Influence of Demographics and Buying Capacity on Consumer Buying Behaviour During the COVID-19 Pandemic in Dumaguete City, Philippines

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Abstract

The study looks into how the buying behaviour of the residents of Dumaguete City, in regards to demographics and consumer buying capacity, is influenced by the COVID-19 pandemic. A descriptive research method was used by the researcher, and the testing of the null hypothesis, at 0.05 level of significance, was done through the Chi-Square test of independence. There were 316 respondents, living, working, and studying in Dumaguete City, who participated in this study. The results show that majority of the respondents are experiencing varying levels of financial pressure during the COVID-19 pandemic, which directly influences the buying behaviour of most people. The test result indicated that there is a significant relationship between consumer buying behaviour during the COVID-19 pandemic and consumer buying capacity. Furthermore, the results also show that gender, education, and occupation directly influence consumer buying behaviour during the COVID-19 pandemic. Lastly, age and family size do not constitute a significant relationship with consumer buying behaviour during the COVID-19 pandemic.

Keywords: COVID-19 pandemic; Consumer buying behaviour; Consumer buying capacity; Demographics.

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1. Introduction

COVID-19 disease is an infectious disease caused by a newly discovered coronavirus, which can cause a severe acute respiratory problem [1]. It was officially reported in Wuhan City, Hubei Province of China on December 31, 2019. Since then, the COVID-19 disease has spread over all of the world, which has caused more than 20.7 million cases and 775,937 deaths globally as of August 17, 2020 [2]. The COVID-19 disease has resulted in a global pandemic and plunged the global economy, with millions of people being affected. On January 30, 2020, there was a 38-year-old female Chinese national, who was being reported by the Philippine Department of Health as the first COVID-19 case in the country. As of August 17, 2020, the Philippines has confirmed 164,474 cases of COVID-19 and 2,681 deaths with 112,759 recoveries [3]. Because of the COVID-19 disease, the country's economy has been greatly affected, with thousands of businesses being shut down and millions of people being temporarily unemployed. Dumaguete City is regarded as a university town, where Silliman University, an institution of higher learning, provides quality education to thousands of students. On March 11, 2020, the provincial government of Negros Oriental reported the first COVID-19 case in Dumaguete City, which resulted in the imposition of the enhanced community quarantine on the city, effective on April 3, 2020. The measure was aimed at containing the spread of the COVID-19 disease, and on May 1, 2020, the enhanced community quarantine was downgraded to general community quarantine in regards to the Executive Order No. 29, Series of 2020, which was signed by Governor Roel Degamo. Since then, businesses were allowed to reopen and people employed in certain businesses and offices were also allowed to go back to work, but since the COVID-19 pandemic has still been troubling the country, the number of unemployment is still tremendous. As a result, the purchasing power of a big number of people has been undermined, and the operational losses that businesses are experiencing are also great. Since businesses and individuals have been financially affected by the COVID-19 pandemic, the researcher has decided to explore how Dumaguete City people's buying behaviour is being influenced and changed during the COVID-19 pandemic. There have had limited studies globally on changes in consumer buying behaviour during the COVID-19 pandemic in regards to demographics and consumer buying capacity. In the same way, local studies on this topic are also very limited, if not, non-existent. However, as demographics and buying capacity are two recognized factors that influence how people behave towards different products, the researcher has decided to explore this interesting topic.

2. Hypotheses

H1: there is no significant relationship between consumer buying behaviour during the COVID-19 pandemic and demographics in terms of:

- age
- gender
- education
- occupation
- family size

H2: there is no significant relationship between consumer buying behaviour during the COVID-19 pandemic

and consumer buying capacity.

3. Limitations

This study was conducted in Dumaguete City, where is the capital city of Negros Oriental, a province in the Philippines. The city has 131,377 residents, according to the 2015 census. The economic conditions of Dumaguete City differ from other more developed cities in the world. The cultural differences between Filipino people and other nations may also result in different consumer buying behaviour during the COVID-19 pandemic. The challenges, facing the residents of Dumaguete Ctiy resulting from the COVID-19 pandemic, are also dissimilar from other countries. As a result, the changes in consumer buying behaviour during the COVID-19 pandemic, in regards to demographics and consumer buying capacity, differ between nations and should be viewed based on a case by case basis.

