper, this concise review of previous studies concentrates primarily on TAM-based research that evaluates the factors impacting teacher acceptance and use of distance education platforms in general and Microsoft Teams in particular. It summarises the experiences of some countries worldwide with more focus on the critical era of the COVID-19 pandemic; hence, comparisons can be made, and lessons may be drawn.

To start with, Anderson et al. (2006) conducted a quantitative study using the Unified Theory of Acceptance and Use of Technology (UTAUT) model in order to examine the factors that drive the acceptance of Tablet PCs by the faculty of a business college in a large American university. The participants included thirty-seven faculty members from all the college departments. The overall results validated the UTAUT model. However, the researchers found that performance expectancy and voluntariness were the most significant variables of acceptance of Tablet PCs by faculty. According to the researchers, this implies that the benefits of technology should be communicated to faculty regularly and in different ways. Additionally, any successful implementation of technology necessitates making participation voluntary.

In Canada, Birch et al. (2009) carried out a mixed-methods study employing the UTAUT model to explore the factors influencing preservice teachers' acceptance of information and communication technology (ICT) integration. Eighty-five participants volunteered to take part in their study. The findings revealed that effort expectancy was the only significant predictor of behavioural intention to integrate ICT. As a result, the researchers suggest that preservice teachers should be trained on how to integrate ICT in their future classrooms.

Smarkola (2017) conducted a study in the USA on 158 experienced teachers and 160 student teachers. She adopted the technology acceptance model (TAM) proposed by Davis (1989) in order to investigate computer usage and future intentions to use computer applications. The results showed no statistically significant differences between the two groups. The results also highlighted the significant impact of perceived ease of use and perceived usefulness on computer usage intention for both experienced and student teachers.

In Indonesia, Ngabiyanto et al. (2021) studied the factors that impacted teacher intention to use online learning. The authors adopted an extended technology acceptance model and recruited 100 teachers working in Al Asror Islamic Boarding School. The results revealed that perceived usefulness and teacher readiness positively and significantly impacted teacher intention to use online learning. However, prior experience and computer knowledge did not significantly influence teachers' intention to use online learning. Moreover, Natasia et al. (2022) examined teacher acceptance of NUADU (an online education platform). Their study sample included 27 elementary teachers, 13 junior high teachers, and 14 high school teachers from private schools in Balikpapan, Indonesia. The results demonstrated that most of their adopted TAM constructs had significant effects. For instance, they discovered that facilitating conditions and perceived ease of use positively affected perceived usefulness. Also, attitude positively affected behavioural intention, which, in turn, affected actual use.

In Nigeria, Olugbade and Olurinola (2021) researched teachers' perceptions of the use of Microsoft Teams for distance education in southwestern Nigerian schools. They adopted a descriptive survey research design and recruited 51 participants. The authors found that Microsoft Teams was very effective regarding teacher-student interaction, classroom organisation, and student engagement. Their study concludes that Microsoft Teams facilitates teaching and learning processes, and thus its adoption as a distance education platform is highly encouraged.

In an Arab country, Kuwait precisely, Almodaires et al. (2021), through a descriptive cross-sectional study, explored preservice teachers' perceptions of the usefulness of Microsoft Teams for distance education. Their sample included 215 female preservice teachers from an all-female college. The results demonstrate that Microsoft Teams is an effective online platform thanks to its user-friendliness, functionalities, and the possibility of teacher-student interaction.

This succinct review of the literature shows a dearth of research related to evaluating teacher acceptance of distance education platforms in the Moroccan context. This is understandable because Morocco, like many other developing countries, was unprepared for this abrupt shift to online education. Therefore, this topic is timely and marks the beginning of studies that can potentially improve the Moroccan experience of distance education. A solid digital infrastructure corroborated with comprehensive scientific knowledge will improve Moroccan distance education and speed up the attainment of the educational objectives put forth by the National Charter and the Strategic Vision 2015-2030.

