



ESL University Students' Attitudes towards using Whatsapp in Academic Writing

By Joel M. Magogwe & Olumide Jaiyeoba

Abstract- This study examined the relationship between behavioural intention and the Technology Acceptance Model (TAM) variables: Perceived usefulness, ease of use and attitudes towards WhatsApp tool in teaching and learning academic writing skills in Botswana. This study accurately hypothesized a positive and significant relationship between behavioural intention to use WhatsApp in academic writing and dimensions of usefulness, and extent of use of WhatsApp. However, there was no significant relationship between ease of use and behavioural intention (0.436); and perceived web based privacy (0.878). 120 questionnaires were distributed with a response rate of 85%. 70 questionnaires were administered at the University of Botswana and 50 at Botho University also in Botswana. The questionnaire consisted of a 5-Point Likert Scale. The data were subjected to validity and reliability in order to explicate the psychometric competence of the scale items in the Botswana context. Correlation and regression analysis established the association and relationship of the hypothesized sub-constructs in this study. Simple random probability sampling technique was adopted in this empirical study. Scale items were adapted from Davis's (1989) TAM model.

Keywords: whatsapp efficacy, perceived usefulness, perceived ease of use, attitude and behavioural intentions and Botswana.

GJCST-G Classification: F.2.2



ESL UNIVERSITY STUDENTS ATTITUDE TOWARDS USING WHATSAPP IN ACADEMIC WRITING

Strictly as per the compliance and regulations of:



RESEARCH | DIVERSITY | ETHICS

ESL University Students' Attitudes towards using Whatsapp in Academic Writing

Joel M. Magogwe^a & Olumide Jaiyeoba^a

Abstract- This study examined the relationship between behavioural intention and the Technology Acceptance Model (TAM) variables: Perceived usefulness, ease of use and attitudes towards WhatsApp tool in teaching and learning academic writing skills in Botswana. This study accurately hypothesized a positive and significant relationship between behavioural intention to use WhatsApp in academic writing and dimensions of usefulness, and extent of use of WhatsApp. However, there was no significant relationship between ease of use and behavioural intention (0.436); and perceived web based privacy (0.878). 120 questionnaires were distributed with a response rate of 85%. 70 questionnaires were administered at the University of Botswana and 50 at Botho University also in Botswana. The questionnaire consisted of a 5-Point Likert Scale. The data were subjected to validity and reliability in order to explicate the psychometric competence of the scale items in the Botswana context. Correlation and regression analysis established the association and relationship of the hypothesized sub-constructs in this study. Simple random probability sampling technique was adopted in this empirical study. Scale items were adapted from Davis's (1989) TAM model. The findings thus provide a strategic platform for understanding learners in Synchronous and Asynchronous discussion in Digital Learning mode of the 21st Century.

Keywords: whatsapp efficacy, perceived usefulness, perceived ease of use, attitude and behavioural intentions and Botswana.

I. INTRODUCTION

Worldwide usage of the Internet is playing a crucial role in social networking, planning and decision making. For instance, the WhatsApp application in the Internet has been on the market since 2010 and has been used to send text messages, attach images, audio and visual files and web addresses. According to Bouhnik and Deshen (2014: 1), "Over the last two years, the application has become very popular, gaining over 350 million Materials published as part of this publication, either on-line or in print . . . ". WhatsApp enables communication with anyone who possesses a Smartphone, has an active internet connection, and has installed the application. Educationists have found it necessary to employ WhatsApp in learning and teaching. Research shows that students can follow their activities off campus using WhatsApp, SMS, Facebook, Twitter, LinkedIn and Blogs (Dashti & Aldashti, 2015; Evans, 2014). The WhatsApp application in particular

can be ideal for students because its cost is low and that enables students and teachers to communicate, chat, share ideas and send audio and video messages as frequently as they wish and at any time of the day.

