



# IMPACT OF ADVERTISEMENT IN SOCIAL MEDIA OF FMCG PRODUCT ON CONSUMER'S PURCHASE INTENTION IN BANGLADESH

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## Abstract

This research intends to investigate the impact of social media advertisement of fast-moving consumer goods (FMCG) products on consumer purchase intention in Bangladesh. Where the world is moving in a faster pace on the digital platform, we assume it can also be a good resource for marketers to use this digital platform for better advertisement of their product. On the basis of that our research paper explains the importance of online advertisement, mediums of online advertisement and customer reviews on online advertisements through which the most effective digital advertisements that has greater impact on consumer purchase intention is being perceived. Both primary and secondary data are used for this research purpose. The study employed a quantitative and qualitative research approach and collected data from 200 respondents through an online survey. Both exploratory and conclusive research was conducted for the study. The data were analyzed using descriptive

Analysis, correlation analysis, and Regression analysis and ANOVA Test. The study found that social media advertisement has a significant positive impact on consumer purchase intention of FMCG products in Bangladesh. On top of that we find all other important advertisements, crawlers, affiliated links and content promotion in web portals which are the most influential to consumers purchase intention. The findings of this study have implications for FMCG companies in Bangladesh to enhance their social media advertising strategies to attract more customers and increase sales. This study can be a useful guideline for marketing implications in practice.

## 1 Introduction (Background of the Study)

Advertising as a form of communication aims to convince the targeted customers to purchase or take some action upon products, information, or services etc. Companies and their advertising agencies seem to have gradually shifted away from traditional marketing to innovative, interactive and more personalized mediums. Advertising today has been looks as a business, a creative communication process, a social phenomenon. Advertising has existed for decades, and as time goes by, more and more advertising mediums are discovered where companies can invest to promote their products and hopefully to influence the consumers to purchase their product. Consumers are exposed to a numerous number of advertising every day and thousands of products and whether advertising achieves in persuading these consumers to purchase their product remains an area that should be carefully investigated.

Social media eased the spread of information and enhanced communication abilities. It became primary part of a people's life. Facebook, Twitter, Instagram etc. have a continuously growing number of users. Facebook had 1.5 Billion users as of October 2015. This growth has attracted marketers to recognized social media as a part of their marketing communication strategies in order to increase sales, customers and market share.

Facts about Online Purchases, showed that 80% of customers on social networks prefer to connect themselves to product /service through Facebook, 71% of members on social media are more likely to purchase products from pages they follow online, 15% use it to search for local businesses, and 63% prefer businesses with the information that can be easily found on social media. The central difference between internet and conventional media is in the mindset. The internet represents an abundance mentality and freedom whereas traditional media is about scarcity. This is the central reality of this new world that changes many rules. For instance, in digital audience decides what ads they want to attend to and when. The way people consume entertainment and news has fundamentally changed. This calls for a deeper understanding of the medium not only to do well in digital but also to succeed in the conventional medium.

Branding of goods in social media mainly depend on the relationship between consumer engagement and their purchasing behavior. The relationship should be positive. Many companies realize this matter and have taken Facebook as a very serious marketing tool along with traditional marketing tools to influence the purchasing

decision of them. Social media works as a purchasing decision accelerator because it is easy to use. People become interested when they see comments, hype and exchange of opinions about that particular product or brand.

The Bangladesh market is no different. Digital marketing has gained significant value towards to consumer and become a mainstream phenomenon. Lots of brands are now investing in digital platforms like Facebook, local ad networks to YouTube to other platforms. The internet offers new opportunities and challenges for consumers as well as for marketers. To users, it offers the freedom to choose which content they want to attend to, from an abundance of content, unlike TV world.

The Fast Moving Consumer Goods (FMCG) sector is one of the largest sectors in the economy of Bangladesh. Being a developing economy, Bangladesh is gradually becoming a large market, especially for the FMCG. In the last few years, the FMCG industry in Bangladesh has experienced a dramatic growth; both qualitative and quantitative improvements have occurred in the consumer durable items. While purchasing high involvement products like electronic goods, luxury items or lifestyle products, the prior in-home decisions of purchase are not usually altered in the store environment. On the contrary, for the convenient and low involvement products like salt, flours, pens, chocolates, etc., a significant level of distortion from the prior decision of brand choice is frequently observed. These convenient and low involvement products are also known as FMCG in marketing. For the marketers, it is very difficult and sometimes impossible to track consumers' brand preference. Marketers may help form a consumer's intention to buy and facilitate his purchasing process by providing essential information.

## 1.1 Problem Statement

Today internet is everything. Every day most of the Internet users spent many hours on social media. And social media influence many things in our day to day life. Nowadays by using social media people know about different products and brands by online advertisement on social media sites. And also many people buy different variety of product seeing advertisement on social media. In many cases online advertisements are much more effective than TV commercials. At present many companies are promoting their product and services by online advertisement. If producers of FMCG are living this online platform to promote their product they won't be able to cope up with changing business environment and ultimately they will lost profit and sales.

## 1.2 Research Objective:

### General Objective:

The very first objective of the study is to prepare a project paper on the specified topic implementing the knowledge that has been gathered over the semester at East West University- Bangladesh from my honorable course supervisor Dr. Md. Abdul Momen. The primary object of this project is to enable to learn about the Impact of advertisement in social media of FMCG products on consumer purchase intention in Bangladesh.

**Specific Objectives:**

- To Study the effect of social media on Consumer Behavior.
- To know the importance of social media advertising.
- How much social media advertisement can influence on consumer's mind to stimulate their behavior towards the buying decisions for FMCG's.
- Learning social media in Bangladesh and its impact on marketing and brand communication.
- To measure the relative impact of each promotional tools on consumer.

**1.3 Significance of the Study**

The study is based on the independent and dependent factors which cause social media advertisement to influence consumer purchase intention of FMCG. Much of the survey & analysis conducted to find out does social media advertisement have any impact in consumer purchase intention. And also we try to find out how much important social media is for the FMCG. So, the research focused on various factors of social media and its advertisement impacting in consumer purchase intention of FMCG.

**1.4 Conclusion**

By this study we tried to measure the Impact of Advertising in Social Media of FMCG on Consumer Purchase Intention in Bangladesh. How social media works in consumer purchase intention, and how they perceive online advertisement of FMCG. And also does it necessary for Fast-moving consumer goods companies to give their product advertisements in online specially on social media.

**2 Literature Review****2.1 Introduction**

This research intends to explain the impact of increasing trend of marketing communications at social media on consumer buying behavior and perception towards FMCG sector brands scenario in Bangladesh. Here, consumers purchase intention is stated to influence by mediums of marketing in social media hence consumers purchase intention is considered as dependent variable and mediums of digital media particularly social media platforms are considered as independent variables. The relation between the two variables, factors influencing them and graphical representation of the Dependent and Independent variables will be presented throughout this research.

**2.2 Analysis of FMCG Sector in Bangladesh**

Fast Moving Consumer Goods (FMCG) industry is one of the faster growing segments of the market in Bangladesh. This segment touches almost every aspect of human life. Fast-moving consumer goods (FMCG) are products that are sold quickly at relatively low cost and also have a short shelf life. Examples include non-durable goods such as soft drinks, toiletries, over-the-counter drugs, toys, processed foods and many other consumables.

The market dynamics of the segment are changing very frequently. The FMCG market continues to grow at a satisfactory rate of over 9% even in the harsh economic conditions of Bangladesh.

### 2.3 Social Media Influence on Consumers Purchase Intention

Consumers in Bangladesh at present has a common practice of attending, processing, and selecting the data on the internet before a buy. A research from Light castle partner says, based on take-off curves for consumer durables, it can be predicted that as income rises Bangladeshi consumers will trade up to higher standard of livings. This also points toward higher adoption of technology like smartphones and latest devices at a faster pace. A statistics explains it all, “market penetration of smartphones in Bangladesh leaps from 25% of households among aspirant consumers to around 60% among emerging-middle consumers” (Bijoy Islam., 2015, insight markets watch) which shows the influence that the applications used on smartphone can have on consumer’s buying behavior. Using mobile technology thereby social media more often makes them watch online advertisement of FMCG and influence them to buy their preferred one. For such reasons FMCG industries now focuses more on digital advertisement of their product to capture consumer’s attention than ever before.