3. METHOD

3.1. Research Design

Creswell and Clark (2007) describe a research design as the "procedures for collecting, analysing, interpreting and reporting data in research studies" (p. 58). Generally, a research design is about the techniques and methods researchers use to answer their research questions and achieve their overall research objectives. This study used an exploratory quantitative research design. This research design is very useful because not much is known about this topic

in Morocco. In this study, the researchers collected quantitative data through a survey and described the results statistically using SPSS, version 20.

3.2. Participants

A total of 160 high school teachers of various school subjects participated voluntarily in this study. The participants represented, with varying degrees, all the 12 regional academies of the Ministry of National Education, Preschool, and Sports. Table 1 summarizes the demographic information of the participants.

Table 1

Descriptive Characteristics of the Sample

Variable	n	%
Gender		
Male	99	61.9
Female	61	38.1
Age range		
30 and below	45	28.1
31-40	75	46.9
41-50	26	16.2
51 or over	14	8.8
Latest university degree		
Bachelor's degree	83	51.9
Master's degree	55	34.4
PhD	22	13.7
School area		
Urban	108	67.5
Semi-urban	36	22.5
Rural	16	10
Academy*		
Tanger - Tetouan – Alhouceima	3	1.9
Rabat-Salé-Kénitra	6	3.7
Fès-Meknès	22	13.8
L'oriental	3	1.9
Dakhla-Oued Ed-Dahab	2	1.3
Laâyoune-Sakia El Hamra	4	2.5
Guelmim-Oued Noun	8	5
Souss-Massa	55	34.4
Marrakech-Safi	9	5.6
Casablanca-Settat	34	21.3
Béni Mellal-Khénifra	5	3.1
Drâa Tafilalt	9	5.6

*Morocco is divided into 12 regional academies for education and training.

3.3. Instruments

In order to account for the factors that impact Moroccan teachers' acceptance and use of Microsoft Teams, we adapted the Unified Theory of Acceptance and Use of Technology (UTAUT) questionnaire, originally formulated by Venkatesh et al. (2003). Since English is the second foreign language in Morocco, we translated the questionnaire into Standard Arabic—the official language of Morocco—and modified the wording to be compatible with the nature of this educational research. We also shortened it by keeping the most relevant items so as to achieve a maximum response rate. The 'civic responsibility' construct was added because we hypothesised that this variable had significantly impacted teachers' acceptance and use of Microsoft Teams, especially during the health crisis era.

Overall, the survey included three parts. The first one collected the participants' demographic information (gender, age group, academy, university degree, and school area). The second part of the questionnaire sought to find out how often the participants taught online during school closure using Microsoft Teams. This item was measured with a 5-point Likert scale (never, rarely, sometimes, frequently, all the time). The third part included the four constructs of the UTAUT model as well as the civic responsibility construct. A 5-point Likert scale (strongly disagree, disagree, uncertain, agree, and strongly agree) was used to measure the responses to this part.

To evaluate the internal consistency of the questionnaire subscales, we conducted Cronbach's Alpha Coefficient tests using the Statistical Package for Social Sciences (SPSS), version 20. The results indicated that all the five constructs had good to excellent levels of reliability. The performance expectancy subscale consisted of 3 items ($\alpha = .869$), the effort expectancy subscale comprised 3 items ($\alpha = .837$), the social influence subscale had 3 items ($\alpha = .805$), the facilitating conditions subscale consisted of 3 items ($\alpha = .648$), and the civic obligation subscale consisted of 3 items as well ($\alpha = .942$). Finally, the internal consistency of all 15 items of the five subscales (constructs) is excellent ($\alpha = .913$).

3.4. Procedures

In order to gather data, we used Google Forms to create an online questionnaire and shared the URL with teachers via emails and teacher groups on social media. Prospective participants were also invited to share the online questionnaire with their colleagues. Data was collected in November 2020. For data analysis, descriptive statistics (frequency counts, percentages, means, modes, and standard deviations) were generated using SPSS, version 20.

