Multi-Disciplinary Journal
ISSN No- 2581-9879 (Online), 0076-2571 (Print)
www.mahratta.org, editor@mahratta.org

To Study The Shopping Behavioural Pattern Of Housewives Using Data Analysis

Vijaya H. Pise
(Ph. D. Scholar)
Tilak Maharashtra University, Pune

Abstract
We are well aware that the current era is a digital one. In this digital age, everyone carries a mobile phone—a device equipped with internet access. By utilizing this technology, we can make purchases with just the click of a finger. Despite this, a significant number of housewives remain unaware of these possibilities. Shopping is, in fact, a subject close to the heart of every woman. However, the world has evolved to such an extent that not all women are yet aware that shopping can now be accomplished simply by using a mobile phone. This method of making purchases via a mobile device is known as online shopping. Online shopping saves time and allows one to enjoy the convenience of shopping from the comfort of home. Various companies have provided dedicated shopping platforms to facilitate purchases. Furthermore, to enable even grocery shopping, many malls have developed and made available their own independent shopping applications for customers. Is the community's housewives truly aware of all these aspects? The primary objective of this paper is to ascertain this. Furthermore, if they possess awareness regarding this subject, another objective behind writing this paper is to gather relevant information and conduct a comprehensive study based on it. Specifically, the aim is to understand the mind set of housewives concerning online shopping. Additionally, this research paper seeks to examine the various other factors that influence their psychological outlook.

Keywords
Consumer behavior, housewife, online shopping, psychological outlook

1. Introduction:
Consumer behavior has undergone notable transformation in recent years due to digitalization, socio-economic shifts, and changing gender dynamics. Housewives continue to play a significant role in household consumption, particularly in developing economies where they act as primary decision-makers for routine purchases. Their influence extends across product categories such as groceries, personal care, and household goods (Sharma & Jain, 2023).
We all know that today's era is the digital era, everything is available to a person at the click of a finger. From stationery to clothes, all physical and essential items can be ordered digitally. There are many websites for digital shopping like Amazon, Flipkart, Myntra, etc. Not only this, many malls like D Mart have also made online applications available to customers to get goods at their doorstep.
Even college-going or even school-going boys and girls can and do buy things online, and they like it, which may be because of the time and effort it saves. Educated people are always shopping online in the digital age, but not everyone in society is educated.
Shopping is a favourite subject of women. But not all women are educated. So do these women do digital shopping? If not, what are the reasons behind it? The main purpose of this research paper is to find out. So that it can help solve the problems of these women and they can also enjoy digital shopping.
How digital are housewives in this digital age? To see this and if they are not digital, why are they not? How much and how do they use digital facilities? Can they shop independently? If not, what are the reasons behind it? The purpose of this research paper is to find answers to many such questions.

2. Research Objectives

- To study the extent to which housewives are technically proficient—specifically, their ability to download and install online shopping applications on their mobile phones.
- To study how much housewives know about online shopping and where they obtained this information.
- To assess the extent to which housewives are aware of the need for a payment gateway to process payments during online shopping.
- To gather information on how many women can shop online independently.
- To study which products housewives purchase online.
- To determine the extent to which housewives are satisfied with products purchased online.
- To determine how many housewives provide feedback regarding items purchased online.
- To study the difficulties faced by housewives while shopping online.

3. Methodology Used

To obtain the data required for the research, a questionnaire was designed. It was converted into a bilingual (English, Marathi) Google Form and small survey in conducted by circulating questionnaire. This questionnaire contained questions designed to collect personal information such as name, demographic information such as age, and questions describing their shopping behaviour patterns. In all there were 11 questions excluding question asking for name and age. Out of these six questions were dichotomous, two questions were close-ended ,two were mixed type andone questions was open-ended.

