

CHAPTER 4

DATA ANALYSIS: INTRODUCTION, RESULTS, AND DISCUSSION

4.1 INTRODUCTION

The results and interpretation extracted from the online survey will be discussed in this chapter. The survey sample was taken from 345 young people in the city of Hyderabad, randomly selected without any prejudice for the study. A total of 385 questionnaires were circulated; 345 were returned and 40 were missing when 345 questionnaires were eventually chosen for data processing.

4.2 RESPONSE RATE

The response rate shows the number of individuals who have finished the questionnaire. In the research sample, the response rate is important as it shows whether the observations are indicative of a population (Leedy and Ormrod, 2005). The length of the questionnaire, the content of the questionnaire, and the confidentiality of the questionnaire were considered to be factors influencing the answer rate. Questionnaires are a cheap way to obtain information from a potentially significant number of respondents. A well-designed questionnaire is used successfully to collect data on both respondents' average results. Questionnaires (Google Forms) for data collection were administered to the 18–33 age group. The study was conducted from August to October 2020 in Hyderabad. Using the embedded method in Google Forms and SPSS applications, the responses received from the online survey were analyzed. In order to promote the dialogue, which will be addressed in Chapter 5, this chapter focuses exclusively on presenting the data obtained in a substantive manner.

This chapter provides respondents with a perspective at the outset by analyzing their demographic data. This is followed by the outcomes, analysis of the results, and definition. General and cross-tabulation

research has been integrated into the results and analysis. Data were gathered through a questionnaire in which questions are mainly based on three objectives: to determine the effect of social media on the purchasing decisions of young Indian consumers; to find the relationship between social media users' personal characteristics and the impact of social media on their buying decisions; and to study the relationship between personal characteristics and post-purchase behavior of social media users. Two key points are included in this analysis: first, an explanation of the numerous ways that respondents use social media. A grounded methodology was introduced to evaluate these open-ended responses. To define key types, all the results were read. The divisions and distinctions between them were then established. In relation to each of the groups, this was accompanied by coding the answers. They were coded as both and identified in the "multiple response" category if the response referred to more than one category. Generally, the responses that displayed "multiple" components were more sophisticated. A content review was not sufficient, considering the length of the responses.

4.3 CONVERSION OF DATA INPUT INTO ANALYSIS SOFTWARE (SPSS)

It is possible to separate quantitative data into two different groups: categorical and numerical (Figure 5). Categorical data refer to data whose values cannot be numerically determined but can either be grouped according to the component's describing or distinguishing characteristics or placed into sets in order of rank (categories). They can be further subdivided into descriptive ones and graded ones.

Alternatively, to get a sense of the meaning of the answers and how they vary by various categories, those for behavior and gender were compiled in order to explore trends of resemblance between populations or various trends (Table 2). It has not been possible to test these results for statistical variations when there were so many different groups that could not be collapsed together to satisfy the chi-square assumptions.

If a postcode is used as the code for a spatial reference, a typical exception is to use a numerical code for categorical data. When using a spreadsheet, a list of codes for each element must also be preserved. These can be stored by statistical analysis software such that each code is named automatically.

Numerical data collected can be quantitatively analyzed using statistical techniques in two distinct forms in a research project. Descriptive analysis refers to the description, aggregation, and incorporation of the structures

