

# Exploring the Relationship between the Effect of Technology and Employee Performance: The Case of Maryknoll College of Panabo, INC

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**Abstract** -Technology and social media platforms are making changes in many types of work environments. With the advent of technological advancements in the academic realm, it caused both improvements and distractions in the operations. This study investigated the effects of technology, in the form of social media platforms on employee's performance of a private school, catering to both secondary and tertiary levels. One hundred five (105) respondents returned the request to answer the online survey forms, which represented both the academic and administrative personnel who maneuver the college operations. The study utilized the quantitative non-experimental research design, employing the correlational technique to test if there is a significant relationship between the interplaying variables. Significant differences were also identified when the respondents are grouped according to gender, age group, and designation.

Results revealed a positive correlation between the effects of using technology in the workplace and its employee performance. However, on the strength of the relationship, there is a weak correlation. Thus, we could not proceed with the generation of the model to identify which indicators of effects of technology can significantly influence employee performance.

Nevertheless, this study recommends that the college administration should set rules concerning the responsible utilization of social media platforms as a technological breakthrough on advancing teaching and learning processes. As the usage of this form of technology is affecting the employee performance level, it is suggested that school personnel would craft policies and conduct training for members of the faculty and non-teaching staff on how to maximize social media platforms in the academic workplace.

**Keywords:** Correlational Research, IT Skills, Employee Performance, Davao City

## I. INTRODUCTION

### A. Background of the Study

The Philippines has improved in terms of technology in the past year and currently will grow in the next years. Manila has climbed to the 55th spot out of 82 economies tracked in the latest Technological Readiness Ranking published by the Economic Intelligence Unit. The Philippines bagged a score of 5.5 and shared the 55th place with Colombia, Jordan, Kazakhstan, Serbia, and Sri Lanka[1].

In a generation, technologies' impact on employees can be motivational or distraction. It can affect an employee's performance. Studies show that organizations are not doing enough to help their employees cope with digital trends in the workplace. Approximately 47% of respondents in the survey expressed the lack of company initiative on equipping them with technological know-how[2]. They are also critical for 59% of employed online adults who occasionally take their jobs outside the physical boundaries of the workplace [3].

The technology could be a stage through which individuals' interface or collaborate on interior and outside the organizations [4]. Technology not as it was given total knowledge management but, to give fundamental and adaptable apparatuses to the administration[5]. The accessibility of technology applications (e.g., Facebook, Instagram, and Twitter) are playing an essential part in human interaction inside an organization. Workers utilize online applications in the workplace because these applications bring effectiveness in operation.

Social media has gotten to be a requirement for an organizational plan in this competitive environment[6]. Organizations may confront openings, dangers, shortcomings, and qualities owing to utilize of social media[6]. For instance, social media provides an opportunity in terms of transferred data may be useful for the organization. On the other hand, it may have gotten to be a risk. Competitors may be utilizing shared data. So, also social media can be a shortcoming for the organizations when it adversely influences its efficiency. Social media may have gotten to be the quality of an organization when it is utilized to create a relationship and used it to construct the capacity of the representatives. Even though social media plays a critical part in an employee's work execution, minor significance was given to utilize social media in the working environment.

Even though the concepts of innovation and work execution have more extensive suggestions inside the organizations, there's no conclusive prove from past inquire about identifying the relationship among these factors. In this manner, this investigation pointed to satisfy the distinguished crevice and provides viable suggestions to the specialists.

*B. Theoretical Framework*

This research is anchored to the study of Carlson et al. (2016) on his conceptual systems presented in the Social Cognitive Theory, which suggests that learning about various social media technologies may result in new thinking or a modified sense of self. Based on that new thinking or self-concept, employees may begin to use social media in different ways, making or breaking the established organizational culture. Excessive social media use may help employees enact positive behaviors at work, which is beneficial in corporate operations.

Furthermore, in a study conducted by Oxenford (2011), entitled Social Media, Employees & Workplace, and supported by the research of Carlson et al., Oxenford emphasized that social media behavior and use in the workplace are dependent on the organizational culture and the people who work there. In this study, it was found that any company needs to place social media on the table and should be part of the company's operational discussions so that policies can be crafted to address impending problems related to this matter.

