

Impact of Technology Adoption on Use of Online Trading Apps OTA A Study of Investment Behaviour in Goa

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Abstract

Purpose – This study aims to identify the key factors influencing customers' intention to use online travel agencies (OTAs), their satisfaction, continuance intention, and reactions after using OTA services. It also examines the factors encouraging customers to participate in online content co-creation.

Methodology – A quantitative approach was employed using a structured questionnaire distributed through snowball sampling. Data were collected from 63 respondents and analysed using a structural model to evaluate the relationships among perceived quality, perceived usability, satisfaction, continuance intention, and online content co-creation.

Findings – Content quality and security significantly influenced confirmation, whereas user interface and prompt response were insignificant, with an R^2 of 0.769. Perceived quality significantly influenced usefulness, enjoyment, ease of use, and trust, with R^2 values ranging from 0.614 to 0.746. However, perceived quality and perceived usability did not significantly influence satisfaction, despite explaining 78% of its variance. Satisfaction and perceived enjoyment significantly influenced continuance intention, producing an R^2 of 0.807. Regarding online content co-creation, altruism, economic benefits, and willingness to create content were significant, whereas personal integrative benefits, social benefits, hedonic benefits, and attitude were insignificant. The model explained 82.8% of the variance in online content co-creation.

Value – This study provides an integrated perspective on OTA adoption, satisfaction, continued usage, and customer content co-creation. The findings can assist OTA technology providers in improving service quality, strengthening customer engagement, increasing awareness, and capturing the untapped potential of the digital travel market.

Keywords: Online Trading apps, Expectation Confirmation Model, Investment apps, e-WOM, Content co-creation, Habits

1 Introduction

In India, trading in securities started as early as the 18th century when East India Company issued bonds and shares to raise funds for its operations. In 1850, the Companies Act was implemented, which popularized corporate shares, the Native Share and Stock-brokers Association was first founded in Mumbai in July 1875 (Rajendran & Palanisamy, 2012), and Ahmedabad Stock Exchange came into being in 1894. After independence, the stock market undergone several changes. The first legislative and regulatory framework for stock exchanges and securities trading in India was put into place in 1956 with the adoption of the Securities Contract (Regulation) Act.

The National Stock Exchange was founded in 1992, with modern technologies and electronic trading, resulted in improved market efficiency and openness. The National Exchange for Automated Trading (NEAT) system was the name of the NSE's trading platform, an online platform, completely automated, national, anonymous, order-driven system (Rajendran and Palanisamy 2012). The National Stock Exchange was the first stock exchange to start internet-based trading in India in February 2000. In April 2000, 79 members were given permission to go online, slowly made significant progress in achieving nationwide connectivity (Anute et al., 2021).

With the introduction of Internet trading, many people find it very easy to invest through trading platforms, get quick information about any current news in the market, making it easier for them to quickly react to it by either buying or selling shares in the market. In India, investors cannot directly trade on a stock exchange, but through a broker, so brokerage house comes into the picture, who provide online trading websites and applications for mobile devices to investors (Roca et al., 2009), providing functions such as real-time prices of stocks on both the National Stock Exchange and the Bombay Stock Exchange, graphs for historical prices, financials and fundamentals, the latest news, etc., allowing investors to invest in stocks but also includes trading in futures, options, IPOs, bonds, and mutual funds (Chong et al., 2021).

Present study attempts to find factors influencing users' continuous intention to use OTA and their willingness to share their experiences on social media. Result may provide valuable insights to brokerage firms to improve their services, providing better opinions to the users. The first section provides the demographic profile of the people who use OTA. The second section deals with identifying the factors influencing people to use OTA. The third section identifies how people share their experience online after using the OTA. To the extent of information available, similar studies are not been studied so far, making the present study unique and the result provides valuable inputs for different stakeholders, namely, brokerage firms, researchers, students, academic community in general and also to government agencies.

