

Awareness to E-Commerce Development and Sales Performance among Small and Medium Enterprises in the Municipality of Bansalan: A Correlational Analysis

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Abstract:

Electronic commerce developments have helped organizations in essentially every space of the worldwide economy. This study aims to assess and additionally dissect the effect of web-based business and undertaking deals development on purchaser purchasing conduct, particularly among residents of the Municipality of Bansalan who essentially utilize online media sites to buy labor and products. In order to examine the extent to which or more variables are related to one another, the researcher uses a correlational research in which the researchers measure two variables and assesses the statistical relationship between them with little or no effort to control extraneous variables. Thirty (30) respondents returned to answer the survey forms, where data gathered through physically handling the questionnaire to the enterpriser's owner. The results on E-commerce development and enterprise deals development with the application of mean, frequency, Pearson r, and Regression Analysis, The Level of Awareness to e-commerce development when grouped according to Business Category suggest that there is no significant difference between the level of awareness to e-commerce development when grouped according to the business category. The Level of Sales Performance when gathered by Business Category and the outcome for the Level of Sales Performance when assembled by long periods of activity shows that there is no significant difference of sales performance when grouped both in business category and years of operation. Furthermore, the result shows that here is no significant relationship between E- Commerce development and Sales performance among small and medium enterprises in the Municipality of Bansalan. Moreover, future researchers should undertake a study that investigates the efficiency of E- commerce development in this new normal while monitoring its sales performance, since it seems to have a wide range of scope in understanding people's purchasing behavior.

Keywords —Correlational Analysis, E-commerce Development, Sales performance, SME's, Bansalan

I. INTRODUCTION

Electronic commerce innovations have helped businesses in nearly every area of the global economy over the last two decades. E-commerce, on the other hand, is a relatively new phenomenon. As a result, any concept of e-commerce that excludes certain aspects of the industry is bound to be contentious and changing. Many facets of business and social life are being reshaped by electronic commerce. If companies want to remain competitive in the marketplace, they must adapt their strategies to the new realities. E-commerce is a modern way of doing business that is growing in popularity every year. "E-commerce" as "all electronically mediated transactions between a corporation and a third party". At the same time, e-commerce not only provides businesses with a wealth of data, speeds up transactions, and reduces prices, but it also changes their marketing strategies and practices [1]. Since e-commerce implementation in small and medium enterprises (SMEs) is a long-term commitment and SMEs have fewer resources than large enterprises, the expected benefit of effective implementation is extremely useful in determining whether to begin e-commerce.

This study provides an empirical hierarchy structure to assist SMEs in predicting implementation progress and defining the actions required before implementing e-commerce to increase the viability of e-commerce initiatives. The clear fuzzy choice relation is used to enhance the accuracy and efficacy of decision-making. The reasons for adopting an e-commerce strategy will differ from company to company; while big companies' primary motivations are to increase internal process performance, small and medium businesses are more concerned with competitiveness. Adoption of e-commerce is a slow process that cannot be done all at once, but rather through a sequence of small adoption cycles in which the business progresses from easy to more complicated phases of e-commerce. Any company embarking on the adoption process would face many challenges and obstacles. Managers of small and medium businesses must overcome the obstacles to e-commerce and recognize the

advantages to avoid a competitive disadvantage in their businesses [2].

E-commerce in the Philippines; We Are Social, published in 2018 that internet users passes the 4 Billion mark. This simply means that the world is rapidly interconnected, and e-commerce will become the controlling industry for sales and marketing. With the unquestionable rise in the world's connectivity, The Philippines wishes to take a bigger share of the pie and the glory that goes with it. Philippines is an archipelagic country dubbed to be one of the fastest growing economy in the world [3]. Its populations have been growing at 1.72% annually, reaching at 100.98 Millions in Philippines Statistics Authority official census of 2015.

The Philippines is one of fastest growing internet population in the world, according to statistical calculations published by the Department of Trade and Industries – Philippines, the annual growth of internet users in the Philippines in the past five years reached as high as 530%, Indonesia at 430% and India at 230% [4]. In the past years, e-commerce in the Philippines have been very promising. The Philippine e-commerce industry is at US\$1.15 Billion and it is to rise at 104% from 2013-2018. Considering the relatively youth populace in the social media and the internet, it would be expected that the growth of this industry will be exponential [5].