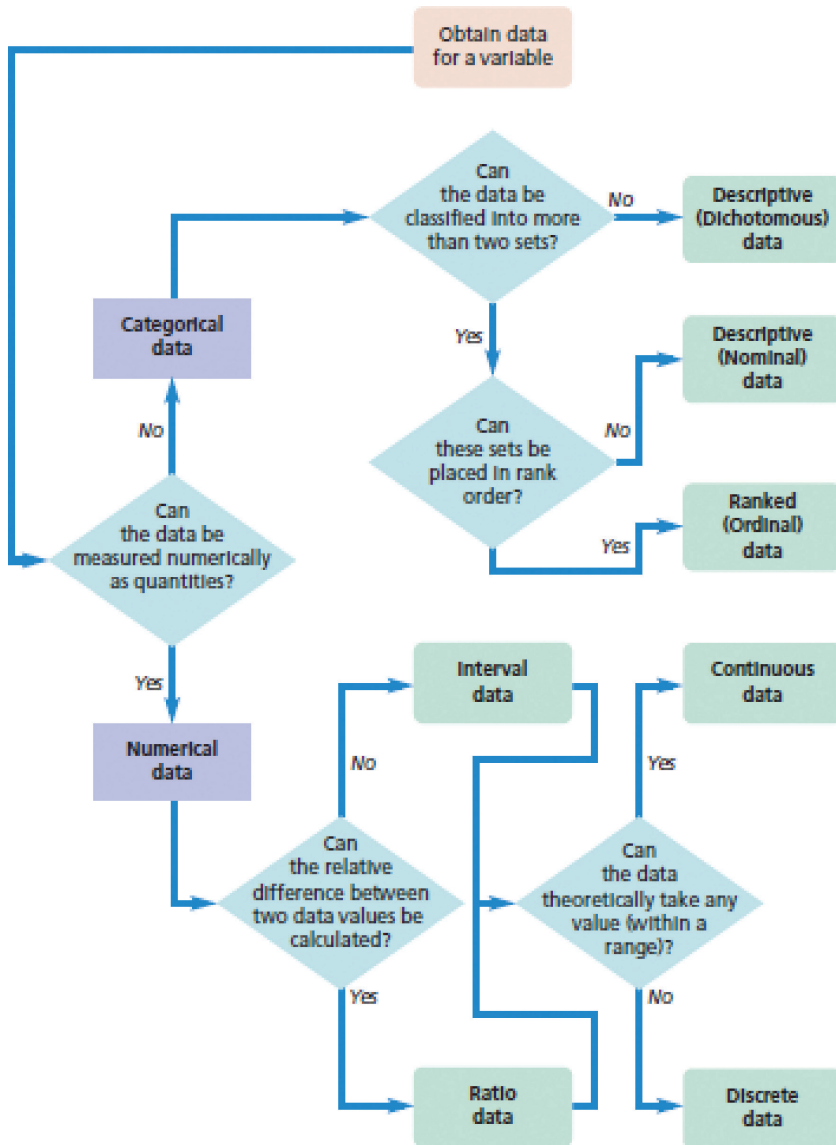


Figure 5. Data types.

of meaning or correlations of these constructs statistically. Inferential analysis refers to the theory's experimental data (theory testing). In preparation for computer programs such as SPSS to view the data, it is important to translate the data into a machine-readable, numeric format, such as a spreadsheet or text file.

Table 2. Social media's influence on purchase decisions questionnaire options.

Descriptive data type	Posted photos and videos of products	Reviews and feedback	Wide range of products are available	Convenience of shopping at home	Compare various models/brands
Numeric data type	1	2	3	4	5

The codebook is a coded document that contains a succinct description of each element, of the items or measurements in the test sample for that component, of the format of each item (numeric, text, etc.), of the response scale for each item (i.e., whether it is measured on a scale of nominal, ordinal, interval, ratio, or any other sort of scale), and of how each value is converted into a numeric format. Many whose values are numerically calculated or counted as quantities are numerical proof, often called “quantifiable”. This implies that numerical data are more reliable than categorical data, since each data value can be assigned a position on a numerical scale. This also means that these results can be interpreted using a much wider set of data.

4.4 CORRELATION ANALYSIS AND INTERPRETATION

In statistical research, whether there was actually no variation in the population from which the sample was taken, the possibility of the association (one or more extremes) happening by chance alone is disputed by checking. The relationship between two variable quantities is calculated by correlation. The best way to determine the sum of collinearity in a series of variables is to use the Pearson correlation matrix.

Significance testing can also be known to help rule out the possibility that the study's statistical variation could be attributed to your result. It is known as significance testing to assess the likelihood of a trend such as an association between variables happening by chance alone. You may have obtained sample data as part of your research project to analyze the interaction between two variables. This will consist of a statistic for most statistical analysis applications, the degrees of freedom (df), and the possibility (p-value) of test outcome on the basis of one or more serious analysis happening by chance alone. If the probability of two or more numbers occurring is very low (usually $p < 0.05$ or below 1), it is statistically important to have a partnership. Statisticians refer to this as

the null hypothesis being rejected and the hypothesis being supported. The term “null hypothesis” is also abbreviated as H_0 and H_1 as an alternate hypothesis. By chance, the relationship alone is smaller than 0.05, so it is not statistically important. Statisticians point to this as the null hypothesis being accepted.

The chi-square test measures the probability that, by chance, the data in the table or more extreme data will appear on their own. Most statistical research programs do this automatically. If researchers use a spreadsheet, they typically need to look up the probability in the main chi-square value table using the measured chi-square value, and the degree of freedom is a set of values that can differ arbitrarily when a figure is calculated. A likelihood of 0.05 means that only 5% of the data is expected to occur by chance alone and is considered statistically significant. Therefore, a likelihood of 0.05 or less means that you may be at least 95% positive that chance factors alone might not have created the relationship between your two variables. When reading probabilities from software bundles, a chance of 0.000 does not mean zero due to the mathematical rounding of numbers, but because it is less than 0.01.

