

A Correlation Study of Utilizing Information Technology and Effects to Job Performance of Local Barangay Workers in Panabo City

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ABSTRACT:

Information technology is making changes in many types of working environments mostly in productivity and competitiveness. This study investigated the utilization of information technology and effects to job performance of Local Barangay workers of Panabo City. With the use of information technology, it caused a positive relationship to the job performance of local barangay workers. Forty-five (45) respondents returned the request to answer the survey forms which embodied the local barangay workers. The study utilized a correlational research design method that involves observing two variables in order to establish a statistically corresponding relationship between them. Results revealed a positive correlation between the utilization of information technology and effects to job performance of workers. However, there is a weak positive relationship in the utilization of IT and level of job performance among barangay workers. Since p-value is $0.015 < 0.05$, then we reject the null hypothesis. On the other hand, this study recommends that workers should utilize the use of information technology to improve their job performance and workers should set policies concerning the responsible utilization of information technology as a means of device used as technological innovation on advancing job performance at working environment.

Keywords: Abstract Reasoning, Logical Arithmetic, Technological Knowledge, Mathematics, Philippines

1. INTRODUCTION

Abstract Reasoning is also known as fluid intelligence or analytic intelligence. It is the ability to analyze novel problems, identify the patterns and the relationships that underpin these problems [1]. Therefore, abstract reasoning is a good enhancement on individuals thinking ability, it let the person think in different edges on figuring out the problems.

Globally, issues in the workplace environment mostly in productivity and competitiveness in today's organizational behaviour are a phenomenal problem especially now in the midst of pandemic. In our old system we didn't use technology as our main source because other workers didn't know how to use the technology effectively in their workplace. Otherwise, they didn't use technology just because they are gratified in the old system of work environment.

In the 21st century, technology is fast expanding when it comes to the numbers of users. Technology has big effects in our society and also in our workers to enhance their performance. The technology has both substantial and elusive advantages that will help your performance on more productive outcomes especially now in the midst of pandemic. Innovation is one of the foundations that we have, it will influence our life, effectiveness and connections of workers.

According to [1]. The study seeks to assess the efficacy of computer-based pronunciation instruction for enabling EFL learners in advanced English language classes at the university-level to perceive and produce correct stress patterns. The study focuses on using the communicative approach in learning stress patterns which is based on providing meaningful, interactive, and authentic activities. The findings of the study reveal that computer-assisted pronunciation instruction is effective in improving the EFL learners' ability to produce and perceive correctly different stress patterns in words, phrases, and sentences, and that students also have a positive attitude toward computer-assisted pronunciation instruction and activities.

The technological development that the world has been facing during last decades has also influenced areas such as education. Along the same lines, the growing application of technology in foreign language learning has led to the establishment of a new discipline known under the name of Computer- CALL & Foreign Accent Reduction 42 Assisted Language Learning (CALL). Interestingly, CALL systems have evolved together with the approaches to the teaching of foreign languages, in which the focus has shifted from teaching writing skills, grammar, and vocabulary to teaching oral skills and thus also pronunciation and prosody. [2]

Constantly, we boast about the advantages technology has brought into the workplace. Thanks to modern-day technology, you no longer have to

write things out by hand, figure accounting numbers by using a simple calculator, or worry about writing down the time and date of your next meeting (and then finding the note you left yourself) – technology helps simplify it all for you.

Though technology is crucial in today's workplace, there are instances where technology offers up more disadvantages than advantages. Technology is highly distracting. Contemporary information and communication technologies (ICTs) such as email and instant messaging create frequent interruptions in the workday, which can potentially reduce business productivity and increase stress. However, we know little about how ICT-enabled interruptions cause stress and how individuals can use ICTs to cope with this stress. Using the transactional model of stress as the theoretical framework, they examine ICTs' influence on the stress process. The result of the examination has two demands that serve as stressors: quantity and content of ICT-enabled interruptions. These stressors influence perceptual stress, which then manifests into physical strain. To understand how to mitigate ICT-enabled stressors' influence, they examine three forms of control that potentially moderate demand's influence on the stress process: timing control, method control, and resource control. Timing control serves as a primary control, control that is present at the initial appraisal of an environment, while method control and resource control serve as coping behaviors, behaviors that individuals enact after they feel stressed. [3]

Theoretical Framework

This paper seeks to answer the level and extent of involvement utilizing technology and effects to job performance of local barangay workers. The theory used in this research is Theory of Work Attitudes and Performance. It was developed by Hackman & Oldham in 1975-1980 [5] and it was used to study job performance and productivity as a function of characteristics of a job.

