

Analysis of the Factors that Affect Customer Satisfaction when Using a Service

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Abstract: *The study's objective is to examine the factors that affect consumers' happiness with the use of digital services. It looks at how demographic factors, especially age, impact user satisfaction levels and concentrates on important service-related qualities like convenience, time efficiency, cost-effectiveness, service quality, responsiveness, and transparency.*

The association between satisfaction and the specified service qualities was evaluated using a logistic regression analysis. In order to record attitudes and behavioural reactions about the usage of digital services, the study makes use of user-level data within a specified system.

The findings show that responsiveness, convenience, time efficiency, and service quality are all important indicators of consumer satisfaction. In most service criteria, those who are 51 years of age or older show noticeably greater levels of satisfaction. The results emphasise how important it is for digital service providers to customise service delivery based on customer preferences based on age.

The study only looks at users' viewpoints inside a particular service framework, which might not apply to other digital platforms. The focus of future studies could be expanded to encompass additional psychographic and demographic elements that affect satisfaction.

This study advances knowledge of how consumer satisfaction in digital service environments is influenced by demographic variations and service features. It provides practical advice for enhancing platform usability, ease, responsiveness, and efficiency to improve user experience..

Keywords: service quality, customer satisfaction, logistic regression, age groups, convenience, and responsiveness

I. INTRODUCTION

In an economy that is becoming more competitive and digital, service providers' principal goal is still to make their customers happy Apoorva and Venkatesh (2025). As people use more digital and in-person services, things like ease, transaction speed, security, and responsiveness have become very important for how people feel about the service and how satisfied they are. Prior research (Akinci, Aksoy, & Atilgan, 2022; Wang & Chen, 2021) has highlighted the impact of these service traits on consumer loyalty and trust, especially within the realm of e-commerce and online transactions.

The current study utilises logistic regression to analyse the impact of service-related features and demographic factors, particularly age, on satisfaction levels. Comprehending these relationships yields significant insights for enhancing service design, consumer engagement, and digital accessibility, particularly for varied age demographics.

Aim and Scope of the Study

The study seeks to analyse the determinants affecting customer satisfaction with digital service utilisation by logistic regression analysis. It concentrates on essential factors such convenience, time efficiency, cost-effectiveness, service quality, responsiveness, and transparency. The study looks at how these traits, combined with differences in age, affect



how satisfied people are. The scope is restricted to users' views and behavioural responses inside a specified system, yielding insights to improve service efficiency and user experience.

Objectives of the Study

- To identify the primary determinants affecting customer satisfaction in service utilisation.
- To find out how demographic factors, especially age, affect levels of satisfaction.
- To offer strategic insights for improving user experience across various service parameters.

Significance of the Research

Understanding the changing dynamics of customer satisfaction in the use of digital services is greatly aided by this research. Finding the elements that influence customer satisfaction—such as ease of use, effectiveness, responsiveness, and quality—becomes essential for maintaining competitiveness and trust as technology increasingly mediates service delivery. The study offers factual proof of how demographic variables—particularly age—affect customer happiness and views. The study helps service providers create inclusive, effective, and user-friendly platforms by emphasising the various needs of various user groups. The results provide useful information for organisations and governments looking to improve the effectiveness, accessibility, and customer retention of digital services in addition to adding to scholarly discourse on digital consumer behaviour.

II. REVIEW OF LITERATURE

Under the three main themes of (A) Service Quality and System Reliability, (B) Convenience, Digital Usage, and Behavioural Factors, and (C) Socio-Economic Determinants of Consumption and Satisfaction, this systematic review examines the body of research on the factors that affect user satisfaction. The review provides a theoretical and empirical basis for the present analysis of factors related to service utilisation and satisfaction by drawing on ten important research studies.

System Dependability and Service Quality

Numerous studies have looked into service quality as a key factor in determining customer happiness. Using Kansei engineering, Restuputri, Indriani, and Masudin (2021) examined the quality of logistics services during the COVID-19 pandemic and discovered that transaction speed, responsiveness, and dependability had a major influence on customer satisfaction and loyalty. Similar to this, de Melo et al. (2022) assessed the quality of online purchasing using the fuzzy-TOPSIS methodologies and the E-S-QUAL framework. They found that responsiveness, system availability, and dependability were important factors for user satisfaction, particularly during times of digital dependency.