4. Literature Review

4.1. Buying Behaviour

Cconsumer buying behaviour involves exchanges between human beings. Customers give up something in order to receive other things which will meet their expectations, needs, and wants. The authors in [4] noted that consumers forsake their money and other properties to obtain products and services, which is the exchange between buyers and sellers. Customers' buying decisions can be influenced by many things and people surrounding them. Their purchasing decisions can be affected by their friends, family members, or even comments by other customers. These factors influence how consumers think and act. So, one of the most important factors in consumer buying behaviour, which can affect and influence the purchasing decisions that people make, is reference groups who have certain links or connections with buyers [5]. Furthermore, consumer cognition also directly influences how people make their purchasing decisions. Their knowledge, views, thoughts, and beliefs towards different products can be influenced by advertisements, comments by other customers, their personal experiences, friends, or even the appearance of the products. These pre-existing attitudes influence consumers' preferences on different products, which will result in the acceptance of some products and rejections of others [6]. After consumers analyse and evaluate the information that they receive from the external environments and their own knowledge, thoughts, and beliefs, they will make their final decisions towards the products that they will buy. A decision is the selection between two or more alternative choices that are available to consumers. If consumers are left with no alternatives to make a particular purchase, then this single no-choice action does not constitute a decision [7]. Their final decisions are reflective of the aforementioned factors, generally their affection, cognition, emotions, and other sociocultural environments.

4.2. COVID-19 Pandemic on Buying Behaviour

The novel COVID-19 disease has affected both the health and the economy of nations. The way people think, act, and behave towards shopping before the outbreak of COVID-19 disease is certainly different from how it is at the time of the pandemic. Some people feel anxious and worried during the COVID-19 pandemic about their health, survival, and economic conditions. This results in stocking up of products by some people for both

health and survival ends. On the other hand, some people may still exhibit the same shopping behaviour, but the impact of COVID-19 to the buying behaviour to a majority of people may be lasting especially during a global crisis because of its impact on people's economic conditions. Author in [8] indicated that the economic impact of COVID-19 is one of the most fearful things that consumers are worried about. Because the level of income that consumers earn has direct influence on their buying behaviour, so the more consumers earn, the greater possibility that they will step up their purchasing activities. However, the COVID-19 pandemic has caused a large number of unemployment across all over the world, as well as in the Philippines, due to the closures of a great number of businesses. But the financial struggle that people are facing has not stopped many of them from stocking up products during the COVID-19 pandemic. This is because people do not want to be left behind with empty resources while seeing other consumers buying up the shelves [9]. So, the COVID-19 has made people only prefer to spend more on those needed goods and products and spend less on their wants [10].

4.3. Impulsive Buying.

Impulsiveness happens when consumers make a purchase without careful thinking, planning, or consideration. Impulsive buyers are more likely to buy products spontaneously and be stimulated by their desire, intuition, and emotions. For example, when impulsive buyers have direct physical contact with the desired products, they may be influenced by their emotions to make purchasing decisions without a careful consideration. Authors in [11] noted that impulsive buyers make an irrational purchase when they are stimulated and when they consider their prospective purchases as proper. Furthermore, impulsive buying behaviour can also be caused by other factors such as demographic, cultural, and environmental factors [12]. Different demographic and cultural backgrounds can result in different buying behaviour. A well-paid person may be more likely to be impulsive on shopping than his or her peers who are paid less. In the same way, environmental factors also cannot be ignored in evaluating impulsive buying behaviour. For instance, during a political or global crisis, people are pushed by the uncertainties that they are facing to buy and hoard products more impulsively than during a normal time [13].

4.4. Impact of Buying Capacity.

Income constitutes one of the most important factors, which may affect the purchasing decisions that people make. The higher income that a person can generate, the lesser concerns he or she may have on making a purchase. So, consumers' purchasing decisions can be affected by the amount of money that they can make, and they become cautious on shopping when they receive lower pays [14]. Because when people experience uncertainties about their income, they will have a lower willingness to consume or buy products that exceed their expectations and financial abilities [15].

4.5. Impact of Demographics.

The geo-demographic factors are vital in forming people's thoughts, attitudes, beliefs, and knowledge towards different products, which can likewise influence how consumers behave and make purchasing decisions [16]. For example, a person who has a decent job, with higher pay than most of his or her peers, may care more about the quality of the products that he or she is going to buy. Age is one of the factors, which influences the