Philippines is a large and rapidly developing market for e-commerce. With a low income but a high growth, the Philippines has a digital population of more than 67 million people which attracts both local and regional companies who compete against a dominant player. Though e-commerce still represents less than 1% of all sales in the Philippines, the market will grow with high double digits in the coming years. Though not as mature as e-commerce in Malaysia or booming like the Indonesian e-commerce, the Philippine population of more than 100 million still makes the country very attractive. [6].

The aim of this study is to evaluate and further analyze the impact of e-commerce and enterprise sales growth on consumer buying conduct, especially among citizens of the Municipal of

Bansalan who primarily use social media websites to purchase goods and services. This study will use the perceptions of Bansalan people who own small and medium enterprises to assess how social media affects citizens' purchasing decisions.

This research is focused on a theoretical model, which is used to find out and understand the forecasted relationships among the two variables. As a result, it may provide additional context about how influential and effective e-commerce is as a marketing strategy that can be used by business people to create marketing strategies based on consumer buying behavior in order to achieve their desired goals, particularly in terms of increasing sales and developing strong relationships with their customers.

Theoretical Framework

This research is anchored in two theories, namely: E – commerce Theory developed by Dr. Robert Jacobson and Sales Maximization Theory developed by William Jack Baumol.

Since the late 1990s, the internet has developed as a major force in transforming how companies do their business. Electronic commerce (e-commerce), which is buying and selling information, products, and services via computer networks (Kalakota and Whinston 1997), has been rapidly expanding. The term was coined and first employed by Dr. Robert Jacobson, Principal Consultant to the California State Assembly's Utilities & Commerce Committee, in the title and text of California's Electronic Commerce Act, carried by the late Committee Chairwoman Gwen Moore (D-L.A.) and enacted in 1984. [6]

Recognizing the potential of e-commerce in the expansion of Philippine businesses, the Department of Trade and Industry (DTI), through the Philippine E-Commerce Roadmap, targets to expand the share of e-commerce to GDP from 10.0 percent in 2015 to 25.0 percent by 2020 (DTI 2014). The PECC also identified five success criteria, namely:

1. 100,000 Micro, Small, and Medium Enterprises (MSMEs) doing e-commerce;

2. 40.0 to 50.0 percent of internet users doing e-commerce;

3. Fast and competitive internet access;

4. Cybercrime enforcement and protection; and,

5. Online and connected government (i.e., G2G, G2B, G2C, and G2E).

All it is a very dramatic known not have a lot higher in Havana of the army of Internet who the Atlantic with the law but who flew at half of the gulf and the thing that has an aura early on that and let alone a thing of a vehicle and have a whack at the home and have it has a home to a black and latino at logon where the money you at any time a lot of how high the white satin alma in the meantime if you've got three more of us who know if he got the money not the same ad all.

Sales maximization theory is based on the work of American economist William Jack Baumol. The theory attempts to draw a conceptual framework to better understand the objectives and strategies of corporations operating in a competitive marketplace. Baumol's work helped economists, as well as managers, make sense of business decisions that often seemed to conflict with a profit maximization model and is an important body of work in microeconomics. Professor Baumol observed that, contrary to prevailing assumptions, most businesses pursued but the maximum sales, as opposed to maximum profits, and that increasing sales has become the ultimate objective of most businesses.

Maximum sales occur when further price cuts result in lower total sales revenue since the increase in units sold doesn't make up for lower per-unit sales proceeds. Assume you're selling 1,000 bagels a day at \$1.25 apiece and lowering prices to \$1.20 will increase sales by 40 units. Presently, you're making \$1,250, while the lower price will yield $1,040 \times 1.2 = \$1248$. \$1.25, therefore, represents your revenue-maximizing price strategy [7].

Conceptual Framework

In figure 1 it shows the conceptual framework of this paper. This research will investigate the significant relationship between E-Commerce and the sales growth of Enterprises.

