

Online stock Trading Applications, Tax Compliance, and Investor Satisfaction: An Integrated Study of Retail Brokerage Experience in the Digital Era

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Abstract: *The rapid growth of digital financial technologies has transformed the Indian securities market by enabling retail investors to trade through online brokerage applications. Alongside ease of trading, investors are increasingly expected to comply with tax regulations relating to capital gains, Securities Transaction Tax (STT), Tax Deducted at Source (TDS), and annual income tax filing. The integration of trading platforms with tax reporting features has become an important determinant of investor satisfaction. This study examines the relationship between online trading applications, tax compliance facilities, and investor satisfaction among retail investors. Primary data were collected from 151 retail investors using a structured questionnaire. Descriptive statistics, reliability analysis, correlation, and multiple regression were employed for data analysis. The findings reveal that application usability, tax compliance support, and service quality significantly influence investor satisfaction. The study recommends that brokerage firms enhance tax reporting tools and investor education to improve customer experience and regulatory compliance.*

Keywords: Online Trading Applications, Tax Compliance, Investor Satisfaction, Retail Investors, Digital Brokerage, India.

Introduction

The rapid advancement of digital technology has transformed the global financial services industry, making stock market investing more accessible, transparent, and efficient than ever before. In India, the widespread adoption of smartphones, affordable internet connectivity, government initiatives promoting Digital India, and the increasing financial awareness among individuals have significantly accelerated the growth of online stock trading. Retail investors no longer need to visit physical brokerage offices or rely on traditional brokers to execute trades. Instead, they can invest in equities, mutual funds, exchange-traded funds (ETFs), derivatives, and other securities through online stock trading applications that provide real-time market information, instant order execution, portfolio tracking, and advanced analytical tools. However, this democratization of investing has brought with it a new set of challenges — chief among them, tax compliance. Investors using these platforms are required to navigate capital gains taxation, dividend reporting, tax-loss harvesting, and jurisdiction-specific regulatory requirements, often without adequate guidance built into the trading apps themselves. The complexity of tax obligations, combined with limited financial literacy among many retail users, can create friction between the ease of trading and the burden of post-trade compliance. At the same time, investor satisfaction has emerged as a critical metric for brokerage platforms competing in a crowded digital marketplace. Satisfaction is shaped not only by trading experience — speed, reliability, and interface design — but also by the platform's ability to support users through compliance-related tasks such as tax document generation, transaction reporting, and regulatory disclosures. Platforms that integrate seamless tax support alongside trading functionality tend to foster greater trust and long-term user retention.

Online stock trading applications such as **Groww, Zerodha Kite, Upstox, Angel One, 5paisa, Motilal Oswal, ICICI Direct, HDFC Sky, and Sharekhan** have revolutionized the investment process by offering user-friendly interfaces, seamless digital onboarding through e-KYC, AI-enabled investment recommendations, educational resources, and integrated payment systems. These technological innovations have attracted a large number of first-time investors, particularly millennials and Generation Z, contributing to substantial growth in retail participation in the Indian capital market.

Despite the convenience offered by digital trading platforms, investors incur several costs while executing transactions. **Brokerage charges** represent one of the primary costs associated with online trading. Brokerage is the fee charged by a stockbroker or brokerage firm for facilitating the purchase and sale of securities. While many discount brokers offer zero brokerage on equity delivery trades, they generally charge a fixed fee or a small percentage for intraday trading, futures, options, and commodity transactions. Full-service brokers may charge comparatively higher brokerage fees but provide additional services such as investment advisory, portfolio management, research reports, and dedicated customer support. The transparency, affordability, and fairness of brokerage charges significantly influence investors' satisfaction and platform selection.

In addition to brokerage charges, investors are required to pay several **statutory taxes and regulatory charges** imposed by the Government of India and market regulators. These include

Securities Transaction Tax (STT), Goods and Services Tax (GST) on brokerage and service charges, **Stamp Duty, SEBI Turnover Fees, and Exchange Transaction Charges.** Furthermore, profits earned from the sale of securities are subject to **Capital Gains Tax**, which is classified into **Short-Term Capital Gains (STCG)** and **Long-Term Capital Gains (LTCG)** depending on the holding period of the investment. Investors are also responsible for accurately reporting these gains while filing their Income Tax Returns (ITR). Failure to comply with taxation regulations may lead to penalties, interest, and legal consequences.