4. RESULTS

4.1. Frequencies of Teaching Online Using Microsoft Teams

When asked how often they taught online using Microsoft Teams during lockdown, most teachers stated that they never (48.8%) or rarely (22.5%) used it. A small percentage of teachers stated that they sometimes (13.8%) or frequently (10.6 %) used it, while a negligible minority (4.4%) stated that they used it all the time. The low mean score of 1.99 ($SD = 1.20$) and mode of 1 indicate that this platform was largely avoided by teachers (Table 2). These results underscore the need to explore the barriers and motivations that underlie Moroccan high school teachers' decision to adopt or reject the country's official platform for online instruction.

Table 2

Frequency of Teaching Online Using Microsoft Teams

	n	%	Mean	Mode	Std. deviation
Never	78	48.8			
Rarely	36	22.5			
Sometimes	22	13.8			
Frequently	17	10.6	1.99	1	1.20
All the time	7	4.4			
Total	160	100			

4.2. Teachers' Perceptions of What Affected Acceptance and Use of Microsoft Teams

4.2.1. Performance Expectancy

Performance expectancy was the first construct of our modified model, which included three items (Table 3). The first item asked the participants how much they agreed or disagreed with the usefulness of Microsoft Teams for distance education. The results indicate that 16.9% strongly disagreed and 16.3% disagreed with this statement, while 31.9% of the participants agreed and just 3.2 strongly agreed. Almost one-third (31.9%) were not certain about the usefulness of Microsoft Teams for online instruction. The calculated mean of 2.88 (*SD* = 1.129) and mode of 3 suggest that most teachers were generally reserved regarding the usefulness of Microsoft Teams for online instruction.

The second item asked the participants how much they agreed or disagreed that Microsoft Teams could enable them to achieve the course objectives quickly. The results indicate that 44.4% disagreed with this statement, 31.3% expressed uncertainty, and 24.4% expressed agreement. The mean of 2.64 (*SD* = 1.04) and mode of 3 highlight the teachers' reservations regarding Microsoft Teams' ability to help them achieve the course objectives quickly.

The third item in this construct asked the teachers whether Microsoft Teams would enhance their professional development. The results reveal a range of opinions: 15.6% strongly disagreed, 17.5% disagreed, 21.9% were uncertain, 40% agreed, and 5% strongly agreed. While a significant proportion of the participants agreed with Microsoft Teams' capacity to enhance their professional growth, as indicated by the mode of 4, the dispersion of responses as well as the calculated mean (*M* = 3.01, *SD* = 1.05) highlight the teachers' ambivalence regarding this platform's potential to contribute to their professional growth.

Table 3: Statistical Summary of the Impact of Performance Expectancy on Teachers' Acceptance and Use of Microsoft Teams

Performance expectancy items	Strongly disagree		Disagree		Uncertain		Agree		Strongly agree		Mean	Mode	Std. deviation
	n	%	n	%	n	%	n	%	n	%			
Microsoft Teams is useful for distance education	27	16.9	26	16.3	51	31.9	51	31.9	5	3.1	2.88	3	1.12
Microsoft Teams enables me to achieve the course objectives quickly	27	16.9	44	27.5	50	31.3	38	23.8	1	0.6	2.64	3	1.04

Microsoft Teams enhances my professional development	25	15.6	28	17.5	35	21.9	64	40	8	5	3.01	4	1.18

4.2.2. Effort Expectancy

Effort expectancy was the second construct of our model, which also included three items (Table 4). The initial item asked the participants if they found Microsoft Teams easy to use. As a result, a total of 28.8% expressed disagreement, 21.9% expressed uncertainty, and 49.4% expressed agreement. The mean (*M* =3.14, *SD* = 1.12) and mode of 4 indicate that, on average, teachers leaned towards agreeing that Microsoft Teams is user-friendly.

The second item of this construct asked the participants about how much they agreed or disagreed that learning to operate Microsoft Teams did not require so much effort. The results displayed in Table 4 reveal a wide range of viewpoints: 14.4% strongly disagreed, 26.9% disagreed, 18.1% were uncertain, 38.8% agreed, and 1.9% strongly agreed. The mean (*M* =2.87, *SD* = 1.139) and mode (4) underscore the variability in the responses of teachers. While a considerable proportion of the participants agreed that Microsoft Teams did not require much effort to operate, a significant percentage of the participants strongly disagreed or had reservations about it, indicating the existence of deferring perceptions on this issue.

