



Determinants of the Intention to Adopt the Social Network Whatsapp in a Professional Situation: An Empirical Study in Cameroon

Ndome Jeanne EI*

Psychologist of Education, The University of Bertoua, Cameroon

Abstract

The coronavirus pandemic has further democratized the use of social media. Faced with health restrictions and physical distancing, workers have seen their working methods completely transformed. The objective of this work was to identify the predictors of the intention to adopt the social network Whatsapp by Cameroonian workers in a professional situation. A questionnaire based on the Unified Theory of Acceptance and Use of Technology was administered online to a sample of 358 subjects. The data collected were analyzed on SPSS 20.0. The multiple regression test was applied. The significance threshold was set at $p < 0.05$. The results show that 42% of the variance in the intention to adopt the social network Whatsapp by Cameroonian workers in a professional situation was explained by the feeling of perceived effectiveness, ease of use, influence of colleagues and perceived usefulness ($R^2 = 0,42$; $F(3, 354) = 86,26$; $p = 0,000$). In short, the establishment of a digital work platform in Cameroonian administrations must take into account the variables found significant in this work.

Keywords: Social Network, WhatsApp, UTAUT, Intention to Adopt

Introduction

Nowadays, the Internet has found its way into most homes. Its many applications make it the world's leading media.¹ A practical tool, it has become essential to our daily lives. The development of the Internet has generated new ways of communicating, learning, working and having fun. The evolution of the Internet with the advent of "Web 2.0" has radically challenged the foundations of work. Since the early 2010s, more and more organizations have joined digital social networks.² These platforms are indeed seen as new ways of breaking down barriers between exchanges, of bringing more transversality to them, of driving new forms of collaboration, of improving the flow of information and the sharing of skills.³ A digital social network can be defined through three dimensions:⁴ free access, decentralized coordination of interactions and productions accessible to all participants.

The advent of the coronavirus pandemic has further democratized the use of social media. Faced with health restrictions and physical distancing, workers have seen their lifestyles and work completely turned upside down.⁵ The use of

the web and social media in particular in a work logic surpassed their simple social or even structural purpose such as ensuring contact between employees or providing business continuity. Social networks have many advantages and possibilities ranging from the dematerialization of processes, to the immediacy of communication and the reduction of geographical distances.⁶

It should be noted that several social networks exist, as well as digital platforms in administrations, which provide several advantages mentioned above. But it is clear that the social network WhatsApp is the most used to the detriment of other social networks and digital platforms in Cameroonian administrations.

This research is based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model. It combines factors that can predict individuals' intentions to adopt and use technologies in various environments.⁷ The model stems from the evolution of the TAM (Technology Acceptance Model), with the consideration of new factors.⁸ The use of the UTAUT theoretical model allows us to determine the predictors of workers' intentions to accept and use the WhatsApp social network for their work in the context

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***Corresponding author:** Epoto Ibon Ndome Jeanne, PhD, Psychologist of Education, The University of Bertoua, Cameroon

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of teleworking. The founding concepts of the UTAUT model are: performance expectation, effort expectation, social influence, facilitating conditions, intention to use and expectation of use.⁹ In the context of this study, the expectation of performance relates to the belief that workers would have, that using the social network would allow them to achieve better results at work. The expectation of effort relates to the perception that workers have of the ease of use of the social network in their professional activities. Social influence relates to the perception that workers have of the opinion of the people who matter to them on whether or not they should use the social network in their professional activities. The facilitating conditions relate to the impression that workers would have of the existence of an organizational and technical infrastructure intended to provide them with assistance in using the social network for work purposes. The intention to use and the expectation of using the social network for work relate to the desire and projections to use the social network for work in the short or medium term.