They are as follow:

1. Can you download & install online shopping applications on your smartphone? आपणआपल्यास्मार्टफोनवरऑनलाइनशॉपिंगॲपडाउनलोडवइंस्टॉलकरूशकताका? (Yes / हो, No / नाही)
2. How do you know about online shopping applications? आपल्यालाऑनलाइनशॉपिंगॲप्सबद्दलमाहितीकशीमिळाली? (Social Media (Facebook, Instagram, etc.) / सोशलमीडिया (फेसबुक, इंस्टाग्रामइ.), Friends / Friends / मित्र, Family Members / कुटुंबातीलसदस्य, Advertisements (TV, YouTube, etc.) / जाहिराती (टीव्ही, यूट्यूबइ.), Mobile Notifications / मोबाईलनोटिफिकेशन, Others (please specify) / इतर (कृपयानमूदकरा): __________.
3. Do you know that online shopping applications require a payment gateway for online payments? आपल्यालामाहितीआहेकाकीऑनलाइनशॉपिंगॲपमध्येपेमेंटकरण्यासाठीपेमेंटगेटवेआवश्यकअसतो? (Yes / हो, No / नाही)
4. Can you handle such applications independently? आपणअशाॲप्सस्वतःवापरूशकताका? (Yes / हो, No / नाही)
5. Who helps you in placing an online order? ऑनलाइनऑर्डरदेतानाआपल्यालाकोणमदतकरते? (Self / स्वतः, Husband / पती, Children / मुले, Friends/Relatives / मित्र/नातेवाईक)
6. What do you shop online? आपणऑनलाइनकायखरेदीकरता? (Clothes / कपडे, Groceries / किराणा, Electronics / इलेक्ट्रॉनिक्स, Household items / घरगुतीवस्तू, Others / इतर: __________)
7. Are you satisfied with online products? आपणऑनलाइनखरेदीकेलेल्यावस्तूंनीसमाधानीआहातका? (Yes / हो, No / नाही, Sometimes / कधीकधी)

8. Do you know about the return process? आपल्यालारिटर्नप्रक्रियेबद्दलमाहितीआहेका? (Yes / हो, No / नाही)
9. Do you check ratings/reviews before purchase? खरेदीकरण्यापूर्वीआपणरेटिंग/रिव्ह्यूपाहताका? (Always / नेहमी, Sometimes / कधीकधी, Never / कधीचनाही)
10. Do you submit feedback after purchase? खरेदीकेल्यानंतरआपणअभिप्रायदेताका? (Yes / हो, No / नाही)
11. What issues have you faced while using online shopping applications? ऑनलाइनशॉपिंगॲपवापरतानाआपणकोणत्याअडचणींचासामनाकेलाआहे?

The Google form created was sent to the housewives to fill in by sharing a link through the WhatsApp messaging app. They were given the opportunity to fill it in. They were also urged to forward the form to other housewives in their contacts. This form was open from April 1st 2026 to April 30th 2026. All the data generated through it was taken into account for the study. All the data received or available was taken into account for the study.Usingvarious statistical tools, the relationship between the factors under consideration and the shopping habits of housewives was explored, which is described in the Conclusion section.

Literature Review

Women's online shopping behaviour in India has been widely studied, revealing that it is influenced by a combination of psychological, social, and technological factors. Convenience, time efficiency, and access to a broad range of products—especially apparel—are consistently identified as key motivators driving online purchases among women (AB Academies, 2018a). However, concerns related to trust, including product quality, payment security, and delivery reliability, continue to act as major barriers to online buying decisions (AB Academies, 2018b). Research further highlights that socio-demographic variables such as age, education, income, and occupational status significantly shape purchasing behaviour, with working women generally exhibiting higher online shopping frequency due to greater financial autonomy and time constraints (ResearchGate, 2024a; IJCRT, 2023). In addition, studies emphasize that social influence, family roles, and peer recommendations continue to affect consumer decision-making even in digital environments (ResearchGate, 2022). Factors such as website design, promotional offers, and ease of navigation also play an important role in enhancing customer satisfaction and purchase intention (KD Publications, n.d.; VIPS Journal, 2021). Comparative findings indicate that working women tend to adopt more convenience-oriented and goal-driven purchasing styles, whereas homemakers are more price-conscious and deliberative in their shopping approach (ResearchGate, 2021). Overall, the literature suggests that women's online shopping behavior is multidimensional and continuously evolving with increasing digital literacy and technological adoption in India (SD College Ambala, 2021; ResearchGate, 2024b).

Data Analysis

After data collection, each question in the survey was analyzed using statistical measures. The data collected from the survey form was divided by age group. The division is shown in Table 1.