The third item asked the participants about their agreement and disagreement level regarding their potential to easily become skilful at using Microsoft Teams. Table 4 shows that 16.9% disagreed, 23.8% were uncertain, and 59.4% agreed. The calculated mean of 3.43 (*SD* = 1.02) coupled with the mode of 4 suggest that the participants' views leaned toward agreeing that they could be proficient at using this platform.

Table 4: Statistical Summary of the Impact of Effort Expectancy on Teachers' Acceptance and Use of Microsoft Teams

Effort expectancy items	Strongly disagree		Disagree		Uncertain		Agree		Strongly agree		Mean	Mode	Std. deviation
	n	%	n	%	n	%	n	%	n	%			
I find Microsoft Teams easy to use.	18	11.3	28	17.5	35	21.9	71	44.4	8	5	3.14	4	1.12
Learning to operate Microsoft Teams does not require so much effort.	23	14.4	43	26.9	29	18.1	62	38.8	3	1.9	2.87	4	1.13
It is easy for me to become skilful at using Microsoft Teams	12	7.5	15	9.4	38	23.8	82	51.3	13	8.1	3.43	4	1.02

4.2.3. Social Influence

The third construct, social influence, comprised three items. The first one enquired about the participants' agreement or disagreement level regarding whether the people who influenced their behaviour thought they should use Microsoft Teams. As detailed in Table 5, the results reveal that 53.2% disagreed, 26.3% were uncertain, and 20.6% agreed. The calculated mean (M = 2.52, SD = 1) and the mode of 2 suggest that many participants lacked encouragement and motivation from influential individuals.

The second item in the third construct enquired about the participants' level of agreement or disagreement regarding whether or not the people who were important to them thought that they should use Microsoft Teams. The results in Table 5 demonstrate that 48.8% disagreed, 25% were unsure, and 1.6% agreed. The mean score of 2.63 (SD= 1.044), together with the mode of 2, suggests that many participants lacked encouragement from individuals important to them.

The final item in this construct asked the participants about their degree of agreement or disagreement concerning their colleagues' support for the use of Microsoft Teams. As detailed in Table 5, the results reveal that the majority (60%) disagreed, 20% were unsure, and the minority (20%) agreed. The mean score (M = 2.38, SD = 1.045) along with the mode of 2 highlight the lack of support from the participants' colleagues regarding the use of Microsoft Teams.

Table 5: Statistical Summary of the Impact of Social Influence on Teachers' Acceptance and Use of Microsoft Teams

Social influence Items	Strongly disagree		Disagree		Uncertain		Agree		Strongly agree		Mean	Mode	Std. deviation
	n	%	n	%	n	%	n	%	n	%			
People who influence my behaviour think that I should use Microsoft Teams	26	16.3	59	36.9	42	26.3	32	20	1	0.6	2.52	2	1
People who are important to me think that I should use Microsoft Teams	24	15	54	33.8	40	25	41	25.6	1	0.6	2.63	2	1.04
My colleagues are supportive of the use of Microsoft Teams	36	22.5	60	37.5	32	20	32	20	0	0	2.38	2	1.04

4.2.4. Facilitating Conditions

The fourth construct comprised three items, all asking about the technical infrastructure and support available for the participants for effective use of Microsoft Teams. The first item asked about the availability of the basic resources (personal computer, tablet, daily access to high-speed Internet, …) needed for using Microsoft Teams. As detailed in Table 6, the results indicated a wide range of responses: 26.9% strongly disagreed, 28.8% disagreed, 5% were unsure, 32.5% agreed, and 6.3% strongly agreed. The mean score of 2.62 (SD = 1.349), along with the mode of 4, highlights the variability of responses. Although many participants admitted having the necessary resources to use Microsoft Teams, more than half (55.7%) denied this. Therefore, we can infer that many participants lacked the resources to use Microsoft Teams effectively.