To simplify tax compliance, most modern online brokerage platforms now provide integrated tax management services, including automated capital gains reports, downloadable profit and loss statements, tax-loss harvesting tools, dividend reports, and transaction summaries. These digital features reduce the complexity of tax calculations, enhance transparency, improve financial record keeping, and assist investors in meeting statutory tax obligations efficiently. Consequently, tax-related services have become an important component of the overall customer experience offered by online trading applications.

Investor satisfaction in the digital brokerage environment extends beyond successful trade execution. It is influenced by multiple factors, including application usability, system reliability, transaction speed, data security, customer support, transparency of brokerage charges, clarity of tax-related information, ease of tax reporting, availability of educational resources, and overall service quality. Investors are more likely to continue using a trading platform when they perceive that the application offers value for money, minimizes hidden costs, provides efficient tax assistance, and delivers a secure and seamless trading experience. The increasing competition among brokerage firms has compelled them to differentiate their services not only through low-cost trading but also by improving digital infrastructure, personalized investment solutions, regulatory compliance support, and customer engagement. Consequently, understanding the relationship between **online trading application quality, brokerage and transaction charges, tax compliance services, and investor satisfaction** has become an important area of academic and practical research.

Therefore, the present study, "**Online Stock Trading Applications, Tax Compliance, and Investor Satisfaction: An Integrated Study of Retail Brokerage Experience in the Digital Era,**" aims to examine how online brokerage platforms influence investors' perceptions of brokerage charges, tax compliance, and overall satisfaction. The study seeks to evaluate whether transparent pricing structures, efficient tax management features, and high-quality digital services contribute to a positive retail brokerage experience. The findings are expected to provide valuable insights for brokerage firms, policymakers, financial regulators, and investors in enhancing digital financial services, improving regulatory compliance, increasing investor confidence, and promoting sustainable growth in India's rapidly evolving digital capital market

Brokerage Charges of Stock Trading Applications

When an investor buys or sells securities through a trading app, the brokerage firm charges fees for facilitating the transaction. These typically include:

- Brokerage fees – A flat fee per trade or a percentage of the transaction value, charged for executing buy/sell orders (many discount brokers now offer flat or zero brokerage on equity delivery trades).
- Securities Transaction Tax (STT) – A government-levied tax on the purchase/sale of securities, applicable on both delivery and intraday trades.
- Exchange Transaction Charges – Fees charged by stock exchanges (NSE/BSE) for using their trading infrastructure.
- GST – Goods and Services Tax applied on brokerage and transaction charges.
- SEBI Turnover Fees – A small regulatory fee charged by the Securities and Exchange Board of India on the total turnover.
- Stamp Duty – A state-levied charge on the transfer of securities.
- Depository Participant (DP) Charges – Fees charged for debiting shares from a Demat account at the time of selling.

These charges, though individually small, can accumulate and affect the net returns of frequent traders, making transparency in fee disclosure an important factor in user trust and satisfaction.

Tax Compliance

Beyond transaction-level charges, investors are also subject to income tax obligations on their trading gains, which typically include:

- Short-Term Capital Gains (STCG) – Tax on gains from securities held for a short duration (e.g., less than 12 months for listed equities), usually taxed at a specific flat rate.
- Long-Term Capital Gains (LTCG) – Tax on gains from securities held beyond the specified holding period, often taxed at a lower rate, sometimes with an exemption threshold.
- Dividend Taxation – Dividends received are added to the investor's taxable income and taxed as per their applicable income slab.
- Tax on Intraday and F&O (Futures & Options) Trading – Often classified as speculative or business income, requiring separate reporting and, in some cases, tax audits.
- Tax-Loss Harvesting – The practice of selling loss-making investments to offset capital gains and reduce overall tax liability.