2 Literature Review

2.1 Background of Online Trading

Previous studies have used various theories to explain the behavior of users of online trading, namely, Unified Theory of Acceptance and Use of Technology (UTAUT), Expectation Confirmation Model (ECM), Technology Acceptance Model (TAM), and the Theory of Planned Behavior (TPB), Goal Cognition Theory (GCT) and found various factors influencing (Nair et al., 2022), also found the investors prioritized Perceived Returns over Perceived Risk. Malhotra (2020) identified few influencing factors, namely, Ease of App Usage, Investment Analysis and Information, Security and Privacy Concerns, User Interface Experience, and App Performance and Speed. The Expectation Confirmation Model (ECM) with the moderating effect of Perceived Risk was also used to find out users' intention to continue to use FinTech services (Jangir et al. 2023), and found that Perceived Usefulness, Satisfaction, and Confirmation significant and have a positive impact on the Continuous Intention to use FinTech services.

Integrated TAM and TPB with the addition of variables such as Perceived Risk, Perceived Benefits, and Trust to study the adoption behavior of investors while investing in mobile stock trading was studied by Chong et al., (2021), and found that Attitude, Perceived Behavioral Control, and Perceived Benefits positively influence the behavior of investors adopting mobile trading apps. When it comes to explaining investors' desire to adopt, found that Trust significantly strengthens the explanatory power of perceived behavioral control, attitude, and social influence. Perceived risk doesn't significantly affect adoption intention (Roca et al., 2009).

Hermanto & Napitupulu (2023) used the factors influencing the selection of mobile stock trading apps, by using TPB and the TAM, by considering Perceived Risk, Benefits, Trust, and Social Influence to investigate the factors influencing the adoption behavior of investors using mobile stock trading apps. Social Influence and Trust are found to have the greatest influence on users' intention to use. Also, Intentions to Use and Trust have an impact on the user's behavior. Eugene et al., (2019) found that the importance of an investor's trust and desire to engage in online trading may be influenced by perceived risk factors, and all the risks have a positive and significant influence on trust and investors' intentions to use online trading platforms among students. Hery & Tarigan (2015) measured the service quality of the online trading system undertaken by PT KDB Daewoo Securities Indonesia. The ServQual (Service Quality) method was used to examine if the satisfaction level is influenced by service quality factors. Factors such as reliability, responsiveness, assurance, empathy, and tangibility were found to have a significant impact on customer satisfaction. Clarita & Handayani (2023) analysed behavioral intentions to use the Indonesian online capital market investment platforms and the impact of behavioral intentions on actual usage by looking at the ten factors based on the TAM, TPB, and UTAUT, and found that attitudes, perceived ease of use, perceived behavioral control, subjective norms, and national pride were significant predictors of the intention to use online investment platforms in Indonesia.

In the present study, the focus is on the continued intention of people to use online trading apps, based on Expectation Confirmation Model (ECM) proposed by Hadi Putra et al., (2022), and the main factors considered are Confirmation, Perceived Usefulness, Satisfaction, and Continuance Intention, the four attitude components that make up the ECM (Jumaan et al., 2020). The model has considered User Interface, Content Quality, Prompt Response, Security, Perceived Usefulness, Perceived Enjoyment, Perceived Ease of Use, Confirmation Trust, and Satisfaction that influence the Continuous Intention to use online trading apps. The model used for the present study is given in Figure 1, followed by various hypotheses that are formulated for testing purposes to see if the model given better reliability and more predictive power.