Despite communication and networking opportunities provided by the WhatsApp tool, sometimes students do not find cell phones effective in learning although they enjoy using them (Anastasia, 2013). Some of the students do not have a Smartphone for reasons known to them. We therefore found it necessary to understand and track Botswana university students' online use, perceptions and behaviours in terms of the efficacy of WhatsApp technology in improving academic writing. This study is justified because, according to Dashti & Aldashti (2015:15), there is a "growing complaint about the negligence of utilising social media technology by language teachers". They further point out that college students' needs regarding the use of mobile teaching aids have hardly been sought from the students' point of view.

Furthermore, there is acute paucity of studies investigating nomological web between perceived ease of use, perceived usefulness, perceived web based privacy, extent of WhatsApp use, attitude and behavioural intentions among University students in Botswana. To understand the relationship between these constructs and academic writing skills, The Technological Acceptance Model (TAM) was used. According Venkatesh and Davis (1996), the TAM is widely used by researchers and practitioners to understand and explain users' acceptance of information technologies based on the function of behavioural intention metrics. Lee et al (2012) thus posit that the TAM is the most influential model of explicating adoption behavior of information technology and information system. Based on the aforementioned, this study resonates with knowledge based drive of Botswana's economy as it seeks to diversify from mineral led economy and empower Batswana youth that constitute over 60% of the Botswana Population. Furthermore, this study sought to contribute to extant literature by providing insights regarding the adoption or efficacy of WhatsApp technology in improving academic writing skills of University students in Botswana. Iyanda and Ojo (2008) further noted that the Botswana government has recognized the critical role of information technology as an enabler in the quest to realize its socio-economic objectives and translate its

Author a: e-mail: magogwej@mopipi.ub.bw



vision into reality. Iyanda and Ojo (2008) further contended that the growth of ICT usage occurred in spite of technical difficulties such as lack of skilled workers and inadequate physical structure. This study thus sought to unravel the extent of efficacy of WhatsApp technology in improving academic writing skills among Batswana students. This study is expected to provide an impetus as to the extent to which students are empowered for educational advancement. Consequently, the objectives of this study are as follows:

1. To analyze the extent of WhatsApp use in improving academic writing skills on behavioural intentions of University students in Botswana.
2. Assess the impact of Perceived Ease of Use, Perceived Usefulness, Perceived web privacy and Attitude on behavioural intentions among Batswana Youth.

II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

a) Academic Writing

The role of WhatsApp in advancing academic writing at university level is examined in this study. This study defines academic writing as writing found in essays (the focus of this study), research papers, and conference papers. According to Merryweather, Norton, and Foxcroft, (2014), academic writing is "conceptualised as more than simple use of literacy skills such as grammar, punctuation and spelling". According to Itua et al. (2014), in academic writing students are expected to write clear transitions between ideas and arguments, with careful referencing of works from which the ideas were borrowed. Furthermore, there should be logical organization of ideas and recognition of counter-arguments. However, scholars indicate that many second language students find it challenging to write their thoughts and ideas (Gholaminejad et al. 2013; Abu-Rass, 2001). According to Gholaminejad et al. (2013), both native and non-native speakers of English find it challenging to harmonise the content, organization, purpose, audience, vocabulary, punctuation, spelling and mechanics as they write their thoughts and ideas.

b) Perceived Usefulness and Ease of Use

With a view to the writing challenges enunciated above, and to the contribution of technology in language learning, this study first sought to establish the relationship between behavioural intentions of the Batswana university students and perceived usefulness and ease of use of the WhatsApp application in academic writing. These dimensions are measured as fundamental parts of the Technological Acceptance Model (TAM). This model was introduced by Davis (1989) to determine individuals' intentions to utilize a

variety of technologies such as electronic mail (e-mail), word processing and graphics software. According to Kucukusta, Law, Besbes, and Legohérel, (2015:186), "The TAM model is widely used by researchers and practitioners to understand and explain user acceptance of information technologies based on the function of perceived usefulness and perceived ease of use". Davis (1989:320) defines perceived usefulness as "The degree to which a person believes that use of a particular system would enhance his or her job performance. On the other hand, perceived ease of use is defined by Davies (1989:320) as "The degree to which a person believes that using a particular system would free of effort".

