

## Digital Marketing: Millennial's Online Buying Behavior

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*Abstract: The emergence of technology had brought huge impact towards the society. Coping-up with the fast-paced changes, previous and today's generation are greatly dealing to comprehend or overcome the contemporary world. Through this technology has been, likewise, the leading industry in the business world. Digital Marketing is widely known for its conveniency, accessibility and less time consuming for everyone. In relation, as consumers utilizes the digital platform, consumers were able to find options and preferences strategically when buying online. This study aims to identify the buying behavior of the students in terms of the digital marketing platform, whether they are satisfied or dissatisfied with the convenience, website design or features, time duration of the service, security and experiences of their chosen platform. With the help of the respondents which participated willingly under the College of Business Administration of Polytechnic University of the Philippines-main campus, this study was been successfully conducted.*

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### Introduction

Technology has made its way to conquer the world wide web, making people's lives more convenient, non-personally interactive and tireless which paved way to create an open communication and flow among neighbor countries either developed or undeveloped to exchange transactions leading to what we call now immediate globalization. In the latest world of the rising fourth industrial revolution, every bit of marketing promotions can result to a chain reaction where a single post from a single verified business account could be viewed worldwide. That is how powerful digital marketing with the use of technology can influence and persuade people, with only one post of advertising or promotional campaigns on social media. According to (Miniwatts Marketing group, 2019), in terms of internet users distribution in the world – Mid – year 2019; Asia got the highest population of users estimating to 50.7% out of all the continents in the world. Where Europe only got 16.0%, Africa got 11.5%, Latin America with 10.0%, North America 7.2%, Middle East 3.9% and Oceania/ Australia got 0.6%. Therefore, Asia owns almost half of the world's population in terms of using internet.

South-east Asia was said to be the most internet-active continent in the world, with the Philippines topping up the global list with an average of 10 hours and 2 minutes of screen time every day (Kate Lamb in Jakarta, 1 Feb 2019). “The big story in this year's data is the accelerating growth in internet users,” Kemp wrote, “More than 360 million people came online for the first time in 2018, at an average rate of more than one million new users every day.”

The capital of the Philippines is the Metro Manila which is the center of the innovative and urban society. It is where the businesses and top universities are established and where busy people specifically students are located. Since, Filipino students are extremely busy with their academic lives in college, spending almost 8-10 hours of their time everyday at the university plus the requirements they need to accomplish even weekends. Filipino students are known for being persevering, therefore, they have no time to go on a physical store and engage in an actual contact on the product itself.

In every lifestyle, there will be a huge difference in the perspective of consumer in terms of buying. Some prefer physical contact but others take the online segment. Digital marketing

helps online shops to enhance and deliver well the products they offered to the market. In this 3<sup>rd</sup> world country, the technology that we have is underrated and not that competitive enough to compete with other country, but it's a big help in online shopping and to the consumers who prefer the less hassle in shopping their needs and wants.

In relation with this, the Polytechnic University of the Philippines, Sta. Mesa campus in collaboration of the College of Business Administration students; we, the researchers, conducted a personal interactive and exploratory survey to test whether the students are satisfied with their experience in terms of time convenience, security, price, website design and seller's service provided during their stages of buying: pre-purchase, purchase and post-purchase stage. We chose the students as our respondents because they are more accessible and more likely to have the same characteristics that represents what a typical busy Filipino College students have.

### Methodology

This section of the study would be discussing about the material and method that was been used in order to collect the data and measure the results gathered by the researchers.

#### *Sample size*

*Total Population of College of Business Administration Departments*

Office Administration	624
Entrepreneurship	448
Human Resource Development Management	809
Marketing Management	821
TOTAL	2702

Using Cochran Q` test (An extension of McNemar test which is a non-parametric way of finding differences of three or more frequencies) along with the variant ANOVA (Used to examine the means of two or more groups if the data are eloquently different with one another) the researchers have come up with a delimited sample size of distribution for the respondents.

Office Administration	78
Entrepreneurship	56
Human Resource Development Management	101
Marketing Management	102
TOTAL	337

The following survey questions that we acquired was base on the provided instrument of the studies entitled "Digital Marketing and Its Impact on Buying Behaviour of Youth" by Dr. S. Sivasankaran and "Factors Influencing Consumer Behavior and Prospective Purchase Decisions in a Dynamic Pricing Environment—An Exploratory Factor Analysis Approach" by Vijay Victor et. al. We decided to infuse the two studies to come up with one survey questionnaire that is compatible with the situation that is happening in the Polytechnic University of the Philippines.