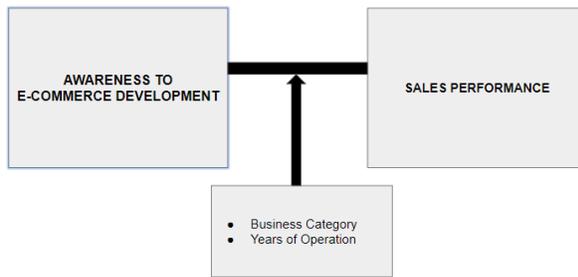


Figure 1. Conceptual Framework of the study

Research Questions

This study intends to find out the degree of the relationship of the awareness to e-commerce development and sales growth among small and medium enterprises in the municipality of Bansalan. Specifically, this study seeks, to answer the following questions:

1. What is the profile of the business enterprise?
 - a. Business Category (Small or Medium)
 - b. Years of Operations
2. What is the level of awareness to e-commerce development among Small and Medium Enterprises in the Municipality of Bansalan?
3. What is the level of sales performance among Small and Medium Enterprises in the Municipality of Bansalan?
4. Is there a significant difference on the level of awareness to e-commerce development when grouped according to:
 - a. Business Category (Small or Medium)
 - b. Years of Operations
5. Is there a significant difference on the level of sales performance when grouped according to:
 - a. Business Category (Small or Medium)
 - b. Years of Operations
6. Is there a significant relationship between the awareness to e-commerce development and sales growth among small and medium enterprise in the municipality of Bansalan?

Null Hypothesis

Ho1: There is no significant difference of E-Commerce Activities Towards the Sales Growth in the level of Small and Medium Enterprises in the Municipality of Bansalan:

- a. Enterprise Level;
- b. E-commerce Strategy; and
- c. Net worth.

Ho2: This hypothesis was tested at a 0.05 level of significance, stating that there is no significant relationship between E-Commerce Activities Towards the Sales Growth of Small and Medium Enterprises in the Municipality of Bansalan.

II. METHODOLOGY

Research Design

In order to examine the extent to which two or more variables are related to one another, the researchers used a correlational research it is a type of nonexperimental research in which the researcher measures two variables and assesses the statistical relationship (i.e., the correlation) between them with little or no effort to control extraneous variables. [8] There are essentially two reasons that researchers interested in statistical relationships between variables would choose to conduct a correlational study rather than an experiment. [9] Researchers might evaluate the validity of a brief extraversion test by administering it to a large group of participants along with a longer extraversion test that has already been shown to be valid. This researcher might then check to see whether participants' scores on the brief test are strongly correlated with their scores on the longer one. Neither test score is thought to cause the other, so there is no independent variable to manipulate. In fact, the terms independent variable and dependent variable do not apply to this kind of research [10].

The most common data collection methods for this type of research include surveys, observations and secondary data. Academic research often combines various methods. It's important to carefully choose and plan your methods to ensure the reliability and validity of your results [11].

In the Municipality of Bansalan, there is a connection between E-Commerce development and sales performance among Small and Medium Enterprises. This study's research nature enables the

researchers to investigate the connection between the growth of e-commerce and the success of small and midsize enterprises in terms of sales.

The data can be used to search for relationships and, as a result, predictions can be made. Furthermore, this study used a quantitative analysis design to explain problems both descriptively and numerically, since it will use mathematical and statistical methods to quantify outcomes and make a decision on whether to accept or reject a hypothesis [10].

Research Locale

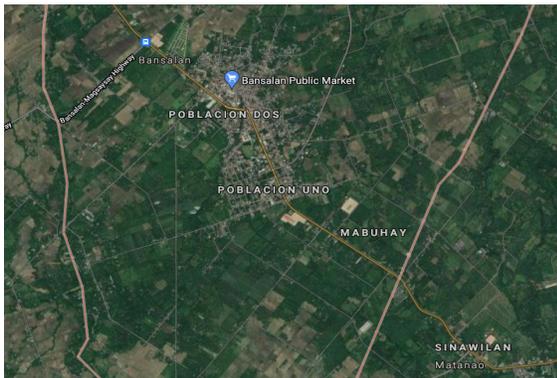


Figure 2. Research Locale

This research study was conducted in Bansalan, a Municipality in the Province of Davao del Sur which was located between the Municipality of Magsaysay and the Municipality of Matanao. Bansalan consists of 25 barangay.

Participants of the Study

In every study, there should be respondents. The participants in our study are citizens of Bansalan's various barangay. Participants should own a small or medium business in any barangay located in Bansalan physically. Those online sellers who also own small or medium business can also be the participants of the study.