*C. Conceptual Framework*

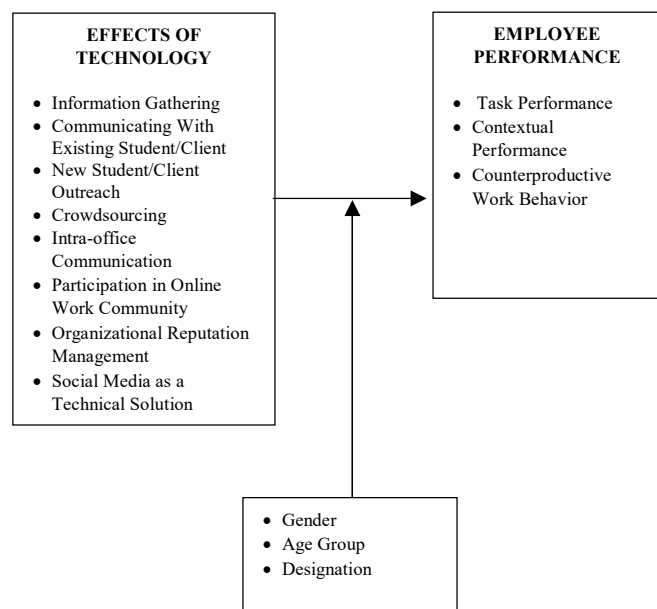


Figure 1. Conceptual Framework of the study

Figure 1 shows the Schematic Diagram of the interplaying variables of the study. It also shows the indicators per variable.

*D. Research Questions*

This study aimed to resolve the controversy over whether or not the use of current technology in the workplace leads to added value for the organization by examining the use of technology in the workplace and its effect on employee performance.

Specifically, this study sought answers to the following questions:

1. What is the demographic profile of the respondents according to:
  - a. Age Group
  - b. Gender
  - c. Designation
2. What is the level of effects of technology on the school personnel of the college?
3. What is the level of employee performance of the school personnel of the college?
4. Is there a significant difference in the level of effects of technology and employee performance when grouped according to age group, gender, and designation?
5. Is there a significant relationship between the independent and dependent variables of this study?

*Null Hypothesis*

With the problem in the study, the null hypothesis was tested at 0.05 level of significance stating that there is no significant difference in the effects of technology and employee performance when grouped according to age group, gender, and designation.

There is no significant relationship between the independent and dependent variables of this study.

**II. METHODOLOGY**

*A. Research Design*

The study employed a quantitative non-experimental research design utilizing the correlational technique. The study used correlation research as it describes, if technology has an effect on employee's performance in the workplace and explained the significant difference between the two variables. It further investigates how technology relates on employee's performance.

The location of the study is at Maryknoll College Panabo, Inc. (MCPI), Panabo City, Davao del Norte, in all departments including Junior High school department, Senior High School Department, Graduate School Department, Admin and Staff Department, Maintenance Department, and TECHVOC Department.

*B. Participants of the Study and Sampling*

This study targeted 155 employee respondents who were either full-or-part time in different departments, (93) Faculty department, (39) Admin and Staff department, (17) Maintenance department, and (6) TECHVOC department. The study also gathered employee's age, gender, designation, and the number of years in service.

This study utilized a random purposive sampling technique. The questionnaires were distributed to the target respondents, and only those who were employed in the college were included in the inclusion criteria.

### C. Statistical Treatments

In addressing each of the laid research questions, the researchers utilized frequency, mean, analysis of variance, independent t-test, and Pearson r to the corresponding collected data and problem stated.

### D. Data Collection Procedure and Ethics

This study targeted a total of 155 completed questionnaires from the researcher. There were 93 respondents who were surveyed in the Faculty department, 39 surveyed in the admin and staff department, 17 surveyed in the maintenance department and 6 surveyed in the TECHVOC department. Only 105 questionnaires were retrieved from the survey using the online survey form.

Responses to the questions were analyzed using inferential statistical. The use of a five-point scale questionnaire (i.e., from "strongly agree" (5) to "strongly disagree" (1) in the present research was adopted.

