

UTILISATION OF GOOGLE APPLICATIONS AMONG EMPLOYEES OF SELECTED TERTIARY INSTITUTIONS IN OGUN STATE, NIGERIA

¹Oose, M. O., ¹Abiona, B. G., ²Oyekunle O., ³Oladoyinbo, O. B., and ¹Nwaodua, D. A.

¹Department of Agricultural Administration, Federal University of Agriculture,

²Agricultural Media Resources and Extension Centre, Federal University of Agriculture,

³Department of Agricultural Technology, Oyo State College and Technology, Igboora,

Correspondent contact details: oosematthew@gmail.com; oosemo@funaab.edu.ng; +23408060348644

ABSTRACT

Google Applications (apps) usage by employees have revolutionized and enhanced work performance in the workplace setting. The general objective was to assess employees' utilisation of google apps in two tertiary institutions in Ogun State. This study investigated the types of Google apps used, utilisation of Google apps, and constraints to the use of Google apps. A multistage sampling procedure was used to select 105 employees. Data were obtained through a structured questionnaire and analysed using frequency counts, percentages, mean value, standard deviation, and Independent sampled t-test. Results show that 59.0% of the employees were male with an average age and years of work experience of 39.95 years and 12years respectively. Majority (61.0%) of the employees were degree holders and received averagely N84,000 monthly salaries. Among other Google apps, Google Search (weighted mean=275.0), Google Chrome (weighted mean=245.8) and Google mail (weighted mean=243.8) were frequently used. They had a low utilisation (67.6%) of Google apps, but internet connectivity (weighted mean=149.5) and lack of stable electricity (weighted mean=147.5) constrained the effective use of Google apps. It was concluded that internet connectivity and unstable electricity were the main identified constraints to the use of google apps with a recommendation that efficient internet connectivity and stable electricity should be made available in the workplace and that the management of the two institutions should organise training and re-training workshops on the use of google apps and felicitate a workplace communication system that is ICTs driven.

Keywords: Google apps, employees, tertiary institutions, development communication.

INTRODUCTION

Organisational behaviour is of major importance to any workplace setting; be it governmental or non-governmental organisations. It is investigating the influence of individuals, groups and structures on employee behaviour within the organisation which aims to improve the effectiveness of an organisation (Langton, Robbins and Judge, 2013). In recent years, organisation's climate has become moribund with new sets of challenges particularly in public organisations. These include inadequate organisational support, communication gap, lack of respect for human resources, ineffective dissemination and inadequate modern Information and Communication Technologies (ICTs). These constitute a burden on employees' workplace performance particularly in government organisations where modern ICTs such as Google applications (apps) have great potentials.

Giving credence to the foregoing, the advent of Google apps has undoubtedly revolutionized organisational communication flow in different institutions globally and this had made work performance not only very effective but enhanced employees work commitment (Al-Emran and Shaalan, 2015). It is believed that organisational communication has a role in the continuity of an organisation. Organisational communication becomes important and fundamental in relation to the interaction between individuals within the organisation. Communication within the organisation becomes important to create a common understanding of the information presented to each other. Corporate, social and personal satisfaction

depends on a person's ability to communicate clearly to others, from his work, from what he wants and from what he believes. Communication is a process of transmitting and receiving news or information from someone to others Griffin (2009).

Communication in workplace particularly the use of modern Information and Communication Technologies (ICTs) plays a very important role in determining how effectively employees work together and coordinating efforts to achieve goals. In general, organisational communication objectives create mutual understanding or change perceptions, even employees' behaviors. According to Greenberg (2011), communication in workplace has eight strategic functions such as directing actions, connecting and coordinating, building relationships, explaining organisational culture, relations between organisations, building an image of an organisation, generating ideas and promoting ideas and values of the organisation itself. One of the identified problems of workplace performance is the lack of collaboration amongst employees. This has been a major problem affecting the work performance of employees in tertiary institutions, and once this problem exists, others such as work overload and poor time management will follow. The safety and durability of documents such as misplacement of files, is also a problem faced by employees in tertiary institutions which Google apps has the potentials to solve.