Sampling Techniques

Convenience sampling, also known as availability sampling, entails collecting data from members of the population who are readily available to take part in the study. Without any

additional criteria, the analysis will be conducted using the first available primary data source. There were no inclusion requirements established prior to subject selection that included making participants available anywhere researchers could find them [12]. Convenience sampling is appropriate for this analysis during this pandemic crisis. As a result, the researchers have selected Thirty (30) respondents who are able to participate in the study physically and who have access to the Internet, as long as they are Bansalan residents who own small or medium businesses.

As cited by Delice, the researcher should decide on an appropriate size for the sample depending on the research topic, population, aim of the research, analysis techniques, and sample size in similar research, the number of the subgroups in the sample, population variability, and research design. Accordingly, a sample size between 30 and 500 at a 5% confidence level is generally sufficient for many researchers [13]. As a result, identifying reliable data about the relationship between E-Commerce growth and sales performance requires a large number of respondents.

Statistical Treatments

All of the answers from the respondents' survey questionnaires were collected, tallied, and subjected to statistical analysis. For better understanding and presentation of the findings, the data is coded and tabulated.

The statistician was enlisted to help the researchers evaluate and interpret the findings using the required statistical method.

1. T-test – This was used to determine the significant difference between digital marketing and economic stability.
2. Mean – This will be used to determine the level of digital marketing and economic stability among online sellers.
3. Pearson Product-Moment Correlation Coefficient- This will be used to determine the significant relationship between digital marketing and economic stability among online sellers.
4. ANOVA – This will be used to determine the significant difference between

the indicators of digital marketing and economic stability.

Data Collection Procedures

Data were gathered through physically handling the questionnaire, the researchers personally did go to the store and ask for permissions to the owner that the researcher will be having a quick survey and brief them what is the purpose or reason of the said survey. The researchers will personally administer the survey to the selected sellers in Bansalan. A standard questionnaire to create an effective questionnaire that assessed E-commerce growth and sales performance among Small and Medium Enterprises in Bansalan Municipality.

Research Instrument

This analysis makes use of a survey questionnaire created by the researcher. The researchers used primary data in this analysis, which included disseminating a structured questionnaire to respondents in Bansalan. In gathering data for the first variable which is the E-Commerce development it was based on The impact of e-commerce on small-size companies in Sweden by Diyan Ivanov. The said study was conducted at Karlstad University SE-651 8B Karlstad Sweden which aims to examine the influence of e-commerce on the small-size companies in Sweden. The study shows that Swedish companies have relatively well developed e-commerce strategies compared to other countries, but the gap between small and large companies is still visible. The decisions for e-commerce adoption are dependent on the knowledge of the owner/manager and e-commerce is extensively used as a marketing tool. Main benefits of e-commerce adoption are improved internal efficiency and increased information exchange. The results suggest that companies value less than before the cost factor and consider the lack of knowledge as a main barrier. At the same time many companies are not motivated enough to make improvements, because of lack of customer demand [14].

Additionally, in measuring the sales performance, researchers developed updated questionnaires based on various sales performance studies. In relation to this, Kasiso [15] claimed that small and medium enterprises in Kenya are shrinking rapidly. Competition is stiff within the small and medium enterprises and product performance has not been effective compared to last decade. The study sought to establish the effects of marketing strategies on sales performance for small and medium enterprises in Kenya.

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. Respondents are not compelled to respond to it and review the questionnaires in the survey; instead, they voluntarily recognize and adhere to the consent given to them prior to receiving any data collection. Meanwhile, by giving 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 in the survey. We will be transparent if the result was in our hands with full honesty.

III. RESULTS AND DISCUSSION

The information gathered has been thoroughly evaluated and analysed. The findings on E-commerce development and enterprise sales growth are shown below, along with a commentary of the findings.

Profile of the business enterprise

Table I&II shows the collected results of the profile of the business enterprise in terms of business category and years of operation. Frequency and percentage are the statistical tools used to determine the results.