Many trading apps now provide tax reports, P&L statements, and capital gains summaries to help investors file returns accurately. However, gaps in awareness, inconsistent reporting formats, and the complexity of tax rules often leave retail investors confused or non-compliant, sometimes leading to penalties or missed benefits.

The interplay between brokerage cost structures, tax compliance support, and app usability shapes the overall investor experience. An investor may find a platform's interface fast and intuitive, but if brokerage charges are unclear or tax filing support is inadequate, overall satisfaction and trust in the platform can decline. Conversely, platforms that combine low-cost

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trading with transparent charge disclosures and integrated tax assistance tend to build stronger investor confidence and loyalty.

This study, therefore, aims to explore how these three elements — trading app experience, tax compliance facilitation, and brokerage-related charges — collectively influence investor satisfaction in the digital brokerage era, offering insights valuable to platform developers, regulators, and policymakers alike

Literature Review

Parvathy S. Nair, Atul Shiva, Nikhil Yadav & Priyanka Tandon (2022) The authors examined the determinants influencing the adoption of mobile trading applications among retail investors in emerging financial markets. Using PLS-SEM on data collected from 507 investors, the study found that performance expectancy, effort expectancy, perceived returns, and habit significantly influenced investors' intention to use online trading applications, while perceived risk had a comparatively lower impact. The study highlighted that user-friendly applications and perceived investment benefits are critical for increasing adoption and satisfaction.

Amar Johri, Mohammad Wasiq, Harpreet Kaur & Mohammad Asif (2023) This study investigated users' adoption behaviour towards online stock market investment applications in India using responses from 424 investors. The findings revealed that financial literacy, awareness, reliability, safety, technical features, perceived benefits, and risk perception significantly influence investors' willingness to adopt stock trading applications. The study concluded that improved application quality and investor education enhance user satisfaction and long-term platform usage.

Shiva, Narula & Shahi (2020) The researchers explored behavioural factors affecting retail investors' investment decisions in the FinTech environment. Their findings showed that psychological factors such as fear of missing out (FOMO), smartphone dependency, and technological convenience significantly affect investment decisions. The study emphasized that digital investment platforms should focus on improving user engagement and reducing behavioural biases through investor education.

Boddapati Lalitha Haripriya; Prabhakar Nandru 2026 This study investigated the factors affecting investor satisfaction with AI-enabled stock trading applications using CFA and SEM. The findings indicated that performance expectancy, facilitating conditions, self-efficacy, social influence, and personal innovativeness significantly enhance investor satisfaction and behavioural intention. The research recommended that brokerage firms improve application usability, information quality, and personalized digital services to strengthen customer satisfaction and continued platform usage

W. Wulandari; Syahril Djaddang; S. Suratno 2025 Tax morale; trust; fairness; digital platforms; AI; blockchain; governance quality; transparency; tax literacy, Primary systematic review for digital tax compliance The closest broad review for the tax-compliance component.

It organizes the literature into behavioral, technological, and institutional clusters and frames digital compliance as a trust-, technology-, and legitimacy-dependent process.

Susan Sapidin; Saliza Abdul Aziz; Z. Bidin(2025) Digital tax services; trust; fairness; service orientation; tax education; taxpayer uncertainty, Focused systematic review for tax-service experience and compliance, Considering the significant increase in tax services in encouraging taxpayer compliance, this Systematic Literature Review (SLR) investigates the effect of the diverse tax service dimensions on compliance behavior in different contexts. Alongside the growth of digitalisation and a more end-user-focused approach by tax authorities, the association between tax services and compliance has become disjoint in current research. To fill this void, this paper has undertaken a systematic review of empirical evidence to provide an overall view of how tax services influence compliance behaviour

Objectives of the Study

- To assess investors' perception of the usability of online stock trading applications.
- To identify the tax-related challenges faced by retail investors while using such platforms.
- To measure the level of overall satisfaction with brokerage services.
- To examine the statistical relationship between usability, tax support, tax compliance burden, and brokerage satisfaction using primary data.

Hypotheses

H01: Brokerage Charge Transparency has no significant positive effect on Overall Satisfaction with the trading application.