This study therefore hypothesized first that the WhatsApp application could be positively and significantly related to the students' intention to use it to improve their academic writing skills; hence:

H1: Perceived usefulness is significantly and positively related to behavioural intention of University students in Botswana's intention to use WhatsApp in academic writing.

The second hypothesis of this study is that:

H2: Perceived Ease of use is significantly and positively related to behavioural intention of University students in Botswana.

As already indicated, most students enjoy using WhatsApp. For instance, in a September 2013 study by Robinson, Behi, Corcoran, Cowley, Cullinane, Martin, & Tomkinson, (2015), a group of 11 first-year undergraduate diagnostic radiotherapy students perceived WhatsApp as a useful method of keeping in touch and decided to form a new WhatsApp group. A more thorough study was later on done to confirm these findings.

c) Perceived risk

Many studies have tested the influence of perceived risk on various innovation adoptions such as internet shopping (Forsythe & Shi, 2003). E-services (Featherman& Pavlov, 2003) and electronic business (Kim et al, 2008). We thus hypothesize that:

d) Attitudes

The perceived usefulness and perceived ease of use dimensions of the TAM model have also been found to jointly influence the attitude towards the intended action which in this case is the use of WhatsApp in academic writing. This study thus hypothesized that:

H3: Attitude is significantly and positively related to behavioural intention of University students in Botswana.

It was important to study attitudes towards writing in order to establish their role in the writing proficiency of the university students in Botswana. Weeks (2016) lamented that Botswana graduates are

weak in language, social skills numeracy and attitudes. According to Gholaminejad et al. (2013), one of the outstanding factors influencing the students' writing achievement is attitudes to writing. According to Jabeen & Kazim Shah (2011), attitudes determine the way we view the world and respond to different entities in the world (cited in Gholaminejad et al. (2013). The term 'attitude' was first defined by Gardner and Lambert as early as 1932 as "an inference which is made on the basis of a complex set of beliefs about the attitude object" (cited in Gardner, 1980:267). Gardner further defines 'attitude' as "individual feelings, prejudice, pre-conceived ideas, fears, and convictions about a specified topic" (Gholaminejad et al. 2013:1139).

III. METHODOLOGY

This study is descriptive and quantitative in nature. A total of 120 questionnaires were distributed with a response rate of 85%. 70 questionnaires were administered at the University of Botswana and 50 at Botho University also in Botswana. The questionnaire consisted of a 5-Point Likert Scale. Using SPSS, the scale items were subjected to validity and reliability in

order to explicate the psychometric competence of the scale items in the Botswana context. Data analysis was conducted using correlation and regression analysis in order to establish the association and relationship of the hypothesized sub-constructs in this study. Simple random probability sampling technique was adopted in this empirical study. Scale items were adapted from Davis (1989) TAM model.

IV. RESULTS AND DISCUSSION

a) Demographic Information

Section A of the questionnaire measured demographic information of the students. Table 1 below shows that of the sampled respondents, 83% of the respondents fall in the category of 20 to 25 age bracket. 17% of the respondents fall in the 26 to 30 years bracket. With respect to gender, 50% of the respondents are male, while 50% of the sampled respondents are female. Furthermore, with respect to years of using WhatsApp, over 66% of the respondents as shown in Table 3 have used WhatsApp for less than 5 years while 33% stated that they have used it for over 5 years.

Table 1: Demographic Information

Item	Category	Frequency	Valid Percent
Age	20-25	85	83.3
	26-30	17	16.7
Gender	Male	51	50
	Female	51	50
Number of years using WhatsApp	Less than 5 years	68	66.7
	5-10 years	34	33.3

b) Extent of Use of WhatsApp Learning in General

As indicated in Table 2, 33% of the respondents stated that they considered WhatsApp an important tool

for learning while over 50% stated that they did not consider WhatsApp as an important tool for learning as regards the extent of WhatsApp Use in Botswana.