4.5 RESULTS AND DISCUSSION

4.5.1 Demographics and Descriptive Statistics

Age Respondents

In total, 380 out of 385 questionnaires have been finalized. After filtering, the age of the sample participants in relation to social media use is

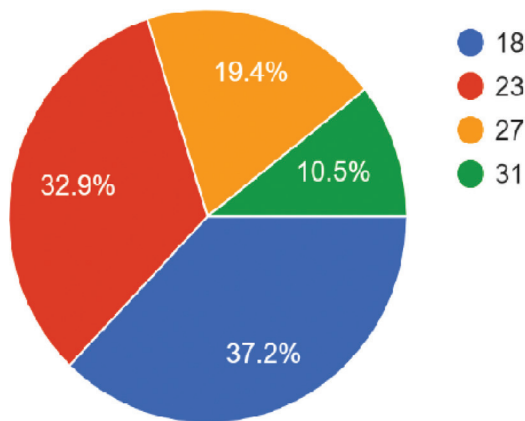


Figure 6. Age of respondents.

entirely filled with 358 respondents. Overall, 37.2% were 18–23 years old, 32.9% were 23–27 years old, 19.4% were 27–31 years old, and the least represented were 31–35 years old, with just 8%, as shown in Figure 6.

Gender Respondents

The analysis tried to ascertain the sex of the respondents; 51.5% were found to be men, 44.5% of the survey population was women, and 4% of respondents preferred not to say, as seen in Figure 7.

Social Media Triggers to Purchase Product/Service Through Advertisements:

In order to verify the study's results, the study tried to establish whether social media encourages young people to buy any product or service. The researcher asked the young people to indicate whether they were triggered by social media to buy and 37.1% replied yes, while 24.7% responded no, and 38.2% were not sure (maybe), as shown in Figure 8.

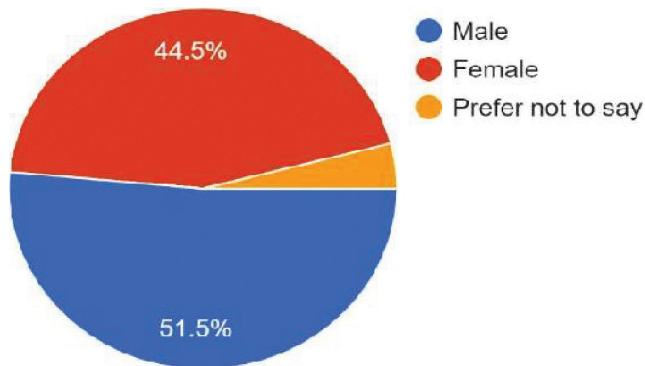


Figure 7. Gender respondents.

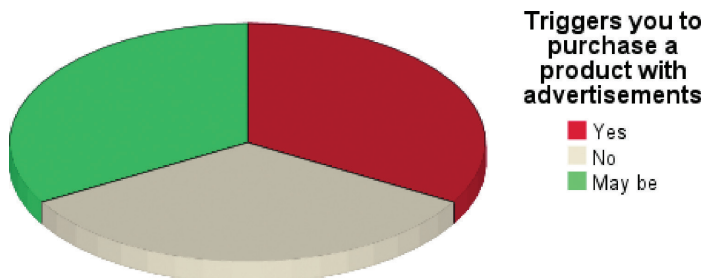


Figure 8. Social media triggers customers to purchase.

Reasons to Follow Brands on Social Media

In addition, there are many explanations that explain why customers adopt social media brands, as defined in Figure 9. Indeed, 35.47% of customers follow brands to get product and service alerts and 31.84% to read product and service comments and reviews. Since they are existing clients, 9.32% of buyers and 20.39% get discounts or free items from brands. 3.07% of the total population adopts labels for purposes that are not specific.

Obtain Information about the Product

As shown in Figure 10, 48.8% of customers have described social networking as the most prominent knowledge source. With 30.8%, review sites are the second most prominent knowledge source. Then, there is 15% multimedia sharing. Blogging (5.4%) is among the least prominent customer information channels.

