



How WhatsApp Changes the Way Business Work?

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ABSTRACT

Using a focus group and a pre-test, this study validates a scale for measuring the motivations, uses and gratifications for WhatsApp, which comprises of dimensions: Communication, privacy, credibility, and miscellaneous activities. Workplace WhatsApp usage motivations consists of two dimensions namely, working, planning, and coordination and speed, convenience, and practicality. After the focus group and the pre-test, 455 participants were included in a survey to understand a connection between work performance and WhatsApp usage. The results were discussed in terms of uses and gratifications.

Keywords: WhatsApp Motivations, Work Performance, Uses and Gratifications

JEL Classifications: D83, L25

1. INTRODUCTION

“Work productivity in an organization is a measure of how well and organized an organization member spends their time to complete daily tasks” (Seman, 2014. p. 31). According to Diercksen et al. (2013b), blocking social network sites is not a solution to increase employee efficient use of work time, because employees will spend their time to find a solution to this banning. They recommend that the best solution comes from announcing and implementing guidelines on social media in the workplace offer the best solution. This is because, employees can understand easily and adjust their social media use accordingly, if it is displayed to them what is acceptable and not acceptable in the workplace.

“WhatsApp sends real-time messages and is one of the world’s most popular communication applications in the 21st century” (Ahada and Lima, 2014. p. 189). In recent years, WhatsApp research has gain popularity. For example, WhatsApp’s educational value that encourage interaction (Andujar, 2016), for teaching and learning, positive perception and acceptance of the use of WhatsApp (So, 2016) are among them.

However, those studies on WhatsApp didn’t base on investigating its communicational tool and value among employees. The academic literature lacks this kind of information. In other words, those studies investigating social media’s effect on workplace productivity, neither examined the effects of WhatsApp nor looked at the phenomenon from the Uses and Gratifications (U and G) perspectives to understand varying degrees of its effects in their studies.

Therefore, the purpose of this current study is investigating how employees use WhatsApp during their working hours and how their WhatsApp usage effect their working performance (whether a negative or positive).

In this study, we have investigated whether employees make use of WhatsApp for work purposes and if that usage is related with their work performance. Based on the abovementioned literature review, in this paper, we have formulated the following hypotheses:

H₁: WhatsApp usage of (a) two-way communication, (b) employee-employer communication, (c) employee-employee communication, (d) respondents’ working efficiency, (e) respondents’ work

performance, and (f) respondents' workplace productivity has a positive effect on work performance.

2. THEORETICAL FRAMEWORK

2.1. Uses and Gratifications (U and G) and Motives to Use WhatsApp

Uses and gratifications theory analyzes the use of mass media and explains why people use certain media outlets (Dainton and Zelle, 2011). Uses and gratifications research tries to explain why particular media channels are selected over others (e.g., YouTube instead of TV channel). Uses and gratifications theory is considered an effective theory for identifying media needs (Hegde and Shainesh, 2018). The main difference between previous media studies and the uses and gratifications studies' audiences are considered as active instead of passive (Austin and Jin, 2018).

Ishii et al. (2017) researched technology-driven gratifications gathered by the use of text-messaging. They found that gratifications were positively related to text-messaging. Puyanunt-Carter et al. (2017) findings showed that the relation existed between participants' entertainment and functional needs with Snapchat. Gan and Li (2018) developed motivations for WeChat, which are: hedonic gratification, social gratification, utilitarian gratification and technology gratification.

Although the closest social media to WhatsApp are Snapchat (e.g., Puyanunt-Carter et al., 2017) and WeChat (e.g., Gan and Li, 2018), less attention has been paid to how gratifications affect the use of WhatsApp. These studies have identified various needs for social media, yet primarily among American users and primarily on college students. The main contributions of the current study are that (1) it specifically identifies various needs for WhatsApp, (2) it examines its usage among employees, and (3) its investigation is primarily among users with different cultures.