Table 2: Extent of whatsapp use

Scale	Frequency	Valid Percent
Strongly Agree	17	16.7
Agree	17	16.7
Neutral	17	16.7
Disagree	34	33.3
Strongly Disagree	17	16.7

c) Attitudes towards using WhatsApp

With respect to the psychometric nomenclature of the attitude to WhatsApp use among University students, the Cronbach Alpha is 0.698. Mean values of the scale items range from 3.17-4.00. The factor structure (Validity) using varimax rotation range from 0.567-0.786. Average variance Extraction (AVE) is 78.159 indicating the robustness of the factor structure. Kaiser Meyer Olkin Measure (KMO) of sampling adequacy is 0.541. The robustness of the factor structure in terms of validity is also elucidated here.

d) Perceived Usefulness

For Perceived usefulness, the Cronbach alpha is 0.965, mean values range from 3.33 to 3.67, factor structure (Validity) range from 0.673-0.721 and KMO is 0.652 and AVE is 54.67. The robustness of the factor structure is also explicated here in terms of validity and reliability.

e) Perceived Ease of Use

For Perceived Ease of Use, Cronbach Alpha, mean values, Factor structure (Validity), KMO and AVE

are 0.678, 2.87-3.78, 0.725-0.823, 0.736 and 63.17 respectively. The robustness of the factor structure is also explicated here in terms of validity and reliability.

f) Perceived Privacy

For perceived web based privacy, Cronbach Alpha, mean values, factor structure (validity), KMO and AVE are 0.765, 3.23-3.64, 0.711-0.834, 0.821 and 67.23 respectively. For Attitude, mean values range from 3.16-4.00, Cronbach alpha is 0.944, factor structure range from 0.674-0.723, KMO and AVE are 0.652 and 56.23 respectively. The robustness of the factor structure is also explicated here in terms of validity and reliability.

Table 3: Correlation matrix of association between perceived ease of use, perceived usefulness, perceived web based privacy, attitude and behavioural intentions

Correlations							
		Behavioural Intention	Extent of WhatsApp use	Perceived usefulness	Perceived ease of use	Perceived web-based privacy	Attitudes
Behavioural Intention	Pearson Correlation	1	.291**	.535**	.078	.312**	.629**
	Sig. (2-tailed)		.003	.000	.436	.001	.000
	N	102	102	102	102	102	102
Extent of WhatsApp use	Pearson Correlation	.291**	1	.896**	.570**	-.630**	.812**
	Sig. (2-tailed)	.003		.000	.000	.000	.000
	N	102	102	102	102	102	102
Perceived usefulness	Pearson Correlation	.535**	.896**	1	.637**	-.300**	.841**
	Sig. (2-tailed)	.000	.000		.000	.002	.000
	N	102	102	102	102	102	102
Perceived ease of use	Pearson Correlation	.078	.570**	.637**	1	.015	.526**
	Sig. (2-tailed)	.436	.000	.000		.878	.000
	N	102	102	102	102	102	102
Perceived web based privacy	Pearson Correlation	.312**	-.630**	-.300**	.015	1	-.338**
	Sig. (2-tailed)	.001	.000	.002	.878		.001
	N	102	102	102	102	102	102
Attitudes	Pearson Correlation	.629**	.812**	.841**	.526**	-.338**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.001	
	N	102	102	102	102	102	102

**. Correlation is significant at the 0.01 level (2-tailed).

The results in Table 5 show that there is a positive and significant relationship ($r=0.291$, $p<0.01$) between extent of use and behavioural intentions of WhatsApp in academic writing by University students in Botswana; positive relationship (0.535, $p<0.01$) between perceived usefulness and behavioural intentions. Perceived web based privacy and behavioural intention ($r=0.312$, $p<0.01$); and attitudes and behavioural intention ($r= 0.629$, $p<0.01$). The perceived Ease of Use and behavioural intention are not significantly and positively associated ($r=0.078$, $p<0.01$). These findings indicate that perceive usefulness, attitude, perceived web based privacy are significantly associated with behaviourla intentions, while perceived ease of use is not significantly

associated with behavioural intention as regards WhatsApp use in Botswana. Weeks (2016) thus lamented that Botswana graduates are weak in language, social skills numeracy and attitudes. Based on the aforementioned, Gholaminejad et al. (2013) concluded that one of the outstanding factors influencing the students' writing achievement is attitudes to writing.