Table 1

Age of Respondent	Response Count	%
20-30	25	36.76
30-40	16	23.53
40-50	24	35.29
50 above	3	4.41
Grand Total	**68**	**100.00**

Multi-Disciplinary Journal
ISSN No- 2581-9879 (Online), 0076-2571 (Print)
www.mahratta.org, editor@mahratta.org

To find out the relationship between the age of housewives and their ability corresponding to download and install online shopping applications, the researchers calculated bar charts and Karl Pearson's correlation coefficient. For this, the Python programming language was used. Its output of program is shown in Figure 1 and Figure 2 respectively.

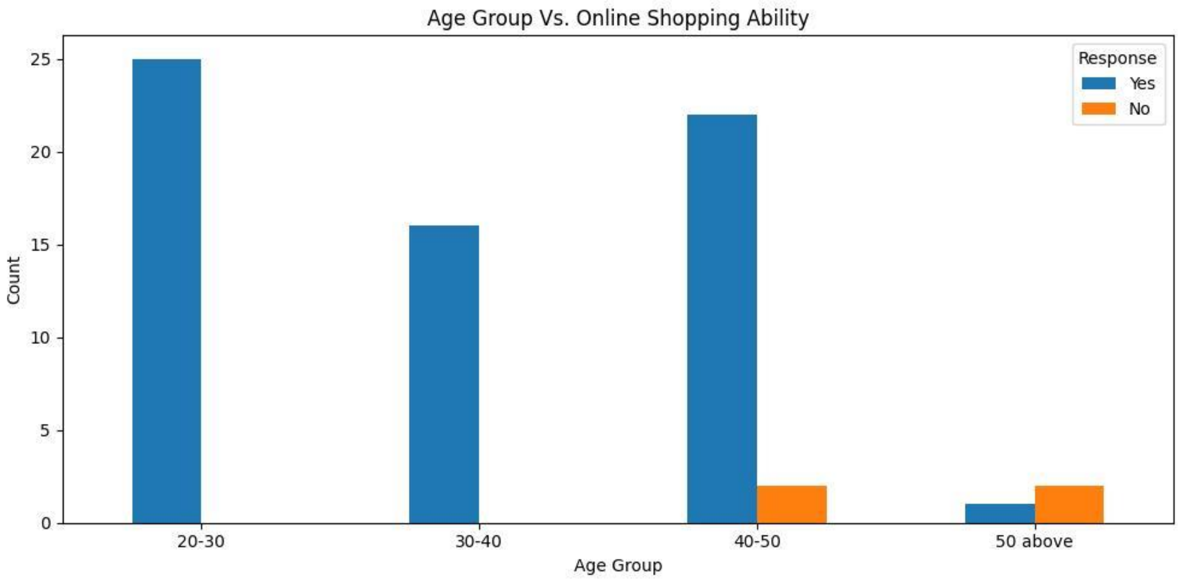
Program:

```
import pandas as pd
import matplotlib.pyplot as plt
# Create the dataset
df=pd.read_csv("ageStat.csv")
# Set Age as index
df.set_index("Age", inplace=True)
# Create bar chart
df.plot(kind='bar', figsize=(10, 5))
# Add labels and title
plt.title("Age Group Vs. Online Shopping Ability")
plt.xlabel("Age Group")
plt.ylabel("Count")
plt.xticks(rotation=0)
plt.legend(title="Response")

# Show plot
plt.tight_layout()
plt.show()
```

Output:

Figure 1



Program to compute correlation coefficient between Age of housewives and ability to download & install online shopping application

```
import pandas as pd
data = {
   "Age": [25, 35, 45, 55],
   "Yes": [25, 16, 22, 1],
   "No": [0, 0, 2, 2]
}
```

```
df = pd.DataFrame(data)
# Total responses
df["All"] = df["Yes"] + df["No"]

# Yes percentage
df["Y_predict"] = df["Yes"] / df["All"]
# Correlation
corr = df["Age"].corr(df["Y_predict"])
print("Correlation between Age and Yes%:", corr)
```

Output:

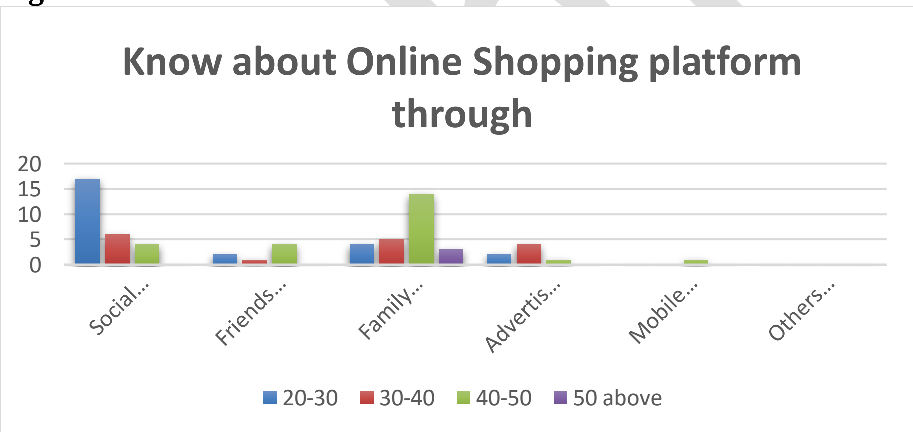
Figure 2: Calculated Correlation coefficient

```
=== RESTART: C:\Users\user\AppData\Local\Programs\Python\Python
Correlation between Age and Yes%: -0.8356578380810945
```

After observing the bar chart, the researcher noticed that currently housewives in the 20-30 and 30-40 age groups can independently download and install online shopping applications, whereas housewives in the 40-50 and 50 above age groups cannot. The correlation coefficient r = -0.8356, from which the researcher interpreted that there is a strong negative relationship between age and the ability to download and install online shopping applications. Shopping applications are a basic tool for online shopping. That's why researchers says that age is a factor that affects the online shopping behaviour of housewives.

Researcher mainly used bar charts, line charts, and pie diagrams to analyse other questions in the survey form.

Figure 3.



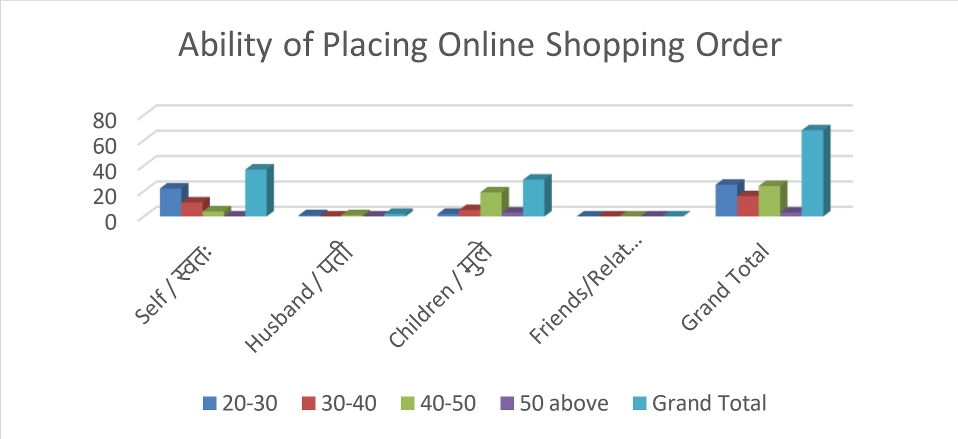
From Figure 3, the researcher interpreted that most ladies under study got information about online shopping applications from social media, while very few ladies got this information from family friends or advertisements.

Table 2: Awareness about shopping application requires payment gateway for payment

Age/Res.	Yes	No	% Yes	% No
20-30	23	2	92.00	8.00
30-40	15	1	93.75	6.25
40-50	20	4	83.33	16.67
50 above	2	1	66.67	33.33
Overall Count	60	8	88.24	11.76

From Table3, he said that out of the total women surveyed, 88.24% of them are aware that a payment gateway is required to make payments through shopping applications. Only 11.76% of the women are not aware of this. This shows that mostly women are aware about the online payment process.

Figure 4.