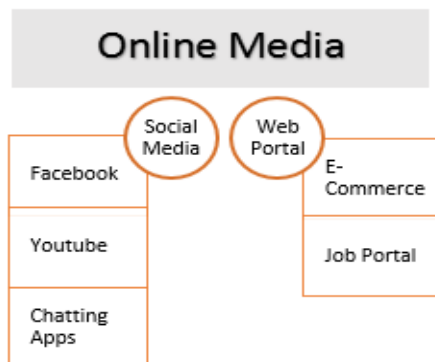
Digital advertisement spreading is prospering largely in the global context. It is more clearly understood by knowing that “A leading statistic company has revealed that they are expecting digital advertisement spending worldwide will go up to 335.48 billion in 2020 from 194.6 billion in 2016” (Abdullah et al., 2017). According to G&R data of 2017, that year there had been greatly successful in boosting digital advertisement spending among industries compared to previous year. FMCG had 14% of digital add spending share through G&R platform in 2017. At present it is a need of every business to become utmost visible to their consumers and it is only possible by increasing visibility on the place they spend most of their time or where they will be easily available. Here, social media becomes the best possible option for business marketing as now a days people spend more time connecting with people at social media than by physical interaction. It helps to increase traffic and users engagement. Social media also helps to reach the latest updates to the consumers about their preferred company. Active presence on online media makes the brand or business more trust worthy to consumers. This paper is to find out the reason for such huge investment of FMCG companies on social media and the amount of impact each social media has on consumer’s purchase intention.

According to Bangladesh Telecommunication Regulatory Commission (BTRC), the country has 63.12 million mobile internet users until February, 2017. The increasing number of internet users has made bigger digital ad market and as a result, the digital ad spending is expanding day by day. Among all industries of Bangladesh major spenders in digital advertising are Telco’s and FMCG who spends yearly approximately 5–10% of total advertising budget.



Factors choosing purchase intention of FMCG product in Bangladesh based on Social media online advertisement consist of some independent variables which leads the consumer to purchase the product. Now a day Social Media are quite popular to promote advertisement of the product more visually. If we think about the giant FMCG companies of Bangladesh then we will be able to see that their sales volume & profit has been vastly impacted by the Social Media. Whereas the others company who did not invest on social media become less profitable company and facing problem to sustain in the competitive market. Depending on the independent variables of social media the segmentation are given below:

According to our study we divide the independent Online Media variables in two segment



1. Social Media Platform

2. Web portal

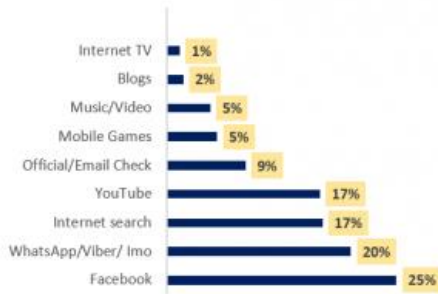
Where the social media consist of Facebook, Youtube and Chatting Apps advertisement since these are the major online platform which majority of the internet user use now a days. On the other hand the Web portal included the e-commerce site and as well as the Job portal site where FMCG companies place their advertisement since people purchase behavior shift in to online platform rather than visiting superstore or a local shop. In addition with the job seekers frequently visit job portal site where the companies place their advertisement engaging more consumer towards their brands through online media.

### 3 Social Media

Now if we look the online engagement statistics globally then we found that across the world most online users across 10 key countries turn to websites in order to find information about brands and services, while about half rely on recommendations from friends and family, according to a report from Kantar Media. The study indicates that social media is also a popular source of information, though more so in some countries than others.

The survey was fielded among 5,000 online adults – 1,000 each in India, China, Srilanka, the UK and the US which is a secondary data for our study. Close to two-thirds (62%) said they go online to websites to find information about FMCG product, while 51% get information from friends and family and 45% from review sites. A recent research has suggested that social media play a critical role on the purchase intension of the FMCG consumer which leads to the organizations profitability where 50% of adults engage through Social Media to reach for FMCG product.

Frequently used apps



Source: Lightcastel Research 2017

### 3.1 Facebook

Facebook, one of the largest social networking platforms, has branched out from being a mere culture sharing hub. Not only limited for communication and sharing opinions, the networking platform has also provided an arena for businesses across the world, including in Bangladesh.

Small businesses and entrepreneurs are currently using Facebook to promote, advertise and sell products, and also reach to its preferred customers. Being a very accessible platform for all, products can be found, accessed and delivered to a vast community of customers. Whereas FMCG companies are also investing heavily to promote their product with their potential customer.

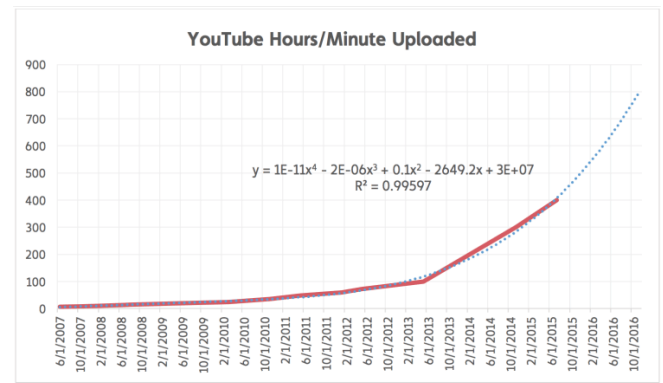


Facebook is not limited to social purposes anymore. Over the time, online marketing has become the biggest virtual market place. With more than two billion users (Source: Facebook 04/25/18), Facebook presents a fantastic opportunity to reach a wider audience.

Because Facebook is a social media site, you can expect more engagement from properly designed ads. They are great for increasing exposure on Facebook itself (through likes and shares), and can also drive more traffic to your website. Facebook works with advertisers to produce effective ads that don't disrupt the user experience.

### 3.2 Youtube

Youtube is a Video Sharing platform where users can upload, share, comment, like and view videos. Viewers can access to this site through PC's, Laptop, Mobile & Tablets. Now a days it's one of the biggest platform which has been chosen by the FMCG companies to promote advertisement more visually. YouTube has over a billion users and with an estimated 500 hours of footage uploaded per minute (Source: Youtube/statistics). YouTube advertising is a serious contender in the digital marketing arena. It is extremely effective and affordable.



Source: Mark A

Robertson (Nov 13, 2015), retrieved from

<http://tubularinsights.com/hours-minute-uploaded-youtube>

### 3.3 Chatting Apps (Twitter, Snapchat, Instagram)

Chatting apps are one of the popular platform where users use the same apps at a same time by using internet. People exchange their communication in written form by sending message one to another. Almost every social media open's their personal chatting app platform where users can interact in private or in group message. Some of them also include phone call and video call mechanism which attract most of the consumer to get involved in it. Here FMCG companies also using their marketing strategies by placing advertisement which influence consumer's buying behavior.

## 4 Web Portal

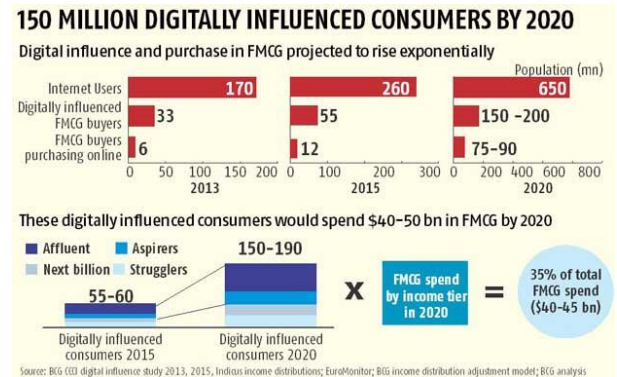
Through web portal FMCG are also inventing in News portal site, Job portal Site and obviously in E-Commerce site. We know that day by day these sites are getting much popularity to make the life of people easier in this digitalized arena.



## 4.1 E-Commerce

E-Commerce platform are the most popular buying and selling platform throughout the world. The e-commerce giant such as Amazone, Alibabaetc are the major competitor of the super shop like Walmart because of the consumer preference & likability. Here FMCG companies place their advertisement to grab the consumer attention & mostly they successfully end

Source: BCG digital influence study 2014, 2015



up with the positive result. Sometimes A leading FMCG global player has an evolved digital offering (self-owned e-commerce portal with the option of personalized offerings for consumers, active social media engagement, social listening for generating rich insights) for its premium portfolio while continuing to have a basic digital presence for rest of the portfolio.

## 4.2 Online News Portal

In the era of digitalization the newspaper also shift their marketing strategy into digital platform. Now a days most of the newspaper have online version by which their users find a better solution to carry or read the news through their Smartphone & Computer. Here the FMCG companies also place their advertisement since a large number of online newspaper might be a potential consumer for them. According the study we have found the more than 40% of the newspaper reader are now getting into the online version where they used to see several FMCG product advertisement.

# 5 Methodology

## 5.1 Introduction

The Research design refers the overall strategy that makes up the master plan specifying the methods and procedures for collecting and analyzing data.

**In this research paper we will use two types of research design**

- Exploratory
- Descriptive

In the definition of methodology of research, it is the mechanism that how to collect information from different sources. There are two ways to collect data, one is Primary source and another one is secondary sources for preparing a report. Here we will use both qualitative and quantitative data to generate the factor which is influence the consumers buying intention of FMCG through social media.