This theory indicates that employee performance is moderated by employee’s need to accomplish job performance. According to [5], job satisfaction is the extent to which a person is gratified or fulfilled by his/her work. As it applies to the researchers’ study, this theory holds that the researchers would expect the independent variable which is the applications usage that could influence the workers’ job performance in the midst of pandemic as the dependent variable. It is also based on Technology Acceptance Model Davis, 1989 [6] that studies how users’ come to adopt and use the technology especially in working in the ease of usefulness of a technological tool or application usage that determines the extent of workers’ job performance.

In the midst of this pandemic, we are ever more concerned with well-being at work and resiliency to enhance job performance in the use of technology to conduct work. As can be seen, technology usage helps the workers to work fast and freely increasing productivity of the local barangay workers, carrying their task and duties effectively. Defined job satisfaction as a global construct or as a constellation of different aspects to which the employee reacts affectively.

Conceptual Framework

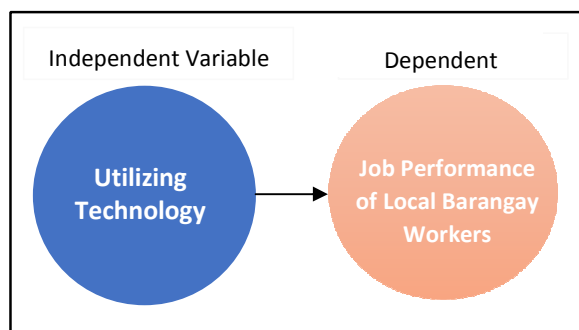


Figure 1. Conceptual Framework of the study

Figure 1 above presents the conceptual model that will be used in this study. The diagram shows the relationship between applications usage and local barangay workers job performance in the midst of pandemic. The left side represents the

independent variable while in the right side represents the dependent variable of the study to show if both variables have a significant relationship or significant relationship.

Research Questions

This study seeks to examine whether application usage has relationship with the job of local Barangay workers in the in the midst of pandemic. The main research questions that guided this research study:

RQ1: What is the level of utilization of information technology among barangay workers in Panabo City?

RQ2: What is the level of job performance among barangay workers in Panabo City?

RQ3: Is there a significant relationship between the level of utilization of IT and level of job performance among barangay workers in Panabo City?

Null Hypothesis

Ho1: There is no significant relationship between the level of utilization of IT and level of job performance among barangay workers in Panabo City.

II. METHODOLOGY

Research Design

The researchers used the correlational research design in this study to examine the correlational among utilizing technology and effects to job performance of local barangay workers. Correlational research is a type of research method that involves observing two variables in order to establish a statistically corresponding relationship between them. The aim of correlational research is to identify variables that have some sort of

relationship do the extent that a change in one creates some change in the other.

Correlational research is useful because it allows us to discover the strength and direction of relationships that exist between two variables, the relating variables are utilizing technology and effects to job performance of local barangay.

Research Locale

This study was conducted in the six (6) barangays of Panabo City. These barangays consist of the following: Gredu, New Pandan, New Visayas, Salvacion, San Francisco, San Vicente.

This paper focuses on this place because 1) New Visayas has the largest population among the other cities. Its population as determined by the 2015 Census was 16,566. This represented 8.97% of the total population of Panabo. 2) Gredu Its population as determined by the 2015 Census was 16,543. This represented 8.96% of the total population of Panabo. 3) San Vicente Its population as determined by the 2015 Census was 14,449. This represented 7.83% of the total population of Panabo. 4) Its population as determined by the 2015 Census was 12,832. This represented 6.95% of the total population of Panabo. 5) Its population as determined by the 2015 Census was 9,521. This represented 5.16% of the total population of Panabo. 6) Its population as determined by the 2015 Census was 6,636. This represented 3.59% of the total population of Panabo City

Participants the Study

There will be 45 respondents in this study which are the employees of Barangay Gredu, New Pandan, New Visayas, Salvacion, San Francisco, San Vicente and the effect of application usage and job performance of local barangay in their daily operations. The respondents are selected using simple random sampling. The researchers will give a survey questionnaire to every person they have

selected. Each person was evaluated and given perception about the application usage and job performance of local barangay workers in the midst of pandemic.