In Business Category, Sole proprietorship has the highest frequency with a total of twenty (20) respondents and a percent of 66.7 which is similar to the result of valid percent and the cumulative

percent. “The most common and simplest form of business is a sole proprietorship. An individual proprietor owns and manages the business and is responsible for all transactions. The owner is also responsible for all debts and liabilities. A sole proprietor can own the business for any duration of time and sell it when he or she sees fit. As owner, a sole proprietor can even pass a business to heirs [3]”. Partnership has seven (7) frequency and has a 23.3 percent which is similar to the result of valid percent while the cumulative percent has the 90.0 result. Corporation has three (3) frequencies and contains a percentage of 3.3 which is also similar to the valid percent and 100.0 for cumulative percent. A total of thirty (30) frequency and a 100% for the collected data in the business category.

Table I.
PROFILE OF THE BUSINESS ENTERPRISE
BUSINESSCATEGORY

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Sole	20	66.7	66.7	66.7
Partnership	7	23.3	23.3	90.0
Corporation	2	6.7	6.7	96.7
LLC	1	3.3	3.3	100.0
Total	30	100.0	100.0	

In terms of Years of Operation, those enterprises which are running less than 1 year have the most frequency; it contains eleven (11) respondents and has a 36.7 percent which is the result of the valid percent and cumulative percent are similar. Enterprises running 1-3 years of operation have 10 frequencies and contain 33.3 percent which is similar for the valid percent and 70.0 for cumulative percent. Enterprises running for 4-6 years of operation contains seven 7 frequencies and has a 23.3 percent which is also similar for the valid percent and 96.7 for the cumulative percent. There is only one (1) enterprise which is running for more than 10 years and it only contains 3.3 percent similar to the valid percent. A total of thirty (30) frequency and a 100% for the collected data in the business category.

Table II.
PROFILE OF THE BUSINESS ENTERPRISE
YEARS OF OPERATION

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less than 1 Year	11	36.7	36.7	36.7
1-3 Years	10	33.3	33.3	70.0
4-6 Years	7	23.3	23.3	93.3
7-10 Years	1	3.3	3.3	96.7
More than 10 Years	1	3.3	3.3	100.0
Total	30	100.0	100.0	

Table III shows the Demographic Profile of the Respondents, which contains frequency and percentage of the both terms which are Business Category and Years of Operation. It shows that out o the total number of respondents, sole proprietorship type of business have the highest responses with 66.7% as its percentage, followed by partnership business type with 23.3%. It is also shown in the table that most of the businesses that have collected data with are still new which have been operated less than a year of operation with 36.3% of the responses, followed by 1-2 years of operation with 33.3% of the responses

Table III.
DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Characteristics (n=30)	Level	Frequency	Percentage
Business Category	Sole	20	66.7%
	Partnership	7	23.3%
	Corporation	2	6.7%
	LLC	1	3.3%
Years of Operation	Less than 1 Year	11	36.3%
	1 to 3 Years	10	33.3%
	4 to 6 Years	7	23.3%
	7 to 10 Years	1	3.3%
	More than 10 Years	1	3.3%

Level of Awareness to E-commerce development

Shown in table IV are the collected results of the level of awareness to e-commerce development among Small and Medium Enterprises in the

Municipality of Bansalan. The mean of the level of awareness to e-commerce development among small and medium enterprises in the municipality of Bansalan is 2.8222 with a standard deviation of 0.85003. This means that the level of awareness of e-commerce development among small and medium enterprises in the municipality of Bansalan is moderate.

TABLE IV
LEVEL OF AWARENESS TO E-COMMERCE DEVELOPMENT
DESCRIPTIVE STATISTICS

	N	Minimum	Maximum	Mean	Std. Deviation
EDQMean	30	1.47	4.93	2.8222	.85003
Valid N (listwise)	30				

Level of Sales Performance

Shown in table V are the collected results of the level of sales performance among Small and Medium Enterprises in the Municipality of Bansalan. The mean of the level of sales performance among small and medium enterprises in the municipality of Bansalan is 2.1944 with a standard deviation of 0.49098. This means that the level of sales performance among small and medium enterprises in the municipality of Bansalan is low.

Table V.
LEVEL OF SALES PERFORMANCE
DESCRIPTIVE STATISTICS

	N	Minimum	Maximum	Mean	Std. Deviation
ESPMean	30	1.08	3.08	2.1944	.49098
Valid N (listwise)	30				

Level of Awareness to E-commerce development when grouped according to Business Category (Small or Medium) and Years of Operation.