## 5.2 Data collection

Our study is based on both Primary and Secondary sources.

### **Primary sources**

Primary data will be collected throughout a survey of questionnaire of 200 respondents. We will design our survey questionnaire by measuring psychological, social, community and societal factors which influence consumer purchase intention of FMCG through social media. In the first part of the questionnaire make the question about demographic information and the second part is the multiple-choice question about the reasons which is influencing consumers purchase intention of FMCG through social media and question on individual perception, knowledge about consumers purchase intention of FMCG through social media. For data analysis we will use about 6 statistical tools to get accurate result of research findings and those are descriptive frequencies, Crosstabs, Paired T test, Regression model and Correlation.

### **Secondary sources**

Most of the secondary sources such as overall ideas, terms, variables and sub variables will be collected from different websites, international journals and articles.

## **6 Data analysis**

The data about consumer purchase intention of FMCG through social media will be collected and analyzed with help of various tools and techniques. These include descriptive frequencies, Paired T test, Regression model and Correlation. Consumer behavior refers to the study of how individual customers, groups choose, use or dispose ideas, goods, and services to satisfy their needs and wants. Consumer behavior depends on several factors like psychological factors such as perception about the knowledge, belief, attitudes towards the product or service. Situational factors, like physical surroundings during the purchasing time, social surroundings and time factor. We will use descriptive frequencies to find out the demographic variables. We will also do Correlation to find out relationship between independent variable. We will use the crosstabs to find out the relationship of the demographic variables with the dependent variable. We will also use regression model to find out the independent variables have significant relationship with the dependent variable. We will use Paired T test to find out the accuracy of the hypothesis to put forward by us.

### **6.1 Theoretical Framework:**

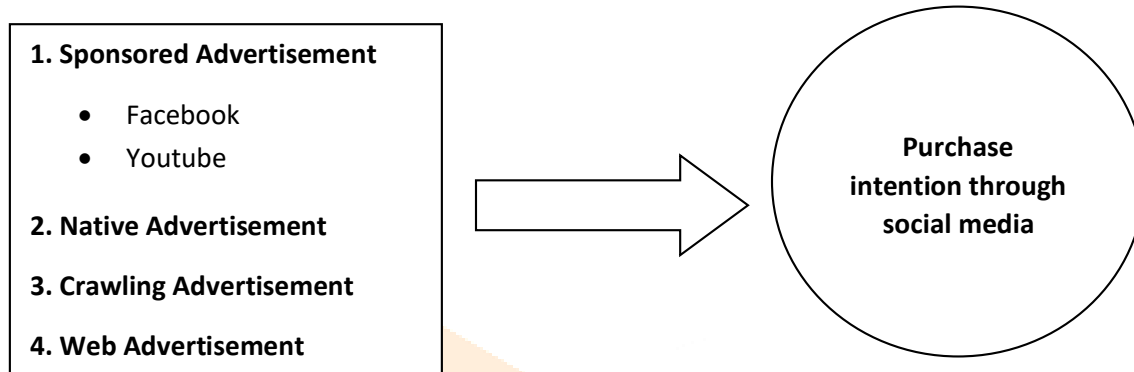
Our research objective is to find out the factors influencing consumers purchase intention of FMCG through social media. We have identified the independent variables from secondary sources.

Akhtar, S. (March 2016). *Impact of Social Networking Sites in Marketing Communication and Sales: A study on Nestle Bangladesh Limited*. World Journal of Social Sciences.

Barker, S. (2017, May 26). *How Social Media Is Influencing Purchase Decisions*. Retrieved from Social media week: <https://socialmediaweek.org/blog/2017/05/social-media-influencing-purchase-decisions/>

Dr. Aparna P. Goyal, D. T. (2016). *Impact of Increasing Trend of Online Marketing on Consumer*. International Journal of Engineering Technology, Management and Applied Sciences.

Roesler, P. (2015, May 29). *How social media influences consumer buying decisions*. Retrieved from The business Journals: <https://www.bizjournals.com/bizjournals/how-to/marketing/2015/05/how-social-media-influences-consumer-buying.html>



**Figure: Graphical Model**

In the mathematical model, the relationship between dependent variable and independent variable will be showed in an applied formula. According to our topic, the mathematical relationships between dependent and independent variable are given below:

$$Y = a_0 + \sum_{i=1}^n a_i x_i$$

**Figure: Mathematical Model**

**Where,**

Y= Factor influencing Consumers purchase intention of FMCG through social media

$a$ = Intercept value (slope)

$x_i$ = Social media

**Research questions:**

Q: Do Social media influence consumers to purchase FMCG product?

**Hypothesis:**

H1: Social media influence consumer to purchase FMCG products.

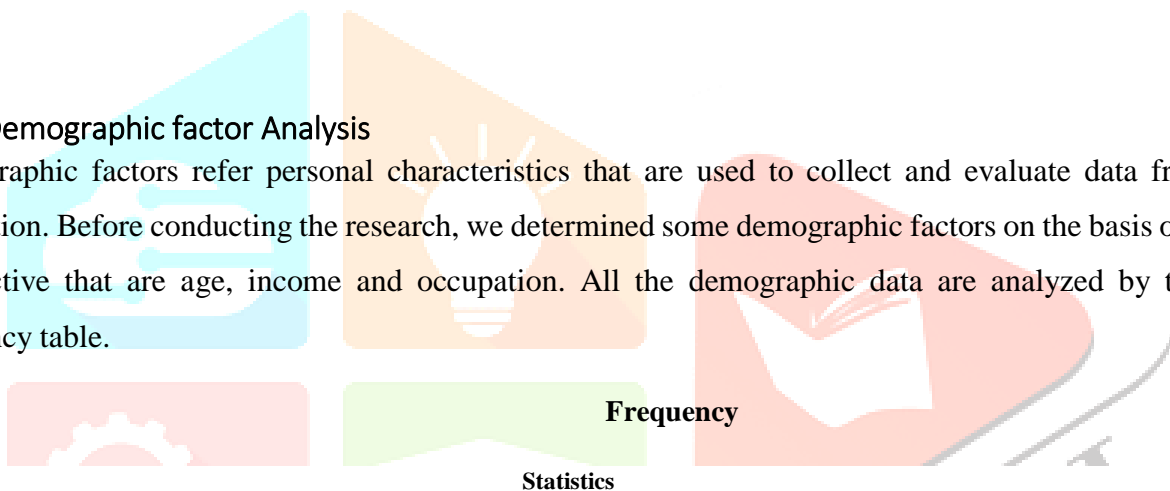
H<sub>0</sub>: Social media do not influence consumer to purchase FMCG products.

**7 Analysis & Findings**

In this Chapter we try to explain, Research Design, Sources of Data Measurement & Scaling and Questionnaire Design. Sampling and Data Analysis Techniques. Qualitative Data, Descriptive Analysis, Regression Analysis, ANOVA Test.

**7.1 Demographic factor Analysis**

Demographic factors refer personal characteristics that are used to collect and evaluate data from the mass population. Before conducting the research, we determined some demographic factors on the basis of Bangladesh perspective that are age, income and occupation. All the demographic data are analyzed by the following frequency table.



	A_Internet	Gender	Age_Group	Educational Level	Occupation	S_Time	W_TV	MP_Media
N Valid	200	200	200	200	200	200	200	200
Missing	0	0	0	0	0	0	0	0
Mean	1.01	1.46	2.11	3.61	1.85	3.94	2.64	2.23
Median	1.00	1.00	2.00	4.00	1.00	5.00	2.00	2.00
Mode	1	1	2	4	1	5	2	2
Std. Deviation	.071	.500	.600	1.032	1.152	1.336	.930	.762