These conclusions were supported by Mofokeng (2021), who demonstrated how factors like information quality, security, and delivery accuracy had a significant impact on consumers' pleasure with online buying. Crucially, these impacts were reduced by user experience, which is in line with the current study's finding that age groups range in their degrees of pleasure. In the meantime, Russo, Masorgo, and Gligor (2022) highlighted the importance of service recovery resilience, arguing that long-term satisfaction might be influenced more by an organization's response to service failures (such as security breaches or system issues) than by the failure itself. Together, these studies show that customer satisfaction is largely dependent on service quality, transaction speed, and reliability—all of which are highly consistent with the logistic regression results of this study.

Behavioural factors, digital usage, and convenience

In digital and online contexts, convenience and perceived ease of use continue to be the most important indicators of pleasure. Convenience, time savings, cost effectiveness, and habitual usage are critical factors in determining user satisfaction and sustained engagement, according to research by Mala Gopani and colleagues (2021) on consumer attitudes towards online meal delivery and digital payments. Their results are consistent with the current logistic regression results, which show a high positive correlation between convenience, time savings, and habit.



Akinci, Aksoy, and Atilgan (2010) further confirmed that user satisfaction is based on e-service quality attributes including efficiency, convenience, and simplicity of access. Similarly, Noorshella (2015) discovered that the three main e-service quality factors that greatly enhance customer experience are ease of navigation, information quality, and reliability. Collectively, these research support the idea that usability and behavioural factors—such as habit, social influence, and perceived effort reduction—have a significant impact on satisfaction results. The results further emphasise that responsiveness and ease of use are psychological factors that influence loyalty and sustained service use in addition to being technical ones Anusha and Anouja (2024).

Socioeconomic Factors Affecting Satisfaction and Consumption

In addition to service-related issues, socioeconomic and demographic factors are important in affecting behavioural results and satisfaction. According to Nandini Jagannarayan's (2023) analysis of Maharashtra's household size and consumption expenditure, income and household composition have a significant impact on spending choices. According to satisfaction analyses, variables like age and income have a moderating effect.

In her later research, Jagannarayan (2024) found that occupation, income, and education were important factors in determining health spending in metropolitan Maharashtra. This suggests that socioeconomic environment has a direct impact on consumer satisfaction and behaviour. Furthermore, Jagannarayan and Prasuna (2024) showed that food spending is greatly impacted by gender inequalities, especially in homes headed by women during the epidemic. These studies demonstrate how user expectations and responses are influenced by demographic features, highlighting the importance of taking age, gender, and household structure into account when analysing satisfaction.

Combined Perspectives

Together, the examined research show that technical service characteristics, behavioural attitudes, and socioeconomic settings all influence user satisfaction, which is a multifaceted construct. It is clear from the literature on logistics and digital services (Restuputri et al., 2021; de Melo et al., 2022; Mofokeng, 2021) that customer satisfaction is based on service quality, speed, and dependability. According to studies on behavioural drivers, convenience, habit, and responsiveness are strong psychological drivers of satisfaction (Goplani et al., 2021; Akinci et al., 2010). Lastly, socioeconomic analyses by Jagannarayan (2023, 2024) and Jagannarayan & Prasuna (2024) highlight the strong moderating influence of contextual and demographic factors, including age, gender, and income.

In conclusion, research shows that a complex interplay between perceived ease of use, functional efficiency, and user attributes leads to pleasure. In addition to validating that older age groups have higher levels of satisfaction, which is in line with previous empirical and behavioural research, the current study makes a contribution by empirically testing these relationships using logistic regression and confirming the importance of convenience, time savings, responsiveness, and service quality.

III. RESEARCH METHODOLOGY

Research Design

In order to determine and examine the primary determinants of user satisfaction with regard to the use of digital services, the study employs a quantitative and explanatory research approach. The design, which emphasises quantifiable qualities including convenience, time savings, cost effectiveness, service quality, responsiveness, transparency, and associated usage aspects, is based on the ideas of behavioural and service quality research. After adjusting for demographic factors like age group, the degree to which these independent variables affect satisfaction outcomes is ascertained using logistic regression analysis. Cause-and-effect links between service usage characteristics and satisfaction levels can be established thanks to this approach.

Data Collection Methods

Users of a certain digital service platform were given a structured questionnaire to complete in order to gather primary data. With an emphasis on service quality, system reliability, and user comfort, the questionnaire was created utilising validated constructs from earlier research, such as those by Akinci, Aksoy, and Atilgan (2010) and Restuputri et al.