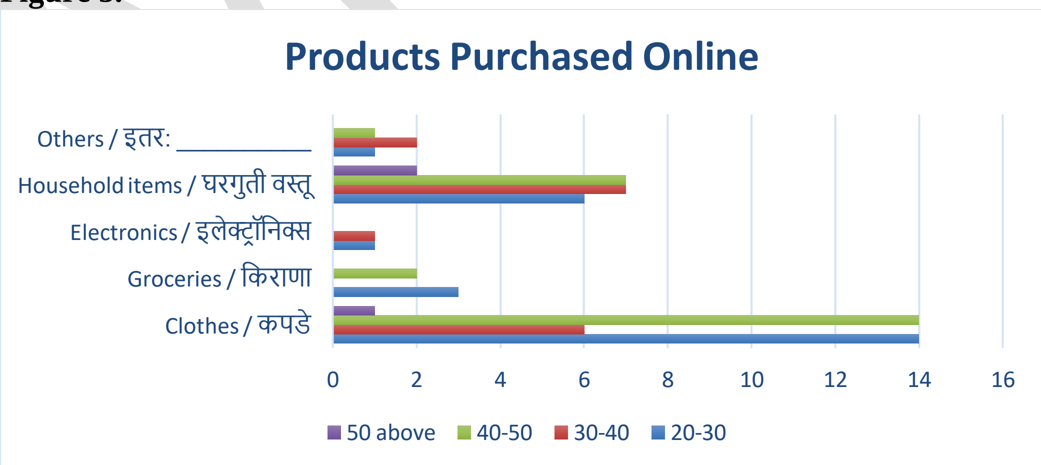
The bar chart in Figure 4 shows that 37.71% of the total sample of housewife's place orders themselves. 2.94% of the housewives place orders with the help of their husbands while 42.65% of the them take the help of their children to place orders.

Table 3: Age wise ability of placing online shopping order in %

Who place order/Age	20-30	30-40	40-50	50 above
Self / स्वतः	88	68.75	16.67	0
Husband / पती	4	0	4.17	0
Children / मुले	8	31.25	79.17	100.00
Friends/Relatives / मित्र/नातेवाईक	0	0	0	0

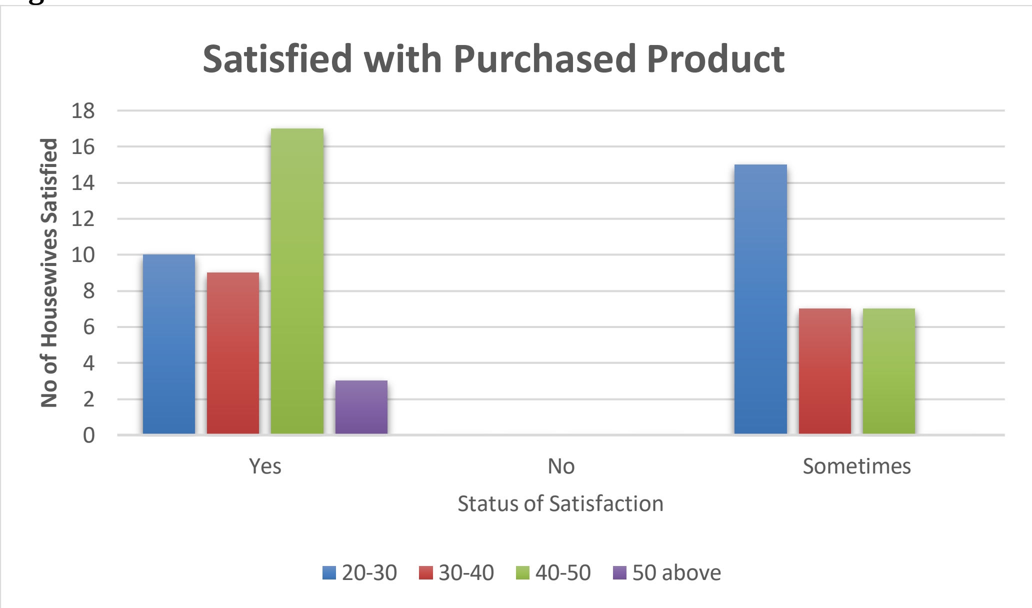
By observing the data categorized by age group in Table 2, the researcher found that currently 88% of the homemakers under consideration in the age group of 20-30 can shop online themselves. The same proportion is 68.75% and 16.67% in the age group of 30-40 and 40-50 respectively. From this, it can be said that currently homemakers in the age group of 20-30 are more technical.

Figure 5.



After studying the categories of items purchased online, the researcher says that out of the considered sample, 51.47% of housewives buy clothes. 32.35% of them buy household items. 7.35% of the total is for grocery purchases while the lowest i.e. 2.94% of online purchases are for electronics items. This interpretation can be seen from figure 5.

Figure 6.



After interpreting Figure 6, the researcher concluded that 57.35% of the sample housewives are always satisfied, while 42.65% of the housewives are sometimes satisfied. No housewives are dissatisfied. It can be also interpreted as homemakers are always satisfied about their shopping.