The UTAUT theory has been used in several research environments. For example, in the academic environment, it predicts and explains the use of the Blackboard e-education platform by students,¹⁰ the use by researchers of an open access electronic document platform¹¹ or the use by students of specific websites.¹² At the professional level, the UTAUT model has been used to measure the adoption of digital social networks in non-profit organizations¹³ and the importance of social influence in German companies.¹⁴ Finally, this model was also enriched with new constructs to respond to specific contexts such as the use of instant messaging by students¹⁵ or the use of e-learning in Taiwan.¹⁶

The objective of this study is to identify the predictors of the intention to adopt the WhatsApp social network by Cameroonian workers in a professional situation. This work will make it possible to adapt digital platforms and social networks to the internal realities of each Cameroonian administration.

Methodology

Three hundred and fifty-eight (358) workers agreed to participate in this study. A descriptive and correlational cross-sectional study was conducted online from February 7 to March 17, 2022, using the snowball sampling technique in the social networks Facebook, WhatsApp and Telegram. An anonymous questionnaire based on the unified theory of acceptance and use of technology Venkatesh⁹ was set up on "Google Forms". This questionnaire consisted of eight parts:

- The first part related to the identification of respondents (age, gender, sector of activity, marital status, religion)
- The second part assessed the perceived usefulness of WhatsApp using four items (e.g.: Using WhatsApp helps me accomplish my tasks in a better way), with an internal consistency $\alpha=0.72$

- The third part assessed the ease of use of WhatsApp using four items (e.g.: "It will be easy for me to learn how to use WhatsApp in my professional practices.") with an internal consistency $\alpha=0.51$
- The fourth part assessed social influence consisting of two sub-variables (e.g.: "The majority of my colleagues are present and active on WhatsApp"; "My superior is convinced of the advantages of WhatsApp.") with an internal consistency $\alpha=0.86$
- The fifth part assessed technical assistance when using WhatsApp using three items (example: "My workplace has an IT department with community managers ready to help me if I need help with WhatsApp") with an internal consistency of $\alpha=0.78$
- The sixth part measured the task-technology fit of WhatsApp using three items (example: "using WhatsApp is suitable for my work") with an internal consistency of $\alpha=0.91$
- The seventh part measured the perceived effectiveness of WhatsApp using three items (example: "using WhatsApp will help me improve my productivity"), with an internal consistency of $\alpha=0.90$
- And finally, the eighth part assessed the intention to adopt WhatsApp through four items (example: I intend to use WhatsApp for the next six months), with an internal consistency $\alpha = 0.70$

To measure our variables, we chose the five (5) point Likert scale ranging from one (1) to five (5). The interviewee will have to respond by choosing a score between (1) and (5). The scale is then presented as follows: (1) "Do not agree at all", (2) "Do not agree", (3) "Indifferent (no opinion)", (4) "Agree", (5) "Do not agree".

The data were verified, then recorded and processed using Excel 2016 software and the statistical analysis was carried out using SPSS 20.0 software. The descriptive results were presented as a percentage or as a mean \pm standard deviation. The multiple regression test was used to see the UTAUT variables that predict the intention of adopting the WhatsApp social network by Cameroonian workers in a professional situation. The results were considered significant for a p value <0.05 .

Results

It emerges from the analysis of the results related to identification that, among the 358 workers surveyed, 93.9% were male. Concerning the sector of activity, we note that 37.2% of the respondents worked in the public sector, while 62.8% in the private sector. Also, the results show that 33.5% were married against 66.5% single. Among the participants, 84.9% were Christians, 8.4% were Muslims and 6.7% were other unidentified religions. The age of the participants was between 18 and 60 years (37.5 ± 1.31 years) Table 1.