Based on focus group research results and pilot study results the additional hypotheses were employed:

H₂: WhatsApp usage motivations of (a) Communication, (b) privacy, (c) credibility, (d) and miscellaneous activities have a favorable effect on work performance.

H₃: Workplace WhatsApp usage motivations of (a) working, planning, and coordination, (b) speed, convenience, and practicality have a favorable effect on work performance.

3. METHODOLOGY

3.1. Pilot Study

The pilot study (see Appendix A) included 23 participants of whom 13 of them were academician and 10 of them were office workers. 15 participants answered questions in their native language and 8 participants answered in English. They were asked two open ended questions and they wanted to list as much uses and gratifications as possible by considering their daily uses of WhatsApp. Pilot study questions can be found in the appendix.

3.2. Focus Group

We applied focus group (see Appendix B). The duration of interview was 41 min and the discussion was voice recorded. The interviews were in Turkish and once it was completed the voice recordings were translated into English. The focus group consisted of 10 participants who are university students. Students were registered to summer school and got credit for their participation. The interview was semi-structured and 18 open ended questions (they are in the appendix) were asked to the participants.

3.3. WhatsApp Motivational Scale Questions

In the category of WhatsApp usage motivations, four group of motivations have been found, namely: (1) Communication, (2) Privacy (3) Credibility, and (4) Miscellaneous WhatsApp activities.

In the category of workplace WhatsApp usage motivations, two group of motivations were discovered, namely: (1) Working, Planning, and Coordination, and (2) Speed, Convenience, and Practicality.

Thirty five WhatsApp motivations scale were in the form of a 5 point Likert scale (1-5 strongly DA-strongly A); twenty three-item workplace WhatsApp motivations scale and six item work performance scale were in the form of a 5 point Likert scale (1-5 strongly DA-strongly A) questions too.

3.4. Semantic Differential Questions

Some social media attitudinal questions were gathered from Dierksen et al. (2013 a) study. They were in the form of "yes-no questions" which were modified and turned into 7-point semantic differential to get more detail about participants' answers.

3.5. Dependent and Independent Variables

Independent variables used in this study are WhatsApp usage motivations. Dependent variable is Academic staff productivity.

3.6. Analysis

Survey method was used to gather information, and the data were analyzed using the SPSS 22 software. 259 of them didn't take place and participate to the study. The total number for participation is 455.

3.7. Reliability

Cronbach alpha of this study can be seen on the following Table 1.

Table 1: Reliability results for items

| Items | Cronbach alpha |
|--------------------------------------|----------------|
| Communication | 0.930 |
| Privacy | 0.833 |
| Credibilit | 0.791 |
| Miscellaneous activities | 0.715 |
| Working, planning, and coordination | 0.953 |
| Speed, convenience, and practicality | 0.968 |
| Work performance | 0.875 |

4. FINDINGS

4.1. Descriptive Results

Males (43.3%) were less than females (56.7%). The participants were between the age of 25-35 (37.8%), 36-46 (34.7%), 47-57 (18.9%), 58-68 (5.9%), and 69-79 (2.6%). They were Northern Cypriot (72.3%), Turkish (20.4%), Iranian (2.4%), British (2%), and other (2.9%). The majority worked in a private university (52.1%), others worked in governmental work (35.5%), and the private sector (12.3%). They were mainly academicians /lecturers (54.7%); it is followed by office workers (9%), managers (4.4%), and others (31.9%).

4.2. Factor Analysis Results

For examining the factorability of the thirty-five WhatsApp usage motivations Scale items two criteria were used. The Kaiser–Meyer–Olkin measure of sampling adequacy was 0.92, above the commonly recommended value of 0.6 and Bartlett’s test of sphericity was significant (Chi-square (595) = 9250.562, $P = 0.000$). Eigen values showed that the first factor explained a total of 36.28% of the variance.

Initial Eigen values indicated that the first four factors explained 36.2%, 7.1%, 5.3%, and 4.5% of the variance respectively.