Figure 7.

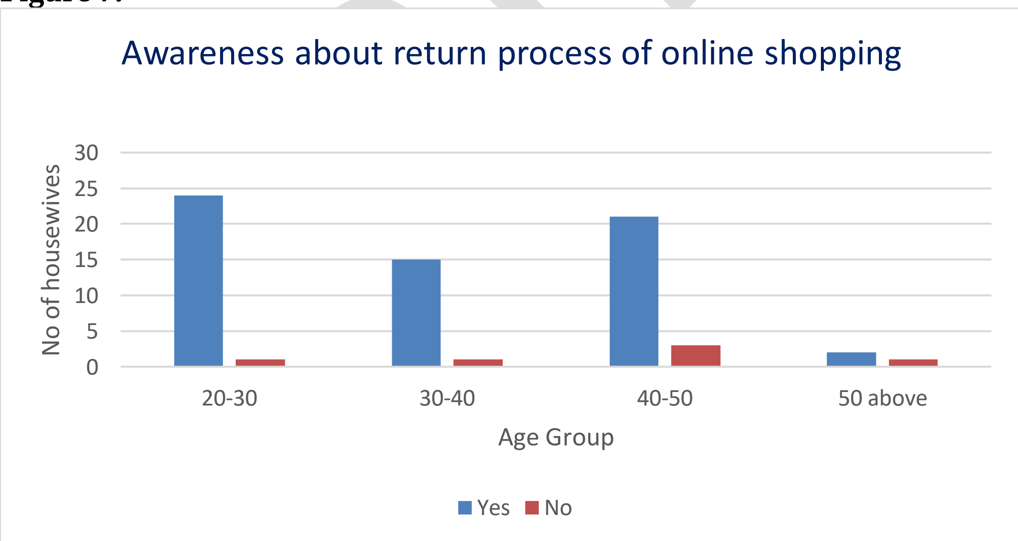


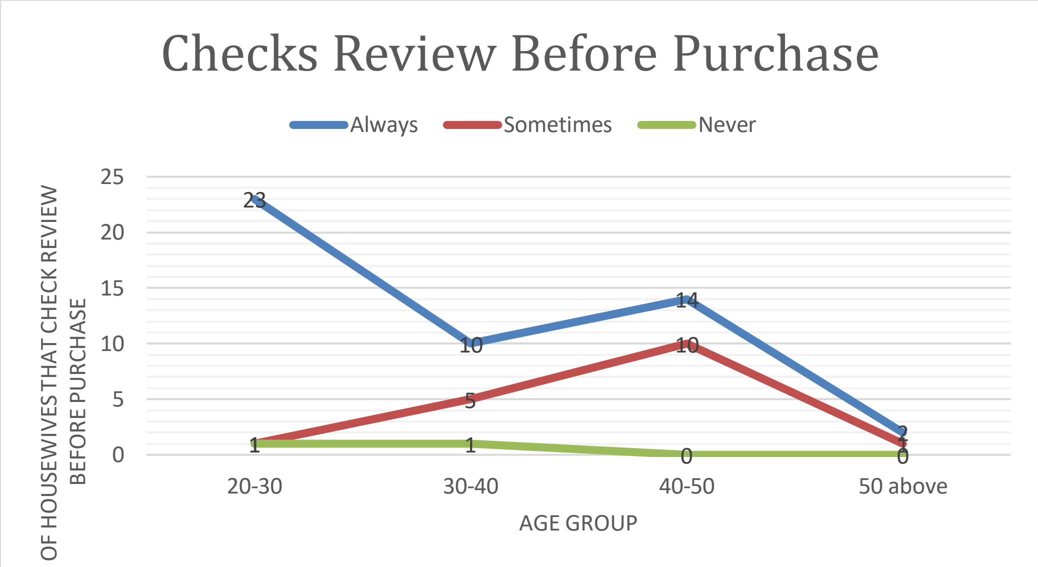
Table 3: Age wise awareness about return process after purchase

Age/Response	Yes	No	% Yes	% No
20-30	24	1	96	4
30-40	15	1	93.75	6.25
40-50	21	3	87.5	12.5

50 above	2	1	66.67	33.33
Grand Total	**62**	**6**	**91.18**	**8.82**

Figure 6 and table 3 show that overall, 91.18% of the sample housewives are aware that items purchased online can be returned. This awareness is more evident among housewives below 50 than those above 50.

