# Tracking Services in Online Shopping and Examining Influential Factors and Demographic Variations in Consumer Acceptance

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## Abstract

*This study looks into whether or not consumers accept tracking services when they shop online, with an emphasis on important variables including perceived value, trust, and privacy concerns. Understanding these dynamics is essential for companies looking to improve consumer experience while adhering to privacy rules as e-commerce develops. The research takes a mixed-methods approach, using surveys and interviews to acquire data from varied customer groups. According to preliminary research, customer attitudes are largely influenced by perceived value and trust, with privacy issues potentially standing in the way of acceptance. Furthermore, there are noticeable variations in acceptance levels and preferences across demographic characteristics, such as age, gender, and socioeconomic class. The goal of this study is to give e-commerce companies useful information so they may customize their tracking services to meet customer needs and maximize involvement.*

***Keywords:*** *Consumer preference, Online Shopping, Tracking services, Perceived value, Demographic variations, Age.*

## Introduction

In the rapidly evolving world of online shopping, companies that want to increase sales and enhance the user experience must be fully aware of consumer preferences. With the growth of e-commerce, the usage of tracking services tools—which monitor user behavior, preferences, and transactions—has become more widespread. These services promise to improve customer satisfaction, speed up the buying process, and customize the shopping experience. However, the acceptability of such tracking devices remains a contentious issue that depends on several factors.

This study aims to explore the numerous aspects impacting consumer preferences and acceptance of tracking services in the context of online shopping. It searches for the social, technological, and psychological components that affect consumers' perceptions of these services. To comprehend

This study will also investigate the ways in which demographic variables like age, gender, and family income impact the judgments that consumers have about tracking services. By combining primary research with existing literature, this study seeks to improve understanding of consumer

behaviour in the context of online buying. The ultimate objective is to provide merchants with useful recommendations to enhance their monitoring strategies while respecting customer preferences and concerns.

## Need for the Study

Retailers must comprehend the dynamics of customer preferences and measuring service approval as e-commerce grows more and more integrated into consumer behaviour. As tracking technologies present potential advantages like tailored shopping experiences and focused marketing, it is critical to look at how customers feel about these services. Growing worries about data security and privacy could have a negative effect on customer loyalty and trust. By examining these variables, this study hopes to offer insightful information that will assist companies in creating strategies that respect customer preferences and improve user experience, ultimately increasing sales and cultivating enduring relationships with clients.

## Objectives for the Study

1. Examine Influences on Consumer Attitudes: To analyse how factors like privacy concerns, perceived value, and trust affect consumer attitudes toward the acceptability of tracking services in online shopping.
2. Assess Demographic Impact: To identify how demographic variables (age, gender, socio-economic status) influence consumer preferences and acceptance levels of tracking services.

## Statement for the Problem

Despite the rising adoption of tracking services in online shopping, there remains a significant gap in understanding the factors that influence consumer preferences and their overall acceptance of these technologies. Many consumers express scepticism and concern regarding privacy and data usage, which can hinder their willingness to engage with tracking services. This study seeks to address the lack of comprehensive research on how psychological, social, and demographic factors affect consumer attitudes toward tracking services. By identifying these influences, the research aims to provide actionable insights for e-commerce businesses, enabling them to align their tracking strategies with consumer expectations and concerns.

## Research Methodology

Primary data obtained by use of a methodical questionnaire. Information was gathered from Chennai District colleges. Secondary information obtained from websites, journals, and newspapers.

## Limitations for the Study

This study focused solely on known person only.

Information was obtained from 150 Respondents.

## Reliability Test

**Table:1**

| Reliability Statistics | |
|---|---|
| Cronbach's Alpha | N of Items |
| 0.594 | 19 |

The above reliability test, which examined online shopping behaviour, had an outstanding score. This led the researcher to choose 19 variables for the test, which produced a Cronbach's Alpha value of 0.594. Thus, the validity of the reliability tests has been established. To put it another way, the questionnaire is dependable for gathering information.

## Factor Analysis

**Table:2**

| KMO and Bartlett's Test | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | 0.701 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 659.963 |
| | df | 21 |
| | Sig. | 0.000 |

Kaiser Meyer-Olkin Determine an index that indicates how adequate the sampling was. The reduction procedure can be completed in a way that is both extremely acceptable and legal with a KMO test value of 0.701, or 0.7. Using the Bartlett's test sphericity, a researcher can decide whether to consider the results of a factor analysis and whether to conduct additional research on the topic. A high degree of correlation between the variables is indicated by the Bartlett's test of sphericity significant level of significance values, which are less than 0.000, indicating the appropriateness of component analysis.