Maximum likelihood factor analysis was conducted and the factors were examined using oblimin rotations of the factor loading matrix. The four factor solution, which explained 53.1% of the variance, was preferred, because (1) there was the “flattening out” of Eigen values on the scree plot after four factors, and (2) the insufficient number of primary loadings appeared and caused difficulty of interpreting the fifth factor and subsequent factors.

A total of three items were eliminated because (1) they did not contribute to a simple factor structure and (2) they failed to meet the criteria of having a factor loading of 0.4 or above. All items in this analysis had primary loadings over 0.4 (Table 2).

Table 2. Factor analysis results for whatsapp usage motivations

| Items | Factor-1 | Factor-2 | Factor-3 | Factor-4 |
|---|----------|----------|----------|----------|
| Economic communication with distanced friends and family members | 0.566 | -0.033 | 0.054 | -0.040 |
| Provides unlimited free voice and video calls | 0.766 | -0.076 | 0.003 | 0.022 |
| Provides sharing of moments with friends | 0.660 | 0.130 | -0.159 | 0.092 |
| Provides instant communication | 0.639 | 0.141 | -0.109 | 0.173 |
| New conditions and necessities require this mode of communication | 0.664 | 0.020 | 0.038 | 0.061 |
| Simple, practical and functional to use Whatsapp | 0.755 | -0.032 | -0.032 | -0.054 |
| Speed on messaging | 0.694 | -0.044 | 0.060 | 0.055 |
| Updates and adds useful features | 0.545 | 0.177 | 0.114 | 0.175 |
| Call participants in 1 time with Whatsapp group | 0.692 | 0.083 | 0.196 | -0.043 |
| Works without a problem | 0.480 | -0.075 | 0.199 | 0.347 |
| Voice message feature, easy to understand message | 0.567 | 0.185 | 0.160 | 0.127 |
| Operates telephone numbers and fake users can be inhibited | 0.131 | 0.446 | 0.340 | 0.114 |
| Hide profile picture and set to private | -0.048 | 0.816 | -0.025 | 0.099 |
| Hide Whatsapp status | -0.013 | 0.813 | 0.02 | -0.049 |
| More trustable than any other social media | -0.039 | -0.006 | 0.751 | 0.137 |
| Protects messages securely | 0.127 | 0.220 | 0.526 | -0.014 |
| Whatsapp is more personal than any other social media | 0.092 | 0.155 | 0.520 | 0.100 |
| Sensitive subjects are sending via Whatsapp | 0.179 | 0.246 | 0.016 | 0.547 |
| Uses less internet compared to other types of social media | 0.073 | -0.072 | -0.015 | 0.788 |
| Messages sent via Whatsapp are more important | -0.145 | 0.096 | 0.320 | 0.491 |

For examining the factorability of the twenty-three WhatsApp usage motivations at workplace Scale items two criteria were used. The Kaiser–Meyer–Olkin measure of sampling adequacy was 0.95 and Bartlett’s test of sphericity was significant (Chi-square (253) = 12508.823, $P = 0.000$). Eigen values showed that the first factor explained a total of 64% of the variance.

Maximum likelihood factor analysis was conducted and the factors were examined using oblimin rotations of the factor loading matrix. The two factor solution, which explained 72.1% of the variance. All items in this analysis had primary loadings over 0.8 (Table 3).

4.3. Regression Analysis Results

There is a significant relation between work performance and WhatsApp’s contribution to positive two-way communication in the workplace ($\beta = 0.159$, $P \leq 0.05$) ($R^2 = 0.025$). Hypothesis 1a was confirmed.

There isn’t significant relation between work performance and WhatsApp’s improvement of employee-employer communication in the workplace ($\beta = 0.060$, $P \leq 0.05$) ($R^2 = 0.004$). Hypothesis 1b was not confirmed.

There is a significant relation between work performance and WhatsApp’s improvement of employee-employee communication in the workplace ($\beta = 0.116$, $P \leq 0.05$) ($R^2 = 0.014$). Hypothesis 1c was confirmed.