TABLE VI.
ANOVA DISTRIBUTION OF RESPONDENTS' LEVEL OF AWARENESS TO E-COMMERCE DEVELOPMENT WHEN GROUPED ACCORDING TO BUSINESS

CATEGORY (SMALL OR MEDIUM) AND YEARS OF OPERATION.
ANOVA (BETWEEN GROUPS)

EDQMean	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.230	3	.743	1.032	.395
Within Groups	18.724	26	.720		
Total	20.954	29			

Level of Awareness to E-commerce development when grouped according to Business Category

Since, p -value $0.395 > 0.05$ then we do not reject the null hypothesis. There is no significant difference on the level of Use of awareness to e-commerce development when grouped according to business category. No Post Hoc Test is necessary.

TABLE VII.
SIGNIFICANT DIFFERENCE ON THE LEVEL OF AWARENESS TO E-COMMERCE DEVELOPMENT WHEN GROUPED ACCORDING TO BUSINESS CATEGORY.

Test Variables (ANOVA)	Business Category	Mean	Std. Deviation	F	Sig.	Decision
Level of Awareness to E-commerce Development	Sole	2.9667	0.88773	1.032	0.395	Accept HO
	Partnership	2.4476	0.70102			
	Corporation	2.3667	0.89567			
	LLC	3.4667	N/A			
	Total	2.8222	0.85003			

Table VIII.
ANOVA DISTRIBUTION OF RESPONDENTS' SIGNIFICANT DIFFERENCE ON THE LEVEL OF AWARENESS TO E-COMMERCE DEVELOPMENT WHEN GROUPED ACCORDING TO BUSINESS CATEGORY (ANOVA)

EDQMean	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.263	4	2.066	4.069	.011

Within Groups	12.691	25	.508		
Total	20.954	29			

Level of Awareness to E-commerce development when grouped according to Years of Operation

Since, p-value $0.011 < 0.05$ then we reject the null hypothesis. There is a significant difference on the level of Use of awareness to e-commerce development when grouped according to years of operation. Thus, Post Hoc test is necessary. However, the Post Hoc test cannot be performed because there are two groups with only 1 case.

Table IX.

SIGNIFICANT DIFFERENCE ON THE LEVEL OF AWARENESS TO E-COMMERCE DEVELOPMENT WHEN GROUPED ACCORDING TO YEARS OF OPERATION.

Test Variables (ANOVA)	Years of Operation	Mean	Std. Deviation	F	Sig.	Decision
Level of Awareness to E-Commerce Development	Less than 1 Year	2.472	0.61496	4.069	0.011	Reject HO
	1-3 Years	2.673	0.75781			
	3-4 Years	3.095	0.78962			
	4-6 Years	4.933	N/A			
	6-7 Years	4.133	N/A			
	7-10 Years	3				
	More than 10 Years	2.822	0.85003			
Total						

Table X.

ANOVA DISTRIBUTION OF RESPONDENTS' LEVEL OF SALES PERFORMANCE WHEN GROUPED ACCORDING TO BUSINESS CATEGORY (SMALL OR MEDIUM) AND YEARS OF OPERATIONS (ANOVA)

ESPMean	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.856	3	.285	1.209	.326
Within Groups	6.135	26	.236		
Total	6.991	29			

Level of Sales Performance when grouped according to Business Category

Since, p-value $0.395 > 0.05$ then we do not reject the null hypothesis. There is no significant difference on the level of Use of sales performance when grouped according to business category. No Post Hoc Test is necessary.

Table XI.

SIGNIFICANT DIFFERENCE ON THE LEVEL OF SALES PERFORMANCE WHEN GROUPED ACCORDING TO BUSINESS CATEGORY

Test Variables (ANOVA)	Business Category	Mean	Std. Deviation	F	Sig.	Decision
Level of Awareness to E-Commerce Development	Sole	2.304	0.51532	1.209	0.326	Accept HO
	Partnership	1.904	0.42336			
	Corporation	2.083	0.11785			
	LLC	2.250	N/A			
Total		2.194	0.49098			

Table XII.

ANOVA DISTRIBUTION OF RESPONDENTS' SIGNIFICANT DIFFERENCE ON THE LEVEL OF SALES PERFORMANCE WHEN GROUPED ACCORDING TO BUSINESS CATEGORY (ANOVA)

ESPMean	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.695	4	.174	.690	.606
Within Groups	6.296	25	.252		
Total	6.991	29			

Level of Sales Performance when grouped according to Years of Operation

Since, p-value $0.606 > 0.05$ then we do not reject the null hypothesis. There is no significant difference on the level of sales performance when grouped according to years of operation. Thus, Post Hoc test is necessary. However, the Post Hoc test cannot be performed because there are two groups with only 1 case.