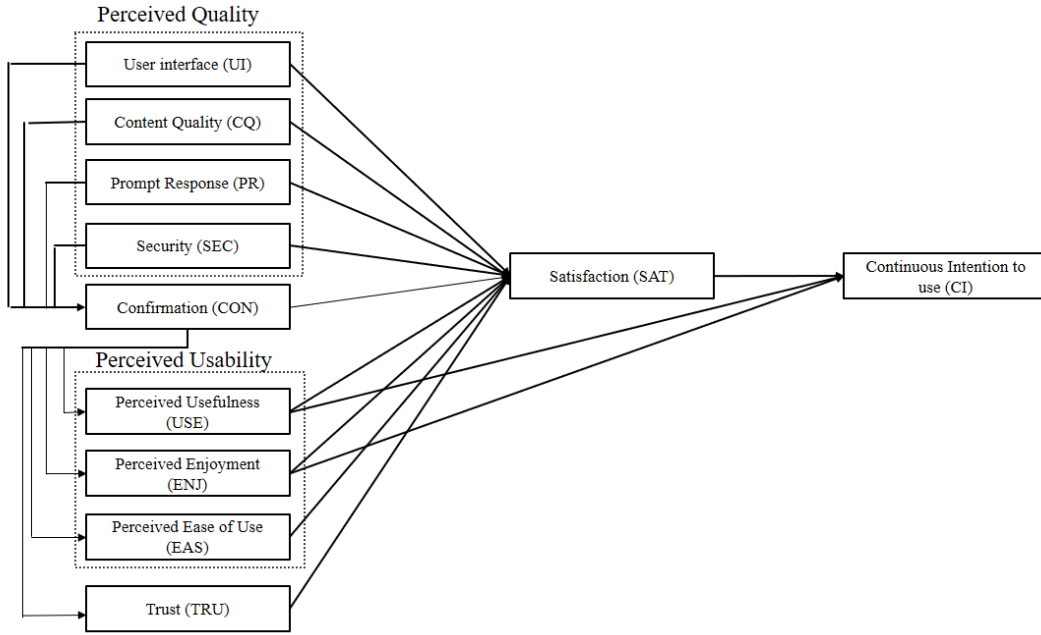


Figure 1: Proposed Model for Adoption of OTA (Source: Based on Hadi Putra et al, 2022)

2.1.1 User Interface

Easy-to-use, pleasant, aesthetically pleasing, and navigable system is referred to as having a favourable user interface (Hadi Putra et al., 2022). The user interface is the first screen that appears to the user, which allows investors to surf through the various tabs or menus efficiently, and if found attractive, ensures the continuous intention of using the app. (Oghuma et al. 2016). But in their study, Malhotra (2020) and Hermanto & Napitupulu (2023) do not found user interface experience as an important feature in mobile stock trading apps. But from an e-learning point of view, user interface plays crucial role in the continuous intention to use any online app (Cho et al., 2009).

H1(i): “User Interface (UI) has a positive and significant influence towards Confirmation (CON)”.

H1(ix): “User Interface (UI) has a positive and significant influence towards Satisfaction (SAT)”..

2.1.2 Content Quality (CQ)

The standard of content a service provides is known as content quality (Kim et al., 2019), higher the quality of the content, the more efficient the decisions will be, but found to have no impact on the continues intention to use mutual fund investment applications (Hadi Putra et al., 2022). Content quality is one of the important factors that is considered while using m-Health services (Kim et al., 2019) and smart wearables Park (2020).

H1(ii): “Content Quality (CQ) has a positive and significant influence towards Confirmation (CON)”.

H1(x): “Content Quality (CQ) has a positive and significant influence towards Satisfaction (SAT)”.

2.1.3 Prompt Response (PR)

Prompt responsiveness refers to the platform's ability to assist passengers and offer real-time services (Cheng et al., 2018), and in online trading system it means prompt response to investors due to dynamic pricing, and the reaction speed of a trading app is very critical, and found to have significant impact on satisfaction, but no impact on continuous intention to use (Hadi Putra et al., 2022).

H1(iii): “Prompt Response (PR) has a positive and significant influence towards Confirmation (CON)”.

H1(xi): “Prompt Response (PR) has a positive and significant influence towards Satisfaction (SAT)”.

2.1.4 Security

Conditions, events, or circumstances where data loss, theft, alteration, disclosure, or unlawful use could result in both monetary and non-monetary damages for clients (including investors using online trading apps) are referred to as perceived security in online transactions (Nguyen et al., 2020; Malhotra 2020). But there are contradictions, perceived trust positively (Nguyen et al., 2020; Roca et al., 2009) as well as negatively (Hermanto & Napitupulu, 2023) influences intention to use mobile stock trading apps. And Hadi Putra et al., (2022) found that security has a significant impact on the satisfaction of users of mutual fund investment applications, but Oghuma et al., (2016) found security do not have significant effect on satisfaction.

H1(iv): “Security (SEC) has a positive and significant influence towards Confirmation (CON)”.