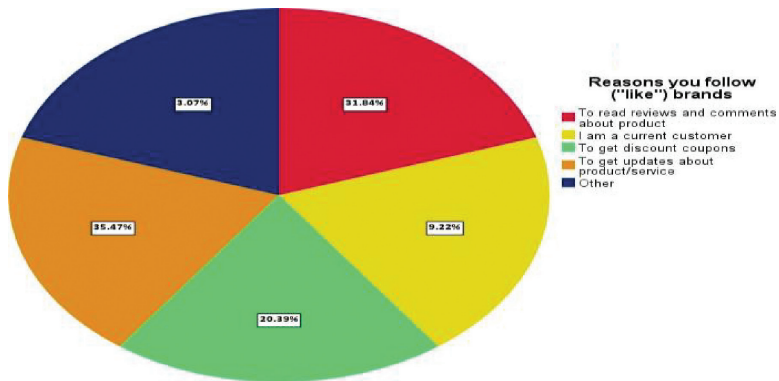


Figure 9. Reasons to follow brands.

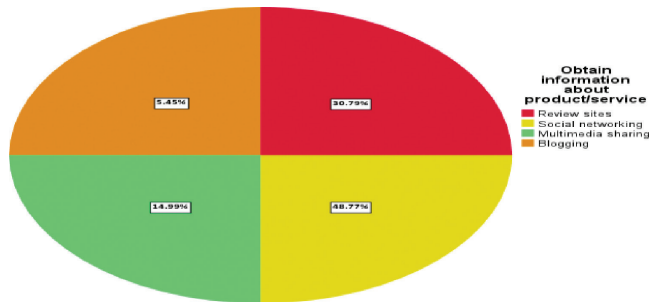


Figure 10. Obtain information about the product.

Purchase after Reading Reviews

Furthermore, after reading reviews of the product on social media sites, the respondents were asked to show whether they always or never bought a product after reading reviews. On a summary scale, 47.68% of users stated that they purchase after reading reviews, and 31.04% rarely consider reviews; 11.72% were never interested, and less than 10% often, as shown in Figure 11.

Feedback on Social Media after Purchase

The respondents were asked to address how often they write reviews about the product after their purchase. The majority at 37.50% shows interest in providing feedback about online purchase; 35.05% on a summary scale rarely opt to give feedback; 17.39% never write feedback; and 10.5% plan to always offer their feedback, as seen in Figure 12.

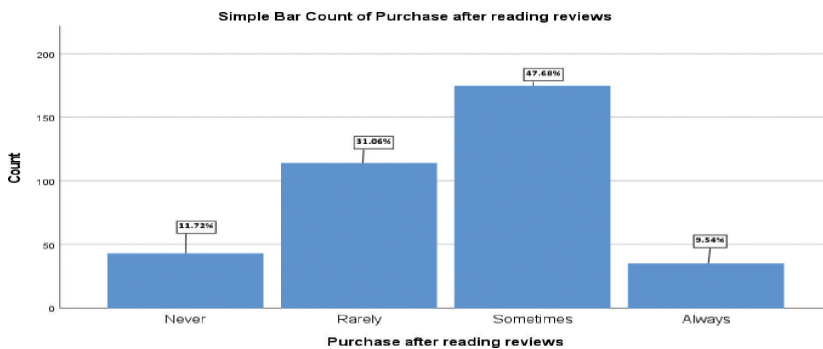


Figure 11. Purchase after reading reviews.

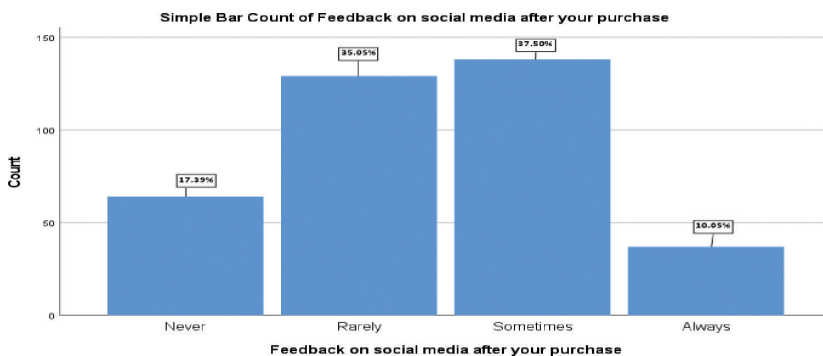


Figure 12. Feedback on social media after purchase.

Purchase Expensive Products on Social Media

The researchers attempted to purchase costly goods on social media in order to check the study's findings. The researcher asked young people to indicate if they are buying expensive items on social media, and 33.2% replied that they might (not sure) consider using social media for expensive item purchases, while 45.7% replied no and 21.2% showed interest in purchasing expensive products on social media, as shown in Figure 13.