Sampling Techniques

The sampling technique that we are going to use is cluster sampling method. In gathering information about our study, we will divide our respondents into two cluster.

Statistical Treatments

The researchers collected responses from a survey questionnaire of the respondent and use the Statistical Package for Social Sciences (SPSS) to analyze the gathered data. Moreover, the researchers will use descriptive statistics in order to define the mode, median, minimum, maximum values and range and all of the compiled data in properly. The researchers will use the Frequency Table to analyze the data like percent and valid percent.

Research Instrument

A research instrument is a tool used together, measure and analyze data from the subject around the research topic. Due to the unexpected global pandemic, the research instruments were used is an online survey questionnaire. We all know that a survey is defined as a research method used for collecting data from a pre-defined group of respondents to gain information and insights on various topics of interest. Surveys have a variety of purposes and can be carried out in many ways depending on the methodology chosen and the objectives to be achieved. By observation, the researcher chose to use survey questionnaire it should be accurate, reliable, not bias, and comprehends clear and explicate instruction. We attain our data from the selected participants in the barangay of Panabo City. As a result, the answered questionnaire from our respondents, were

going to analyze it using the appropriate statistical tool.

Data Collection Procedure

The researchers used the materials and instruments for gathering the data were the survey questionnaires. The selected respondents will be asked patiently on their break time or if they are available time to answer our questions. The steps of conducting the survey, first, researchers will ask permission to the respondent if they are available to answer our survey questionnaire. Second, accepts our permission to conduct our survey after they accept, then that is the time we will give our survey questionnaire to the respondents. And lastly, after the survey questionnaire has been answered by the respondents, the researcher will collect it and will analyze the data has been gathered.

Ethical Considerations

Ethical Consideration is very important in conducting a survey, it should be done in a pleasant way. The most priority here is the safety of the respondent especially now that we face the unexpected global pandemic issue. The first thing that we should do is to follow the safety protocols which is wear face mask and face shield as a strict prohibited by city orders. We need to visit the 6 barangays personally to discuss our research study to approve them to conduct the study and give them some advice on how to conduct on the survey.

Meanwhile, by giving the both details and directions humbly, the respondent answered is highly respected and valued. Also, the data that will be gathered by the researchers will be kept in private and always anonymous to those who participate the survey. We will be transparent if the result was in our hands with full of honesty.

III. RESULTS AND DISCUSSIONS

This part of research presents the analysis and interpretation of the data gathered. In this study,

we investigate the utilization of technology and its effects to Job Performance of Local Barangay Workers in Panabo City.

Table 1 shows the interpretation for Level of Utilizing Information technology and Job Performance.

TABLE I.
 INTERPRETATION TABLE FOR LEVEL OF UTILIZING INFORMATION TECHNOLOGY AND JOB PERFORMANCE

Range of Mean	Description Interpretation
1.00 – 1.80	Very Low
1.81 – 2.60	Low
2.61 – 3.40	Moderate
3.41 – 4.20	High
4.21 – 5.00	Very High

TABLE 2. INTERPRETATION TABLE FOR THE RELATIONSHIP BETWEEN LEVEL OF UTILIZING INFORMATION TECHNOLOGY AND JOB PERFORMANCE

R	Strength
0-0. 19	Very weak
0. 20-0. 39	Weak
0. 40-0. 59	Moderate
0. 60-0. 79	Strong
0. 80-1. 00	Very strong

Evans, J. (1996). Straightforward statistics for the behavioral sciences. Pacific Grove, CA: Brooks/Cole Publishing.

RQ1. What is the level of utilization of information technology among barangay workers in Panabo City?

TABLE 3.
 LEVEL OF UTILIZATION OF INFORMATION TECHNOLOGY (DESCRIPTIVE)

	N	Minimum	Maximum	Mean	Std. Deviation
ITMean	45	3.14	5.00	4.5365	.44779
Valid N (listwise)	45				

Table 3 shows the mean, Std. Deviation and description of level of utilization of information technology among barangay workers in Panabo City. The mean of the level of utilization of information technology is 4.5365 with a standard deviation of 0.44779. This shows that the level of utilization of information technology is very high.

RQ2. What is the level of job performance among barangay workers in Panabo City?