H1(xii): “Security (SEC) has a positive and significant influence towards Satisfaction (SAT)”

2.1.5 Confirmation

A user's evaluation of the connection between two performances, i.e., the actual and predicted performance of a technology, is known as confirmation (Jangir et al., 2023). Users have certain expectations from online trading apps. If these expectations are met by the actual use, then it means it is confirmed by the use of a technology, which is found to have influence on satisfaction of mobile internet users (Jumaan et al., 2020), also influence on the user's tendency to keep using FinTech services (Jangir et al., 2023). Confirmation and satisfaction are also found to have significant influence, where the user's initial expectations of the application can be considerably confirmed by at least two application quality parameters, namely, Security and User Interface (Hadi Putra et al., 2022).

H1(v): “Confirmation (CON) has a positive and significant influence towards Perceived Usefulness (USE)”.

H1(vi): “Confirmation (CON) has a positive and significant influence towards Perceived Enjoyment (ENJ)”.

H1(vii): “Confirmation (CON) has a positive and significant influence towards Perceived Ease of Use (EAS)”.

H1(viii): “Confirmation (CON) has a positive and significant influence towards Trust (TRU)”.

H1(xiii): “Confirmation (CON) has a positive and significant influence towards Satisfaction (SAT)”

2.1.6 Perceived Usefulness (USE)

Perceived usefulness refers to the extent to which an individual think that adopting a specific system would improve their ability to do their job (Davis 1989), equally applicable to continuous intention to use mobile trading apps, but found to have little effect on satisfaction by internet users (Jumaan et al., 2020), and insignificant influence on intention to use mobile stock trading apps (Chong et al., 2021). Satisfaction acts as a mediator for perceived influence and impact on continuous intention to use in the case of health apps (Yan, 2021).

H1(xiv): “Perceived Usefulness (USE) has a positive and significant influence towards Satisfaction (SAT)”

H1(xix): “Perceived Usefulness (USE) has a positive and significant influence towards Continuous intention to use (CI)”

2.1.7 Perceived Enjoyment (ENJ)

Users' perception of enjoyment is the pleasure they get when working with the software system, which is referred to as perceived enjoyment (Hadi Putra et al., 2022), which in turn leads to continue using the same app, and have positive influence when it comes to online investment products (Liu et al. 2018) and also in social networking (Lin & Lu 2011).

H1(xv): “Perceived Enjoyment (ENJ) has a positive and significant influence towards Satisfaction (SAT)”

H1(xx): “Perceived Enjoyment (ENJ) has a positive and significant influence towards Continuous intention to use (CI)”

2.1.8 Perceived Ease of Use (EAS)

Perceived ease of use refers to the extent to which someone thinks that utilizing a specific system would require no effort (Davis 1989), but earlier studies resulted in contrasting results, namely, do not have influence on intention to use (Roca et al., 2009; Hermanto & Napitupulu (2023) as well as positive effect on intention to use

mobile stock trading apps (Lee 2009; Chong et al., 2021).

H1(xvi): “Perceived Ease of Use (EAS) has a positive and significant influence towards Satisfaction (SAT)”

2.1.9 Trust (TRU)

Perceived trust pertains to circumstances wherein individual investors have the belief that online trading apps possess the ability, integrity, and compassion that their online securities traders expect (Nguyen et al., 2020), which is considered as precedent of three important determinants to use OTA (Roca et al., 2009), namely, attitude, perceived behavioral control and subjective norm (Lee 2009), leading to intention to use (Hermanto & Napitupulu 2023).

H1(xvii): “Trust (TRU) has a positive and significant influence towards Satisfaction (SAT)”

2.1.10 Satisfaction (SAT)

Satisfaction is a reflection of sentiments that build over time after dealing with an OTA on several occasions (Gao et al., 2015) as well as mobile internet users in general (Jumaan et al., 2020) and found to have positive influence on continuous intention to use (Liu et al., 2018), including Fintech Services where perceived risk found to have mediating effect (Jangir et al., 2023). Perceived usefulness and perceived trust positively influence satisfaction, which in turn influences the loyalty of investors to online trading securities (Nguyen et al., 2020). Satisfaction is directly and indirectly influenced by the user interface, prompt response, security, usefulness, enjoyment, ease of use, confirmation, and trust (Hadi Putra et al., 2022).