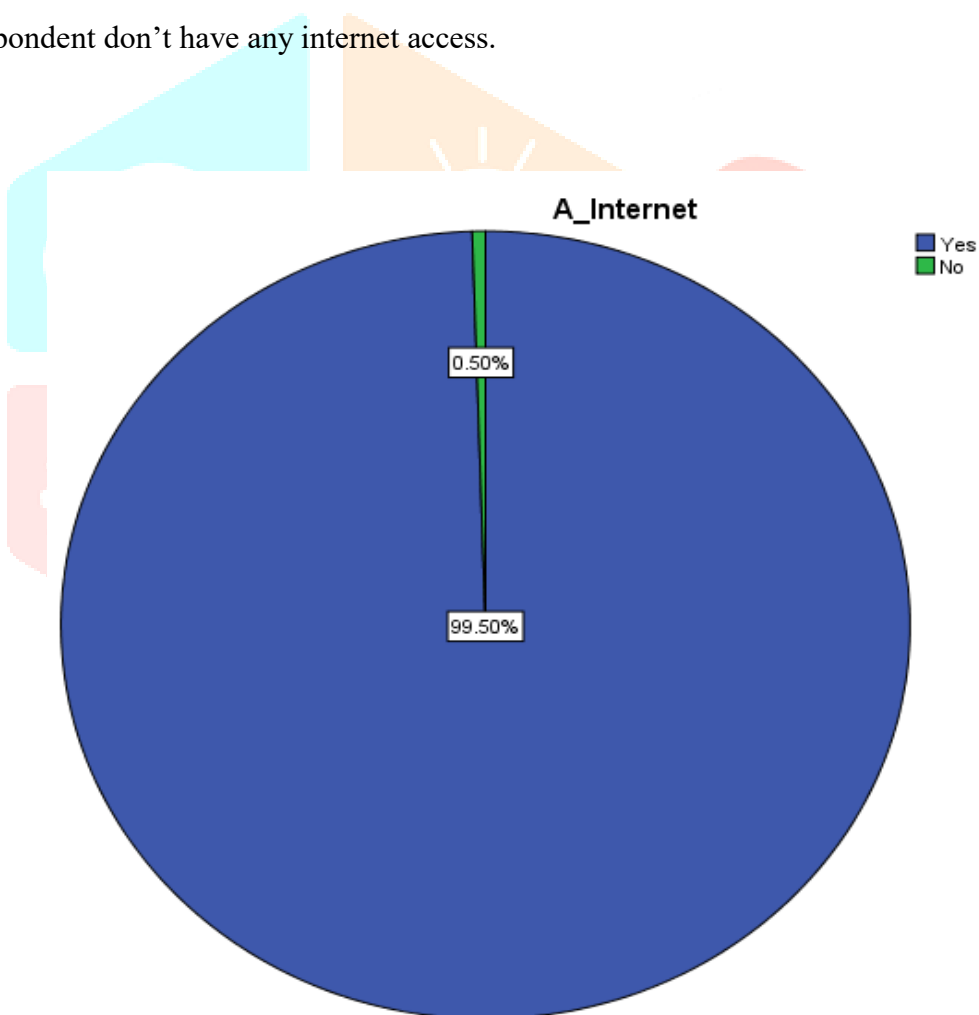
## Frequency Table

### 1. Internet Access:

A Internet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	199	99.5	99.5	99.5
	No	1	.5	.5	100.0
	Total	200	100.0	100.0	

Internet Access: The following chart shows that 99.5 percent of our respondent uses internet and only 0.5% of our respondent don't have any internet access.

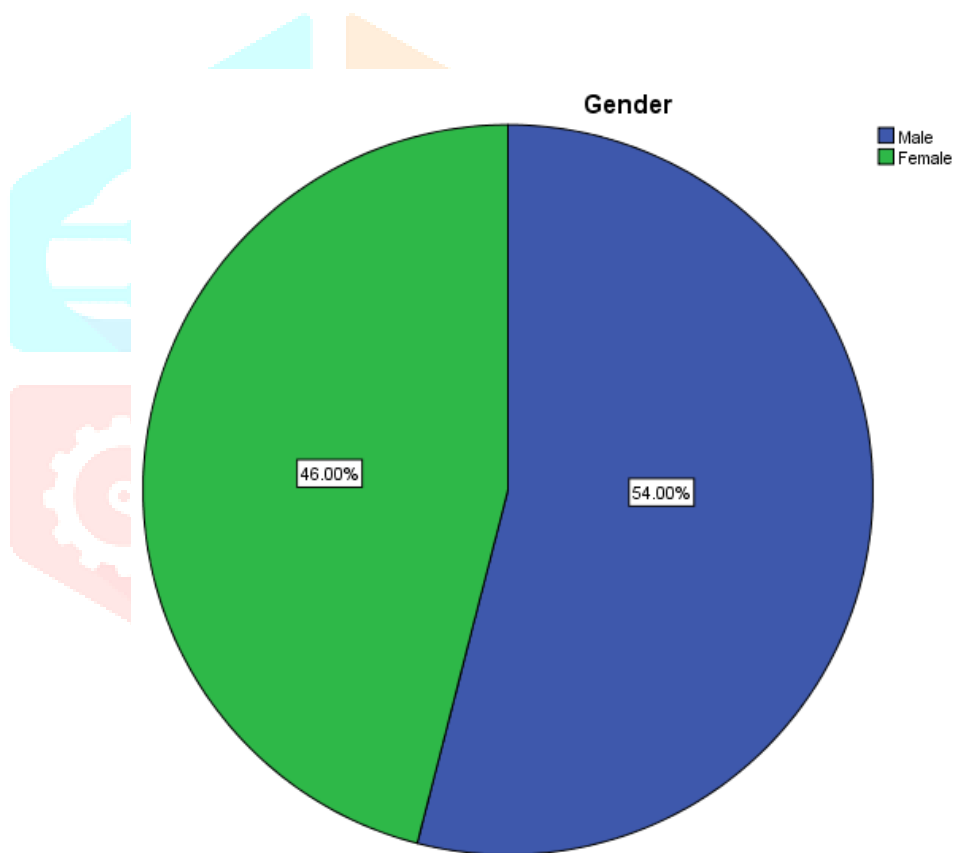


## 2. Gender:

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	108	54.0	54.0	54.0
	Female	92	46.0	46.0	100.0
	Total	200	100.0	100.0	

Gender: The following chart shows the gender of our respondent. As it can be seen that in our total respondent 54% of our respondent were male and 46% of our respondent were female.



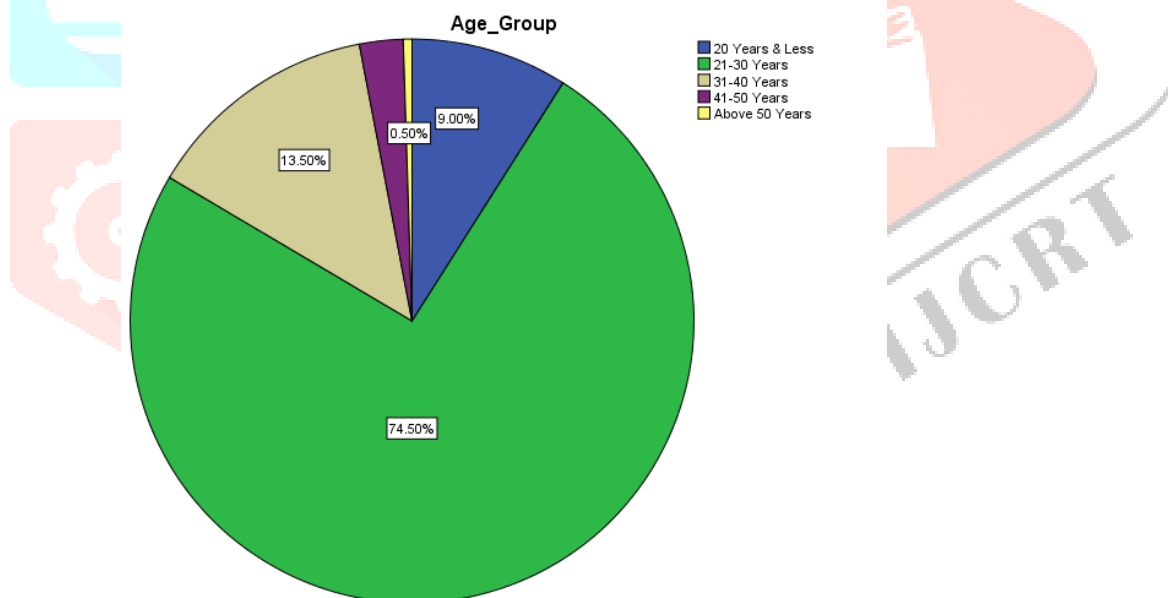


### 3. Age Group:

Age Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 Years & Less	18	9.0	9.0	9.0
	21-30 Years	149	74.5	74.5	83.5
	31-40 Years	27	13.5	13.5	97.0
	41-50 Years	5	2.5	2.5	99.5
	Above 50 Years	1	.5	.5	100.0
	Total	200	100.0	100.0	

Age Group: The following bar chart shows the age range of respondents. As it can be seen that people of 21-30 years ages are occupying the major portion of the chart. Total respondent was 200. Here, 9% belongs in 20 years & less, 74.5% belongs in 21-30 years, 13.5% belongs in 31-40 years, 2.5% belongs in 41-50 years and 0.5% belongs in above 50 years.