purchasing decisions that consumers make. Authors in [17] indicated that young people may spend money more impulsively than elderly people who may spend money more smartly on shopping. So, age may affect the way how people think and behave towards shopping. Similarly, age can also influence how people spend their money. People who have an age advantage may think more carefully and comprehensively while making a purchase. Gender is also one of the most important factors in understanding consumer buying behaviour. For example, females may spend more money on clothes and cosmetics than males, while male consumers may spend more money on gaming, sports, food, or alcohol than females. Furthermore, females are more likely to be focused on the shopping experience that they receive, while males are more likely to find enjoyment through a fast shopping experience [18]. So, the perspectives on shopping are different between males and females [19]. Occupation is another factor that affects consumer buying behaviour, which is interrelated with other demographic variables. The nature of occupation can affect the income level that consumers earn; however, education and age also directly decide the type of job that a person can end up with. So, occupation has a significant impact on the products or brands that a person will choose for him or her [20], because purchasing decisions between the employed and the unemployed differ. Education also forms one of the most significant demographic factors, which can influence consumer buying behaviour, because people's attitudes change when they learn from school, parents, friends, or their own experiences. Consumers who are more educated may be more sensible in evaluating their purchasing decisions than people who are less educated. So, there is a conspicuous association between education and consumer buying behaviour [21], Family size also has a significant influence on consumer buying behaviour [22]. Families that are with fewer members may act and behave differently on shopping from families that are with more members. Because a small size family only needs to take care of a limited number of people, which may cost lesser on living expenditures than a large family size. On the other hand, a large family, which has many family members to take care of, may be more cautious on making a purchase. This becomes more obvious during the COVID-19 pandemic, which results in a great deal of financial pressure to individuals.

5. Conceptual Framework

Dumaguete City is regarded as a university town, which is one of the most populous cities in the province. The study is focused on the consumer buying behaviour of the residents of Dumaguete City during the COVID-19 pandemic which raises plenty of financial, physical, and psychological issues to people. This study is aimed at generating a positive outcome to the decision making of businesses and individual people in the city during the COVID-19 pandemic, taking into accounts the demographic factors and consumer buying capacity. Demographic variables, such as age, gender, education, occupation, and family size, play an important role in consumer buying behaviour. These factors affect how consumers think and act on shopping during the COVID-19 pandemic. So, this paper is to determine to what extent the consumer buying behaviour is related with demographic variables during the COVID-19 pandemic. Furthermore. consumer buying capacity is also highly related with the purchasing decisions that people make. Consumers become more cautious on spending their money, when their buying capacity is restricted. Consumer buying capacity is directly related with income, savings, or other current assets that they can use. High income earners will have lesser concerns on selling price, and they are more likely to purchase products which may meet their wants and expectations. Many people have been temporarily unemployed during the COVID-19 pandemic which has undermined their buying capacity to a

great extent. Similarly, the employed are also experiencing varying levels of reduction in their monthly income, but the difference is still apparent between the employed and the unemployed during the COVID-19 pandemic. As author in [23] noted that people who are employed may make different purchasing decisions from people who are unemployed. Thus, this study will look into if there is a significant relationship between consumer buying behaviour and consumer buying capacity during the COVID-19 pandemic.
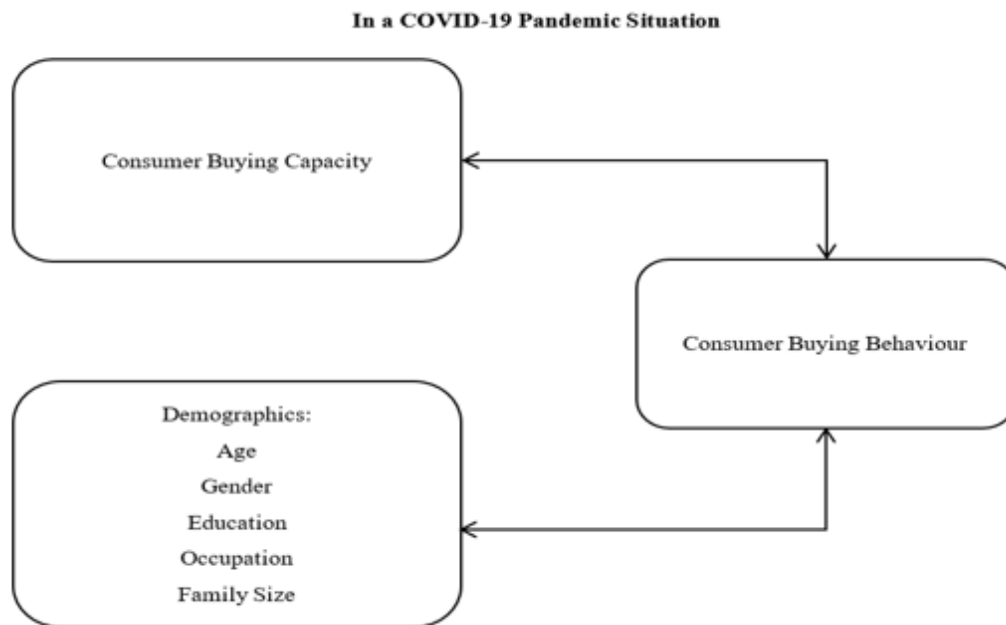