H1(xviii): “Satisfaction (SAT) has a positive and significant influence towards Continuous intention to use (CI)”

2.1.11 Continuous Intention to Use (CI)

An individual's intention to continue using a software program (in contrast to initial use or acceptance) is what is meant to be understood by continuance intention (Yan 2021; Bhattacharjee 2001). Around Fifty-five percent (55%) of the variation in continuance intention of mobile internet users can be explained by perceived usefulness, satisfaction, and cognitive absorption (Jumaan et al., 2020). Perceived usefulness, satisfaction, and confirmation were found to have statistically significant positive effects on the continuous intention to use FinTech services (Jangir et al., 2023). Perceived utility, enjoyment, satisfaction, loyalty, habit, predicted earnings, and capital liquidity are found to have a favourable impact on the continuous intention to use (Liu et al., 2018).

2.2 Background of Content Co-Creation on Social Media

Opinions available to customers can influence the sales of a product or a service. Customers are more inclined to share their experience with other customers when there is greater learning, social integrative, and hedonic benefits (Suryana et al., 2017), mostly using social media platforms and ultimately leads to value addition (Yuliantoro et al., 2019; Sashi, 2012; Arica et al., 2023). Hussain et al., (2021) found that customer satisfaction, emotional brand attachment, and customer brand engagement are all positively impacted by customers' co-creation experiences with restaurant brands. The results of Chen et al., (2017) suggest that users' co-creation value, comprising their hedonic, social integrative, and customer learning values, is enhanced by their knowledge-sharing activity. The proposed model developed is for identifying the factors influencing customers experience sharing on social media is given in Figure 2, based on Uses and Gratification Theory (Nambisan & Baron 2009), which includes personal integrative, altruism, social benefits, economic benefits, hedonic benefits, attitude, habits and willingness to create content. personal integrative benefits include improved credibility, status, and confidence.

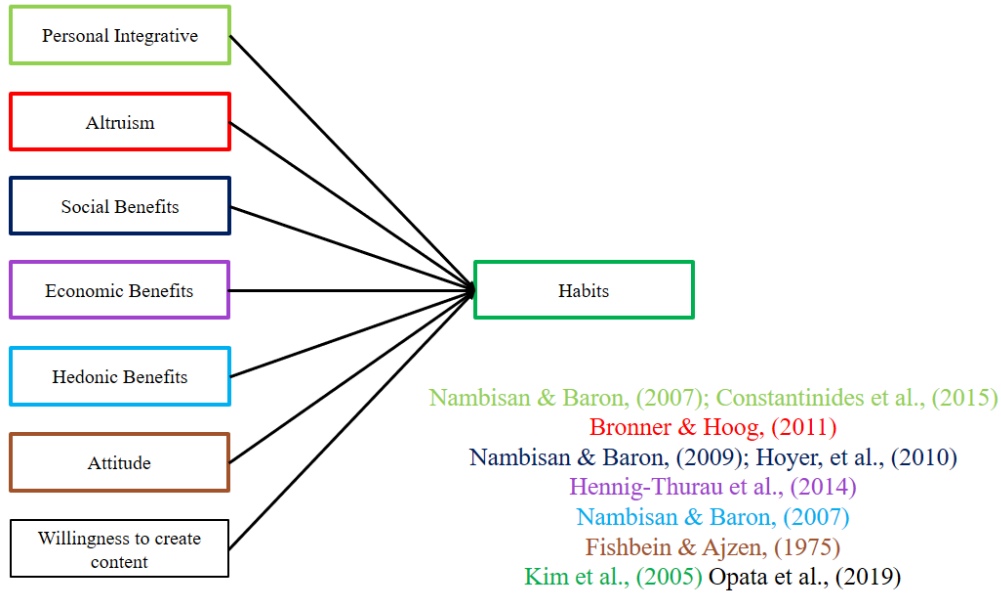


Figure 2: Proposed Model for Sharing Experience on Online Platforms (*Source: Based on various works shown above right to the Model*)

2.2.1 Personal Integrative (PI)

Personal integrative benefits include improved credibility, status, and confidence (Nambisan & Baron 2009), and found to have significant impact on community participation (Wang et al., 2013), because there is substantial correlation between interaction qualities and personal integrative benefits (Yadav & Mahara 2020). Studies also found that customers participate because of the benefits they expect to receive by doing so (Nambisan & Baron; 2009), but found to have some marginal variations in co-creator motivation levels, namely highly motivated and less motivated (Constantinides et al., 2015).