**Table 1.** Items used in the questionnaire. (Dr. S. Sivasankaran 2017)

Modules	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
<b>Convenience</b>					
I get on-time delivery by shopping on-line					
Detail information is available while shopping online					
I can buy the products anytime 24 hours a day while shopping online					
It is easy to choose and make comparison with other products while shopping online.					
<b>Website Design/Features</b>					
The website design helps me in searching the products easily					
While shopping online, I prefer to purchase from a website that provides safety and ease of navigation and order					
The website layout helps me in searching and selecting the right product while shopping online					
I believe that familiarity with the website before making actual purchase reduce the risk of shopping online					
I prefer to buy from website that provides me with quality of information					
<b>Time Saving</b>					
Online shopping takes less time to purchase					
Online shopping doesn't waste time					
I feel that it takes less time in evaluating and selecting a product while shopping online					
<b>Security</b>					
I feel safe and secure while shopping online					
Online Shopping protects my security					
I like to shop online from a trustworthy website					

**Table 2.** Items used in the questionnaire. (Victor Vijay et. al 2018)

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
I am able to search useful information in the e-shopping website					
Shopping Website can recommend substitute goods for the product I wish to buy					
The results provided are quick and fit my needs					

I believe product recommendation is very useful to me					
I fear that my personal information about payment method may be stolen					
I fear that my personal information may attract the attention of cyber criminals					
The price I paid was fair					
The price I paid was questionable					
The price I paid was justified					
I am satisfied with the price and purchase decision					
I will say negative things about the online retailer's pricing policy to others					
I will switch to the competitors of this online retailer after my experience with their pricing policy					
I will complain about the online retailer's pricing policy through online social networking channels such as Facebook, Twitter etc.					
I will complain to governmental agencies regarding the online retailer's pricing policy					
I will buy fewer products from this online retailer in the next few years					
I will stop buying products from this particular online retailer					
I will buy more products from this retailer in the next few years regardless of their pricing policy					
I will continue to buy the same product from this online retailer if I need it in the future					
I feel offended when online shopping websites use my personal information for product recommendations and changing prices					
I am not interested in sharing my personal information including browser history with online shopping websites to get personalized product recommendations					
I will consider the changing prices as an opportunity to buy products at lower prices					

I am aware that the shopping websites use the information collected for personalized product recommendations and advertisements					
I will motivate my friends and family to track the prices to avoid paying higher prices					
In future, I will track the price of the products which I intend to buy for a few days before purchase					
I will use some software applications or browser extensions to track the changes in the price of the product					
I am aware that the shopping websites collect personal information through browser cookies					
I am aware that the shopping websites use the information collected for making changes in the price of the products					

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**Results**

<b>Modules</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Uncertain</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Total weights</b>	<b>Rank</b>
<b>Convenience</b>							
I get on-time delivery by shopping on-line	5(25)	26(104)	98(294)	158(316)	50(50)	794	III
Detail information is available while shopping online	2(10)	16(64)	79(237)	78(356)	62(62)	729	VII
I can buy the products anytime 24 hours a day while shopping online	5(25)	14(56)	84(252)	144(288)	90(90)	711	VIII
It is easy to choose and make comparison with other products while shopping online.	5(25)	28(112)	76(228)	143(286)	85(85)	736	VI
<b>Website Design/Features</b>							
The website design helps me in searching the products easily	1(5)	10(40)	60(180)	174(348)	92(92)	665	X
While shopping online, I prefer to purchase from a website that provides safety and ease of navigation and order	1(5)	7(28)	58(174)	144(288)	127(127)	622	XII
The website layout helps me in searching and selecting the right product while shopping online	1(5)	9(36)	59(177)	159(318)	109(109)	645	XI
I believe that familiarity with the website before making actual purchase reduce the risk of shopping online	1(5)	7(28)	49(147)	148(296)	132(132)	608	XIV
I prefer to buy from website that provides me with quality of information	3(15)	8(32)	42(126)	130(260)	154(154)	587	XV
<b>Time Saving</b>							
Online shopping takes less time to purchase	5(25)	19(76)	61(183)	135(270)	117(117)	671	IX
Online shopping doesn't waste time	6(30)	25(100)	104(312)	124(248)	78(78)	768	IV
I feel that it takes less time in evaluating and selecting a product while shopping online	5(25)	27(108)	84(252)	136(272)	85(85)	742	V
<b>Security</b>							
I feel safe and secure while shopping online	15(75)	54(216)	167(501)	77(154)	24(24)	970	II
Online Shopping protects my security	14(70)	50(200)	181(543)	66(132)	26(26)	971	I
I like to shop online from a trustworthy website	2(10)	15(60)	68(204)	115(230)	137(137)	641	XII