Figure 1: Conceptual Model

6. Materials and Methods

This study used the descriptive research method, utilizing the data collected from the 316 randomly selected respondents. The descriptive research method was adopted to describe how demographics and buying capacity, during the COVID-19 pandemic, affect the buying behaviour of individuals in Dumaguete City, the Philippines. This study utilized a digital survey questionnaire which was based on Google Forms to gather data in order to adhere to the social distancing guideline. Chi-Square test of independence, at 0.05 level of significance, was utilized to test the null hypotheses. The data gathering only took place upon the receipt of approvals from respondents, and all participants were given sufficient time to answer the survey questionnaire and identify questions that were being requested. Lastly, information and data that were gathered, in this study, were kept confidential and disposed of at the end of the study.

7. Results and Discussion

7.1. Demographic Profile of Respondents

7.1.1. Age

Table 1 shows that the majority of the respondents are between 18 years old and 30 years old. This age group represents 62.03% of the total of the 316 respondents, while the age group of 31-43 years old represents 28.48%. There is a clear trend that the number of respondents falls, as the age of the respondents increases, with 6.65% of the respondents representing the age group of 44-56 years old, and 2.85% representing the age group of 57-69 years old. This also indicates that young people are tasked to do shopping more frequently than their elder fellow Dumaguete Citizens during the COVID-19 pandemic, due to the probability that younger people may be less possible to be infected by the COVID-19 disease than elder people. Author in [24] indicated that 49%, out of the total 2,449 patients who were infected by the COVID-19 disease in the United States, were aged above 55. The data were as of March 16, 2020. The results are supported by Table 2, which indicates that the mean age of the respondents is 30.981 years old, the median age of the respondents is 28 years old, and the mode age of the total 316 respondents is 27 years old.

Table 1: Distribution of Age

Characteristic	Range	Frequency	Percentage
Age	18-30	196	62.03%
	31-43	90	28.48%
	44-56	21	6.65%
	57-69	9	2.85%
		316	100%

Table 2: Mean, Median, Mode, Minimum, and Maximum number of Age

Mean	Median	Mode	Minimum	Maximum
30.981	28	27	19	68

7.1.2. Gender

Table 3 shows that 217 or 68.67% of the respondents, in this study, are female, while male respondents only account for 99 or 31.33%. This means that females constitute the majority of the respondents in the study, and the males who participated in this study is the minority as they represent a small number.

Table 3: Distribution of Gender

Characteristic	Range	Frequency	Percentage
Gender	Male	99	31.33%
	Female	217	68.67%
		316	100%

7.1.3. Education

Table 4 shows that the majority of the respondents in this study are college graduates who represent 79.75% of the 316 total respondents. A combined 11.07% of the respondents are high school and at the lower than high school level. Respondents who have a master's degree represent 7.94%, while only 1.27% of respondents have a Ph.D. degree. This indicates that 88.96% of the respondents have attained higher education, and the proportion also implies that more respondents who participated in this study are in a position to behave independently and make purchasing decisions on their own during the COVID-19-pandemic.

Table 4: Distribution of Educational Attainment

Characteristic	Range	Frequency	Percentage
Education	Below High school	8	2.53%
	High School	27	8.54%
	College	252	79.75%
	Master Degree	25	7.94%
	Doctoral Degree	4	1.27%
		316	100%

7.1.4. Occupation

Table 5 discloses that 68.04% of respondents are employed in Dumaguete City during the COVID-19 pandemic, while 31.65% are unemployed. Only less than 1% of the respondents are retired. This information indicates that the financial pressure that people are experiencing, resulting from the COVID-19 pandemic, is tremendous, which can directly affect people's buying behaviour in Dumaguete City. Similarly, the national unemployment rate in the Philippines jumped to 17.7 percent, which amounted to 7.3 million of Filipinos who were unemployed in the labour force in April 2020 [25]. The unprecedented number of unemployment is mainly attributed to the closures of businesses across industries, which has resulted in the layoff of a great number of people, and the psychological and financial effect on the buying behaviour of most people will certainly last for a long time.