H2(i): “Personal Integrative (PI) has a positive and significant influence towards Habit (HAB)”.

2.2.2 Altruism (ALT)

The ultimate purpose of altruism is to assist others without expecting anything in return or exchange (Hanks et al., 2024), be on social media (Fachrurazi et al., 2023) or other online platforms, altruism is significant factor in e-WOM engagement (Ali et al., 2020), influencing positively (Hanks et al., 2024) and a motivation factor for content co-creation (Bettiga et al., 2018).

H2(ii): “Altruism (ALT) has a positive and significant influence towards Habit (HAB)”.

2.2.3 Social Benefits

Social benefits in this study refer to positive feedback and verbal reinforcement, and social benefits found to be influenced by two factors, namely, individual commitment and knowledge self-efficacy (Al-kumaim et al., 2021), and also found that producing quality user-generated branded video content is significantly increased when extrinsic rewards are offered for content creation.

H2(iii): “Social Benefits (SB) has a positive and significant influence towards Habit (HAB)”.

2.2.4 Economic Benefits

Economic benefits relate to the monetary and non-monetary incentives that users receive for sharing their experiences on social media, which in turn helps in high-quality user-generated branded video content, and also

found to that economic benefits impacts more than social benefits (Poch & Martin 2015), and this has become a way of earning money for people.

H2(iv): “Economic Benefits (EB) has a positive and significant influence towards Habit (HAB)”.

2.2.5 Hedonic Benefits (HB)

The level of enjoyment or pleasure experienced when utilized from experience sharing on social media is referred to as hedonic motivation (Baptista & Oliveira 2015). Technological innovation, user interaction design, and content personalization all had a large and favorable impact on perceived hedonic value (Chen et al., 2022), which positively influence behaviour intension (Baptista & Oliveira 2015).

H2(v): “Hedonic Benefits (HB) has a positive and significant influence towards Habit (HAB)”.

2.2.6 Attitude (ATT)

The degree to which a person has a favourable opinion of the action in issue is known as their attitude toward it, and expressing them on social media, may be positive or negative, but either way it influences buying behaviour (Cheung & To 2016). It has been found that attitude is a primary factor in positive e-WOM intentions and the second largest factor in negative e-WOM (Fu, Ju, and Hsu 2015), where creativity also plays crucial role (Mohd Suki et al., 2023).

H2(vi): “Attitude (ATT) has a positive and significant influence towards Habit (HAB)”.

2.2.7 Willingness to Create Content (WCC)

One way to define consumer willingness is their drive to actively participate in the value co-creation process (Opata et al., 2019), and all three qualities, i.e. enjoyment value, economic value, and relational value positively correlated with customer use also contributes to customer satisfaction with the system (Chen & Wang 2016).

H2(vii): “Willingness to create content (WCC) has a positive and significant influence towards Habit (HAB)”.

2.2.8 Habit (HAB)

The degree to which people instinctively carry out behaviors as a result of earlier learning experience is known as habit (Amoroso & Lim 2017) of sharing their experience on social media platforms (Morosan & DeFranco 2019). Customer satisfaction is mediated by habit and only weakly predicts the continuing intention of incumbent mobile technology users (Amoroso & Lim 2017). The degree of consumer co-creation is influenced by the mobile (m-)commerce habit, which in turn affects the perceived value of co-creation activity (Morosan & DeFranco 2016).