Factor Analysis using method = minres (Vijay Victor et. al, 2018)  
Call: factor.minres(r = DIGITAL MARKETING: MILLENNIAL'S ONLINE BUYING BEHAVIOR)

**Table 1.** Standardized loadings (pattern matrix)

Item Names	MR1	h2	u2
Q1	<b>0.54</b>	0.28655	0.71
Q2	<b>0.54</b>	0.28790	0.71
Q3	<b>0.51</b>	0.26741	0.74
Q4	<b>0.46</b>	0.20980	0.79
Q7	<b>0.41</b>	0.16872	0.83
Q9	<b>0.44</b>	0.19248	0.81
Q10	<b>0.43</b>	0.18660	0.81
Q21	<b>0.62</b>	0.38928	0.61
Q22	<b>0.57</b>	0.33014	0.67
Q23	<b>0.58</b>	0.33221	0.67
Q24	<b>0.61</b>	0.37037	0.63
Q25	<b>0.56</b>	0.30894	0.69
Q26	<b>0.49</b>	0.24185	0.76

**Table 2.** Residual test result

Indicators	Values
Tucker Lewis Index of factoring reliability	0.22
Root Mean Square Error of Approximation (RMSEA)	0.134
Root Mean Square of the Residuals (RMSR)	0.13
Corrected root mean square of the residuals	0.13
90 % confidence intervals are	0.127 - 0.135
BIC	547.38
Fit based upon off diagonal values	0.56
Measures of factor score adequacy	
	MR1
Correlation of (regression) scores with factors	0.93
Multiple R square of scores with factors	0.87
Minimum correlation of possible factor scores	0.74
	MR1
SS loadings	5.00
Proportion Var	0.14

Mean item complexity = 1  
Test of the hypothesis that 1 factor is sufficient.

**Table 3.** Reliability analysis

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Call: alpha(x = DIGITAL MARKETING: MELLINNIAL'S ONLINE BUYING BEHAVIOR)

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raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean
0.021	0.81	0.88	0.12	4.3	0.012	7.4
sd	median_r					
3	0.081					

  

lower alpha	upper	95% confidence boundaries
0	0.02	0.04

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The root mean squares of residuals (RMSR) value of 0.13 was in the range of reasonable because it is between 0.10 to 0.15. The Tucker-Lewis index (TLI) here was 0.22. The Root Mean Square Error of Approximation (RMSEA) is 0.134. There is a 90% of confidence intervals are 0.127 - 0.135. The BIC is 547.38. The fit based upon off diagonal values is 0.56.

The correlation of (regression) scores with factors is 0.93. The multiple R square of scores with factors is 0.87. The minimum correlation of possible factor scores is 0.74.

The factor MR1, as we named buyer's perception in buying, explains that buyers are highly positive with the items or experience from the online buying site that they had visited. (0.54) of the buyers says that shopping online is very useful, at the same time it gives them options for choices as sites recommends or suggests them items. (0.62) of the responses on question number 21, believes that they will be able to find an opportunity to thrift on much lower prices of items upon the occurrence of price changes in the market. While on the other hand, some specific questions which has a standardized loadings results below (0.40) were eliminated as it was considered as residual questions for this study.

Proceeding with the reliability analysis, the raw alpha for the 27 items measured was 0.81 which is satisfactory, confirming the internal reliability and consistency.

Overall, in order to get the reliable adequate number of respondents, the researchers used the Kaiser-Meyer-Olkin test of sample adequacy and Barlett's sphericity test. The value of KMO is 0.75, which made the dataset possible for factor analysis.