In this study, the research asks the MCPI school head to conduct this kind of study. The researcher will provide consent before collecting data. The respondents have a right to answer or not the prepared survey paper, and the researcher should disclose the information gathered to protect their rights.

## III. RESULTS AND DISCUSSIONS

Table 1 shows the 105 respondents' demographic profiles in terms of gender, age group, designation, and the number of years in service.

TABLE I. DEMOGRAPHIC PROFILE

Characteristic (n=105)	Level	No.	%
Gender	Male	39	37.1
	Female	66	62.9
Age Group	Millennial	84	80
	Generation X	18	17.1
	Baby Boomer	3	2.9
Designation	Academic Personnel	66	62.9
	Admin Personnel	39	37.1
No. of Years in Service	1	42	40
	11	6	5.7
	12	3	2.9
	16	3	2.9
	18	3	2.9
	2	18	17.1
	3	12	11.4
	33	3	2.9
	4	12	11.4
	5	3	2.9

TABLE II. LEVEL OF EFFECTS OF TECHNOLOGY

Indicators	Mean	SD	Description
Information gathering	4.04	0.66	High
Communicating with Existing Student/Client	3.74	0.76	High
New Customer/Client Outreach	3.67	0.73	High
Crowd sourcing	3.54	0.81	High
Intra-office Communication	4.27	0.59	Very High
Participation in Online Work Community	3.50	0.81	High
Organizational Reputation Management	3.72	0.74	High
Social Media as Technical Solution	3.96	0.70	High
<b>Overall</b>	<b>3.81</b>	<b>0.73</b>	<b>High</b>

Table II shows the mean, SD, and description of the level of effects of technology. The overall response of the respondents has a mean score of 3.81, which denotes that it has a high level of effects of technology. Its indicators include the Information gathering, communicating with existing student/client, new customer/client outreach, Crowd-sourcing, Intra-office communication, Participation in the online work community, Organizational reputation management, and Social media as technical solution obtained a mean score of 4.04, 3.74, 3.67, 3.54, 4.27, 3.50, 3.72, and 3.96 respectively can be interpreted that all of the indicators have a high level of effects.

The result implies that the level of influence of social media platforms analyzed the interfacing estimation social media utilizes to work execution. It also found that social and cognitive use of social media has a positive effect on employee's plans and creative work execution[7].

TABLE III. LEVEL OF EMPLOYEE PERFORMANCE

Indicators	Mean	SD	Description
Task Performance	4.14	0.43	Good
Contextual Performance	3.97	0.48	Good
Counterproductive work behavior	3.76	0.72	Good
<b>Overall</b>	<b>3.96</b>	<b>.54</b>	<b>Good</b>

Table 3 shows the mean, SD, and description of the level of employee performance. The respondents' overall response has a mean score of 3.96, which denotes that the overall mean has a good level of employee performance. Its indicators, which include task performance, contextual performance, and counterproductive work behavior, obtained a mean score of 4.14, 3.97, and 3.76, respectively. It can be interpreted that it has a good level of employee performance.

The result implies that the counterproductive work behavior of employees has a high result and found out that the employee's work behavior mediates the effect of employee's learning, in other words, the employee's interpersonal behaviors lead to lower enthusiastic, less sharing, and procuring new information with other employees[8].

TABLE IV. SIGNIFICANCE DIFFERENCE ON THE EFFECTS OF TECHNOLOGY AND EMPLOYEE PERFORMANCE WHEN RESPONDENTS ARE GROUPED ACCORDING TO GENDER

Test Variables	Gender	Independent T-test			
		Mean	Std. Deviation	F	Sig.
Effects of Technology	Male	3.81	0.53	3.90	0.051
	Female	3.80	0.47		
Employee Performance	Male	3.83	0.57	14.6	.000
	Female	4.06	0.28		

Since the  $p$ -value of the effects of technology is  $0.051 > 0.05$ , then we do not reject the null hypothesis. There is no significant difference in the effects of technology when respondents are grouped according to gender.

Meanwhile, the  $p$ -value of Employee Performance is  $.000 < 0.05$ , then reject the null hypothesis. There is a

significant difference in employee performance when respondents are grouped according to gender.