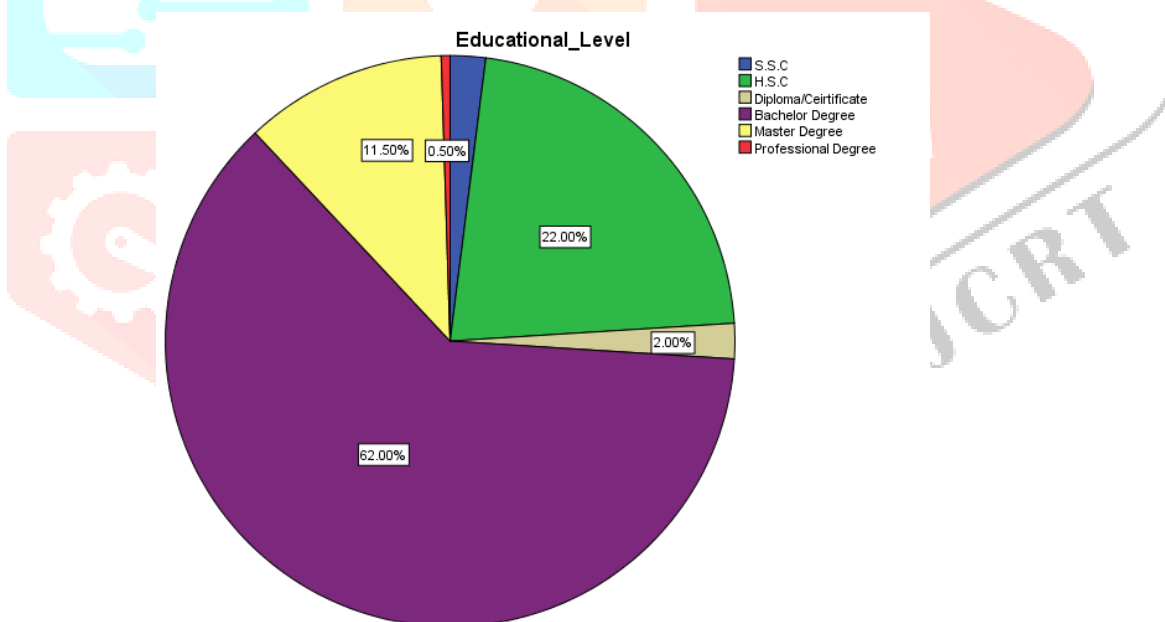


#### 4. Educational Level:

**Educational Level**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	S.S.C	4	2.0	2.0	2.0
	H.S.C	44	22.0	22.0	24.0
	Diploma/Certificate	4	2.0	2.0	26.0
	Bachelor Degree	124	62.0	62.0	88.0
	Master Degree	23	11.5	11.5	99.5
	Professional Degree	1	.5	.5	100.0
	Total	200	100.0	100.0	

Education Level: The following chart shows the Education level range of respondents. Here we can see that in our respondent 2% of our respondent belongs in S.S.C, 22% of our respondents belongs in H.S.C, 2% of our respondents belongs in Diploma, 62% of our respondent belongs in Bachelor Degree, 11.5% of our respondent belongs in Master Degree and 0.5% of our respondents belongs in Professional Degree.

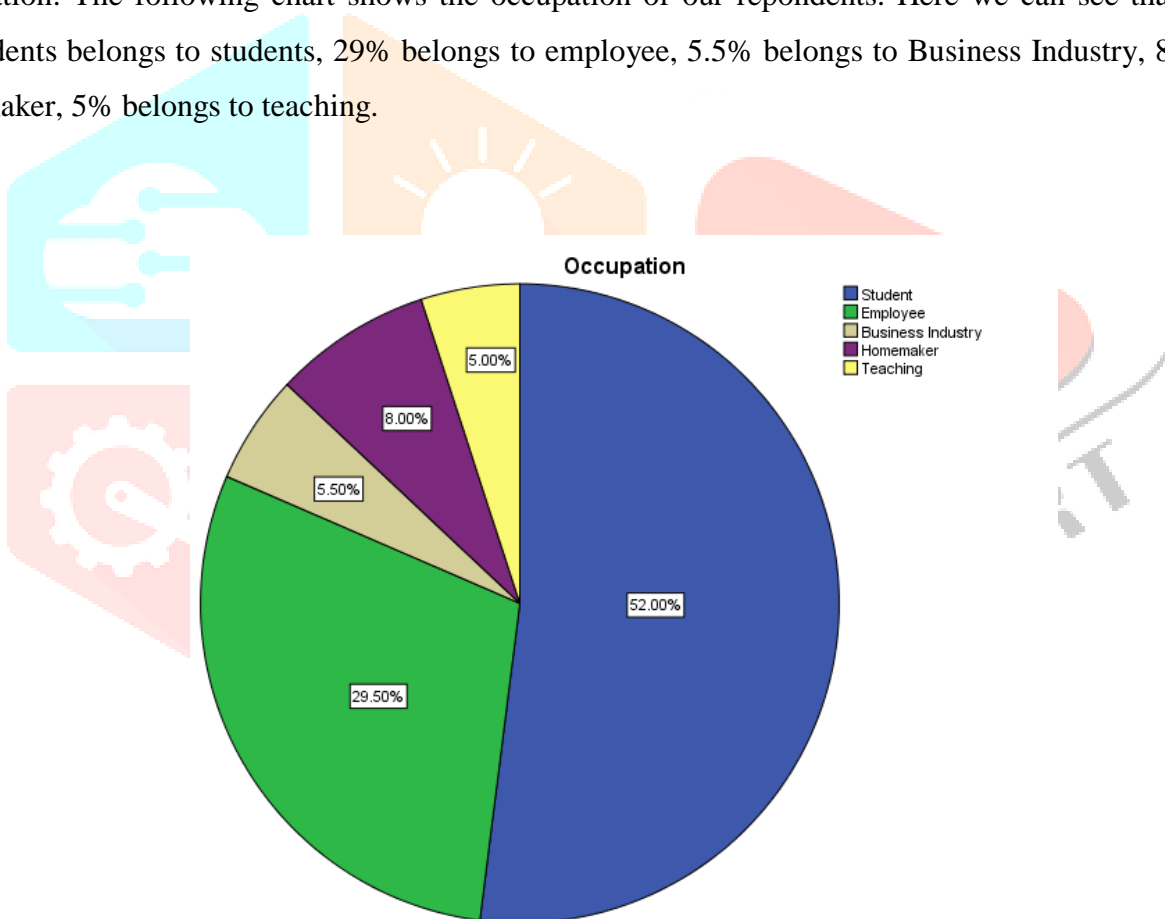


## 5. Occupation:

Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	104	52.0	52.0	52.0
	Employee	59	29.5	29.5	81.5
	Business Industry	11	5.5	5.5	87.0
	Homemaker	16	8.0	8.0	95.0
	Teaching	10	5.0	5.0	100.0
	Total	200	100.0	100.0	

Occupation: The following chart shows the occupation of our respondents. Here we can see that 52% of our respondents belongs to students, 29% belongs to employee, 5.5% belongs to Business Industry, 8% belongs to homemaker, 5% belongs to teaching.