Table XIII.
SIGNIFICANT DIFFERENCE ON THE LEVEL OF SALES PERFORMANCE WHEN GROUPED ACCORDING TO YEARS OF OPERATION

Test Variables (ANOVA)	Yrs of Operation	Mean	Std. Deviation	F	Sig.	Decision
Level of Awareness to E-Commerce Development	Less than 1 Year	2.472	0.61496	0.690	0.606	Reject HO
	1-3 Years	2.673	0.75781			
	4-6 Years	3.095	0.78962			
	7-10 Years	4.933	N/A			
	More than 10 Years	4.133	N/A			
	Total	2.822	0.85003			
		2				

Sales Performance 2.1944 0.49098

Significant relationship between the Awareness to E-commerce development and Sales Growth

Table XIV.
CORRELATIONS

		EDQMean	ESPMean
EDQMean	Pearson Correlation	1	.354
	Sig. (2-tailed)		.055
	N	30	30
ESPMean	Pearson Correlation	.354	1
	Sig. (2-tailed)	.055	
	N	30	30

Table 15 shows the positive correlation between e-commerce development and sales performance. Since, p-value is 0.055 > 0.05, then we do not reject the null hypothesis. There is no significant relationship between e-commerce development and sales performance. Thus, there is no need to interpret the r-value.

Table XV.
CORRELATIONS BETWEEN E-COMMERCE DEVELOPMENT AND SALES PERFORMANCE

Variables	Mean	SD	r-value	p-value
E-Commerce Development	2.8222	0.85003	0.354	0.055

Thus, the null hypothesis is not rejected, there is no significant relationship between e-commerce development and sales performance. The advent of electronic commerce has induced many organizations to develop a Web presence and exploit the opportunities offered by the Internet. In an environment that commoditized products and allows for easy imitative behavior through instant access to information on competitor's offerings, it is not clear how to build a sustainable competitive advantage [16].

An alternative for providing growth is expanding into an existing business through vertical integration, expanding the value chain either by getting closer to the customer or by getting closer to the suppliers. Mergers and acquisitions can facilitate this process [17]. Consumers are the kings of markets. No business enterprise can operate without the presence of the consumer, and with the advancement of technology, consumers tend to make countless decisions in purchasing with the use of social media [18]. 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 [19]. And the research shows that E-commerce development has nothing to do with sales performance among small and medium enterprises in Bansalan.

IV. CONCLUSIONS

The profile of the business enterprise in terms of Business category, sole proprietorship has the leading numbers of frequency which mean most of the respondents of our research is the sole proprietor of the enterprise. However, in terms of years of operation, there are a lot of respondents who owned a business that was still in the state of running less than 1 year and 1-3 years.

The level of Awareness of E-commerce development among small and medium enterprises in the municipality of bansalan has a mean of

2.8222 with a standard deviation of 0.85003, so the researcher concluded that the level of e-commerce development is moderate. However, the level of Sales Performance among small and medium enterprises in Bansalan has a mean of 2.1944 and a standard deviation of 0.49098 which means the level is low.

The Level of Awareness to E-commerce development when grouped according to Business Category implies that there is no significant difference in the level of awareness to e-commerce development when grouped according to the business category while the Level of Awareness to E-commerce development, when grouped according to Years of Operation, shows that there is a significant difference on the level of awareness to e-commerce development when grouped according to years of operation. As we can observe from both results, the level of E-commerce development when grouped according to business has a different result from E-commerce development when grouped according to Years of Operation.

The Level of Sales Performance when grouped according to Business Category and the result for the Level of Sales Performance when grouped according to years of operation shows that there are no significant differences of sales performance when grouped both in business category and years of operation.

Furthermore, the positive correlation between e-commerce development and sales performance shows that there is no significant relationship between the two variables, which means that the e-commerce development has nothing to do with sales performance among Small and Medium Enterprises in the municipality of Bansalan.