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(2021). Both closed-ended and Likert-scale questions were included in the instrument to gauge respondents' opinions on a range of satisfaction-related topics.

Both online and offline questionnaires were used for data gathering in order to guarantee representation across various user groups and age categories. Confidentiality and anonymity were guaranteed to respondents in order to promote truthful answers.

Sampling Method and Sample Size

Registered users of the service system under consideration made up the study's population. The minimum sample size needed to guarantee statistical validity and reliability was calculated using Cochran's sample size formula for big populations.

Following data screening for consistency and completeness, 400 valid responses in all were acquired and added to the study.

In order to guarantee sufficient representation across the various age groups (21–30, 31–40, 41–50, and 51+), the study used a stratified random selection technique. The study was able to examine satisfaction trends across age groups and pinpoint demographic differences in the impact of consumption characteristics thanks to this stratification. Therefore, in terms of age, education, and frequency of service use, the chosen sample was representative of a wide range of users.

Analytical Approach

The Statistical Package for the Social Sciences (SPSS) was used to analyse the data. Managing missing values, confirming variable coding, and looking for outliers were all part of the preliminary data cleaning process. In order to summarise user replies and demographic distributions, descriptive statistics including mean, frequency, and standard deviation were calculated.

The impact of independent variables, which stand for factors impacting service consumption, on the dependent variable, user satisfaction, was then investigated using binary logistic regression analysis. While adjusting for age group, each model examined a single key satisfaction factor (such as responsiveness, convenience, or time savings). To understand the probability of satisfaction linked to each independent variable, odds ratios (Exp(B)) were calculated. Statistical importance was assessed at a significance level of $p < 0.05$.

Measures including the Hosmer–Lemeshow test, Nagelkerke R², and the classification accuracy percentage were used to evaluate the model fit. In order to ascertain whether satisfaction levels varied substantially among demographic groups, age group effects were also examined. Consolidated tables displaying odds ratios, significant values, and the results of hypothesis testing were used to summarise the findings.

Ethical Considerations

Every participant gave their voluntary consent after being made aware of the study's objectives. Participants were given the assurance that their information would only be utilised for academic and research reasons, and data collection was done anonymously. Transparency, confidentiality, and data security were maintained throughout the study by adhering to ethical guidelines for research involving human subjects.

Summary

In conclusion, this methodology combines sophisticated statistical analysis with a solid quantitative design utilising structured survey data. The dependability of the results is guaranteed by the combination of logistic regression modelling, verified measurement tools, and stratified sampling. This method reveals age-related differences in user perceptions and offers empirical data on how various service usage factors—convenience, time savings, responsiveness, service quality, and transparency—shape overall satisfaction.



IV. RESULTS

Table 1: The Relation between satisfaction levels and usage factors

Dependent Variable (Satisfaction Factor)	Independent Variable (Usage Factor)	Hypothesis Statement (H_1)	Odds Ratio	Sig.	Result of Hypothesis	Interpretation
Convenience	Convenience	There is a significant relationship between convenience of usage and satisfaction.	5.957	0	Accepted	Higher convenience significantly increases satisfaction; strongest among 51+ age group.
Time Saving	Time Saving	Time-saving features significantly influence satisfaction.	4.861	0	Accepted	Significant positive relationship; satisfaction rises with perceived time-saving, especially for 51+.
Cost Effectiveness	Cost Effectiveness	Cost-effectiveness has a significant effect on satisfaction.	6.602	0	Accepted	Cost-effectiveness improves satisfaction; effect strongest in younger users.
Security & Trust	Security & Trust	Security and trust significantly affect satisfaction.	$4.94 \times 10_{17}$	0.986	Rejected	No significant relationship; statistical irregularities indicate overfitting.
Transaction Speed	Transaction Speed	Transaction speed has a significant effect on satisfaction.	54.64	0	Accepted	Significant predictor; faster transactions strongly increase satisfaction across all age groups.
Accuracy of Transactions	Accuracy	Accuracy of transactions significantly influences satisfaction.	$1.43 \times 10_{15}$	0.99	Rejected	Not significant; no consistent relationship between accuracy perception and satisfaction.
System Availability	System Availability	System availability significantly influences satisfaction.	$7.61 \times 10_{17}$	0.99	Rejected	Not significant; model instability may explain extreme odds ratios.
Transparency	Transparency	Transparency significantly affects satisfaction.	2558.4	0	Accepted	Transparency is a strong predictor; older age groups show highest satisfaction.
Service	Service Quality	Service quality	86.622	0	Accepted	High service quality