The second item asked the participants how much they agreed or disagreed about having the technical knowledge necessary to use Microsoft Teams. Table 6 shows that 14.4% strongly disagreed, 16.9% disagreed, 16.3% were unsure, 43.1% agreed, and 9.4% strongly agreed. The mean score (*M*=3.16,*SD*= 1.27), coupled with the mode of 4, suggests that while a significant proportion of the participants (52.5%) expressed confidence in their technical abilities, a substantial segment (47.6%) voiced their disagreement or uncertainty. Therefore, we can infer from the data that there are varying degrees of technical knowledge among the participants.

The last item asked whether a specific person (or group) was available to help the participants in case they faced any issues with Microsoft Teams. As detailed in Table 6, the answers were varied: 25% strongly disagreed, 30.6% disagreed, 8.8% were uncertain, 31.9% agreed, and 3.8% strongly agreed. The mean score of 2.59 (*SD*= 1.27), along with the mode of 4, accentuates the variability of the participants' responses. However, the fact that 55.6% of participants expressed disagreement emphasizes the lack of technical support for using Microsoft Teams.

Table 6: Statistical Summary of the Impact of Facilitating Conditions on Teachers' Acceptance and Use of Microsoft Teams

Facilitating conditions Items	Strongly disagree		Disagree		Uncertain		Agree		Strongly agree		Mean	Mode	Std. Deviation
	n	%	n	%	n	%	n	%	n	%			
I have all the resources (personal computer or tablet, daily access to high-speed Internet, …) necessary to use Microsoft Teams.	43	26.9	46	28.8	8	5	52	32.5	10	6.3	2.62	4	1.34
I have the technical knowledge necessary to use Microsoft Teams	23	14.4	27	16.9	26	16.3	69	43.1	15	9.4	3.16	4	1.27
A specific person (or group) is available to help me if I encounter any difficulties with Microsoft Teams.	40	25	49	30.6	14	8.8	51	31.9	6	3.8	2.59	4	1.27

4.2.5. Civic Responsibility

The last construct examined for this study was civic responsibility. This construct consisted of three items as well. The first asked the participants whether they agreed or disagreed that teaching online during lockdown was a social and moral responsibility. Table 7 shows that 13.1% strongly disagreed, 21.9% disagreed, 11.3% were uncertain, 42.5% agreed, and 11.3% strongly agreed. These results, together with the mean (*M* = 3.17, *SD* = 1.26) and mode (4), demonstrate that while there is variety in terms of the responses of the participants, slightly over half (53.8%) believed that teaching online using Microsoft Teams was a social and moral responsibility.

The second item asked the participants to indicate their agreement or disagreement level regarding whether teaching online during lockdown constituted a sort of service to the community. Table 7 below shows that 13.8% strongly disagreed, 16.9% disagreed, 15.6% were uncertain, 42.5% agreed, and 11.3% strongly agreed. These results, along with the mean (M = 3.21, SD = 1.24) and mode (4), demonstrate a range of opinions. Still, the participants who expressed agreement and strong agreement represent the majority (53.8%).

The third item asked the participants to indicate their level of agreement or disagreement about whether teaching online during lockdown was a sort of civic engagement. Table 7 shows a spectrum of answers: 13.8% strongly disagreed, 14.4% disagreed, 12.5% expressed uncertainty, 50.6% agreed, and 8.8% strongly agreed. These results, coupled with the mean (M = 3.26, SD = 1.49) and mode (4), confirm the wide range of viewpoints; however, the total percentage of the participants who expressed agreement and strong agreement (59.4%) underscores the prevailing tendency towards agreement.

Table 7: Statistical Summary of the Impact of Civic Responsibility on Teachers' Acceptance and Use of Microsoft Teams

Civic engagement items	Strongly disagree		Disagree		Uncertain		Agree		Strongly agree		Mean	Mode	Std. deviation
	n	%	n	%	n	%	n	%	n	%			
Teaching online during lockdown was a social and moral responsibility	21	13.1	35	21.9	18	11.3	68	42.5	18	11.3	3.17	4	1.26
Teaching online during lockdown was a sort of service to the community	22	13.8	27	16.9	25	15.6	68	42.5	18	11.3	3.21	4	1.24
Teaching online during lockdown was a sort of civic engagement	22	13.8	23	14.4	20	12.5	81	50.6	14	8.8	3.26	4	1.49

4.2.6. Summary of Results

This study aimed to analyse the factors influencing Moroccan high school teachers' acceptance and use of Microsoft Teams during the COVID-19 lockdown. To start with, the results showed that Moroccan teachers rarely used this official platform of distance education during lockdown (M = 1.99, SD = 1.20, Mode = 1). A modified version of the Unified Theory of Acceptance and Use of Technology (UTAUT) was used to account for the factors that influenced teachers' acceptance and use of this platform.