Table 5: Distribution of Employment Status During COVID-19

Characteristic	Range	Frequency	Percentage
Occupation	Employed	215	68.04%
	Unemployed	100	31.65%
	Retired	1	0.32%
		316	100%

7.1.5. Family Size

Table 6 shows that the majority of the respondents, in this study, have a family size of 3 to 4 members who are living together in the same household, which represents 40.51% of the 316 respondents. Moreover, families that have 5-6 members, who are living together, account for 31.01%. The two groups of family size combined represent 71.52% of the total respondents. On the other hand, families that have more members who are living under the same roof represent 11.7% jointly, with 7.59% representing family size of 7 to 8 members and 4.11% standing for family size of 9 or more members. Lastly, families with only 1 to 2 people, who are living together, represent 16.77% of the total.

Table 6: Distribution of Family Size

Characteristic	Range	Frequency	Percentage
Family Size	1-2	53	16.77%
	3-4	128	40.51%
	5-6	98	31.01%
	7-8	24	7.59%
	9 or more	13	4.11%
		316	100%

7.2. Relationship Between Demographic and Buying Behaviour

7.2.1. Age and Buying Behaviour

Table 8 reveals the relationship between age and buying behaviour during the COVID-19 pandemic. The data show that 97.78% of the total of the 316 respondents said that their buying behaviour is being changed by the COVID-19 pandemic to varying levels, while there is only 2.22% of them who confirmed that their buying behaviour is not changed or affected during the COVID-19 pandemic. Furthermore, the table shows that there is no marked difference between age and buying behaviour during the COVID-19 pandemic as every age group almost experiences similar levels of change in their buying behaviour. However, there is also minor evidence which supports the fact that there are fewer elderly people whose buying behaviour is being highly changed during the COVID-19 pandemic than their younger counterparts. Only 23.81% of the people, who are between 44 to 56 years old, experience highly changed buying behaviour during the COVID-19 pandemic, while there are 34.18% and 28.89% of people who are between 18 – 30 and 31 – 43 years old, respectively, who experience highly changed buying behaviour during the COVID-19 pandemic. The number decreases further when the ages go up, with no one experiencing highly changed buying behaviour during the COVID-19 pandemic for the age group of 57 – 69 years old.

Table 8: Relationship Between Age and Buying Behaviour

Age	Buying Behaviour				
	No Changed	Slightly Changed	Moderately Changed	Highly Changed	Total
18 – 30(yrs)	6	55	68	67	196
	3.06%	28.06%	34.69%	34.18%	100.00%
31 – 43(yrs)	1	30	33	26	90
	1.11%	33.33%	36.67%	28.89%	100.00%
44 – 56(yrs)	0	5	11	5	21
	0.00%	23.81%	52.38%	23.81%	100.00%
57 – 69(yrs)	0	5	4	0	9
	0.00%	55.56%	44.44%	0.00%	100.00%
Total	7	95	116	98	316
	2.22%	30.06%	36.71%	31.01%	100.00%

As a result, Table 9 reveals the computed X^2 value is 4.6008, which is smaller than the tabulated X^2 value, 9.488. Similarly, the P-Value, 0.3263, is also greater than the 0.05 level of significance. Therefore, there is no significant relationship between age and buying behaviour of respondents during the COVID-19 pandemic, so the null hypothesis is accepted. This means that there is no clear pattern of the association between the two characteristics. The table above shows that when a person's age is known, one can hardly tell his or her buying behaviour during the pandemic. It can also be construed that one cannot tell a respondent's age, knowing her or his buying behaviour.

Table 9: Chi-Square Test Results for Age and Buying Behaviour

Results	
Critical Value	9.488
Chi-Square Test Value	4.6008
P-Value	0.3263

7.2.2. Gender and Buying Behaviour

Table 10 reveals the relationship between gender and buying behaviour during the COVID-19 pandemic. It shows that male respondents' buying behaviour has the tendency to be slightly changed, with majority of them, 40.40%, experiencing slightly changed buying behaviour. On the other hand, female respondents have the

tendency to experience moderately to highly changed buying behaviour during the COVID-19 pandemic, with 38.71% and 35.48% out of the 217 female respondents experiencing moderately changed and highly changed buying behaviour respectively.

Table 10: Relationship Between Gender and Buying Behaviour

Gender	Buying Behaviour				
	No Changed	Slightly Changed	Moderately Changed	Highly Changed	Total
	6	40	32	21	99
Male	6.06%	40.40%	32.32%	21.21%	100.00%
	1	55	84	77	217
Female	0.46%	25.35%	38.71%	35.48%	100.00%
	7	95	116	98	316
Total	2.22%	30.06%	36.71%	31.01%	100.00%

As a result, Table 11 reveals that the computed X^2 value is 14.2087, which is far greater than the tabulated X^2 value, 5.991. Similarly, the P-Value, 0.0008, is also far smaller than the 0.05 level of significance. Therefore, there is a significant relationship between gender and buying behaviour of respondents during the COVID-19 pandemic, so the null hypothesis is rejected. This means that there is a clear pattern of the association between the two characteristics. The table above shows that when a person's gender is known, one can tell his or her most associated buying behaviour during a pandemic. It can also be construed that one can tell a respondent's most probable gender, knowing her or his buying behaviour.