Table 1: Descriptive table of sociodemographic data

Modalities	Staff	Frequencies (%)
Sex		
Male	336	93,9
Female	22	6,1
Sector of Activity		
Public	133	37,2
Private	225	62,8
Marital Status		
Married	120	33,5
Single	238	66,5
Religion		
Christian	304	84,9
Muslim	30	8,4
Others	24	6,7

The results of the descriptive analyses for the variables perceived usefulness, ease of use, social influence, technical assistance, task-technology fit, perceived effectiveness and adoption intention are presented in Table 2. The overall mean for the four items of the perceived usefulness variable is 4.22 ± 0.83 (min = 2; max = 5), which is above the theoretical mean of the scale which is 2.5; In fact, the respondents find the WhatsApp social network useful in the context of work. The observation of this same table shows that the respondents of this study in their great majority find the WhatsApp social network easy to use and the overall mean for the

four items of the ease-of-use variable is 3.71 ± 0.71 (min = 2; max = 5). The overall means for the sub-variables of social influence are respectively 4.08 ± 0.94 (min = 1; max = 5) for the influence of colleagues and 4.01 ± 1.03 (min = 1; max = 5) for the influence of the hierarchical superior, in other words the workers interviewed use the social network in the context of work, because they are influenced on the one hand by colleagues and on the other hand by hierarchical superiors. The overall mean for technical assistance is 3.37 ± 0.93 (min = 1; max = 5). This value is above the theoretical mean indicating that the respondents in the context of work find technical assistance when using WhatsApp. The overall mean of the task-technology fit is 3.37 ± 0.93 (min = 1; max = 5), this is above the theoretical mean of the scale which is 2.5. Here, the workers interviewed find WhatsApp compatible with the tasks to be performed. The overall average for the perceived efficiency variable is 3.69 ± 1.18 (min = 1; max = 5), the respondents find that WhatsApp is effective for carrying out the work. Finally, the overall average for the four items of the adoption intention variable is 3.40 ± 0.75 (min = 2; max = 5) and is above the theoretical average which is 2.5. Thus, the intention of the respondents towards the use of the WhatsApp social network in the context of work is positive.

A regression analysis was conducted using the step-by-step method to identify the predictors of the intention to adopt the WhatsApp social network by Cameroonian workers in a professional situation Table 3.

Table 2: Descriptive table of independent and dependent variables of the study

Variables de l'étude		Number of items	Mean	E-T	Min	Max
Perceived Usefulness		4	4,22	0,83	2	5
Ease of Use		4	3,71	0,71	2	5
Social Influence	Colleagues' Influence	2	4,08	0,94	2	5
	Influence of Hierarchal Superiors	3	4,01	1,03	1	5
Technical Assistance		3	3,37	0,93	1	5
Task-Technology Adequation		3	3,44	1,22	1	5
Perceived Efficiency		3	3,69	1,18	1	5
Adoption Intention		4	3,40	0,75	2	5

Table 3: Multiple regression table

Independent Variables	R ²	β	Signification de p
Feeling of Perceived Efficiency	0,42	0,46	0,000
Ease of Use		0,17	0,000
Influence of Colleagues		0,12	0,011
Perceived Usefulness		0,11	0,05
Influence of Hierarchy		0,07	0,16
Technical Assistance		0,04	0,33
Task-Technology Adequation		0,01	0,89

Dependent variable: Adoption intention

Table 3 shows that 42% of the variance in the intention to adopt the WhatsApp social network by Cameroonian workers in a professional situation is explained by the feeling of perceived effectiveness, the ease of use and the influence of colleagues with $R^2 = 0.42$, which is significantly different from 0, $F(3, 354) = 86.26$, $p = 0.000$. Thus, we find that the feeling of perceived effectiveness significantly and positively predicts the intention to adopt the WhatsApp social network by workers in a professional situation ($\beta = 0.46$, $p = 0.000$), followed by the ease of use which is also a significant and positive predictor of the intention to adopt the WhatsApp social network by Cameroonian workers in a professional situation ($\beta = 0.17$, $p = 0.000$). Finally, the influence of colleagues ($\beta = 0.12$, $p = 0.01$) and perceived usefulness ($\beta = 0.11$, $p = 0.05$) also significantly and positively predict the intention to adopt the WhatsApp social network by Cameroonian workers in a professional situation with respectively. The other variables in this study are not significant predictors of the intention to adopt the WhatsApp social network by Cameroonian workers in a professional situation. In particular, the influence of the superior ($\beta = 0.07$, $p = 0.16$); technical assistance ($\beta = 0.04$, $p = 0.33$) and task-technology fit ($\beta = 0.01$, $p = 0.89$).