An individual's intention to continue using a software program (in contrast to initial use or acceptance) is what is meant to be understood by continuance intention (Yan 2021; Bhattacharjee 2001). Around Fifty-five percent (55%) of the variation in continuance intention of mobile internet users can be explained by perceived usefulness, satisfaction, and cognitive absorption (Jumaan et al., 2020). Perceived usefulness, satisfaction, and confirmation were found to have statistically significant positive effects on the continuous intention to use FinTech services (Jangir et al., 2023). Perceived utility, enjoyment, satisfaction, loyalty, habit, predicted earnings, and capital liquidity are found to have a favourable impact on the continuous intention to use (Liu et al., 2018).

3 Methodology

To assess the perception about the influencing factors of OTA and also the way customers react while using OTA, a survey was conducted during the period January to March 2024 using a structured questionnaire among 200 respondents from Goa. Convenient sampling using Snowball sampling method was used in the survey. A total of only 63 usable responses were received, response rate being very low 32%. This may be a clear indication about the lack of awareness among investors about OTA, or it may be that very few respondents are actively

involved in online trading activities, and also an indication of the confidentiality aspect where investors reluctant to share any information about their investment activities. But the analysis was completely carried out, both measurement model and structural model and found to be highly reliable having high predictive power.

There were three sections in the questionnaire. First section covered the demographic profiling of the respondents. Second section covered the assessment of various factors influencing the use of OTA by the investors. Around eleven factors were used and a total of 48 statements were included. The eleven factors affecting OTA used for the present study, namely, content quality and confirmation, perceived ease of use and trust, user interface, prompt response, security, perceived usefulness, perceived enjoyment, satisfaction, and continuous intention to use (Roca et al., 2009; Cho et al., 2009; Pe-Than et al., 2014; Oghuma et al., 2016; Kim et al., 2019; Shao et al., 2020; Hadi Putra et al., 2022; Chong et al., 2021; Luo et al., 2023; Johri et al., 2023; Li et al., 2023; M Ayyoub et al., 2023). There were conflicting results among the researchers, same factors were showing both significant and also insignificant results in different locations, but considered all eleven factors for the present study. Third section covered various factors identified by earlier researchers as influencing factor when it comes to posting reactions on social media after using any goods or services, altogether eight factors were considered to find the factors influencing experience sharing on social media (Fu et al., 2015), namely, Personal Integrative (Nambisan & Baron 2007; Constantinides et al., 2015), Altruism (Bronner & Hoog 2011), Social Benefits (Nambisan & Baron 2009; Hoyer et al., 2010), Economic Benefits (Hennig-Thurau et al., 2004), Hedonic Benefits (Nambisan & Baron 2007), Attitude (Hill et al., 1977), Habits and Willingness to Create Content (Morosan & DeFranco 2019; Opata et al., 2019). A total of 18 statements were covered under these eight constructs, with appropriate modification to suit with the location. Section two and three used five point Likert scale, 1 being strongly disagree and 5 being strongly agree.

Using Structural Equation Modelling, collected data was analysed using SmartPLS to find the three basic research questions, namely, (1) who the respondents are and their investment behaviour, (2) what factors influences when it comes to OTA, and also does these leads to satisfaction and ultimately towards continuous usage, and (3) how the customers react on different social media platforms to express their experiences on OTA which leads to developing habit among customers.

4 Data Analysis, Findings, and Discussion

4.1 Who the Customers are

Considering gender (male / female) as the main differentiating attribute, demographic profiling (Table 1), level of awareness about OTA (Table 2), and also their investment behaviour (Table 3, 4, 5, 6) is being analysed and discussed below. In both male and female respondents, Majority of the respondents were youngster's (up to 30 years), highly educated (graduation), bachelor (unmarried), low income per year (less than rupees 50,000 = 600 USD), undergoing education (students) and from one location (North Goa). This is a clear cut example that there is no significant difference about OTA among male and female respondents.