To further enhance employees' workplace productivity and effectiveness, the utilisation of Google apps is considered as one of the web-based services that provide access to various apps



supported by Google at any time and in any place under the coverage of internet connection (Sviridova, Sviridova, and Tymoshenko, 2011). Moreover, Google Apps allow a reliable, scalable and highly secure access to the data stored by these Apps. Cahill (2014) observed that Google apps facilitated the access to information whether through web-browsers or mobile devices without any supplementary servers or maintenance requirements. One of the major successes of using Google Apps is the usage of mobile devices. Nowadays, mobile devices with the help of smart applications play a vital role in facilitating our work performance. Also, Ktoridou and Eteokleous (2013) and Kaimuloa-Bates (2011) reiterated that Google apps as a collaboration tool among employees promote their professional workplace climate, proved its efficiency to be constructive tools for interdisciplinary work engagement, collaboration, communication and sharing of relevant information.

In addition, Google apps are used in major institutions, firms, and organisations all over the world because of their effectiveness in improving work performance and technical skills of employees. Google apps supports collaboration amongst employees, saves time by speeding up the time frame to get results due to collaboration on Google docs (Ferreira, 2014). Availability of documents when needed makes approaching at good results possible. Also, since Google apps such as Google doc can accommodate a maximum of fifty collaborators at the same time, it therefore means that research can be carried out online hence cost of transportation which is a sub-set of expenditure especially in times of emergency is reduced. It is therefore important to assess the utilisation of google apps among employees in the two selected tertiary institutions. Therefore, this paper examined the utilisation of google apps and its implications on organisation development communication in the study area. Hence, the study described the socioeconomic characteristics of the respondents, identified the types of Google apps used, usage of Google apps, and constraints to the use of Google apps. It was hypothesized use of google apps is not significantly different in the selected institutions.

METHODOLOGY

The study was carried out in tertiary institutions in Ogun State, Nigeria. The study population was all the employees (teaching and non-teaching) of the selected institutions. Multi-stage sampling procedure was used to select respondents for this study. The first stage involved the purposive selection of Abeokuta town; this was because Abeokuta town has the largest number of tertiary institutions in Ogun State. Second stage: In this stage, from the 5 institutions in Abeokuta town namely, Federal University of Agriculture, Moshood Abiola Polytechnic, Federal College of

Education, Crescent University and Chrisland University, 40% of the tertiary institutions were randomly selected to give two institutions namely Federal University of Agriculture and Federal College of Education. Third stage: here, agricultural-based departments and Information & Communication Technology Units were selected from the institutions and his gave a total of 210 employees (126 from Federal University of Agriculture, Abeokuta and 86 from Federal College of Education, Abeokuta) from the two institutions so far as at year 2018. The fourth stage involves the selection of 50% of the employees to give a sample size of 105 employees who were used for this study. The type of Google apps used by the employees was measured by providing them with 16 types of Google apps with the response option of very often, sometimes, rarely and never with scores of 3, 2, 1 and 0 assigned respectively. Then, weighted mean score was generated and used to rank their responses to determine the mostly used Google apps

The utilisation of Google apps by employees was measured by using a 14-items with responses options of always, occasionally, rarely and never with scores of 4, 3, 2 and 1 assigned respectively. The maximum scores obtainable was 56 with a minimum score of 14. Eventually, utilisation index was computed, and mean was used as a bench to categorise employees to high (14-35) and low (36-56) utilisation of google apps. The distribution by their constraints to their usage of Google apps was measured by providing them with a list of eight constraints items. They were asked the severity of each constraint items on a response option of severe constraint (2), mild constraint (1) and not a constraint (0). The minimum obtainable score was 16 and the minimum score of 0. Weighted mean score was generated as (response score x percentage/number of responses) and used to rank the constraints to determine the most severe constraints. The statistical tools such as frequency, percentages, mean values, weighted means, were used to analyse the data while one sample t-test was used to test the differences in utilisation of Google apps across the two selected institutions.