Table 11: Chi-Square Test Results for Gender and Buying Behaviour

Results	
Critical Value	5.991
Chi-Square Test Value	14.2087
P-Value	0.0008

7.2.3. Education and Buying Behaviour

Table 12 reveals the relationship between education and buying behaviour during the COVID-19 pandemic. It shows that the majority of the respondents whose educational attainments are high school or lower than high school have a more evident tendency to experience slightly changed buying behaviour during the COVID-19 pandemic. On the other hand, the table also discloses that people who are more educated experience greater changes in their buying behaviour during the COVID-19 pandemic. The number of people who experience

moderately and highly changed buying behaviour goes up clearly when people who are bachelor degree holders. It becomes more obvious when people who have a master and doctoral degree, with 44% and 52% of master degree holders experiencing moderately and highly changed buying behaviour, and 50% and 25% of doctoral degree holders experiencing the same level of change in their buying behaviour during the COVID-19 pandemic.

Table 12: Relationship Between Education and Buying Behaviour

| | Buying Behaviour | | | | |
Education	No Changed	Slightly Changed	Moderately Changed	Highly Changed	Total
Below	0	7	1	0	8
High School	0.00%	87.50%	12.50%	0.00%	100.00%
	1	18	8	0	27
High School					
	3.70%	66.67%	29.63%	0.00%	100.00%
	6	68	94	84	252
College Level					
	2.38%	26.98%	37.30%	33.33%	100.00%
	0	1	11	13	25
Master's Degree					
	0.00%	4.00%	44.00%	52.00%	100.00%
Doctoral Degree	0	1	2	1	4
	0.00%	25.00%	50.00%	25.00%	100.00%
	7	95	116	98	316
Total					
	2.22%	30.06%	36.71%	31.01%	100.00%

As a result, Table 13 reveals that the computed X^2 value is 37.7791, which is far greater than the tabulated X^2 value, 5.991. Similarly, the P-Value, 0.0000, is also far smaller than the 0.05 level of significance. Therefore, there is a significant relationship between education and buying behaviour during the COVID-19 pandemic; thus, the null hypothesis is rejected. This means that there is a clear pattern of the association between the two characteristics. The table above shows that when a person's educational attainment is known, one can tell his or her most associated buying behaviour during the pandemic. It can also be construed that one can tell a respondent's most probable educational level, knowing her or his buying behaviour.

Table 13: Chi-Square Test Results for Educational Attainment and Buying Behaviour

Results	
Critical Value	5.991
Chi-Square Test Value	37.7791
P-Value	0.0000

7.2.4. Occupation and Buying Behaviour

Table 14 reveals the relationship between occupation and buying behaviour during the COVID-19 pandemic. It shows that the majority of the respondents, among the employed and unemployed, experience varying levels of change in their buying behaviour during the COVID-19 pandemic. However, the employed respondents have a greater tendency to experience a highly changed buying behaviour than the unemployed individuals, with 38.14% of the employed experiencing highly changed buying behaviour, and only 16% of the unemployed experiencing the same level of change in their buying behaviour. Furthermore, most retired individuals can also be expected to be moderately changed in terms of buying behaviour during the COVID-19 pandemic.

Table 14: Relationship Between Occupation and Buying Behaviour

Occupation	Buying Behaviour				
	No Changed	Slightly Changed	Moderately Changed	Highly Changed	Total
Employed	5	47	81	82	215
	2.33%	21.86%	37.67%	38.14%	100.00%
Unemployed	2	48	34	16	100
	2.00%	48.00%	34.00%	16.00%	100.00%
	0	0	1	0	1
Retired	0.00%	0.00%	100.00%	0.00%	100.00%
Total	7	95	116	98	316
	2.22%	30.06%	36.71%	31.01%	100.00%

As a result, Table 15 reveals that the computed X^2 value is 26.2803, which is far greater than the tabulated X^2 value, 7.815. Similarly, the P-Value, 0.0000, is also far smaller than the 0.05 level of significance. Therefore, there is a significant relationship between occupation and buying behaviour during the COVID-19 pandemic, so the null hypothesis is rejected. This means that there is a clear pattern of the association between the two characteristics. The table above shows that when a person's employment condition is known, one can tell his or

her most associated buying behaviour during the pandemic. It can also be construed that one can tell a respondent's most probable employment status, knowing her or his buying behaviour.