TABLE 4.
LEVEL OF JOB PERFORMANCE (DESCRIPTIVE)

	N	Minimum	Maximum	Mean	Std. Deviation
JPMean	45	3.71	5.00	4.4159	.37775
Valid N (listwise)	45				

Table 4 shows the mean, Std. Deviation and description of level of job performance among barangay workers in Panabo City. The mean of the level of job performance among barangay workers is 4.4159 with a standard deviation of 0.37775. This shows that the level of job performance among barangay workers is very high.

RQ3. Is there a significant relationship between the level of utilization of IT and level of job performance among barangay workers in Panabo City?

Null Hypothesis: There is no significant relationship in the utilization of IT and level of job performance among barangay workers.

TABLE 5. SIGNIFICANT RELATIONSHIP IN THE UTILIZATION OF IT AND LEVEL OF JOB PERFORMANCE (CORRELATIONS)

		ITMean	JPMean
ITMean	Pearson Correlation	1	.362*
	Sig. (2-tailed)		.015
	N	45	45
JPMean	Pearson Correlation	.362*	1
	Sig. (2-tailed)	.015	
	N	45	45

*. Correlation is significant at the 0.05 level (2-tailed).

Table 5 shows the relationship in utilization of information technology and level of job performance among the local barangay workers. The r-value is 0.365 which means that there is a weak positive relationship in the utilization of IT and level of job performance among barangay workers.

Since p -value is $0.015 < 0.05$, then we reject the null hypothesis. There is a significant relationship in the utilization of IT and level of job performance among barangay workers.

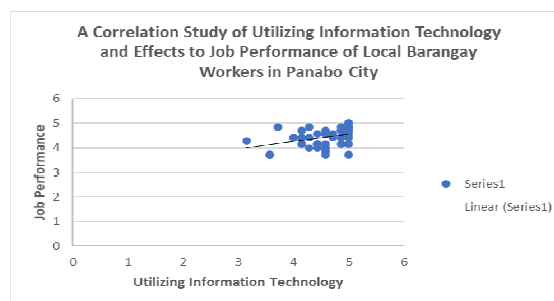


Figure 2. Scatter Plot

Figure 2 shows the scatter plot of utilizing information technology and level of job performance of local barangay workers of Panabo City. The blue dots represent the 45 coordinates which stand as the scores of each respondent in the independent and dependent variables. The black line stands for the trend of relationship that represents the arrangement of the dots.

IV. CONCLUSIONS AND RECOMMENDATIONS

Factual interpretations have been made by the researcher for the results of this study. The summary of finding gives a clear picture of the study. It comes about shown that there's a positive relationship between utilizing of information technology and the effects to job performance of local barangay workers of Panabo City. Based on

the findings of the study, the researchers conclude that:

It is evident that the results have provided great insights into utilization of information technology and job performance of local barangay workers. The study was conducted with 45 respondents. It demonstrates that workers see information technology as a useful device in the work environment for a better job performance.

The mean of the level of utilization of information technology is 4.5365 with a standard deviation of 0.44779. This shows that the level of utilization of information technology is very high. On the other hand, the mean of the level of job performance among barangay workers is 4.4159 with a standard deviation of 0.37775. This shows that the level of job performance among barangay workers is very high. It means that utilization of information technology is helpful in the job performance of local barangay workers.

This study recommends that workers should utilize the use of information technology to improve their job performance and workers should set policies concerning the responsible utilization of information technology as a means of device used as technological innovation on advancing job performance at working environment.

ACKNOWLEDGEMENT

We, the researchers from Davao del Norte State College taking up Bachelor of Science in Information Technology would like to express our heartfelt gratitude to the following significant people behind the completion of this study:

First of all, we want to offer this gratitude to or Almighty GOD for the wisdom he bestowed upon us, the peace of mind and strength he gave in order to finish this research.

We are very grateful to the following barangays of Panabo City: San Francisco, San Vicente, Gredu, New Visayas, New Pandan and Salvacion for providing necessary information regarding this research and also their extreme support to finish this research.

Mr. Mark Van Buladaco, Dean of Institute of Computing and our instructor for imparting his expertise and knowledge in this field as well as for giving us the opportunity to do research.

To our adviser Mr. Jomarie Dave B. Java, we thank you for your heartwarming encouragement, guidance, and patience in all our task.

To our statistician Mr. Ellvan Campos. Thank you for being our statistician in this research. This research cannot be done without your help.

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