Credibility of e-Commerce Company

In order to check the findings of the study, the study attempted to resolve whether the purchase decisions of customers differ according to the reputation of an e-commerce business that purchases costly social media goods. The researcher asked the respondents to indicate whether their buying decisions differ from the e-commerce site's reputation, and 38.9% answered yes, while 34.1% replied they might be (not sure), and 27% replied no, as shown in Figure 14.

Change in Buying Decisions

As shown in Figure 15, after discovering a better offer, 50% of customers have adjusted their decision. With 28.8% opt for repurchasing faulty goods or defective items, other factors such as delay in delivery, worn item, and many more affect 21.62% of their decision.

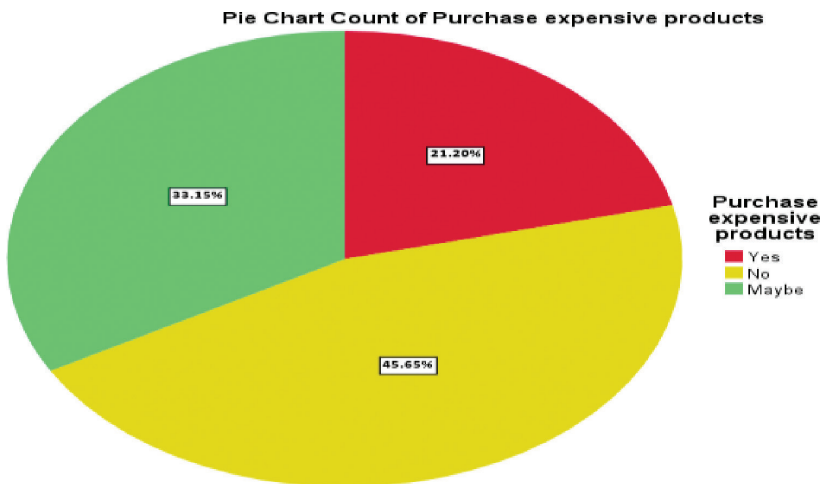


Figure 13. Purchase expensive products.

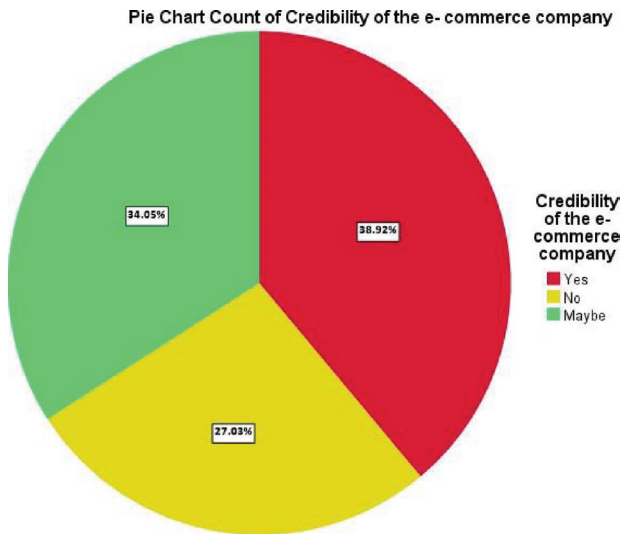


Figure 14. Credibility of e-commerce company.

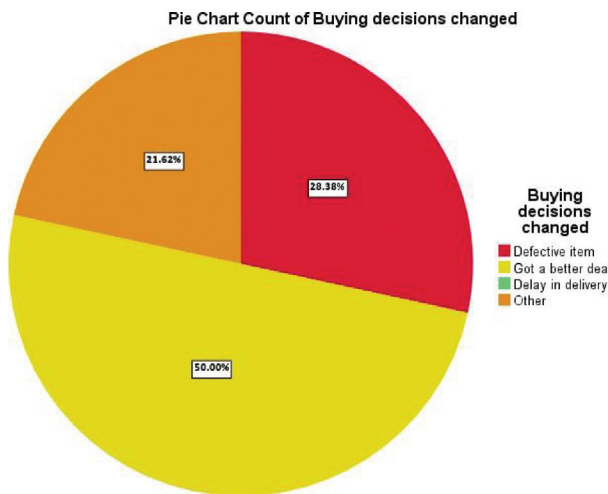


Figure 15. Buying decisions ever changed.