The result implies that both male and female employees do not influence any social media platform; otherwise, the employee performance affects both employees' gender.

TABLE V. SIGNIFICANT DIFFERENCE IN THE LEVEL OF EFFECTS OF TECHNOLOGY AND EMPLOYEE PERFORMANCE WHEN RESPONDENTS ARE GROUPED ACCORDING TO AGE GROUP

ANOVA					
Test Variables	Age Group	Mean	Std. Deviation	F	Sig.
Effects of Technology	Millennial	3.73	0.50	9.635	0.000
	Generation X	3.95	0.16		
	Baby Boomer	4.84	0.00		
	<b>Total</b>	<b>3.80</b>	<b>0.49</b>		
Employee Performance	Millennial	3.92	0.34	6.556	0.002
	Generation X	4.01	0.44		
	Baby Boomer	4.67	0.00		
	<b>Total</b>	<b>3.96</b>	<b>0.37</b>		

Since  $p$ -values are 0.000 and 0.002  $< 0.05$ , then we reject the null hypothesis. There is a significant difference in the effects of technology and employee performance when respondents are grouped according to age groups.

The result implies that age affects employee performance and the level of effects of technology in the workplace.

TABLE VI. SIGNIFICANT DIFFERENCE ON THE EFFECTS OF TECHNOLOGY AND EMPLOYEE PERFORMANCE WHEN RESPONDENTS ARE GROUPED ACCORDING TO DESIGNATION

Independent T-test					
Test Variables	Designation	Mean	Std. Deviation	F	Sig.
Effects of Technology	Academic Personnel	3.80	0.39	3.542	0.062
	Admin Personnel	3.80	0.63		
Employee Performance	Academic Personnel	3.90	0.41	2.951	0.088
	Admin Personnel	4.05	0.29		

Since  $p$ -values are 0.0062 and 0.088  $> 0.05$ , then we do not reject the null hypothesis. There is no significant difference in the level of effects of technology and employee performance when respondents are grouped according to the designation.

The result implies that the level of effects of technology and employee performance has nothing to do in an employee's position at work. It is the courage and hard work that will make the employee performance high.

TABLE VII. SIGNIFICANT RELATIONSHIP BETWEEN EFFECTS OF TECHNOLOGY PLATFORM AND EMPLOYEE PERFORMANCE

Pearson r				
Variables	Mean	Std. Deviation	r	Decision
Effects of Technology	3.81	0.49	0.392	HO is Rejected
Employee Performance	3.96	0.38		

Table 7 shows the positive correlation between the level of the effects of technology and Employee Performance. This implies that when the level of effects of technology increases, the employee performance also increases. The strength of the

relationship between variables, with the value of  $r=0.392$ , has a Slight Relationship.

Thus, the null hypothesis is rejected. There is a significant relationship between the Effects of Technology and Employee Performance.

The result implies that the use of social media platforms is positively correlated with employee's performance analyzed the connecting measurement of social media utilize to work execution and found that social and cognitive utilize of social media includes a positive impact on an employee's schedule and creative work execution[9].

#### IV. CONCLUSIONS AND RECOMMENDATIONS

The relationship between the utilization of technology and employee performance execution with the intervening part of the organizational structure was examined. It comes about shown that there's a positive relationship between usage of technology in the form of social media platform and employee performance.

##### Conclusions

Discoveries demonstrated that workers see social media as a valuable apparatus in the work environment and have a substantial impact on their execution. So also, professionals favor utilizing social media in the work environment to extend the performance of their representatives.

It comes about upheld that the usefulness component of social media unequivocally related to employee work execution, particularly with assignment execution and consistent execution.

Consequently, it is suggested that higher administration have to create arrangements, methods, rules, and direction adjoin social media utilization and energize them to utilize it for work purposes at the working environment to pick up its most extreme benefits.

##### Recommendations

This study recommends that the college administration should set rules concerning the responsible utilization of social media platforms as a technological breakthrough on advancing teaching and learning processes.

As the usage of this form of technology is affecting the employee performance level, it is suggested that school personnel would craft policies and conduct training for members of the faculty and non-teaching staff on how to maximize social media platforms in the academic workplace.

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