Table 6, Perceived usefulness, perceived ease of use, perceived web based privacy, attitude account for 96.7% variation in the behavioural intention. The Durbin Watson value of 2.194 also corroborates this assertion.

Table 4: Regression analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Model Summary ^b						Durbin-Watson
					Change Statistics						
1	.984 ^a	.968	.967	.32932	.968	733.376	4	97	.000	2.194	
a. Predictors: (Constant), ATT, PWPTT, PEUTT, PUSTT											
b. Dependent Variable: BITT											

As shown in Table 7, Perceived usefulness ($\beta = 0.518$, $t = 13.813$), ($\beta = 0.690$, $t = 28.092$), ($\beta = 0.752$, $t = 37.368$), and ($\beta = 0.810$, $t = 23.761$). Hypotheses H1, H2, H3 and H4 are supported in this empirical study.

Table 5: Regression showing the relationship between perceived ease of use, perceived web based privacy, perceived usefulness, attitude and behavioural intention as regards whatsapp use for learning in botswana

Coefficients ^a												
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	Variance Inflation Factor
1	(Constant)	4.376	.220		.000	3.94	4.81					
	Perceived Usefulness	.206	.015	.518	13.813	.000	.177	.236	.535	.814	.251	.235
	Perceived Ease of Use	.520	.019	.690	28.092	.000	.557	.483	.078	-.944	-.510	.548
	Perceived Web Based Privacy	.296	.008	.752	37.368	.000	.280	.312	.312	.967	.679	.815
	Attitude	.321	.014	.810	23.761	.000	.295	.348	.629	.924	.432	.284

a. Dependent Variable: Behavioural intention

As indicated in table 7, perceived ease of use, perceived usefulness, perceived web based privacy, and attitude are significantly and positively related to behavioural intention. Kucukusta, Law, Besbes, and Legohérel, (2015:186), concluded that TAM model is widely used by researchers and practitioners to understand and explain user acceptance of information technologies based on the function of perceived usefulness and perceived ease of use". Davis (1989:320) further noted that perceived usefulness is the degree to which a person believes that use of a particular system would enhance his or her job performance. Hypotheses H1, H2, H3 and H4 are therefore supported in this empirical study in Botswana.

V. LIMITATIONS

It is not advisable to generalize the findings of this study given the small size of the sample. However, the findings provide an insight in the use of WhatsApp in education. Furthermore, perceptions may differ according to situations and contexts. Therefore, the findings of this study are applicable only to the context of the questionnaire which specifically talked about academic writing of essays.

VI. IMPLICATIONS AND CONCLUSIONS

The theoretical contribution of this study is its support of previous findings (Kucukusta, Law, Besbes, and Legohérel, 2015) that the TAM as a useful model for measuring the influence of perceived ease of use, perceived usefulness, perceived web based privacy and attitude on behavioural intention. The study thus indicates that the WhatsApp platform could be utilized in addition to other social platforms to engage learners in the Educational industry in line with the aspiration for knowledge based economy in Botswana. Based on the aforementioned, the teaching of academic writing skills should be supported by the use of technology.

The WhatsApp tool can be a very convenient platform for answering questions and discussing academic writing skills by the students and their writing lecturers anywhere and at any time of the day. As indicated earlier, it can be used to discuss topics such as how to write a thesis statement of an argumentative essay. WhatsApp is cheap and can be conveniently found in Smartphones. The implication is that lecturers should create awareness of the importance of WhatsApp and its benefits in teaching writing skills and other topics.

This study highlights the usefulness of WhatsApp in education, in teaching writing skills and in



establishing rapport with the students. However, further research is recommended in examining perceptions between behavioral intention and use of other online platforms.