Conveys Satisfaction or Dissatisfaction to Manufacturers

As shown in Figure 16, 47.5% of users are neutral about using social media to convey their satisfaction and dissatisfaction with products to manufacturers, although 10.5% strongly disagree and 9.24% respondents disagree with the statement; 28.26% of respondents agree, and 4.89% of users are strongly agreeing with the statement that they rarely express their product satisfaction or disappointment.

Rate or Write a Review about the Product after Purchase

The respondents were asked to discuss how often they write a review or rate a product on social media after purchase. After their purchase, the majority (at 39.9%) often rates and rarely (29.9%) rates the product on a summary scale; 20.1% select to never write a review, and 10.1% plan to always offer their review or rate the product in social media, as shown in Figure 17.

4.5.2 Correlation Analysis

Correlation examines the relationship between two quantitative variables. The best way to evaluate the number of collinearity variables is the Pearson correlation.

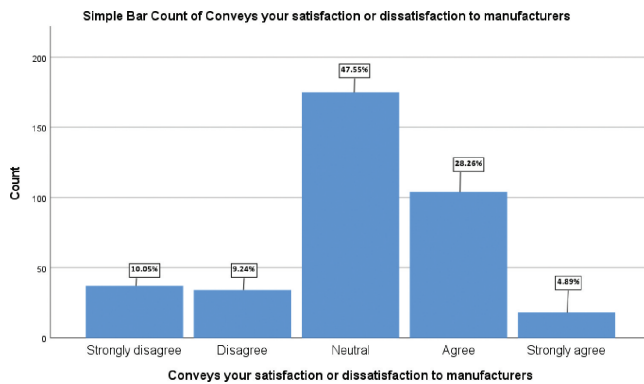


Figure 16. Conveys satisfaction or dissatisfaction to manufacturers.

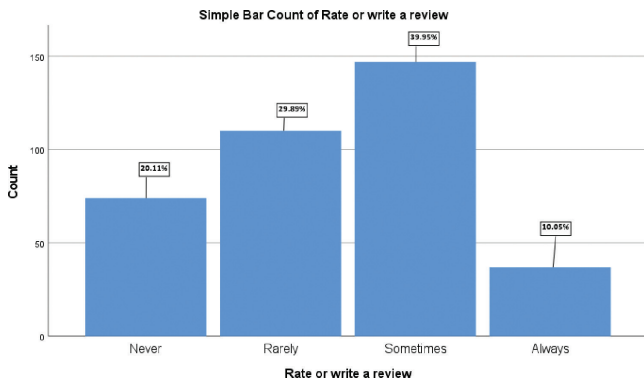


Figure 17. Rate or write a review about the product after purchase.

- If the r of a Pearson is equal to 1, it means that there is a strong relationship between the two variables and that the change in one variable is closely related to changes in the second variable.
- When Pearson's r is similar to 0, there is a shallow interaction between the two variables, so that the shifts are in one variable.
- If Pearson's r is negative ($-$), it increases the value of one variable and reduces the value of the other variable. This is called a significant negative relationship among the variables.

The null hypothesis, the potential statistical representation of the outcome, is now drawn at the outset, followed by its conclusions and clarification, to check if there is a discrepancy in the shape of the null hypothesis or the alternative hypothesis.

Null Hypothesis

1. To find if there is a relationship between social media and purchasing decisions of young Indian consumers.
2. To find if there is no relationship between social media users' personal characteristics and the impact of social media on their buying decisions.
3. To study if there is no relationship between personal characteristics and post-purchase behavior of social media users.

Objective 1: Correlation analysis for effect of social media and purchasing decisions of young Indian consumers:

It is time to start looking for the outcomes of the study performed objectively. Also, the measurable results for the job are checked. Table 3 shows the work that began with data collection from similar peers. The study begins with the issue of how social media influences young Indians' purchasing decisions. In order to know the answer to this question, it is important to verify the result by first testing whether social media affects and analyzing social media users' behaviors. Choosing variables from the survey will help to understand the correlation analysis results. Using variables to find a correlation between how social media influences purchase decisions and whether social media triggers customers to purchase items with advertisements and whether customers purchase after reading reviews. These three variables are selected to find the results for objective 1 because they rely on understanding user behavior and social media influence on their purchasing decisions. The findings of the correlations between the variables for objective 1 are summarized and presented in Table 3.

Table 3. Correlation analysis for effect of social media and purchasing decisions of young Indian consumers.