Table 8 below provides a statistical summary of the constructs that affected teachers' adoption of Microsoft Teams. Regarding the first construct, performance expectancy, the participants, on average, were uncertain about the utility of this platform (M = 2.84, SD = 0.99, $Mode$ = 3). As to the second construct, effort expectancy, most participants agreed ($Mode$= 4) on the three items of this construct; however, the variety in terms of the responses and the total

mean score (*M* = 3.14, *SD* = 0.95) reveal that the participants' perceptions on this issue differed considerably. Concerning the third construct, social influence, a significant proportion of the participants agreed that they lacked social influence (*M* = 2.50, *SD* = 0.87, *Mode* = 2). As to facilitating conditions, the fourth construct, although most teachers believed they had the technical knowledge and support (*Mode* = 4), the total mean score (*M* = 2.79, *SD* = 0.98) reveals a certain degree of uncertainty and variety in the participants' responses. The civic responsibility construct received the highest total mean score. The mode of 4 indicates that most teachers agreed that teaching online using Microsoft Teams was a civic responsibility during the COVID-19 lockdown. The total mean score (*M* = 3.21, *SD* = 1.17), however, reveals a certain degree of variability in the participants' responses.

Table 8: Statistical Summary of the Impact the Five Constructs on Teachers' Acceptance and Use of Microsoft Teams

Constructs	Mean	Mode	Std. deviation
Performance Expectancy	2.84	3	0.99
Effort Expectancy	3.14	4	0.95
Social Influence	2.50	2	0.87
Facilitating Conditions	2.79	4	0.98
Civic Responsibility	3.21	4	1.17

5. DISCUSSION

This study adapted the Unified Theory of Acceptance and Use of Technology (UTAUT) as a conceptual framework to investigate the factors that affected Moroccan teachers' acceptance and use of Microsoft Teams during the COVID-19 health crisis. Regarding the first construct of the UTAUT framework, performance expectancy, the participants were asked how much they agreed or disagreed that Microsoft Teams was useful, would enable them to achieve the course objectives quickly, and would enhance their professional development. The overall results (M = 2.84, SD = 0.99, Mode = 3) indicate that the participants, on average, were not sure about the utility of this online platform. It appears that teachers were reluctant to use Microsoft Teams due to their uncertainty about its usefulness.

Previous studies based on technology acceptance models have shared similar views. For instance, a study by Smarkola (2017) highlighted that perceived usefulness was a key factor affecting computer usage intention for both experienced and student teachers. Another study by Ngabiyanto et al. (2021) revealed that perceived usefulness significantly impacted teachers' intention to use online learning. These studies demonstrate that perceived usefulness of online teaching programs affected teacher acceptance, use, and intention to use online educational platforms in the future.

In the Moroccan context, our study revealed that 48.8% of teachers never used Microsoft Teams to teach online. Teachers' avoidance of this platform could be attributed partly to the unexpected nature of the global health crisis and Moroccan teachers' lack of awareness about the platform's utility. Therefore, a successful integration of Microsoft Teams anytime in the future necessitates raising teachers' awareness about the usefulness of Microsoft Teams.