Discussion

Overall, it emerges from this study that all the variables of the UTAUT theory used are not predictors of the intention to adopt the WhatsApp social network by Cameroonian workers in a professional situation. Except for the variables perceived feeling of effectiveness, ease of use, influence of colleagues and perceived usefulness.

First, the feeling of perceived effectiveness or also called "expected performance" is considered a very significant determinant in explaining the intention to adopt a technology.¹⁷ In this work, this variable predicts the intention to adopt the WhatsApp social network by Cameroonian workers in a professional situation. Furthermore, like our study, several other studies have confirmed that the feeling of perceived effectiveness (expected performance) has a positive influence on the intention to adopt new technologies.¹⁸⁻²⁰

Second, our results show that the variable ease of use, which is defined as the degree of ease associated with the use of a system according to Venkatesh,⁹ is a significant predictor of the intention to adopt the WhatsApp social network by Cameroonian workers in a professional situation. This result is consistent with other studies that have used UTAUT as a theoretical framework. This variable, which is one of the fundamentals of UTAUT, has been verified by several studies^{9,21} as directly influencing the intention to adopt information and communication technologies (ICT).

Third, the analysis shows that the influence of colleagues, which

is a sub-variable of social influence, is a significant predictor of the intention to adopt the WhatsApp social network by Cameroonian workers in a professional situation. This result is consistent with several theoretical models of technology adoption: TAM,²² TAM2, the technology diffusion model²³ and UTAUT,⁹ as a determinant directly influencing the intention to adopt a technology. But it should also be noted that the sub-variable influence of the superior in this study is not a predictor of our dependent variable. This situation could be explained by the fact that the majority of hierarchical superiors in Cameroonian administrations are people of a certain generation and are very little in social networks.

Fourthly, we found after analyzing the results that perceived usefulness significantly predicts the intention to adopt the WhatsApp social network by Cameroonian workers in a professional situation. This variable "perceived usefulness", which is one of the fundamentals of UTAUT⁹ has already been confirmed by several previous works.^{8,9,21,22} Perceived usefulness, which is defined as "the degree to which an individual believes that using a system will help him or her achieve performance gains at work"⁹ has also been demonstrated by several works as being a very significant determinant in explaining the intention to adopt a technology.^{19,20,24}

Fifth, our results show that the technical assistance variable does not predict the intention of adopting the social network WhatsApp by Cameroonian workers in a professional situation. Although technical assistance constitutes a very important facilitation for the adoption of new technologies,²⁰ this result is contradictory to several previous works.^{8,9,21,22} This result would be due to the fact that technical assistance in the context of this work was more formal, but in sub-Saharan Africa in general and in Cameroon in particular technical assistance to social networks like WhatsApp is much more informal.

Finally, sixthly, the task-technology fit variable did not prove to be a predictor of the intention of adopting the social network WhatsApp by Cameroonian workers in a professional situation. This result is contrary to some previous studies that have shown the influence of task-technology fit on adoption intention.^{9,19} This result may be due to the fact that the WhatsApp social network does not offer all the features compatible with work tasks and also most of the UTAUT applications have been conducted in Anglo-Saxon countries.

Conclusion

In short, the objective of this study was to identify the predictors of the intention to adopt the WhatsApp social network by Cameroonian workers in a professional situation. Thus, the significant predictors for this work are: the feeling of perceived effectiveness, ease of use, the influence of colleagues and perceived usefulness. From an empirical point of view, the results of this study can serve as a basis for relevant information for the design of digital work platforms and social networks in Cameroonian

public and private administrations. Despite these results, it is worth highlighting some limitations, which could be taken into account in future surveys. Thus, it seems important to us to take into account the moderating variables that are: gender, age, experience of using the social network. Also, the analysis of simple linear regressions will be desirable before multiple linear regressions.

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Conflicts of Interest

Regarding the publication of this article, the author declares that he has no conflicts of interest.

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