Table 15: Chi-Square Test Results for Occupation and Buying Behaviour

Results	
Critical Value	7.815
Chi-Square Test Value	26.2803
P-Value	0.0000

7.2.5. Family Size and Buying Behaviour

Table 16 reveals the relationship between family size and buying behaviour during the COVID-19 pandemic. It shows that families, regardless of the size, experience varying levels of change in buying behaviour from slightly changed to highly changed during the COVID-19 pandemic. Although, the table does not show a significant relationship between family size and consumer buying behaviour, there is still an apparent evidence which discloses that the bigger the family size is, the greater the change in buying behaviour. Table 16 shows that 46.15% and 38.46% of respondents who have 9 or more family members experience moderately changed and highly changed buying behaviour during the COVID-19 pandemic, which is higher than the other groups of family size.

Table 16: Relationship Between Family Size and Buying Behaviour

Family Size	Buying Behaviour				
	No Changed	Slightly Changed	Moderately Changed	Highly Changed	Total
1-2	2	16	20	15	53
	3.77%	30.19%	37.74%	28.30%	100.00%
3-4	4	48	41	35	128
	3.13%	37.50%	32.03%	27.34%	100.00%
5-6	0	24	39	35	98
	0.00%	24.49%	39.80%	35 .71%	100.00%
7-8	1	5	10	8	24
	4.17%	20.83%	41.67%	33.33%	100.00%
9 or more	0	2	6	5	13
	0.00%	15.38%	46.15%	38.46%	100.00%
Total	7	95	116	98	316
	2.22%	30.06%	36.71%	31.01%	100.00%

As a result, Table 17 reveals the computed X^2 value is 15.5073, which is smaller than the tabulated X^2 value, 15.507. Similarly, the P-Value, 0.3131, is also smaller than the 0.05 level of significance. Therefore, there is no significant relationship between family size and consumer buying behaviour during the COVID-19 pandemic, so the null hypothesis is accepted. This means that there is no clear pattern of the association between the two characteristics. The table above shows that the size of the family does not affect the respondents' buying

behaviour during the COVID-19 pandemic.

Table 17: Chi-Square Test Results for Family Size and Buying Behaviour

Results	
Critical Value	15.507
Chi-Square Test Value	15.5073
P-Value	0.3131

7.3. Relationship Between Buying Capacity and Buying Behaviour

Table 18 reveals the relationship between consumer buying capacity and consumer buying behaviour during the COVID-19 pandemic. It shows that the majority of people experience varying levels of change in their buying capacity and buying behaviour during the COVID-19 pandemic. People who claimed to have slightly affected buying capacity by the COVID-19 Pandemic are expected to have moderately changed buying behaviour during the COVID-19 pandemic, with the majority of them, 38.57%, experiencing moderately changed buying behaviour. Those who claimed to have moderately affected buying capacity by the COVID-19 pandemic can be expected to experience highly changed buying behaviour, with the majority of them, 43.02%, experiencing highly changed buying behaviour during the COVID-19 pandemic. Those who claimed to have highly affected buying capacity by the COVID-19 pandemic can be expected to experience highly changed buying behaviour, with the majority of them, 40%, experiencing highly changed buying behaviour during the COVID-19 pandemic.

Table 18: Relationship Between Buying Capacity and Buying Behaviour

Buying Capacity	Buying Behaviour				
	No Changed	Slightly Changed	Moderately Changed	Highly Changed	Total
Not Affected at all	1 6.67%	7 46.67%	2 13.33%	5 33.33%	15 100.00%
Slightly Affected	4 1.90%	71 33.81%	81 38.57%	54 25.71%	210 100.00%
Moderately Affected	2 2.33%	16 18.60%	31 36.05%	37 43.02%	86 100.00%
Highly Affected	0 0.00%	1 20.00%	2 40.00%	2 40.00%	5 100.00%
Total	7 2.22%	95 30.06%	116 36.71%	98 31.01%	316 100.00%

As a result, Table 19 reveals that the computed X^2 value is 11.2959, which is far greater than the tabulated X^2 value, 7.815. Similarly, the P-Value, 0.0102, is also far smaller than the 0.05 level of significance. Therefore, there is a significant relationship between buying capacity and buying behaviour during the COVID-19 pandemic; thus, the null hypothesis is rejected. This means that there is a clear pattern of the association between the two characteristics.