H11: Brokerage Charge Transparency has a significant positive effect on Overall Satisfaction with the trading application

H02: Tax Compliance Support has no significant positive effect on Overall Satisfaction with the trading application.

H12: Tax Compliance Support has a significant positive effect on Overall Satisfaction with the trading application

H03: Trust/Confidence in the trading application has no significant positive effect on Overall Satisfaction, and mediates the relationship between Brokerage Charge Transparency, Tax Compliance Support, and Overall Satisfaction.

H13: Trust/Confidence in the trading application has no significant positive effect on Overall Satisfaction, and mediates the relationship between Brokerage Charge Transparency, Tax Compliance Support, and Overall Satisfaction.

Research Methodology

*This study adopts a **descriptive research design** with a **quantitative approach**, relying on **primary data** collected directly from respondents. A **convenience sampling technique** was used to draw a sample of **151 retail investors** from the **Mumbai region**. Data was gathered using a **structured questionnaire** built on a **5-point Likert scale**. The collected data was analyzed using*

a range of statistical tools, including **percentage analysis**, **mean**, and **standard deviation** for descriptive summarization, **Cronbach's Alpha** to assess the reliability of the measurement scale, **correlation analysis** to examine relationships between variables, and **multiple regression** to evaluate the predictive influence of the independent variables on investor satisfaction.

Problem Statement

Despite the growth of online trading applications, there is limited integrated research examining how tax-related friction affects overall satisfaction with brokerage platforms. Most existing studies treat usability, tax compliance, and customer satisfaction as separate research streams. This fragmentation leaves both platform designers and policymakers without a clear understanding of how tax-support features influence investor trust and continued platform usage.

Significance of the Study

The findings of this research are intended to benefit multiple stakeholders. Brokerage firms can use the insights to improve platform design and tax-support features, thereby enhancing customer retention. Regulators and tax authorities may gain a clearer picture of compliance gaps arising from app-based trading behavior. Individual investors stand to benefit from improved awareness of the tax implications of frequent trading, and academic researchers gain an integrated framework connecting fintech usability with tax literacy and satisfaction outcomes.

Data Analysis and Findings

Table 1. Respondent Profile

Characteristic	Category	n	%
Gender	Male	84	55.6%
	Female	67	44.4%
Age (years)	Mean = 28.0, SD = 7.9, Range = 17–56	151	100%

n = 151 valid responses, no missing data.

The respondent profile describes the basic demographic characteristics of the investors who participated in the study. The study is based on 151 valid responses, with no missing data. The respondents consisted of 84 males (55.6%) and 67 females (44.4%). The average age of the respondents was 28 years, with a standard deviation of 7.9 years, and ages ranging from 17 to 56 years.

Table 2. Construct Composition

Composite scores for each construct were computed as the mean of its constituent items:

Construct	Items	Cronbach's α	Interpretation
Brokerage Charge Transparency (BCT)	7	0.908	Excellent reliability

Tax Compliance Support (TCS)	8	0.938	Excellent reliability
Trust/Confidence (TRUST)	4	0.908	Excellent reliability
Overall Satisfaction (OS)	1 (single item)	—	Dependent variable

All α values exceed the 0.70 threshold conventionally required for scale reliability (Nunnally, 1978), confirming strong internal consistency of the multi-item scales.

All values are well above the commonly used **0.70 threshold**. Therefore, the questionnaire items demonstrate strong internal consistency. This means that the items used to measure Brokerage Charge Transparency, Tax Compliance Support and Trust/Confidence are consistently measuring their respective constructs.

The measurement scales used in the study are reliable and suitable for further statistical analysis.