		Correlations		
		Influence your purchase decisions	Triggers you to purchase a product with advertisements	Purchase after reading reviews
Influence your purchase decisions	Pearson	1	0.093	0.108*
	correlation			
	Sig. (2-tailed)		0.047	0.038
	N	369	369	367
Triggers you to purchase a product with advertisements	Pearson	0.093	1	0.168**
	correlation			
	Sig. (2-tailed)	0.047		0.001
	N	369	369	367
Purchase after reading reviews	Pearson	0.108*	0.168**	1
	correlation			
	Sig. (2-tailed)	0.038	0.001	
	N	367	367	367

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

Based on the correlation analysis in Table 3, it can be observed that the r value of the Pearson correlation for the relationship between social media influence on purchase decisions and social media triggers for consumers is 0.093 and also for purchase after reading reviews is 0.108, indicating a clear correlation with the variable's changes. The r values for the relationship between social media triggers to buy a product and purchase after reading a review is 0.168. A value of 0.70 is considered strong, mild is considered within the range of 0.30–0.60 when calculating the interaction between variables, and weak is less than 0.30. The interaction between the variables is registered as 0.093, 0.108, and 0.168, respectively, which further enhances the relatively weak positive correlation between the variables.

The p values in the above correlation Table 3 are 0.047, 0.038, and 0.001 ($p < 0.05$). It was comprehended that the relationship between the effect of social media and the purchasing decisions of young Indian consumers is statistically significant ($p < 0.05$). Therefore, it rejects the null hypothesis (H_0) and accepts the alternate hypothesis (H_1) at a 95% confidence interval. Overall results demonstrated that there is a significant and weak positive association between the variables.

Objective 2: Social media users' personal characteristics and the impact of social media on their buying decisions:

For objective 2, choosing survey variables helps explain the effects of the correlation study. Using variables to find correlations between reasons to follow brands, do customers purchase expensive products online, and how social media influence the buying decisions of users. These three variables are chosen to find the outcomes for objective 2, since they contribute to the perception of personal characteristics of the consumer and the effect of social media on their buying decisions. The results of the correlations between the variables for objective 2 are presented in Table 4.

As a result of the correlation study in Table 4, it can be found that the r value of the Pearson is 0.127 for the correlation between reasons for following brands, purchasing expensive items, and the social media effect on purchase decisions is 0.156, indicating a strong correlation with the variable changes. The r value for the relationship between the purchase of expensive goods and the influence on purchase decisions is 0.111 and the p -values in Table 4 indicate 0.016, 0.003, and 0.034 ($p < 0.05$). By way of a graphical description, a histogram, this numerical representation is more expanded. Figure 18 talks about the degree of distribution for objective 2 of the variables. From the distribution shown,

Table 4. Correlation analysis to find relationship between social media users' personal characteristics and the impact of social media on their buying decisions.

Correlations				
		Reasons you follow ("like") brands	Purchase expensive products	Influence your purchase decisions
Reasons you follow ("like") brands	Pearson correlation	1	0.127*	0.156**
	Sig. (2-tailed)		0.016	0.003
	N	358	356	358
Purchase expensive products	Pearson correlation	0.127*	1	0.111*
	Sig. (2-tailed)	0.016		0.034
	N	356	368	367
Influence your purchase decisions	Pearson correlation	0.156**	0.111*	1
	Sig. (2-tailed)	0.003	0.034	
	N	358	367	369

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

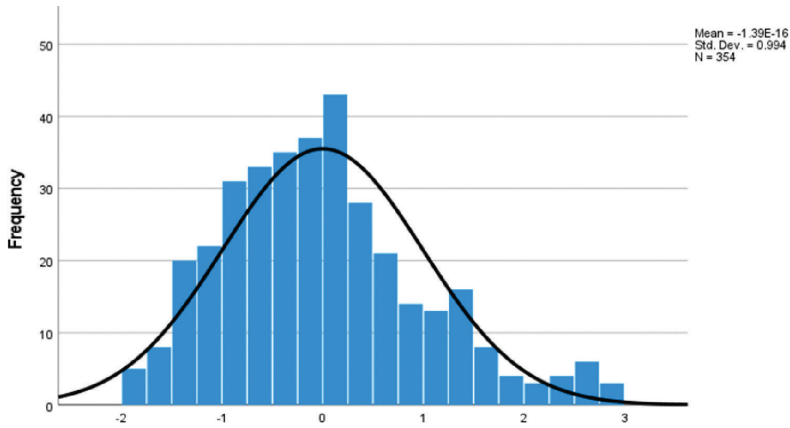


Figure 18. Correlation analysis of objective 2 histogram graph.

the model is a good match since the heights of the bars are closer to the model and follow the line's form.