Regarding the second construct, effort expectancy, the participants were asked if they found Microsoft Teams easy to use, if it did not require so much effort, and if they could easily become skilful at using it. Although most teachers (Mode = 4) expressed favourable views about this construct, the overall mean score (M = 3.14, SD = 0.95) suggests that teachers'

opinions on this issue differed substantially. Moreover, despite the fact that most participants agreed on the user-friendliness of Microsoft Teams, almost half of them (48.8%) never actually used it for teaching online. These results suggest that effort expectancy could play an important role in increasing the usage of Microsoft Teams. Therefore, Moroccan teachers need to be shown how they can become skilful at using Microsoft Teams and how they can use it efficiently. Similarly, Birch et al. (2009) contend that effort expectancy was a vital factor in preservice teachers' acceptance of ICT integration, and they recommend that preservice teachers be trained on how they can integrate ICT easily and effectively.

The social influence construct asked the teachers about their agreement or disagreement levels regarding whether the people who influenced their behaviour thought that they should use Microsoft Teams, whether or not the people who were important to them thought that they should use it, and whether or not their colleagues were supportive of its use. The results indicated that most participants disagreed about having social influence (Mode = 2). This is understandable because using Microsoft Teams was not mandatory. Moreover, Morocco's Ministry of National Education offered students other alternative platforms for online learning, mainly Telmid-TICE and the three national TV channels: Tamazight TV, Athaqafia TV, and Laayoune TV. Equally, the study conducted by Anderson et al. (2006) reveals that social influence was not a statistically significant factor that drove the acceptance of Tablet PCs by a US business college faculty. The researchers attributed this to the fact that using Tablet PCs was not mandatory. Hence, it can be inferred that making Microsoft Teams or any other online platform obligatory for teachers will undoubtedly boost its use.

The fourth construct, facilitating conditions, asked the participants about their access to basic resources required for using Microsoft Teams, their confidence in having the technical knowledge necessary to use it, and whether there was a specific person or group to turn to for help in case of technical issues. The overall results indicate a certain degree of uncertainty and variability in the participants' responses (M = 2.79, SD = 0.98). This is understandable because not all teachers have the resources and training to use Microsoft Teams. Moreover, the Ministry of National Education did not provide teachers with experts who would help them solve any technical problems they might face. Therefore, it is normal for responses to be characterized by variability and uncertainty, especially that Venkatesh et al. (2003) hypothesised that facilitating conditions would not have a significant impact on behavioural intention to use technology. Likewise, Birch et al. (2009) confirmed in their study that facilitating conditions were not a statistically significant factor influencing preservice teachers' acceptance of information and communication technology (ICT) integration. Still, successful integration of technology in the Moroccan context in particular necessitates ensuring that teachers as well as students have access to facilitating conditions.

The last construct, civic responsibility, asked the participants if teaching online using Microsoft Teams during the COVID-19 crisis was a social and moral responsibility, a sort of service to the community, and a form of civic engagement. This construct that we added to the modal received the highest agreement level from the participants, with the majority agreeing (*Mode* = 4) that teaching online using Microsoft Teams during the COVID-19 crisis was a civic responsibility. However, the total mean score (*M* = 3.21, *SD* = 1.17) reveals a certain degree of variability in the participants' responses.

Generally, the overall results indicate that Moroccan teachers' use of Microsoft Teams stemmed primarily from their conviction that it was a civic responsibility. However, potential hindrances such as limited facilitating conditions, insufficient social influence, and low student involvement may have led teachers to abandon it. Therefore, it is important to note that civic responsibility alone does not guarantee continuous use of Microsoft Teams in the future.

Teachers need to understand its usefulness, receive proper training on how to use it, and have access to facilitating conditions.

6. Limitations and Future Directions

This study has some limitations. Firstly, a nonprobability sampling technique was used to collect data from the participants. While this technique was convenient and suitable for the research objectives, it restricted the representativeness of the sample and the generalisability of the results. To overcome this limitation, future researchers should consider using probability sampling techniques.

Secondly, this study relied on quantitative data obtained from high school teachers via an online survey. Surveys are effective for collecting large amounts of data but cannot capture the depths of the participants' personal experiences. Consequently, a mixed-methods approach combining both quantitative and qualitative data would give a deeper understanding.