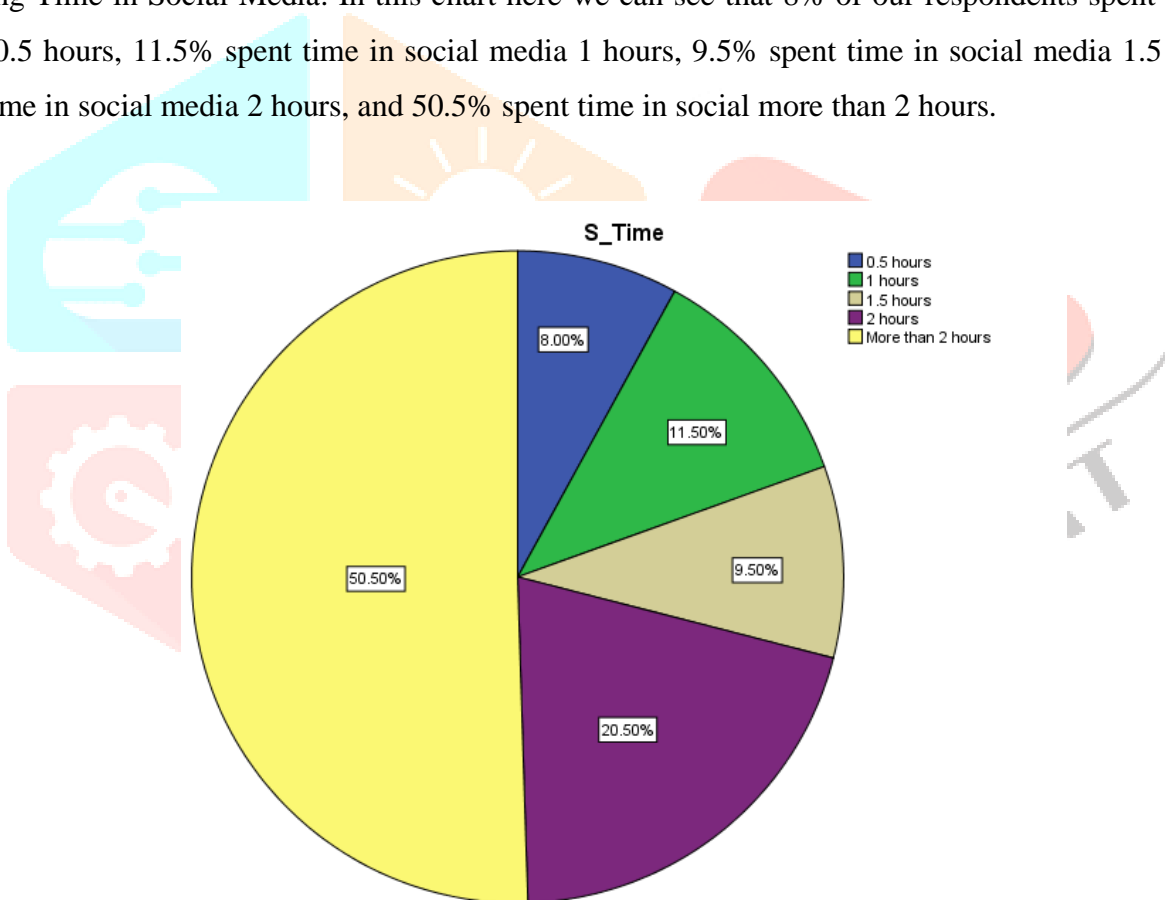


## 6. Spending Time in Social Media:

S\_Time

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0.5 hours	16	8.0	8.0	8.0
	1 hours	23	11.5	11.5	19.5
	1.5 hours	19	9.5	9.5	29.0
	2 hours	41	20.5	20.5	49.5
	More than 2 hours	101	50.5	50.5	100.0
	Total	200	100.0	100.0	

Spending Time in Social Media: In this chart here we can see that 8% of our respondents spent time in social media 0.5 hours, 11.5% spent time in social media 1 hours, 9.5% spent time in social media 1.5 hours, 20.5% spent time in social media 2 hours, and 50.5% spent time in social more than 2 hours.

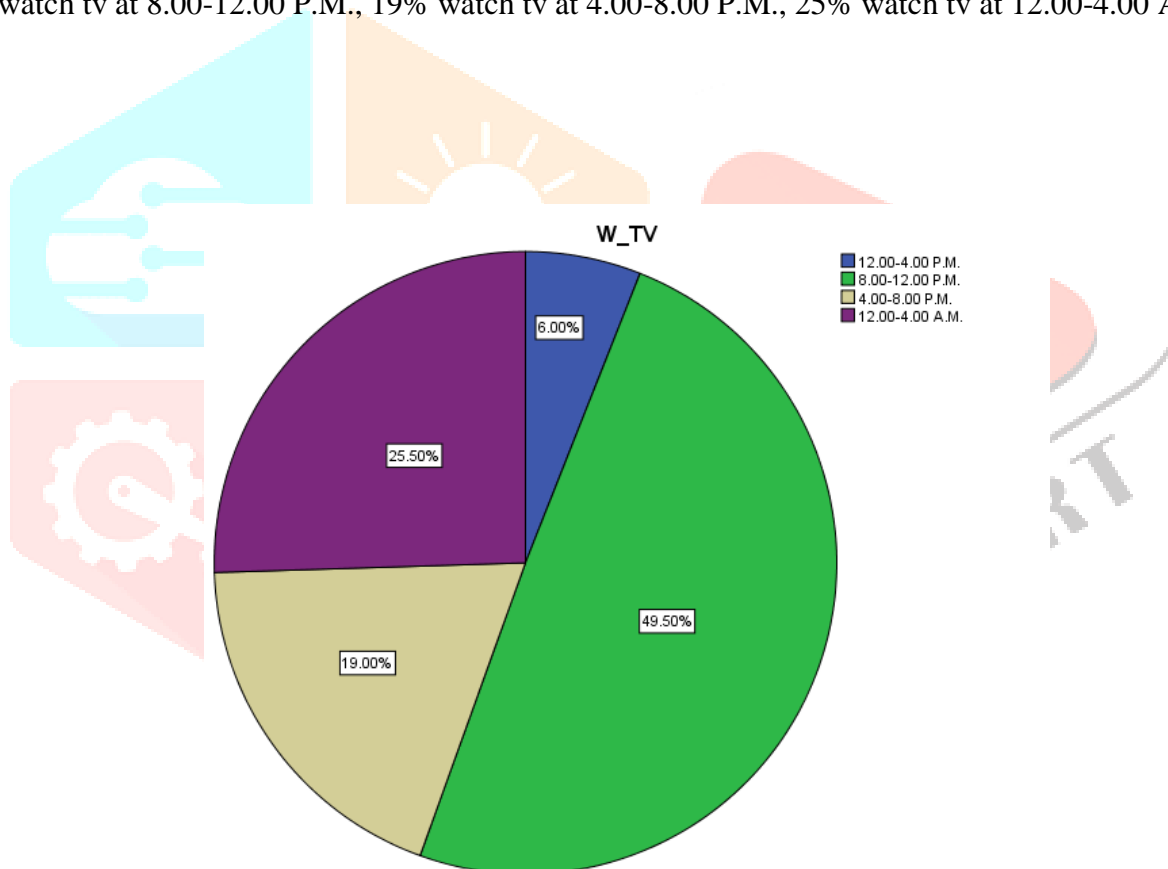


## 7. Watching Television:

W\_TV

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12.00-4.00 P.M.	12	6.0	6.0	6.0
	8.00-12.00 P.M.	99	49.5	49.5	55.5
	4.00-8.00 P.M.	38	19.0	19.0	74.5
	12.00-4.00 A.M.	51	25.5	25.5	100.0
	Total	200	100.0	100.0	

Watching Television: In this chart here we can see that 6% of our respondent watch tv at 12.00-4.00 P.M., 49.5% watch tv at 8.00-12.00 P.M., 19% watch tv at 4.00-8.00 P.M., 25% watch tv at 12.00-4.00 A.M.

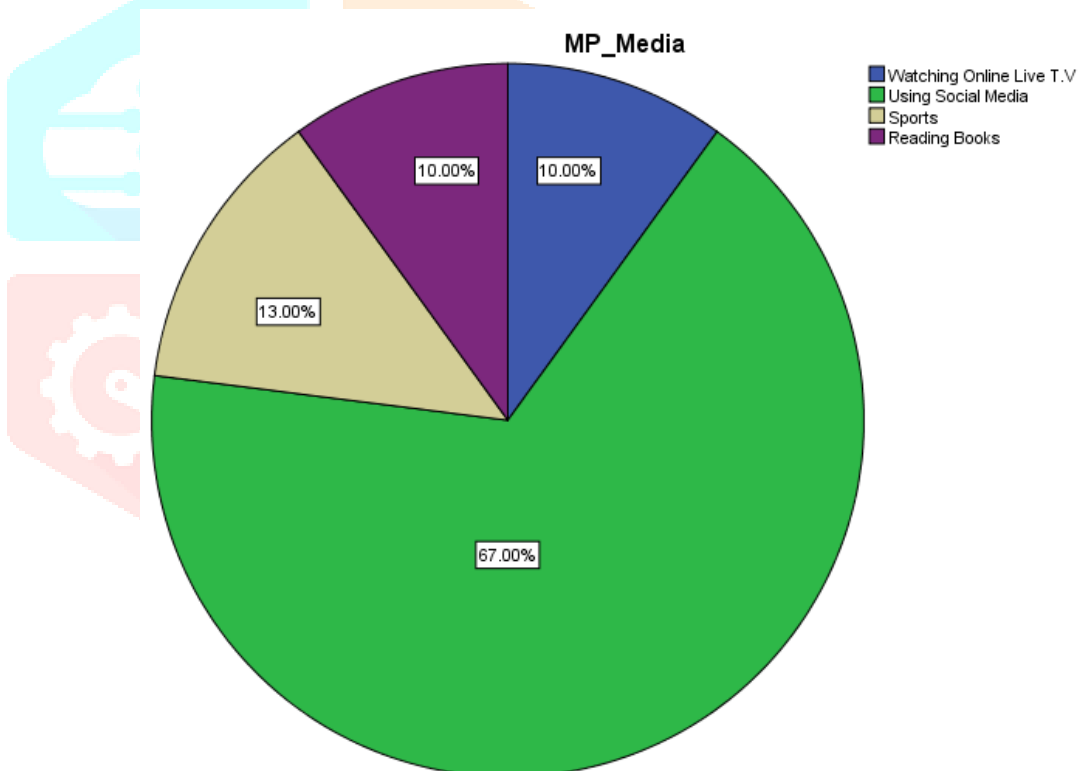


## 8. Most Preferred Leisure:

MP Media

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Watching Online Live T.V	20	10.0	10.0	10.0
	Using Social Media	134	67.0	67.0	77.0
	Sports	26	13.0	13.0	90.0
	Reading Books	20	10.0	10.0	100.0
	Total	200	100.0	100.0	

Most Preferred Leisure: In the chart here we can see that 10% of our respondent spent their leisure time watching online TV, 67% spent their leisure time using social media, 13% spent their leisure time by sports, and 10% spent their leisure time by reading books.