There is significance between work performance and WhatsApp helps you work efficiently ($\beta = 0.095$, $P \leq 0.05$) ($R^2 = 0.009$). Hypothesis 1d was confirmed.

Significant relation was found between work performance and WhatsApp’s contribution to work performance ($\beta = 0.191$, $P \leq 0.05$) ($R^2 = 0.036$). Hypothesis 1e was confirmed.

There is significance between work performance and WhatsApp’s improvements of productivity at your workplace

Table 3: Factor analysis results for whatsapp usage motivations at workplace

| Items | Factor-1 | Factor-2 |
|---|----------|----------|
| Arrange a meeting via whatsapp | 0.855 | 0.021 |
| Arrange a schedule with colleagues/ employees | 0.937 | 0.058 |
| Whatsapp makes corporate communication alive | 0.910 | -0.012 |
| Provides continuous communication at workplace | 0.497 | -0.358 |
| Send information, share word, pdf and excel documents | 0.731 | -0.155 |
| Can take photo of the documents and send to without using fax | 0.694 | -0.163 |
| Archive work related documents | 0.78 | -0.033 |
| Coordinate works via WhatsApp | 0.634 | -0.010 |
| Do business planning quickly | 0.933 | 0.075 |
| Work decisions are taken easier and help for fast decision | 0.836 | 0.034 |
| Helps to instant transfer of official documents | 0.641 | -0.233 |
| WhatsApp helps communication among employees | 0.260 | -0.652 |
| Communicate with a group of employees at one tim | 0.286 | -0.648 |
| Communication is easier with work -team members | 0.232 | -0.717 |
| Create WhatsApp group call and discuss a subject in an interactive platform | 0.262 | -0.604 |
| It is free of charge | 0.334 | -0.524 |
| Send message only to target recipient | -0.100 | -1.001 |
| Communicate quickly and efficiently | -0.058 | -0.994 |
| Communicate in an instant | 0.005 | -0.917 |
| Can communicate people when out of office too | 0.235 | -0.636 |
| Can communicate in an urgent situation | 0.060 | -0.812 |
| Gives an access anywhere and anytime | -0.154 | -0.903 |

Table 4: Regression results for the predictors of WHATSAPP attitudes at workplace by work performance

| | Work performance |
|--|------------------|
| WhatsApp contribute positive two-way communication at your workplace | 0.159*** |
| WhatsApp improve employee-employer communication at your workplace | 0.060 |
| WhatsApp improve employee-employee communication at your workplace | 0.116** |
| WhatsApp helps you work efficiently | 0.095* |
| WhatsApp increase your work performance | 0.191*** |
| WhatsApp improves your productivity at your workplace | 0.116** |

*P≤0.05, **P≤0.01, ***P≤0.001

($\beta = 0.116$, $P \leq 0.05$) ($R^2 = 0.014$). Hypothesis 1f was confirmed (Table 4).

There is not significance between work performance and WhatsApp's communication ($\beta = 0.066$, $P \leq 0.05$) ($R^2 = 0.004$). Hypothesis 1a was not confirmed.

There is significance between work performance and WhatsApp's privacy ($\beta = 0.089$, $P \leq 0.05$) ($R^2 = 0.008$). Hypothesis 2b was confirmed.

Table 5: Regression results for the predictors of whatsapp participation by work performance

| | Work performance |
|---------------|------------------|
| Communication | 0.066 |
| Privacy | 0.089* |
| Credibility | 0.081 |
| Miscellaneous | 0.041 |

*P≤0.05

Table 6: Regression results for the predictors of whatsapp participation at workplace by work performance

| | Work performance |
|--------------------------------------|------------------|
| Working, planning, and coordination | 0.035 |
| Speed, convenience, and practicality | 0.131** |

**P≤0.01

There isn't significant relation between work performance and WhatsApp's credibility ($\beta = 0.081$, $P \leq 0.05$) ($R^2 = 0.007$). Hypothesis 2c was not confirmed.