Figure 7.



From Figure 7, the researcher observed that the majority of the sample, i.e. 71.06%, always check the reviews of the product before buying. 25% of them check reviews at some point, while a very small number, i.e. 2.94% of the housewives, buy the product without checking the reviews.

Figure 8

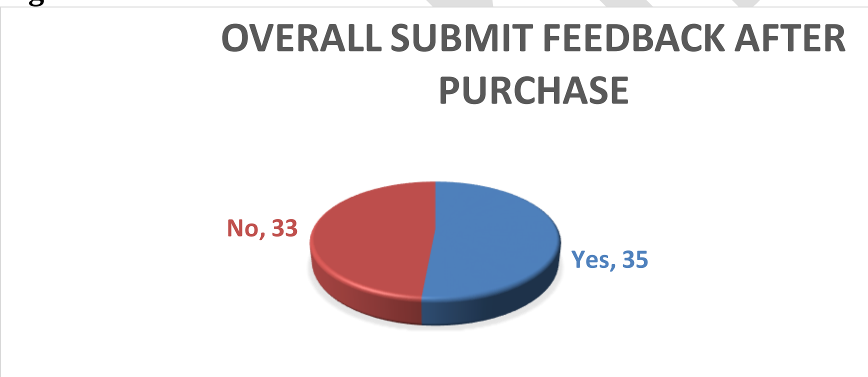


Table 4: Age wise Feedback Submission rate after online purchase

Age/Response Rate	Yes	No	Yes %	No%
20-30	17	8	68	32
30-40	10	6	62.5	37.5
40-50	7	17	29.17	70.83
50 above	1	2	33.33	66.67
Grand Total	**35**	**33**	**51.47**	**48.53**

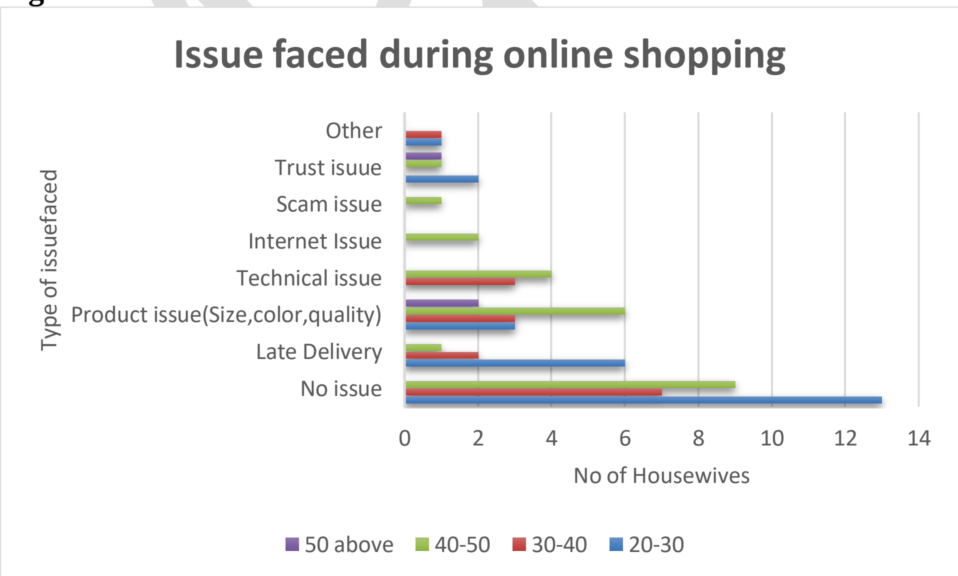
Overall feedback submission rate after online purchase is nearly 50%. But when we look at the same by age group, we see a difference. In the 20-30 age group, this rate is 68%, while in the 50 above sample, the same is only 33.33%. From this, it can be said that the mindset of giving feedback also changes depending on the age.