RESULTS AND DISCUSSIONS

Result in Table 1 shows that the mean age and standard deviation, years of experience and monthly salary of the respondents were 40 years \pm 10.23, 12years \pm 7.80 and N91,726 \pm N75,909 respectively. Majority (75.3%) of the respondents were married, male (59.0%) while 61.0% were holders of HND/B.Sc by academic qualification. This connotes that respondent were young and may be active in service to use Google apps; they are expected to be responsible employees due to their marital status. Also, their monthly earning is relatively equal to the minimum monthly salary N90,000.00 of B.Sc./HND holders in federal

institutions. The respondents are well educated as they have spent considerable numbers of years in school up to post graduate studies and this might likely enable their use of Google apps. This agrees with the findings of Oose, Otunaya, Otufale and

Dare (2018) that most employees within the higher institutions were educated and have required educational qualifications and this might have influenced their use of ICTs related tools.

Table 1: Socioeconomic characteristics of the respondents (n=105)

Variables	Frequency	Percentage	Mean (sd)
Age (Years)			
20 – 29	22	21.0	39.95 (10.23)
30 – 39	33	31.4	
40 – 49	29	27.6	
50 – 59	17	16.2	
60 and above	04	3.8	
Sex			
Male	62	59.0	
Female	43	41.0	
Marital status			
Single	22	21.0	
Married	79	75.3	
Divorced	3	2.9	
Widowed	1	1.0	
Academic qualification			
SSCE	05	4.8	
OND/NCE	16	15.2	
HND/BSC	64	61.0	
PGD	04	3.8	
M.Sc	14	13.3	
Ph.D.	2	1.9	
Years of experience			
1 – 8	46	43.8	12.11 (7.80)
9 – 15	31	29.5	
16 – 22	18	17.1	
23 – 29	05	4.8	
30 and above	05	4.8	
Monthly Salary (N)			
8,000 – 83,000	64	61.0	N91,726(75,909)
84,000 – 159,000	31	29.5	
160,000 – 235,000	06	5.70	
236,000 – 311,000	02	1.90	
312,000 – 387,000	01	1.00	
388,000 & above	01	1.00	

Source: field survey, 2018; S. D. =Standard Deviation

Types of Google apps used by employees

Findings in Table 2 show that employees ranked Google search first with the highest weighted mean score of 275.0 as the Google app mostly used in carrying out their work duties. Next to this are Google mail (263.0), Google chrome (245.8) and Google playstore (240.7). This implies that employees mostly used Google search, mail, chrome

and playstore in their day-to-day activities. This might be due to versatility of the app in support for collaboration amongst employees, ability to save time by speeding up the time frame of getting results. In addition, it is noted that these Google apps used by the employees enhanced the effective organisation communication in the study area.

**Table 2: Types of Google apps used by the respondents (n=105)**

Statement	Very Often	Sometimes	Rarely	Never	Weighted score	Rank
Google Search	80.9	15.2	1.9	1.9	275.0	1 st
Google Mail	76.2	13.3	8.6	1.9	263.0	2 nd
Google Chrome	72.4	10.5	7.6	9.5	245.8	3 rd
Google Playstore	66.6	17.1	6.7	9.5	240.7	4 th
Google Youtube	62.9	20.0	10.5	6.7	239.0	5 th
Google Photos	58.1	24.8	6.7	10.5	230.6	6 th
Google Docs	50.5	24.8	12.4	12.4	213.5	7 th
Google Drive	46.6	19.0	19.0	15.2	196.8	8 th
Google Spreadsheets	45 (42.9)	24 (22.9)	20(19.0)	16(15.2)	195.5	9 th
Google +	52 (49.5)	19 (18.1)	11(10.5)	23(21.9)	195.2	10 th
Google Maps	35 (33.3)	35 (33.3)	21(20.0)	14(13.3)	186.5	11 th
Google Presentation	24 (22.9)	46 (43.8)	14(13.3)	21(20.0)	169.6	12 th
Google Hangouts	14 (13.3)	19 (18.1)	10 (9.5)	62(59.1)	85.6	13 th
Google Drawings	12 (1.4)	21 (20.0)	19(18.1)	53(50.5)	85.5	14 th
Google Scholar	12 (11.4)	20 (19.9)	12(11.4)	61(58.1)	85.4	15 th
Google Forms	6 (5.7)	22 (21.0)	16(15.2)	61(58.1)	74.3	16 th