**Chart 1:**

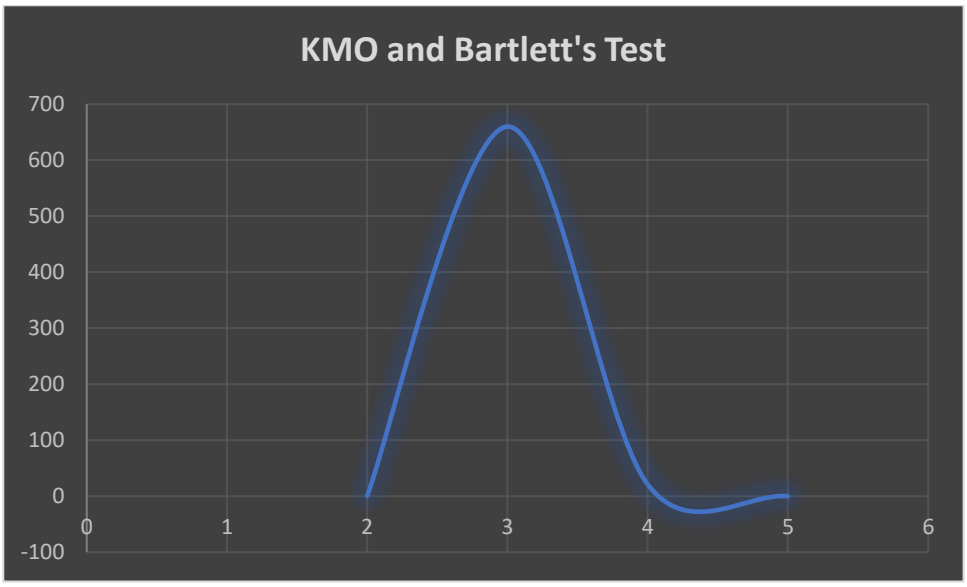



**Table:3**

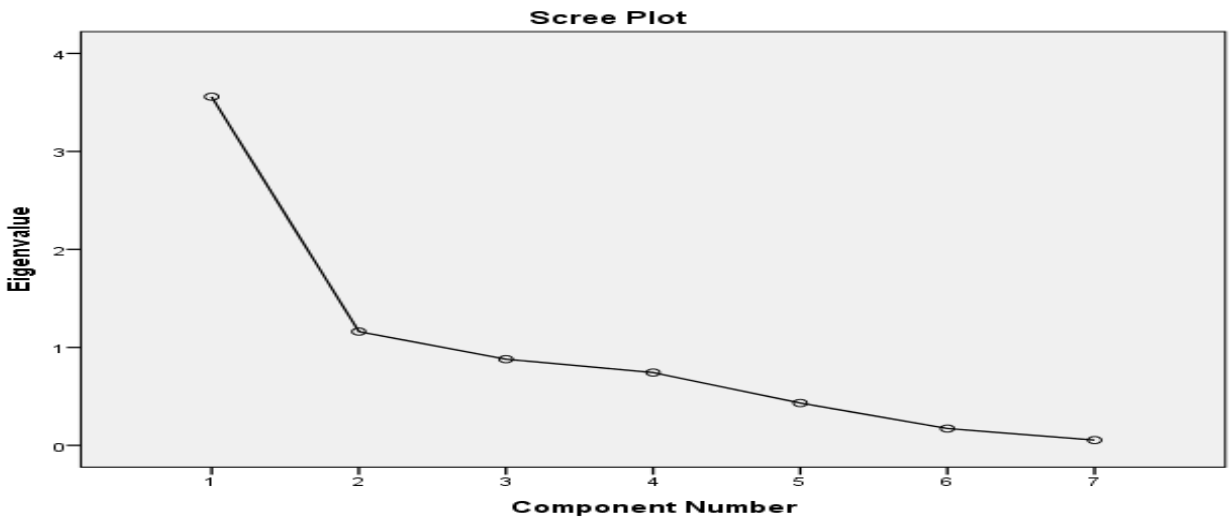
| **Communalities** | | |
|---|---|---|
| | Initial | Extraction |
| Text message | 1.000 | 0.418 |
| Ability to track my shipment with my mobile device | 1.000 | 0.831 |
| Text message alerting | 1.000 | 0.737 |
| Text notification | 1.000 | 0.846 |
| Easy-to-find customer service | 1.000 | 0.858 |
| Email message alerting | 1.000 | 0.454 |
| Ability to track my shipment directly on the retailer's website | 1.000 | 0.576 |
| Extraction Method: Principal Component Analysis. | | |

Initially, it was expected that each Commonality variable would have a 100% difference. As a result, each item's initial value was set to 1.00, meaning that every item shared 100% of the item. The range of the extraction value is 0.858 to 0.418.