Thirdly, the study collected data from 160 high school teachers. This sample may not do justice to the entire teacher population in Morocco. It is also important to note that primary and middle school teachers were excluded from this study. The results, therefore, do not provide a comprehensive understanding of the factors that impact Moroccan teachers' acceptance and use of Microsoft Teams across all Moroccan educational levels, for the challenges and difficulties faced by teachers may differ across levels. Future research should consider increasing the sample size and recruiting teachers from all levels.

By addressing these limitations, future researchers can expand our knowledge and enrich our understanding of the factors that impact Moroccan teachers' acceptance and use of Microsoft Teams.

7. CONCLUSION AND RECOMMENDATIONS

In conclusion, this study applied a modified version of the UTAUT model by Venkatesh et al. (2003) to investigate the factors that impacted Moroccan teachers' acceptance and use of Microsoft Teams during the COVID-19 crisis. The findings reveal that many participants never used it, while a substantial proportion exhibited uncertainty about its usefulness. Generally, the participants had favourable perceptions about the user-friendliness of Microsoft Teams, but limited social influence and lack of facilitating conditions hindered its widespread use. The study emphasizes the significant role of the civic responsibility construct as a driving force for teachers' use of Microsoft Teams. Based on the results of this study, some recommendations are made to policymakers and education stakeholders on how to boost teacher acceptance and use of Microsoft Teams.

First, it is crucial to provide teachers with adequate preservice and in-service professional development. Teachers play an essential role in distance education. Therefore, education authorities should consider teacher training programmes that arm teachers with the required skills and pedagogical tools for the effective use of Microsoft Teams. These training programmes can comprise mentoring, workshops, and study days.

Second, it is imperative to create multimedia rooms in every school, well-equipped with all the necessary equipment, tools, and resources. These rooms should be designed to help teachers conduct online classes using Microsoft Teams during their normal working hours.

Third, the Moroccan Ministry of National Education should consider incorporating hybrid learning (online and in-person) into the regular curriculum. This approach will familiarise students and teachers with the skills and tools needed for online learning and will prepare them for any unexpected disruptions in the future. It is also hoped that hybrid

instruction will enrich the overall educational experience and address some learning difficulties students suffer from, especially in underserved areas.

Fourth, in order to bridge the digital divide and ensure an equitable Moroccan education system, it is essential to establish government-sponsored grants aimed at families from low socio-economic backgrounds. These grants should enable families to have access to high-speed Internet and assist them in purchasing electronic devices for their children. Implementing these government-sponsored grants will lessen the financial burden on families and ensure that all students have the tools to participate in online learning.

Fifth, implementing online education requires a thorough reconsideration of traditional assessment methods. Therefore, educators should consider adopting assessment criteria that align with the nature of online learning and the evolving educational landscape.

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AUTHORS' BIOS

Ousama SAKI *is a high school English teacher. He holds a Master's in Comparative Studies from Ibn Zohr University, Morocco, and is currently pursuing his Ph.D. at the same institution. He has participated in various national and international conferences. His research interests include citizenship education, life skills education, and teaching English as a foreign language.*

Hanane DARHOUR *is professor of English, Gender and Politics at the Faculty of Languages, Arts and Human Sciences in Ait Melloul. She is a member of CLAS Lab in Ait Melloul. She published on women's political empowerment via reserved seats, gender-based violence and gender and migration. Among her publications, a book she co-edited with Drude Dahlerup in 2020 entitled 'Double-Edged Politics on Women's Rights in the MENA Region' published by Palgrave. She is currently involved in a Horizon Europe project on Irregular Migrant work.*

Said SIBOUIH *is a high school teacher of English. He has a Master's in Applied Linguistics and Language Studies from Ibn Zohr University, Morocco. Currently, he is pursuing his Ph.D. in the field of educational assessment and testing. He has participated in various national and international conferences. His research interests include applied linguistics, theoretical linguistics, education, and teaching English as a foreign language.*

Abdelwahab ELFIAA *is a teacher supervisor at the Moroccan Ministry of National Education. He has a Master's degree in Administration, Democracy, and Human Rights. Currently, he is pursuing his Ph.D. in Philosophy at Ibn Zohr University. He has participated in a number of national and international conferences. His research interests include philosophy, global justice, and educational technology.*