Source: Field survey, 2018

Utilisation of google apps by employees

Table 3 shows that 80.5% of the employees always found Google apps easy to use, 52.4% noted that utilisation of google apps allows them to accomplish more work than they would otherwise be possible. In addition, 60.0% noted they found it easy to get the Google apps to do what they want to do while 64.8% reiterated that their interactions with the Google apps is easy for them to understand.

More significantly, Table 3b indicates that (67.6%) of the respondent had low-level of usage of Google apps. This connotes that the use of google apps by the employees had not been explore to the fullest in carrying out their job duties. These finding is not in consonance with Banmeke and Oose (2012) cited in Oose (2019) that ICTs has revolutionize the ways and manners of information flow particularly in organisations.

Table 3: Utilisation of Google apps by employees (n=105)

Statement	Always	Occasionally	Rarely	Never
Google apps enables me to accomplish tasks more quickly	50.9	34.3	6.7	0.0
Using google apps allows me to accomplish more work than would otherwise be possible	52.4	39.0	3.8	4.8
I found the google apps easy to use	80.5	38.1	5.7	5.7
Google apps address my job-related needs	30.5	39.0	6.7	1.9
Google apps increase the quality of the work I do	37.1	51.4	6.7	1.9
I find it easy to get the google apps to do what I want it to do	2.95	60.0	6.7	1.9
My interaction with the google apps system is easy for me to understand	27.6	64.8	1.9	4.8
Google apps increases my productivity	30.5	53.3	7.6	6.7
I found it easy to recover from errors while using google apps	21.9	55.3	9.5	10.5
Interacting with the Google apps requires a lot of my mental effort	16.2	23.8	7.6	40.9
Google apps system often behaves in unexpected ways	7.6	26.7	13.3	37.1
Google apps are rigid and inflexible to interact with	7.6	18.1	13.3	36.2
Interacting with Google apps is frustrating	5.7	13.3	17.1	44.7
I consult user manuals when using google apps	8.6	13.3	9.5	45.7

Source: Field survey, 2018.

Table 3b: Index for utilisation of Google apps

Variables	Categorisation	Frequency	Percentage
Low	14-35	71	67.6
High	36-56	34	32.4

Source: Computation analysis (2018)

Constraint to the use of google apps

Table 5 reveals that internet connection with weighted mean score of 74.7, lack of stable electricity (73.7), internet facilities (72.4) and cost of data (67.2) were the most severe constraint faced by the respondents as they were ranked first, second,

third and fourth respectively. This indicates that almost all the employees' constraints to the use of Google app with respect to their job duties revolves round internet connection and the issue of unstable electricity.