**Table:4**

| Total Variance Explained | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 3.558 | 50.829 | 50.829 | 3.558 | 50.829 | 50.829 | 3.532 | 50.460 | 50.460 |
| 2 | 1.161 | 16.588 | 67.417 | 1.161 | 16.588 | 67.417 | 1.187 | 16.958 | 67.417 |
| 3 | 0.880 | 12.564 | 79.981 | | | | | | |
| 4 | 0.743 | 10.617 | 90.598 | | | | | | |
| 5 | 0.432 | 6.174 | 96.772 | | | | | | |
| 6 | 0.172 | 2.457 | 99.229 | | | | | | |
| 7 | 0.054 | .771 | 100.000 | | | | | | |
| Extraction Method: Principal Component Analysis. | | | | | | | | | |

**Chart:2**

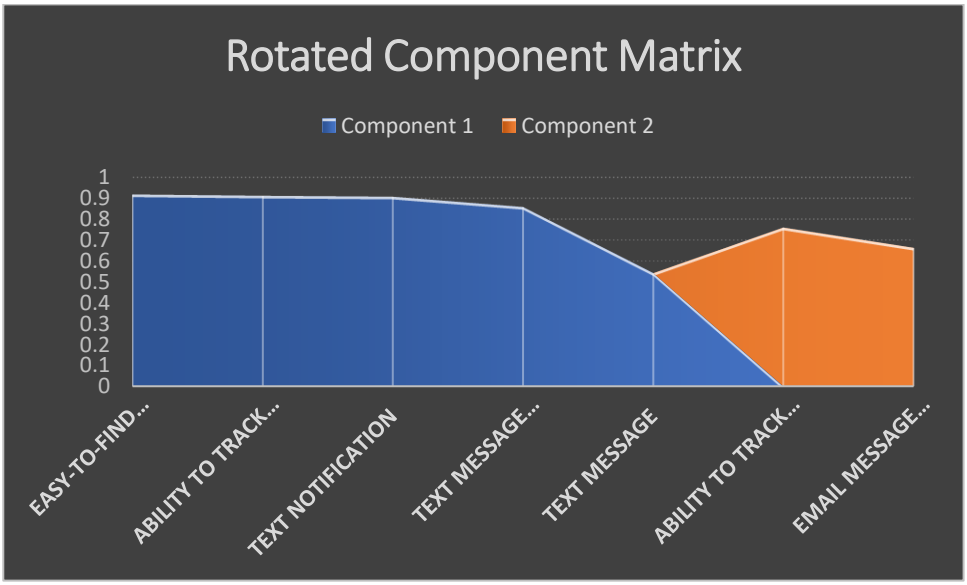



In the Scree plots and variance table, the components were represented as the X axis and the corresponding Eigen values as the Y axis. The first two components' eigenvalues are 3.558, 1.161, 0.880, 0.743, 0.432, 0.172, and 0.054. This factor is the most significant, followed by other factors, because it has the highest Eigen value (3.558).

**Table:6**

| **Rotated Component Matrix[a]** | | |
|---|---|---|
| Variables | Component | |
| | 1 | 2 |
| Easy-to-find customer service | 0.917 | |
| Ability to track my shipment with my mobile device | 0.910 | |
| Text notification | 0.906 | |
| Text message alerting | 0.857 | |
| Text message | 0.541 | |
| Ability to track my shipment directly on the retailer's website | | 0.759 |
| Email message alerting | | 0.662 |
| Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. | | |
| a. Rotation converged in 3 iterations. | | |

Chart:3



The rotated component matrix from the principal component analysis (PCA) reveals two distinct components related to customer service and shipment tracking. Below is an interpretation of each component:

**Component 1: CUSTOMER SERVICE AND REAL-TIME TRACKING**

This component highlights the aspects of customer service and immediate communication that significantly impact customer satisfaction.