Quality		significantly affects satisfaction.				directly increases satisfaction; robust across all age groups.
Responsiveness	Responsiveness	Responsiveness significantly affects satisfaction.	200.567	0	Accepted	Extremely strong predictor; older users (51+) have highest odds of satisfaction.
Expectations	Expectations	Meeting user expectations significantly influences satisfaction.	54.632	0	Accepted	Strong positive relationship; high satisfaction when expectations are met.
Habit	Habit	Habitual usage significantly affects satisfaction.	7.426	0	Accepted	Significant; habitual users are more satisfied, particularly older users.
Social Influence	Social Influence	Social influence significantly affects satisfaction.	4.315	0	Accepted	Moderate but significant; peer and social influence encourage satisfaction.

Source: Based on Authors' analysis of primary data collected

Discussion

Most service-related characteristics, such as Convenience, Time Saving, Transaction Speed, Transparency, Service Quality, Responsiveness, and Expectations, are substantial and statistically significant predictors of satisfaction.

Age has an effect on the results, with people over 51 always having the greatest satisfaction odds. This suggests that older people care more about reliability, ease, and responsiveness than younger people do.

Saving time and being convenient

Users who thought the service was easy to use were almost six times more likely to say they were happy with it (OR = 5.957, $p < 0.001$). In the same way, qualities that save time greatly increased satisfaction (OR = 4.861, $p < 0.001$). Older respondents (51+) were the most satisfied in both categories, which shows that older consumers really value efficiency and ease of use.

Cost Effectiveness

The perceived cost-effectiveness raised the chance of satisfaction (OR = 6.602, $p < 0.001$). Nevertheless, age did not substantially modify this relationship, indicating that cost is widely esteemed although not a pivotal consideration among older customers.

Safety, Trust, and Correctness

Security and transaction accuracy exhibited exceptionally high odds ratios; nevertheless, their significance levels were low, potentially attributable to data variability or model overfitting. However, previous research (Nair & Goel, 2020) underscores that perceived security significantly impacts pleasure, particularly among risk-averse consumers.



Speed of Transactions and Quality of Service

Transaction speed (OR = 54.640, $p < 0.001$) and service quality (OR = 86.622, $p < 0.001$) were found to be important factors in customer satisfaction. Age had a big effect on these outcomes. Older groups were more satisfied, probably because they value reliability and smooth functioning.

Being open and responsive

Responsiveness (OR = 200.567, $p < 0.001$) and transparency (OR = 2,558.398, $p < 0.001$) had very strong positive effects on satisfaction. Clear processes and good communication go a long way towards making people think that a service is reliable, which builds trust in the provider.

Social influence, habit, and expectations

Satisfaction was substantially linked to meeting client expectations (OR = 54.632, $p < 0.001$) and using the service often (OR = 7.426, $p < 0.001$). Social impact exhibited a moderate favourable effect (OR = 4.315, $p < 0.001$), which means that recommendations and how peers see things can change how customers feel.

Limitations and Future Scope

Despite its insightfulness, the study is constrained by its cross-sectional design, moderate sample size, and dependence on self-reported perceptions, all of which can introduce bias. Digital literacy and trust were excluded, and excessive odds ratios raise the possibility of data skewness. By using longitudinal designs, increasing demographic and regional coverage, and taking behavioural and psychological aspects into account, future research can fill in these gaps. Deeper insights can be obtained by using sophisticated techniques like mixed-methods approaches and structural equation modelling (SEM). More comprehensive comparison research will improve our knowledge of user satisfaction and the effectiveness of digital services.

V. CONCLUSION

The data shows that consumer satisfaction is multi-dimensional and depends on things like convenience, responsiveness, service quality, and transaction speed. Age consistently acted as a moderator, with people aged 51 and older showing higher happiness across most variables. These results show that service providers need to focus on user-centred design that works for people of all ages and is easy to use, efficient, and reliable.

Improving customer happiness can be done by making transactions safer and more transparent, making services more convenient and responsive, and keeping service quality high. Strategies that take into account demographic differences, especially age, can help users trust you and get more involved.

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