It is known that the relationship between social media users' personal characteristics and the impact of social media on their buying decisions is statistically significant ($p < 0.05$). Reject the null hypothesis in favor of the alternative if the p-value is less than the significance amount ($\alpha = 0.05$). It, thus, refuses the null hypothesis (H_0) and, at a 95% confidence interval, supports the alternative hypothesis (H_1). The overall results showed that the variables are significant and have a weak positive correlation. There is a linear relationship between social media users' personal characteristics and the impact of social media on their buying decisions.

Objective 3: Personal characteristics and post-purchase behavior of social media users:

The selection of survey variables for objective 3 helps explain the results of the correlation analysis. The relationship between a series of independent variables and a dependent variable can be defined by using correlation analysis. Variables harvesting buying decisions have ever changed, and social media conveys satisfaction and dissatisfaction to manufacturers and the credibility of e-commerce company because these variables help to analyze and understand the post-purchase behavior and activities of users and their personal characteristics (Table 5). A correlation analysis was carried out to analyze the relationship between the personal characteristics of users of social media and customers' post-purchase behavior with different possible customer predictors. The outcomes of the correlations between the variables for objective 3 are represented and provided in Table 5.

Table 5. Correlation analysis on personal characteristics and post-behavior of social media users.

		Correlations		
		Buying decisions changed	Conveys your satisfaction or dissatisfaction to manufacturers	Credibility of the e-commerce company
Buying decisions changed	Pearson correlation	1	0.122*	0.158**
	Sig. (2-tailed)		0.020	0.002
	N	370	367	369
Conveys your satisfaction or dissatisfaction to manufacturers	Pearson correlation	0.122*	1	0.155**
	Sig. (2-tailed)	0.020		0.003
	N	367	368	367
Credibility of the e-commerce company	Pearson correlation	0.158**	0.155**	1
	Sig. (2-tailed)	0.002	0.003	
	N	369	367	370

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

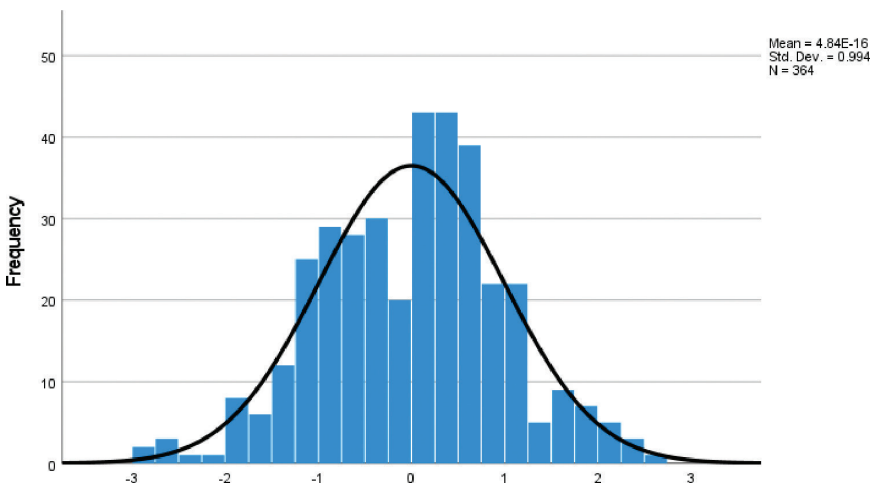


Figure 19. Regression analysis of objective 3 histogram graph.

The forecast for objective 3 is to study relationships between personal characteristics and post-purchase behavior of social media users. The correlation coefficients of Pearson r value in Table 5 between the variables buying decisions have ever changed, conveys satisfaction or dissatisfaction to manufacturers, and credibility of the e-commerce company are 0.122, 0.158, and 0.155, respectively. The p -values of the correlation between two or more variables for objective 3 are 0.020, 0.002, and 0.003 ($p < 0.05$). By means of a graphical description, a histogram (Figure 19), this numerical representation is expanded further. Figure 19 demonstrates the degree of distribution of the variables for objective 3. From the distribution, it can be seen that the model is a good match, as the heights of the bars are identical to the model and suit the form of the graph.

The association between personal characteristics and post-purchase behavior is considered statistically significant ($p < 0.05$). Reject the null hypothesis in terms of the alternative if the p -value is less than the significance level ($\alpha = 0.05$). The null hypothesis (H_0) is then rejected, and the alternative hypothesis (H_1) is accepted at a 95% confidence interval. The overall findings showed that the variables are important and have a slight positive correlation. In conclusion, there is a linear association between social media users' personal characteristics and post-purchase behavior.