**Loadings:**

- Easy-to-find customer service (0.917): This strong loading indicates that customers highly value accessibility to customer service.
- Ability to track my shipment with my mobile device (0.910): This suggests that mobile tracking is critically important for customers.
- Text notification (0.906): The high value placed on receiving text notifications indicates a preference for timely updates.
- Text message alerting (0.857): Customers appreciate proactive alerts via text, reinforcing the need for immediate communication.
- Text message (0.541): While still significant, this lower loading suggests it is less critical than the other items in this component.

Overall, Component 1 reflects a strong emphasis on responsive customer service and real-time tracking through mobile and text communication.

**Component 2: ONLINE TRACKING EXPERIENCE**

This component focuses on the online tracking capabilities provided by retailers, emphasizing the effectiveness of digital communication.

**Loadings:**

- Ability to track my shipment directly on the retailer's website (0.759): This high loading indicates that customers prioritize tracking shipments directly through retailer websites.
- Email message alerting (0.662): This loading, while still positive, suggests that email notifications are valued but not as highly as other methods.

The PCA identifies two key factors influencing customer satisfaction: the importance of accessible customer service and effective tracking methods, both via mobile and online platforms.

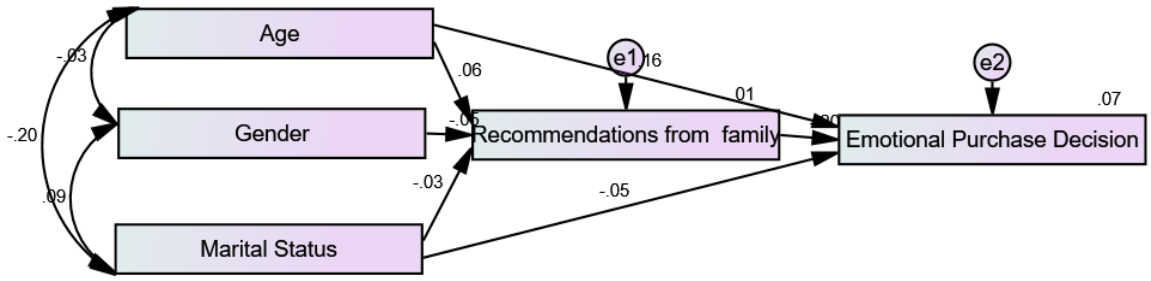
Understanding these components can help retailers enhance their communication strategies and improve overall customer experience.

**Table:7 Model fit Summary**

| Model Fit | Recommended Value | Value |
|---|---|---|
| Chi-square | P>0.05 | 2.0914 |
| Root Mean Square for Approximation (RMSEA) | ≤ 0.08 | 0.008 |
| Goodness of Fit | ≥0.090 | 0.994 |
| Adjusted Goodness of Fit (AGFI) | ≥0.090 | 0.917 |
| Comparative Fit Index | ≥0.090 | 0.901 |
| Tucker-Lewis Index(TLI) | ≥0.090 | 0.120 |
| Normed Fit Index (NFI) | ≥0.090 | 0.901 |
| Incremental Index | ≥0.090 | 0.946 |