Table 19: Chi-Square Test Results for Buying Capacity and Buying Behaviour

Results	
Critical Value	7.815
Chi-Square Test Value	11.2959
P-Value	0.0102

8. Conclusion

The COVID-19 pandemic has caused a great deal of financial pressure on people across the world. The Majority of the respondents' monthly income has been reduced, which means that the purchasing power of the people is being affected during the COVID-19 pandemic. The reduction in the purchasing power of most people during the COVID-19 pandemic has resulted in different levels of change in their buying behaviour, which has affected the local economy in Dumaguete City due to a sudden decrease in consumption of products particularly the non-essential ones. As a result, the business community and the people are the hardest hit by the COVID-19 pandemic because of the downturn of the economy. The buying capacity of individual people has been undermined because of reduced salaries or the termination of their employment. Similarly, businesses are also experiencing a significant decrease in their revenues, forcing them to adopt turnaround strategies during the COVID-19 pandemic. Businesses and individuals are considered two of the most important factors in the economy, because they are the key drivers for a robust economy. But, during the COVID-19 pandemic, both the business sector and the individual consumers have been adversely affected, impeding the economic health of Dumaguete City. Therefore, consumer buying behaviour is greatly influenced by consumer buying capacity during the COVID-19 pandemic, as the study shows that there is a significant relationship between the two variables. Lastly, demographic variables such as gender, education, and occupation also play an important role in the purchasing decisions that consumers make during the COVID-19 pandemic. This study also proves that there is a significant relationship between consumer buying behaviour during the COVID-19 pandemic and demographics in terms of gender, education, and occupation; however, demographic variables such as age and family size do not significantly influence consumer buying behaviour during the COVID-19 pandemic.

9. Recommendations

9.1. The Business Community

Businesses need to keep the selling prices of goods and products, especially those essential items, affordable and within the suggested retail prices instead of taking advantage of the COVID-19 pandemic to maximize their profits, because although maximizing profit is a business goal but businessmen must not forget that they have a social responsibility to society. Similarly, it is highly recommended for firms, corporations, and other organizations not to sack their employees, and instead devise a plan to allow them to work on certain days so that they will have income, although on a limited amount. Furthermore, the COVID-19 pandemic has not only resulted in financial pressure to the majority of people but also caused health and other personal concerns to individuals, making the mandatory government benefits that they are entitled to more important during this

COVID-19 pandemic. In the Philippines, Social Security System (SSS), PhilHealth, and Home Development Mutual Fund (HDMF) or PAG-IBIG are the three types of mandatory employee benefits that all income earners can enjoy, which covers insurance, medical care, and housing. These government-mandated employee benefits are significant for every employed Filipino and their importance is magnified during this COVID-19 pandemic. It is therefore highly recommended that employers religiously and honestly pay their contribution to SSS, PhilHealth, and HDMF.

9.2. The Local Government of Dumaguete City

Assuring economic order in society and taking care of every citizen's welfare are the sacred duties of governments. The COVID-19 pandemic has negatively affected of the economy as shown by the closure of many businesses, and mass layoffs of employees. There is therefore a need for the local government of Dumaguete City to offer financial aid to both the people and the businesses in a bid to increase consumption and encourage businesses not to lay off their employees. The approval of the budget for the Bayanihan II is badly needed as the spread of COVID-19 has been noted in many municipalities, cities and province. As a practical guide, the local government can also give coupons to individuals, which can be used to buy food and other essentials at any within the locality. This measure will spur consumption and encourage people to step up their buying activities during the COVID-19 pandemic, which will help keep many businesses afloat, bring back jobs, and shape up the economy. Moreover, the government is also encouraged and expected to cut income tax that is imposed on each income earner during the COVID-19 pandemic. Cutting income tax to benefit the working-class and middle-class families will help many low-income earners improve their purchasing power and their financial situations during the pandemic. Controlling the prices of essential products, such as masks, shields, alcohol, and disinfectants, is also highly recommended, because these products are significant to human survival during the COVID-19 pandemic so they should be affordable by everybody.

9.3. Individual People

Majority of people have been economically affected by the COVID-19 pandemic, as a result many are strictly budgeting due to reduced income. The reduced purchasing power of most people and the limited job opportunities have affected the quality of life of many people during this difficult time. Therefore, it is recommended for individual people to limit their spending on non-essential products and instead spend their hard-earned money more wisely on the most needed products during the during the COVID-19 pandemic. Furthermore, panic-buying has caused an unbalanced distribution of essential goods and products during the COVID-19 pandemic. Thus, it is recommended for individual people not to stock up essential goods and products, which will be good for months to last, and instead only to purchase essential commodities sufficient for the household, for one or two weeks, so that those essential goods and products can be equally distributed in the society and the most vulnerable will not be left behind and further undermined.

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