### Discussion

According to CNN Philippines, the Internet World Stats reported that around 67 million Filipinos were active online in January 2018. This was a 12% increase year-on-year. The Philippines is the top country worldwide for the most time spent on the internet. The latest Digital 2019 report from Hootsuite and We Are Social shows that users from the Philippines spend an average of 10 hours and 2 minutes on the internet daily via any device. (Inquirer.net, 2019)

The fast paced emergence of technology enables the online shopping sites to grow and change the traditional way of purchasing goods and services, digital media platforms help the

people to gain easy access to any websites, applications and online communication between provider and consumer such as online shopping site, because of these changes it gain impact to the buying behavior of the consumers. There are several factors that affects the consumer buying behavior of the consumers and the factors that generally influence the buying behavior that typical Filipino students have are the convenience, website design/features, time saving and security. We focus mainly on the students in Polytechnic University of the Philippines under the College of Business Administration which has the population of 2,702 in the school year of 2019-2020.

According to Inquirer.net 2019, the most used online shopping sites here in the Philippines are Lazada, Shopee, Zalora, OLX, and Amazon.

The study that we conducted is about how digital marketing affects the consumer buying behavior of the students, what do they prefer in shopping online using digital media platforms, what they think about online shopping, and what do they experience when they are shopping online using digital media. The study shows that most of our correspondents feels secured when using online shopping sites because of the standard security and protocol that the site is offering to their consumers. For example, when the consumer ordered a personal item; the online shopping site secure their personal information, mode of payment and make sure that the consumer is gaining the confidentiality agreement. Security ranks the top 1 and 2 base on our conducted survey.

Our correspondents also indicated that the online shopping sites delivered the items on a specified time and date and they don't waste the time of their consumers. Aside from security, this is a good characteristics that an online shopping site should possess because this is where the consumers also focuses. The consumers don't want their time to be wasted because they prefer online shopping because of this they think that it is more convenient than engaging with physical contact.

The consumers prefer online shopping because of its accuracy in terms of giving information regarding their products and sorting out consumers specific product that they have searched for and what they need or want. When searching a specific product, the online shopping site allows the consumers to choose from a wide variety of the same specific product. The consumers also has the freedom to choose and compare products from other products in terms of price, quality, reviews and features. The online shopping sites also input detailed information for every product that they offer to the public, for the consumers to understand and be well informed about that certain product.

### **Conclusion**

Filipino college students trust online buying sites service, fully. They are satisfied with the type of services being rendered virtually in terms of security protection, time delivery of the item and time consumption upon choosing an item. On the other hand, in terms of their perception in buying, they are very positive in giving their full trust at some aspect like personal information, however, there are a certain points where they are hesitating to commit their selves into buying a product such as, basing their answers on question number 17 from the second part of the result (0.56), it particularly shows that students are being offended when retailers uses their personal information. Therefore, students are positively interactive since they felt secured upon accessing and engaging their selves in an online buying site, but once a retailer commits unnecessarily bad actions towards them, at that moment student's trusts breaks down into frail

causing to a credibility issues upon the other party. Students tend to shop more wisely in a market with a dynamic offerings of prices, however, when an item is badly needed at hand they are more crucial on acquiring that certain item rather than basing on the price it was offered. Students buying behavior are usually based upon the importance of an item depending on their uses, if none, they are more patient and persisting upon finding an item in a more lower price.

## Appendix A

**Table A1. Items retained after factor analysis**

Variables	Items	Measurement	References
<b>Student's perception in buying</b>	<b>Q1</b>	I am able to search useful information in the e-shopping website.	
	<b>Q2</b>	Shopping Website can recommend substitute goods for the product I wish to buy	<b>(Le and Liaw 2017)</b>
	<b>Q3</b>	The results provided are quick and fit my needs	
	<b>Q4</b>	I believe product recommendation is very useful to me	
<b>Q7</b>	The price I paid was fair		
	<b>Q9</b>	The price I paid was justified	<b>(Dai 2010)</b>
	<b>Q10</b>	I am satisfied with the price and purchase decision	
	<b>Q21</b>	I will consider the changing prices as an opportunity to buy products at lower prices	
	<b>Q22</b>	I am aware that the shopping websites use the information collected for personalized product recommendations and advertisements	
	<b>Q23</b>	I will motivate my friends and family to track the prices to avoid paying higher prices	<b>(Victor Vijay et. al based on Expert Opinion)</b>
	<b>Q24</b>	In future, I will track the price of the products which I intend to buy for a few days before purchase	
	<b>Q25</b>	I will use some software applications or browser extensions to track the changes in the price of the product	
	<b>Q26</b>	I am aware that the shopping websites use the information collected for making changes in the price of the products	

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