**Path Diagram**

**Chart:4**



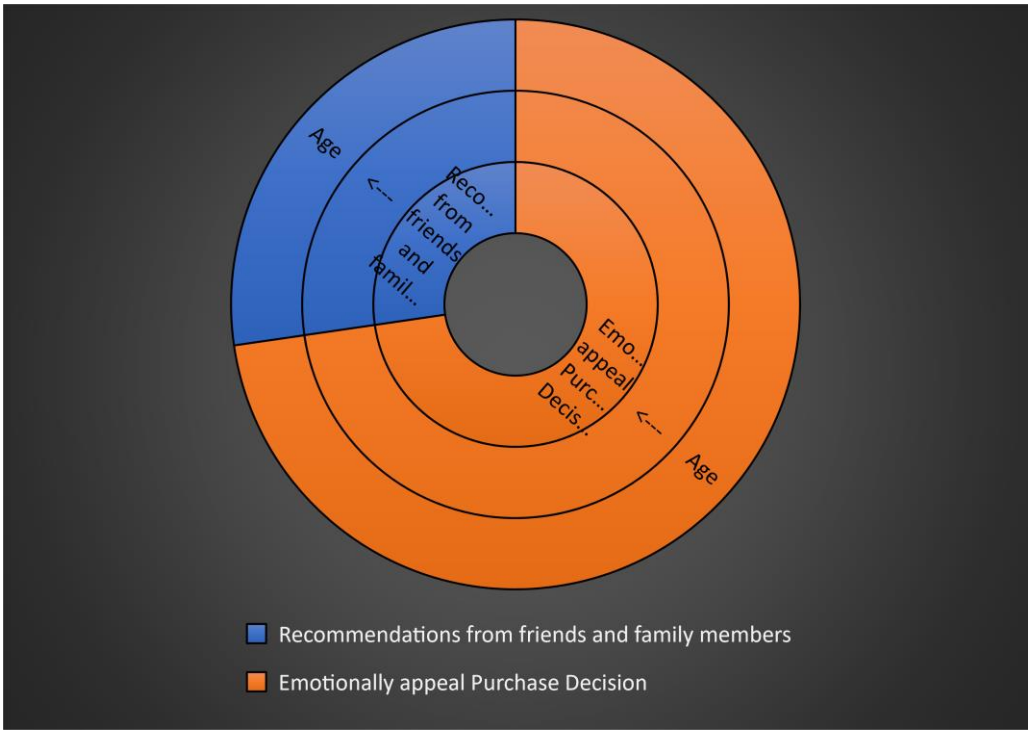

The Recommended value and Actual value are explained in this table. Each Chi square, RMSEA, GF, AGFI, TLI, and NFI is only as good as its value. Thus, the model fit.

**Table:8**

**Regression Weights**

| Relationship between Exogenous variable and Endogenous variables | | | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|---|---|
| Recommendations from friends and family members | <--- | Age | 0.370 | 0.482 | 0.767 | 0.443 | Rejected |
| Recommendations from friends and family members | <--- | Gender | -0.132 | 0.200 | -0.658 | 0.511 | Rejected |
| Recommendations from friends and family members | <--- | Marital Status | -0.085 | 0.205 | -0.416 | 0.678 | Rejected |
| Emotionally appeal Purchase Decision | <--- | Recommendations from friends and family members | -0.203 | 0.083 | -2.466 | 0.014 | Accepted |
| Emotionally appeal Purchase Decision | <--- | Age | 0.985 | 0.487 | 2.020 | 0.043 | Accepted |
| Emotionally appeal Purchase Decision | <--- | Marital Status | -0.128 | 0.206 | -0.621 | 0.535 | Rejected |

**Chart:5**



The analysis examines the relationships between various demographic factors (age, gender, marital status) and two key variables: recommendations from friends and family members, and emotionally appealing purchase decisions.

**Ho: Age is not affected by recommendations from friends and relatives**

Given that the P-value (0.443) is higher than the significance level (0.05), there is evidence of a link between age and recommendations from friends and family. This great significance means that any detected patterns in the data could be due to chance, rather than a true underlying relationship between the variables.

**Ho: Respondents' gender is unaffected by recommendations from friends and relatives.**

As the selected significance level (0.05) is less than the p-value (0.511), the null hypothesis cannot be rejected. This indicates that there is no statistically significant evidence in the data to support a link between respondents' gender and recommendations from friends and family.

**Ho: Friends' and family's recommendations had no bearing on respondents' marital status**

We are unable to reject the null hypothesis since the p-value (0.678) is higher than the selected significance threshold (0.05). This indicates that there is no statistically significant evidence in the data to support a link between respondents' marital status and recommendations from friends and family.

**Ho: Friend and family recommendations are unaffected by an emotionally compelling purchase decision.**

The emotionally appealing purchase decision and recommendations from friends and family have a critical and p value of 0.014. Since the p value is smaller than the 0.05 significant threshold. Emotionally appealing Purchase Decision and referrals from friends and family do not correlate well. hence, the null hypothesis is approved.

**Ho: Appealing to the emotions Purchase Decision has no bearing on Respondents' Age:**

The emotionally appealing purchase decision and the respondents' age yielded a crucial and p value of 0.043. Since the p value is smaller than the 0.05 significant threshold. The age of respondents and the emotionally appealing purchase decision do not positively correlate. Thus, the null hypothesis is agreed upon.