Table 5:

Issue Faced	Fequency Count	%
No issue	29	42.65
Late Delivery	9	13.24
Product issue	14	20.59
Technical issue	7	10.29
Internet issue	2	2.94
Scam issue	1	1.47
Trust issue	4	5.88
Other	2	2.94
Grand Total	**68**	**100**

The final question in the survey form was open-ended. This question elicited a wide variety of responses. To analyse these responses, the researchers categorized them into the following groups: "No Issue," "Late Delivery," "Product Issue," "Scam Issue," "Trust Issue," and "Others." Following this categorization, the responses were analysed using the statistical tool of frequency distribution. The frequency distribution is presented in Table 5. For responses where more than one issue was cited, the most frequently occurring issue was selected for consideration. Any blank responses were classified under the "No Issue" category. Based on the responses to this question, the researchers concluded that a total of 42.65% of the surveyed housewives do not encounter any difficulties while engaging in online shopping. 13.24% of housewives faced the problem of receiving items late. 20.59% of housewives received items that differed from their expectations. A negligible number of housewives experienced fraud, while 5.88% still hesitate to place their trust in online shopping.

Figure 9



The frequency of issues encountered during online shopping decreases with age. A chart illustrating this finding is included in Figure 9.

Conclusion

The data analysed for this study indicates that 94.12% of the women in the total sample possess good technical knowledge. They are capable of independently downloading and installing shopping applications on their mobile phones. Most of the women in the sample are aware of online shopping, and they primarily obtained this information through social media. 88.24% of the women in the sample are aware that a payment gateway is required when making payments for online purchases. Currently, 88% of housewives aged 20 to 30 are capable of doing online shopping on their own, whereas housewives over the age of 50 seek the assistance of their children for this purpose. In other words, this digital literacy varies with age. In online shopping, the volume of clothing purchases made by housewives is high, whereas the purchase of electronic goods is negligible. Almost all housewives are satisfied with the items they purchase online. 91% of housewives are aware that products purchased online can also be returned. Approximately 50% of women provide feedback regarding the items they have purchased. This proportion is particularly high among homemakers in the 20–30 age group. While 42% of women face no difficulties with online shopping, 20% received items that were different from what they had ordered.

Limitations

This research study has been conducted on homemakers belonging to various age groups. Furthermore, as times change, the attitudes, mindsets, and characteristics of successive generations evolve. Consequently, the conclusions drawn from this research may be subject to change over time; that is to say, after a certain period, these findings may no longer be considered valid. Additionally, since the response rate from homemakers in the "above 50" age group was notably low within the data collected for this study, the conclusions drawn specifically regarding this demographic cannot be considered particularly robust.

References

1. AB Academies. (2018a). *Analysis of online buying pattern of women consumers with reference to apparels in India*. https://www.abacademies.org/articles/analysis-of-online-buying-pattern-of-women-consumers-with-reference-to-apparels-in-india-7297.html
2. AB Academies. (2018b). *Factors affecting female consumers' online buying behavior*. https://www.abacademies.org/articles/factors-affecting-female-consumers-online-buying-behavior-7296.html
3. IJCRT. (2023). *Research paper on women's online shopping behavior*. https://ijcrt.org/papers/IJCRT2303287.pdf
4. KD Publications. (n.d.). *Consumer behavior and online shopping*. https://books.kdpublications.in/index.php/kdp/catalog/download/317/391/2571?inline=1
5. ResearchGate. (2021). *Research on determining the purchasing styles of working women and housewives*. https://www.researchgate.net/publication/361113200_RESEARCH_ON_DETERMINING_THE_PURCHASING_STYLES_OF_WORKING_WOMEN_AND_HOUSEWIVES
6. ResearchGate. (2022). *Consumer shopping behaviour and the role of women in shopping – A literature review*. https://www.researchgate.net/publication/385633503_CONSUMER_SHOPPING_BEHAVIOUR_AND_THE_ROLE_OF_WOMEN_IN_SHOPPING_-A_LITERATURE_REVIEW
7. ResearchGate. (2024a). *Assessment of women's online shopping behavior in India: Model design and analysis*. https://www.researchgate.net/publication/384566631_Assessment_of_Women's_Online_Shopping_Behavior_in_India_Model_Design_and_Analysis
8. SD College Ambala. (2021). *Proceedings / publication PDF*. https://www.sdcollegeambala.ac.in/wp-content/uploads/2022/03/pfb2021-30.pdf

Multi-Disciplinary Journal
ISSN No- 2581-9879 (Online), 0076-2571 (Print)
www.mahratta.org, editor@mahratta.org

9. VIPS Journal. (2021). *Journal article on consumer behavior*. https://9vom.in/journals/index.php/vips/article/view/280/238