## 8 Factor Analysis

### 8.1 Correlation matrix

Correlation Matrix are determined by the squared multiple correlation of the variable itself and with the other variables. With the Correlation Matrix we want to show the interrelationship of all the components.

**Correlation Matrix**

	SM_1	SM_2	SM_3	SM_4	SM_5	SM_6	SM_7	WP_1	WP_2	WP_3	WP_4	WP_5	WP_6
Correlation SM_1	1.000	.509	.284	.372	.155	.197	.186	.300	.052	.227	.022	.058	.019
SM_2	.509	1.000	.298	.436	.123	.210	.285	.257	.010	.119	-.005	-.010	.038
SM_3	.284	.298	1.000	.369	.294	.378	.348	.236	-.120	.340	.011	.162	.233
SM_4	.372	.436	.369	1.000	.285	.398	.249	.261	.152	.241	.078	.100	.120
SM_5	.155	.123	.294	.285	1.000	.322	.288	.090	.117	.180	.133	.196	.184
SM_6	.197	.210	.378	.398	.322	1.000	.408	.192	.001	.315	.230	.224	.280
SM_7	.186	.285	.348	.249	.288	.408	1.000	.210	.110	.302	.231	.278	.348
WP_1	.300	.257	.236	.261	.090	.192	.210	1.000	.129	.340	.124	.074	.151
WP_2	.052	.010	-.120	.152	.117	.001	.110	.129	1.000	.048	-.020	.021	-.015
WP_3	.227	.119	.340	.241	.180	.315	.302	.340	.048	1.000	.235	.209	.291
WP_4	.022	-.005	.011	.078	.133	.230	.231	.124	-.020	.235	1.000	.561	.335
WP_5	.058	-.010	.162	.100	.196	.224	.278	.074	.021	.209	.561	1.000	.433
WP_6	.019	.038	.233	.120	.184	.280	.348	.151	-.015	.291	.335	.433	1.000

## 8.2 KMO & Bartlett's Test

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.778
Bartlett's Test of Sphericity	Approx. Chi-Square	569.942
	Df	78
	Sig.	.000

Here the hypothesis is-

**H<sub>0</sub>:** Total number of respondents is not significantly adequate for the study.

**H<sub>1</sub>:** Total number of respondents is significantly adequate for the study.

Since, the value of significance level is .000 is less than alpha value .05, therefore, the alternative hypothesis is accepted which means that our respondent groups are significant and 77.8% adequate for the research according to KMO measure of Sampling Adequacy. We can continue our further research with these respondent groups. This multivariate statistical technique is used for three primary reasons:

- Reduce the number of variables, from large to small
- Establish underlying dimensions between measured variables and constructs
- Provide construct validity evidence

## 8.3 Rotated Component Matrix

Rotated Component Matrix provides a clear depiction of our principal components. This process is done by Varimax method. By rotating the whole component matrix table again and again, we come to a final conclusion. The main purpose of this kind of rotation is to eliminate the most problematic ones and keeping the most important ones which can best describe the whole phenomena. After using the rotation component matrix, we have found out some pairs of variables to explain our Dependent variable.

**Before****Rotated Component Matrix**

	Component			
	1	2	3	4
SM_1	.755			
SM_2	.711			
SM_3			.589	
SM_4	.516		.516	
SM_5			.754	
SM_6			.651	
SM_7			.535	
WP_1	.683			
WP_2				.933
WP_3				
WP_4		.801		
WP_5		.781		
WP_6		.663		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 6 iterations.

The rotated component matrix table shows which items or variables load on which components after rotation. We see that the rotation cleaned up the interpretation by eliminating the global first component.

**Final:****Rotated Component Matrix**

	Component		
	1	2	3
SM_1			.793
SM_2			.762
SM_3	.681		
SM_5	.723		
SM_6	.676		
SM_7	.593		
WP_1			.651
WP_4		.844	
WP_5		.818	
WP_6		.625	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Now, in the rotated component matrix, we can see that, all of the factors are well organized and there are separate tables for each of those.

According to result, we have added new variables which are supported by journal named sponsored Ads, Native Ads, Crawling Ads, Web Ads

#### 8.4 Communalities

This is the proportion of each variable's variance that can be explained by the factors. The Extraction value in the table represents which questions are not associated with the study. The highest range for extraction value is 1. It is better to have the greater value which is very close to 1.

**Communalities**

	Initial	Extraction
SM_1	1.000	.591
SM_2	1.000	.585
SM_3	1.000	.619
SM_4	1.000	.550
SM_5	1.000	.614
SM_6	1.000	.538
SM_7	1.000	.469
WP_1	1.000	.567
WP_2	1.000	.886
WP_3	1.000	.408
WP_4	1.000	.644
WP_5	1.000	.636
WP_6	1.000	.519

Extraction Method: Principal Component Analysis.

Here we can see that, in the communalities table the extraction value of all components is less than 1. In this phase we didn't eliminated those components which are less than 0.5 rather we primarily marked the components because there is a problem and kept for further analysis in a broader extent. In the communality box, two value that is been red marked which indicates that, it is not that much of a good item to measure. And all the other values are more than 0.50, so they are quite good for the analysis.

#### 8.5 Total variance Explained

How many variables we really expect for our research is described by the total variance explained. The total column of the total variance explained gives the value, the % of variance column gives the ratio of the variance accounted for by each component in all of the variables; the cumulative % column gives the percentage of variance accounted for by the first 4 components to the total variance.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.622	27.864	27.864	3.622	27.864	27.864	2.201	16.934	16.934
2	1.837	14.132	41.995	1.837	14.132	41.995	2.194	16.876	33.810
3	1.122	8.633	50.628	1.122	8.633	50.628	2.111	16.235	50.045
4	1.043	8.027	58.655	1.043	8.027	58.655	1.119	8.610	58.655
5	.927	7.135	65.789						
6	.745	5.730	71.520						
7	.680	5.227	76.747						
8	.622	4.787	81.533						
9	.610	4.691	86.225						
10	.539	4.150	90.374						
11	.498	3.829	94.203						
12	.392	3.015	97.218						
13	.362	2.782	100.000						

Extraction Method: Principal Component Analysis.

In the total variance explained table, ideally, we should have 13 variables but initially we have found 4 variables which are greater than value 1. Therefore, we considered these variables as the Impact of Advertisement in Social Media of FMCG product on consumer's purchase intention in Bangladesh that can explain 58.65% of the total phenomenon.

## 9 Regression Analysis

Regression Analysis is a statistical process for estimating the relationships among variables. Regression Analysis helps one understand how the typical value of the dependent variable changes when any one of the independent variables is varied. It includes many techniques for modeling and analyzing several variables. Here, we used Linear Regression to conduct the statistical study for our research.

### 9.1 Linear Regression

Linear Regression is the most basic type of regression and commonly used predictive analysis. The overall idea of this regression examines two things-

- Does a set of independent variables do a good job in predicting a dependent variable?
- Which independent variables significantly predict the dependent variable?



Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	Web_Ads,Sponsored_Ads , Scrolling_Ads, Native_Ads <sup>b</sup>		Enter

a. Dependent Variable: Dependent\_Variable

b. All requested variables entered.

From the table above shows that our four independent variables remain exist that we developed before conducting the survey. It indicates that the four of our independent variables- Web\_Ads, Sponsored\_Ads , Scrolling\_Ads, Native\_Ads.

## 9.2 Model Summary

Model Summary table provides information about regression line's ability to account for the total variation in the dependent variable. It explains whether the independent variables are able to judge the dependent variable or not. Model summary is comprised with R, R Square, adjusted R Square and Std. Error of the Estimation. R square statistic provides a measure of how well the model is fitting the actual data and variability in the data that is explained by the model. It is a number between 0 to 1. A number near 0 represents a regression that doesn't explain the variance in the dependent variable well and a number close to 1 does explain the variance in the dependent variable that means the observations are predicted exactly.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.535 <sup>a</sup>	.287	.272	.49188

a. Predictors: (Constant), Web\_Ads, Facebook\_Ads, Crawling\_Ads, Native\_Ads

Within the scope of the research examined, a regression analysis has been carried out in order to determine the factors that influences to intension of purchase of FMCG product from Social Media and Web Portal Advertisement. The inter-relationships between the dependent mean and respondent's preference was assessed through the use of regression and the dependent mean are Web\_Ads, Sponsored ads, Crawling\_Ads, Native\_Ads. The model's  $R^2$  square value is .272, which means that Web\_Ads, Sponsored ads, Crawling\_Ads, Native\_Ads

can explain or predict 27.2% of the-variability-of-the-dependent-variable-i.e.-to purchase intension of FMCG goods.