**Ho: Appealing to the emotions Purchase Decision has no bearing on Respondents' marital status:**

The emotionally appealing purchase decision and respondents' age yielded a crucial and p value of 0.535. Given that the p value exceeds the significance level of 0.05. The respondents' marital status and their emotionally appealing purchase decision have a positive correlation. Thus, the null hypothesis is disproved.

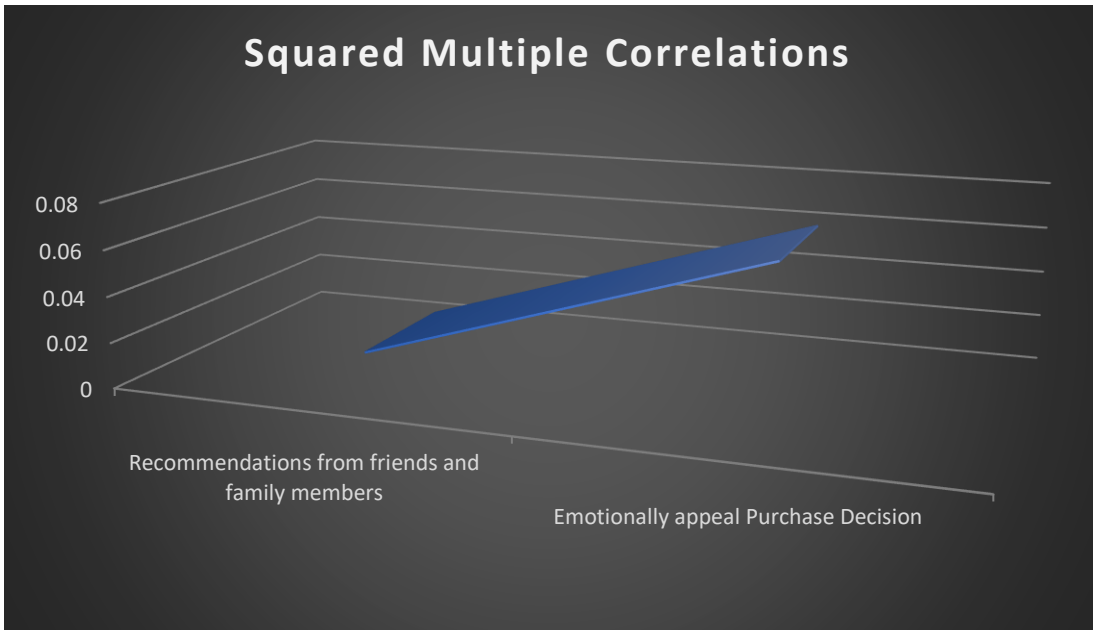
The analysis highlights that demographic factor have little effect on recommendations from friends and family, while recommendations may negatively influence emotional purchasing decisions. Age, however, plays a positive role in the tendency to make emotionally appealing purchases. These insights suggest a complex interplay between social influence and personal emotions in consumer behavior, warranting further investigation.

**Table:9**

**Squared Multiple Correlations**

| Variables | Estimate |
|---|---|
| Recommendations from friends and family members | 0.010 |
| Emotionally appeal Purchase Decision | 0.065 |

**Chart:6**



1.**Recommendations from friends and family members**

It is estimated that the predictors of Recommendations from friends and family members explain 0.1 percent of its variance. In other words, the error variance of Recommendations from friends and family members is approximately 99.9 percent of the variance of Bias itself.

**2. Emotionally appeal Purchase Decision**

It is estimated that the predictors of Emotionally appeal Purchase Decision explain 65 percent of its variance. In other words, the error variance of Emotionally appeal Purchase Decision is approximately 35 percent of the variance of Work itself.

## Conclusion

Emphasizes the critical role of responsive customer service and real-time communication. Customers highly value easy access to support, as well as immediate updates through mobile tracking and text notifications. This indicates a strong preference for proactive engagement, suggesting that retailers should prioritize these communication methods to enhance customer experience. Highlights the importance of online tracking capabilities. Customers appreciate the ability to track their shipments directly on the retailer's website, though email alerts are viewed as less impactful. This suggests that while email communication has its place, retailers should focus on optimizing their website tracking features to meet customer expectations. In tracking services, while recommendations from friends and family do not significantly influence age, gender, or marital status, emotionally appealing purchase decisions have a significant impact on both recommendations and the age of respondents. This underscores the importance of emotional factors in consumer behaviour, suggesting that marketers should focus on creating emotionally resonant messages to enhance the effectiveness of recommendations.

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