REFERENCES RÉFÉRENCES REFERENCIAS

1. AbdAlfattah, S. (2015). The Effectiveness of Using a WhatsApp Messenger as One of Mobile Learning Technique to Develop Students' Writing Skills. *Journal of Education and Practice*, 6, 32.
2. Abu Rass R. 2001 Integrating reading and writing for effective language teaching. *English Teaching Forum*, 39 (1), 30–33.
3. Anastasia, E. M. (2013). College Students' Cell Phone Use, Beliefs, and Effects on Their Learning. *College Student Journal*, 47(4).
4. Bouhnik, D., & Deshen, M. (2014). WhatsApp goes to school: Mobile instant messaging between teachers and students. *Journal of Information Technology Education: Research*, 13, 217-231. Retrieved from <http://www.jite.org/documents/Vol13/JITEv13ResearchP217-231Bouhnik0601.pdf>.
5. Dashti, F., & Aldashti, A. A. (2015). EFL college students' attitudes towards mobile learning. *International Education Studies*, 8(8), 13-20.
6. Evans, C. (2014). Twitter for teaching: Can social media be used to enhance the process of learning? *British Journal of Educational Technology*, 45(5), 902-915. <http://dx.doi.org/10.1111/bjet.12099>.
7. Featherman, M.S., Pavlou, P.A. (2003). Predicting e-services adoption: a perceived risk facets perspective. *International Journal of Human-Computer Studies*, 59, pp. 451-474.
8. Forsythe, S.M. & Shi, B. (2003) Consumer patronage and risk perceptions in Internet shopping *Journal of Business Research*, 56, pp. 867-875.
9. Gardner, R. C. (1980). On the validity of affective variables in second language acquisition: Conceptual, contextual, and statistical considerations. *Language Learning*, 30, 255–270.
10. Gholaminejad, R., Moinzadeh, A., Youhanaee, M., & Ghobadirad, H. (2013). Writing Attitudes of Iranian EFL Students: A Qualitative Study. *Journal of Language Teaching & Research*, 4(5), 1138-1145.
11. Itua, I.; Coffey, M.; Merryweather, D.; Norton, L.; Foxcroft, A. (2014). Exploring barriers and solutions to academic writing: Perspectives from students, higher education and further education tutors. In *Journal of Further & Higher Education*, 38(3), (pp. 305-326). doi: 10.1080/0309877X.2012.726966.
12. Iyanda, O. and Ojo, S. (2008), "Motivation, influences, and perceived effect of ICT adoption in Botswana organizations", *International Journal of Emerging markets*, Vol. 3 No. 3, pp. 311-322.
13. Jabeen F. & Kazim Shah S. (2011). The Role of Culture in ELT: Learners' Attitude towards the Teaching of Target Language.
14. Kim, D.J., Ferrin, D.L. & Rao, H.R. (2008). A trust-based consumer decision-making model in electronic commerce: the role of trust, perceived risk, and their antecedents. *Decision Support Systems* 44 (2), 544–564.
15. Kucukusta, D., Law, R., Besbes, A., & Legohérel, P. (2015). Re-examining perceived usefulness and ease of use in online booking: The case of Hong Kong online users. *International Journal of Contemporary Hospitality Management*, 27(2), 185-198. <https://doi.org/10.1108/IJCHM-09-2013-0413>.
16. Lee, W. J., Xiong, L., & Hu, C. (2012). The effect of Facebook users' arousal and valence on intention to go to the festival: Applying an extension of the technology acceptance model. *International Journal of Hospitality Management*, 31(3), 819–827.
17. Robinson, L.; Behi, O.; Corcoran, A.; Cowley, V.; Cullinane, J.; Martin, I.; Tomkinson, D, (2015). Evaluation of WhatsApp for promoting social presence in a first year undergraduate radiography problem-based learning group. *J. Med. Imaging Radiat. Sci.*, 46, 280–286.
18. Venkatesh, V. and Davis, F.D. (1996). A Model of the antecedents of perceived ease of use: Development and test. *Decision Sciences*, (27) 3 (Summer), 451-481.
19. Weeks S. (Feb. 2016). Botswana graduates are weak in language, social skills numeracy and attitudes. www.sundaystandard.info/botswana-graduates-are-weak-language-social-skills-numeracy-and-attitudes.