Table 5: Constraint to the use of Google apps (n=105)

Variables	Severe	Mild	Not at all	Weighted score	Rank
Internet connection	58.1	33.3	8.6	74.7	1 st
Lack of stable electricity	57.1	33.3	9.5	73.7	2 nd
Internet facilities	57.2	30.5	12.4	72.4	3 rd
Cost of data	46.7	41.0	12.4	67.2	4 th
Cost of acquiring gadgets	50.5	31.4	18.1	66.2	5 th
Level of literacy and education	28.6	53.3	18.1	55.2	6 th
Lack of operational knowledge	22.9	54.3	22.9	50.0	7 th
Complexity of Google apps	13.3	49.5	37.1	38.0	8 th

Source: Field survey, 2018

Difference in employees' utilisation of Google Apps

Table 6 shows that there was no significant difference (t =0.859; p=0.219) between employees' usage of Google apps at the Federal University of Agriculture, Abeokuta and Federal College of Education, Abeokuta. This might be attributed to the

fact that employees from the two institutions perform similar work duties, hence the daily need for the exchange of email. This support the findings of Pankag cited in Oose (2019) that ease of use of a technology is an important factor the determining the adoption and frequent use of such technology.

Table 6: Test of difference of utilisation of Google apps in the two institutions

Variables	Institutions	N	Mean	Std deviation	Std error	t-value	sig
Use of google apps	FCE	46	50.26	20.68	3.050	0.859	0.219
	FUNAAB	59	53.42	17.05	2.219		

Source: Computation analysis (2018); t-value is not significant at 0.05 levels

CONCLUSION AND RECOMMENDATION

Employees in the study area frequently use google search, google mail and google chrome in carrying out their job duties, however, low utilisation of these apps were noticed. It is recommended that management of the two institutions should organise training and re-training workshops on the use of google apps and felicitate a workplace communication system that is ICT driven.

REFERENCES

Al-Emran, M., Elsharif, H. M., & Shaalan, K. (2016). Investigating attitudes towards the use of mobile learning in higher education. *Computers in Human Behavior*, 56, 93-102. URL <http://dx.doi.org/10.1016/j.chb.2015.11.033>

Banmeke, T.O.A., and Oose, M. O. (2012). Assessment of the use of social network tools by Agricultural Researchers in Southwest Nigeria. *Journal of*

International InformationManagement Association 12(1); 55-60.

Cahill, J. L. (2014). University Professors' Perceptions About the Impact of Integrating Google Applications on Students' Communication and Collaboration Skills. *Journal of Research Initiatives*, 1(2), 7-14

Ferreira, J. M. M. (2014, February). Flipped classrooms: From concept to reality using Google Apps. In *Remote Engineering and Virtual Instrumentation (REV)*, 2014 11th International Conference (204-208). IEEE

Greenberg, J. (2011). *Behavior in Organisation*-Tenth Edition. Indiana: Pearson Education

Griffin, E. M. (2009). *A First look at communication theory* (7th ed.) New York: McGraw-Hill.

Kaimuloa Bates, B. (2011). Using Google Apps in Professional Learning Communities. Proceedings of the 16th Annual TCC Worldwide online conference, 237pp Hawaii, USA.

Ktoridou, D., & Eteokleous, N. (2013, March). Interdisciplinary Web-based learning



- practices in higher education. In Global Engineering Education Conference (EDUCON), 2013 IEEE (536-539). IEEE. <http://dx.doi.org/10.1109/educon.2013.6530157>
- Langton, Robbins, and Judge (2013). *Fundamentals of Organisational Behaviour*, Fifth Canadian Edition
- Oose, M.O. (2019). Artisanal fishers' Utilisation of Short Message Services (SMS) for Agricultural Information in Coastal Area of South-West, Nigeria: Principal Component Analysis. *Nigerian Agricultural Journal*, 50(1): 263-269
- Oose, M.O., Otunaya, D.A., Otufale, G.A., and Dare, I.I. (2018). Employees' Utilisation of Communication Channels and Its Effect+ on Job Performance in Lagos State, Nigeria. *Nigerian Journal of Agricultural and Development Economics*, 8(2); 57-69
- Pangkag, K. J. (2011). SMS-Based Information System. Unpublished Master's Thesis, School of Computing, University of Eastern Finland, Pp 71.
- Sviridova, T., Sviridova, L., & Tymoshenko, B. (2011). GoogleApps as solution of communication; issues in educational process. In *Perspective Technologies and Methods in MEMS Design*