### 9.3 Standard Error of the Estimate

Standard error of the estimate is the measure of dispersion or variability of predictions in a regression. The small value of std. Error of Estimate represents that observed values are fairly close to the regression line and the larger value indicates observed values are far away from the regression line. The less the value of std. error of estimation the higher the probability of best fit. In this model summary the Std. Error of estimation is .49188.

### 9.4 ANOVA

Analysis of Variance (ANOVA) tests the hypothesis and is used to determine whether the null hypothesis will be accepted or rejected. Here our hypothesis is:

**H<sub>0</sub>:** Independent variables don't have the exploratory power to explain the dependent variable.

**H<sub>1</sub>:** Independent variables have the exploratory power to explain the dependent variable.

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	18.951	4	4.738	19.582	.000 <sup>b</sup>
Residual	47.179	195	.242		
Total	66.131	199			

a. Dependent Variable: Dependent\_Variable

b. Predictors: (Constant), Web\_Ads, Sponsors\_Ads, Crawling\_Ads, Native\_Ads

The F value of the test for the data is 19.582. The p-value associated with this F value is very small, 0.000 which is less than alpha value 0.05. The null hypothesis is rejected and our alternative hypothesis that is independent variables have the exploratory power to explain the dependent variable will be accepted.

The study shows that there is positive significant impact of these independent variables on the dependent variable and the model applied is significantly good enough in predicting the dependent variable.

### 9.5 Coefficient

Coefficient determines the specific relationship among the independent variables and dependent variable. It exactly describes in which extent a specific factor can affect a dependent variable. In this research we have four independent variables. Level of significance will determine the exact variables for the study. The analysis of the result is described in the following:

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.973	.181		10.926	.000
Sponsors_Ads	.071	.041	.118	1.747	.082
Native_Ads	.075	.051	.103	1.456	.147
Scrolling Ads	.144	.034	.275	4.230	.000
Web_Ads	.190	.041	.303	4.602	.000

a. Dependent Variable: Dependent\_Variable

Hypothesis for all variables:

**H<sub>0</sub>:** Sponsored Ads, Native Ads, Crawling Ads and Web Ads do not have any impact on Consumers purchase intention.

**H<sub>1</sub>:** Sponsored Ads, Native Ads, Crawling Ads and Web Ads have an impact on Consumers purchase intention

- ✓ **Sponsored Ads:** sig. value .082 > .05; **H<sub>0</sub>** accepted
- ✓ **Native Ads:** sig. value .147 > .05; **H<sub>0</sub>** accepted
- ✓ **Scrawling Ads:** sig. value .000 < .05; **H<sub>0</sub>** rejected
- ✓ **Web Ads:** sig. value .000 < .05; **H<sub>0</sub>** rejected

As the variable Sponsored ads and Native ads accepts the null hypothesis which shows they don't have any impact on consumers purchase intention, it was not taken into consideration. Crawling Ads and Web Ads were considered as they rejected the null hypothesis that means our alternative hypothesis is true. We conclude that Crawling Ads and Web Ads have equal impact on consumers purchase intention.

## 10 Recommendation

From the very beginning we were very determined about what independent variables are responsible for Impact of Advertisement in Social Media of FMCG product on consumer's purchase intention in Bangladesh. Now after done with the survey and the analyze we came to know that among the four independent variables sponsored Ads, Native Ads, Crawling Ads, Web Ads. So, we have so suggestion towards the stakeholders

- ❖ Online advertising are more effective at 8.p.m to 12.a.m .
- ❖ They should also bring the developing areas in their coverage.
- ❖ They should be identify those areas where promotional activities with effective advertising is lacking.
- ❖ They should be examine regular rate of increase in turnover as a result of advertising.
- ❖ They should be concerned about the crawling and web Ads.

- ❖ More distinguished and effective respond from the customer of the advert should be used.
- ❖ Ensure that product information is being to the advertising.

We hopefully brought out the reasons of Impact of Advertisement in Social Media of FMCG product on consumer's purchase intention. All of the methods and techniques showed sponsored Ads, Native Ads, Crawling Ads, and Web Ads over the dependent variable which is Impact of Advertisement in Social Media of FMCG product on consumer's purchase intention. We hope that our findings will support the company as well as consumer then this effort will be a triumph for us.

## 11 Conclusion

We have found that Social media is a determinant that influence the consumers purchase intention of FMCG from secondary sources. We think that this determinant is helpful to complete our survey.

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## Appendix:

### Survey on Purchase intension of FMCG product from Social Media and Web Portal Advertisement in Bangladesh

*Dear valued respondent*

You are sincerely requested to participate in this survey regarding purchase intention of FMCG product from social media advertisement in Bangladesh. The purpose of this survey is to measure the effectiveness of Social Media & Web Portal advertisement in terms of FMCG sales growth.

Please be assure that your identity will remain secret and all the information provided by you will be used only for academic purpose only. We would like to appreciate your effort, if you could spend few minutes of your valuable time to complete this questionnaire and contribute to identify purchase intension of the consumer on FMCG products. Thank you very much for your time and cooperation.

Email:[rafsan.kabir0@gmail.com](mailto:rafsan.kabir0@gmail.com)

Mobile:+8801728017447

#### Section A: Respondent's Demography

Please put (√) in the right option below:

**1. Access to internet:**

- ☐ Yes
- ☐ No
- ☐ Other

**2. Gender:**

- ☐ Male
- ☐ Female

**3. Age group:**

- ☐ 20 years or below
- ☐ 21-30 years
- ☐ 31-40 years
- ☐ 41-50 years
- ☐ Above 50 years
- ☐ Others

**4. Education level:**

- ☐ S.S.C
- ☐ H.S.C
- ☐ Diploma/ Certificate
- ☐ Bachelor Degree
- ☐ Master Degree
- ☐ Professional Degree

**5. Occupation**

- ☐ Student
- ☐ Employee
- ☐ Business Industry
- ☐ Homemaker
- ☐ Teaching

**6.How much time do you spend on online media in 1 day?**

(i) 0.5 hours (ii) 1 hour (iii) 1.5 hours (iv) 2 hours (v) More than 2 hours

**7. When do you watch Youtube / Facebook live?**

(i) 12.00-4.00 P.M. (ii) 8.00-12.00 P.M (iii) 4.00-8.00 P.M. (iv) 12.00-4.00 A.M.

**8. Most preferred leisure activity of online media:**

(i) Watching online live T.V (ii) Using Social medias (iii) Sports (iv) Reading books

Please read the statements carefully and respond to them by showing the extent to which you agree or disagree with the statement. By using a tick mark on the scale below, you can express your opinion on the purchase intention of consumers influenced by the online advertisement of FMCG products ranging from 1= Strongly Disagree to 5= Strongly Agree.

**Section B: Sponsored Advertisement, Native Advertisement**

No.	Description	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Repeated exposure of Facebook video ads influence consumer's purchase intention	1	2	3	4	5
2.	Sponsored Advertisement at social media are good for attracting me to purchase product	1	2	3	4	5
3.	Advertisement given at interval of YouTube videos attract me to purchase the product	1	2	3	4	5
4.	Viral advertisement videos at social media has a positive impact on my purchase decision	1	2	3	4	5
5.	Desktop feed ads and mobile feed ads on social media influence my purchase decision	1	2	3	4	5
6.	Attractive Instagram ads motivate me to purchase FMCG product	1	2	3	4	5



### Section C: Web Ads & Crawling Advertisement

No.	Description	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Scrolling banners are effective ways to influence consumers purchase intention	1	2	3	4	5
2.	Content promotion in blogs are effective to influence consumer's purchase decision	1	2	3	4	5
3.	Affiliated link on web portal leads consumer purchase intention	1	2	3	4	5
4.	Pop up ads are useful to impact consumer's purchase intention	1	2	3	4	5

### Section D: Consumer's Purchase Intention

No.	Description	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Consumer find purchasing FMCG products from online more convenient	1	2	3	4	5
2.	Consumers are more interested to purchase FMCG products that are advertised on social media and web portal	1	2	3	4	5
3.	Extensive social media and web portal advertisement makes consumer buy FMCG product regardless the quality	1	2	3	4	5
4.	Online advertisement of FMCG products are easily understandable	1	2	3	4	5
5.	Through social media advertisement consumer get to know about the product before purchase	1	2	3	4	5
6.	Online advertisement can persuade consumers to purchase products that were never used by them before	1	2	3	4	5
7.	Consumers recommend others to purchase the FMCG products those exhibit online advertisements	1	2	3	4	5