There isn't significant relation between work performance and miscellaneous WhatsApp activities ($\beta = 0.041$, $P \leq 0.05$) ($R^2 = 0.002$). Hypothesis 2d was not confirmed (Table 5).

There isn't significant relation between work performance and working, planning and coordination ($\beta = 0.035$, $P \leq 0.05$) ($R^2 = 0.001$). Hypothesis 3a was not confirmed.

There is significant relation between work performance and speed, convenience and practicality ($\beta = 0.131$, $P \leq 0.05$) ($R^2 = 0.017$). Hypothesis 3b was confirmed (Table 6).

5. CONCLUSIONS

In this research, we have studied the use of WhatsApp among the employees in North Cyprus. This study aims to explain WhatsApp usage and its contribution to work performance and various WhatsApp activities. Except WhatsApp's improvement of employee-employer interaction, other variables were significant. WhatsApp's contribution to positive two way communication in the workplace increased work performance. WhatsApp's improvement of employee-employee communication at workplace stimulated work performance. WhatsApp's contribution to work efficiently boosted work performance. Additionally, WhatsApp's improvement of workplace productivity promoted work performance.

As a result of this study, we have found four motivations for WhatsApp usage, namely communication, privacy, credibility, and miscellaneous activities, and other two motivations for WhatsApp workplace usage, namely "working, planning, and coordination" and "speed, convenience, and practicality."

Significant relation was found between WhatsApp's privacy motivation and work performance. Their opinions that WhatsApp is a private place may have increased favorable attitude toward WhatsApp usage and this in turn increased their work performance.

Drawing on a new perspective of uses and gratifications theory, this study makes theoretical contributions related to WhatsApp usage at workplace and the findings have managerial implications for WhatsApp and workplace productivity.

There is a positive relation between work performance and WhatsApp's speed, convenience and practicality. The more they used WhatsApp for work purposes, its speed, convenience and practicality affected their work performance in a positive way.

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APPENDIX

Appendix-A: Whatsapp pilot questions

Instruction

There are two questions below and those will give basis to our academic study. Your responses will be used only for academic purposes and therefore, you do not need to write your name and your sincere responses are elicited.

Questions

Will you please list your answers in detail about WhatsApp usage benefits by considering both your daily WhatsApp usage and its usage in workplace environment. Will you please write as much reason as possible for below answer-1 and answer-2?

ANSWER-1: The benefits and reasons of WhatsApp usage for OUT-OF-WORK: _____

ANSWER-2: The benefits and reasons of WhatsApp usage for WORKPLACE: _____

Thank you for your participation.

Appendix-B: Focus group questions

1. Does everybody use WhatsApp?
2. Do you use Viber?
3. Why do you use WhatsApp, but not Viber?
4. How has WhatsApp developed itself? Have you realized the development of WhatsApp while you have been using it?
5. What's the difference between Facebook and WhatsApp?
6. How long have been using WhatsApp?
7. What are the reasons you use WhatsApp?
8. Why don't you use Skype but you use WhatsApp?
9. Which WhatsApp features do you like the most?
10. Do you use WhatsApp for escaping communication or do you use WhatsApp because it gives you convenience in your communication?
11. People earn friends electronically such as Facebook, and they continue to their relationships in real world. Is the usage of WhatsApp in the same way?
12. Does WhatsApp move you away from face-to-face communication?
13. Can you compare the way you communicate before using WhatsApp and after using WhatsApp?
14. When you start a day, which social media do you check the first early in the morning?
15. Before going to bed and sleep, which social media do you check the last in the evening?
16. What is the importance of using WhatsApp on special days (e.g., celebrations)? Do you prefer using other types of social media in place of WhatsApp on special days?
17. When do you tend to use WhatsApp? Is it short message?, message with a photo?, a celebration message?, a ready message (e.g., an electronic postcard)?
18. Does use of WhatsApp in your workplace affect your working productivity?