Table 4. Descriptive Statistics

Construct	Mean	SD	Skewness	Kurtosis	Shapiro–Wilk p
BCT	3.45	0.96	-0.75	-0.07	< .001
TCS	3.73	1.00	-1.30	0.80	< .001
TRUST	3.73	0.98	-1.14	0.59	< .001
OS	3.11	1.31	0.02	-1.08	< .001

On a 1–5 scale, mean scores indicate a moderately favourable perception across all three predictor constructs (BCT, TCS, TRUST all above the scale midpoint of 3), while Overall Satisfaction is centred close to the midpoint ($M = 3.11$), suggesting more mixed views on overall satisfaction than on the individual service dimensions. All four constructs depart significantly from normality (Shapiro–Wilk $p < .001$), which is typical of bounded, moderately skewed Likert-based composites at this sample size; Spearman correlations and bootstrap resampling (Section 5) are reported alongside the parametric tests as a robustness check. The relatively high standard deviation of **1.31** also indicates considerable variation among respondents. Some investors may be highly satisfied, whereas others may be dissatisfied.

Table 5. Correlation Analysis

Pearson correlations among the four constructs:

	BCT	TCS	TRUST	OS
BCT	1.000	0.818**	0.749**	0.451**
TCS		1.000	0.907**	0.439**
TRUST			1.000	0.364**
OS				1.000

**** Correlation significant at $p < .001$ (two-tailed), $n = 151$.**

All three predictor constructs are positively and significantly correlated with Overall Satisfaction, lending initial support to H1, H2 and the trust component of H3. However, the predictors are also very strongly correlated with one another — particularly TCS and TRUST

($r = .907$) — indicating that respondents who rate one dimension favourably tend to rate the others favourably too. This suggests that respondents who perceive strong tax support also tend to have high trust in the trading application.

Table 6. Hypothesis Testing

Hypothesis	Test	Key statistic	Decision
H1: BCT → OS (positive effect)	Simple regression	$\beta = 0.621, p < .001$	H0 rejected — H1 supported
H2: TCS → OS (positive effect)	Simple regression	$\beta = 0.578, p < .001$	H0 rejected — H2 supported
H3: TRUST → OS (direct effect)	Simple regression	$\beta = 0.489, p < .001$	H0 rejected — direct effect supported
H3: TRUST mediates BCT/TCS → OS	Baron–Kenny, Sobel, bootstrap	Indirect effects ≈ 0 , CIs span zero	H0 not rejected — mediation not supported

H0: Result: The regression coefficient for BCT is positive and highly significant ($\beta = 0.621, t = 6.17, p < .001$). Brokerage Charge Transparency explains approximately 20.4% of the variance in Overall Satisfaction.

Decision: The null hypothesis (H0) is rejected. Brokerage Charge Transparency has a statistically significant positive effect on Overall Satisfaction with the trading application, supporting H1.

H1: Result: The regression coefficient for TCS is positive and highly significant ($\beta = 0.578, t = 5.96, p < .001$). Tax Compliance Support explains approximately 19.2% of the variance in Overall Satisfaction.

Decision: The null hypothesis (H0) is rejected. Tax Compliance Support has a statistically significant positive effect on Overall Satisfaction with the trading application, supporting H2

H3: The null hypothesis (H0) is rejected only for the direct-effect component of H3 — Trust/Confidence does have a statistically significant positive zero-order effect on Overall Satisfaction. The mediation component of H3 (Trust mediating the BCT/TCS → OS relationships) is not supported by this dataset using OLS-based mediation tests; the indirect effects are directionally negative and statistically indistinguishable from zero, most plausibly because of construct overlap between Trust and Tax Compliance Support items rather than a genuine absence of a mediating mechanism. This should be treated as partial, inconclusive support for H3, and is flagged as a priority for re-analysis with structural equation modelling

Conclusion

The study concludes that online stock trading applications have become an important part of the retail investment experience by providing convenient and accessible trading services. The findings show that investors have moderately favourable perceptions of Brokerage Charge

Transparency, Tax Compliance Support, and Trust/Confidence, while overall satisfaction remains moderate, indicating scope for improvement in digital brokerage services.

Overall, the study demonstrates that investor satisfaction is influenced not only by the convenience and usability of online trading applications but also by transparent brokerage charges, effective tax-compliance support, and investor trust. Therefore, brokerage firms should focus on transparent pricing, simple tax-reporting facilities, clear transaction information, investor education, and reliable digital services. Strengthening these areas can improve investor confidence and satisfaction and contribute to a more efficient and investor-friendly digital brokerage environment.

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