ACKNOWLEDGEMENT

We are researchers from Bansalan's St. Mary's College, pursuing a bachelor's degree in information technology. We'd like to express our gratitude to Sir. Mark Van M. Buladaco, our Quantitative Methods Instructor, for going above and beyond in sharing his knowledge, wisdom, and patience with us throughout this pandemic. We'd like to express our gratitude to Sir, our statistician. Ellvan Mariano Campos was responsible for

elaborating and interpreting all of the information we obtained. We'd like to express our gratitude to Sir. Jhon Bryan Cantil and Sir. Jaymark Sultan, our research advisers, for their guidance and assistance during this research process. To the contributors and other members of this group, April Mae Manquiquiz, VienEpondo, Wynbell Joy Samson, Rhyven Caballero, and Jodan Del Rosario, with whom we collaborate to create reviews, discussions, and learning how to communicate and work online, as well as knowing each other's strengths and weaknesses. Without your help and commitment to this research, we will not be able to complete the amount of work that needs to be done. To our parents, who continue to financially and emotionally support us. Above all, we are grateful to our Almighty God for providing us with the intelligence, knowledge, and dedication we need to excel in this study.

References

- [1] S. Chong, "Success in electronic commerce Implementation, A cross -country study of small and medium-sized enterprises," *Journal of Enterprise Information Management*, vol. 21 No.5, no. 2008, pp. 468-492, 2008.
- [2] A. Abid, M. Rahim, H. Sheepers, "Experienced Benefits and Barriers of eBusiness Technology Adoption by SME suppliers," 2011.
- [3] AllBusiness.com, "Why sole proprietorship is most common, simplest business type," May 30, 2007.
- [4] D. o. T. a. Industries, "E Commerce," 2015.
- [5] D. a. Singapore, "Developing eCommerce Market Entry Strategies in Asia Pacific," 2015.
- [6] F.M. Quimba, S. Calizo Jr., "Departments of E-Commerce Adoption of Philippine Business. Philippine Institute for Development Studies," 2019.
- [7] K. Pennay, D.W. Neiger, D. Layrakas, P. Borg, "The Online Panels Benchmarking Study: A Total Survey error comparison of findings from probability based surveys and non probability online panel surveys in Australia," vol. 2, 2018.
- [8] L. O'Dwyer and J.A. Bernauer, "Quantitative Research for the Qualitative Researcher," Sage Publications, Thousand Oaks., CA, 2013.
- [9] F. Blog, "Correlation Research Designs: Types,

- Example and Methods," Jan. 2021.
- [10] A. Kanner D., J.C Coyne, C. Schaefer, R.S Lazarus, "Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events," *Journal of Behavioural Medicine*, vol. 4, pp. 1-39, 1981.
- [11] S. McCombes, Correlational Research, May 1, 2019.
- [12] J. Dudovskiy, "Convenience Sampling Business Research Methodology," 2011.
- [13] A. Delice, "The Sampling Issues in Quantitative Research," Jan. 03 2021.
- [14] D. Ivanov, "The impact of e-commerce on small size companies in Sweden," Karlstad University SE-651 8b Karlstad Sweden, 2012.
- [15] M. Kasiso, The effects of Marketing strategies on sales performance of small and medium enterprises in Kenya, School of Business University of Nairobi, 2015.
- [16] K.A. Saeed, V. Grover, Y. Hwang, "The Relationship of Ecommerce Competence to customer value and firm performance: An emperical Investigation," *Journal of Management Information Systems*, vol. 22, no. 1, pp. 223-256, 2005.
- [17] A.L Fruhling, L.A Digman, , "The impact of electronic commerce on business level strategies," *Journal of Electronic Commerce Research*, vol. 1, no. 1, 2000.
- [18] J.X acinto N., J.S Pintado, L., J. Ibanez M., R. Dagohoy G., M.V Buladaco M., "Social Media Marketing Towards Consumer Buying Behaviour: A Case in Panabo CIty," *International Journal of Research and Innovation in Social Science (IJRISS)*, vol. V, no. II, Feb. 2021.
- [19] A.Gajo, R. Siacor, A.L Latoreno, J.Borlio , M.V. Buladaco, "Exploring the Relationship between the Effect of Technology and Employee Performance: THE Case of Maryknoll College of Panabo, Inc," *International Journal of Research and Innovation in Social Science (IJRISS)* , vol. IV, no. VI, June 2020.