Table I: Demographic profile

Demographic profile		Gender			
		Male [N=27]		Female [N=36]	
		#	%	#	%
Age	Up to 30 years	23	85.19	34	94.44
	Above 30 years	4	14.81	2	5.56
Education	Up to 10th	0	0.00	0	0.00
	Up to 12th	2	7.41	0	0.00
	Graduation	14	51.85	24	66.67
	Post-Graduation	11	40.74	12	33.33
Marital Status	Married	4	14.81	1	2.78
	Bachelor	23	85.19	35	97.22
	Widow	0	0.00	0	0.00
Income	Less than Rs.50,000	20	74.07	35	97.22

	Rs.50,000-1,00,000	6	22.22	0	0.00
	More than Rs.1,00,000	1	3.70	1	2.78
Occupation	Student	12	44.44	26	72.22
	Employed (Govt.)	2	7.41	0	0.00
	Employed (Private)	11	40.74	7	19.44
	Unemployed	2	7.41	3	8.33
	Housewife	0	0.00	0	0.00
Location	North Goa	22	81.48	29	80.56
	South Goa	5	18.52	7	19.44

When it comes to the level of awareness about various OTA available and also the usage of these OTA, result clearly indicated that the respondents are well aware about of almost all the OTA presently operating in India as well as using them also. The top four OTA known to the respondents are Groww App, Zeroda Kite, Upstox App, and ICICI Direct. But when it comes to the usage of OTA, Groww App, Zeroda Kite and Upstox App is in first three position, then position gets changed. Details are given in Table 2.

Table II: Online trading apps known and used by respondents

Trading Apps	Aware		Use	
	#	%	#	%
Groww App	54	12.59	37	37.37
Zeroda Kite	34	7.93	10	10.10
Upstox App	38	8.86	8	8.08
ICICI Direct	28	6.53	2	2.02
Angle One	28	6.53	3	3.03
HDFC Securities Mobile Trading App	27	6.29	6	6.06
Sharekhan	26	6.06	4	4.04
Kotak Stock Trader App	25	5.83	4	4.04
Paytm Money	24	5.59	6	6.06
Axis Direct	22	5.13	1	1.01
Edelweiss	20	4.66	5	5.05
5paisa App	19	4.43	1	1.01
Motilal Oswal Trader App	18	4.20	1	1.01
IIFL Markets Mobile App	14	3.26	1	1.01
m.stock	13	3.03	1	1.01
Dhan	13	3.03	2	2.02
FYERS	10	2.33	4	4.04
AliceBlue App	10	2.33	2	2.02
Choice App	6	1.40	1	1.01

When it comes to their investment behaviour, majority of them are beginners in the trading activities (51% male and 82% females started during the last 2 years only). This indicates the nascent stage of investment activities among the respondents (Table 3). About the usage of OTA, majority of the male respondents (more than 66%) started using for the last 2 years where as females started using during the last six months (more than 58%) (Table 4). The frequency of doing trading using OTA resulted in almost similar response, both male (more than 48%) and female (50%) investors use the OTA one in a month only, yet another indication about nascent stage of investment in trading securities (Table 5). This is again confirmed with the answer to the respondent's

recent transaction, namely, male (more than 37 %) and female (more than 44%) done recent transaction during the last one month only (Table 6). This is an interesting information because gender do not have any influence when it comes to level of awareness and also level of investment activities, indicates the low level of response that investors are new to OTA, making them to be more worried about disclosing any information related to their financing activities. May be in future they get more experienced and will be able to get sufficient responses to make the result more reliable and useable

Table 3: Years of Investing

Years of investment	Gender			
	M	N=27	FM	N=36
	#	%	#	%
←1 year	7	25.93	23	63.89
1-2 years	7	25.93	7	19.44
2-3 years	8	29.63	4	11.11
3-4 years	1	3.70	2	5.56
4-5 years	1	3.70	0	0.00
→ 5 years	3	11.11	0	0.00

Table 4: Duration of Using OTA

Duration of using the app	Gender			
	M	N=27	FM	N=36
	#	%	#	%
← 1 month	2	7.41	8	22.22
1-6 months	3	11.11	13	36.11
7-12months	4	14.81	4	11.11
1-2 years	8	29.63	7	19.44
→ 2 years	10	37.04	4	11.11

Table 5: Transaction Frequency

Transaction Frequency	Gender			
	M	N=27	FM	N=36
	#	%	#	%
Every day	2	7.41	1	2.78
Once a week	7	25.93	5	13.89
Once a month	13	48.15	18	50.00
Once a year	5	18.52	12	33.33

Table 6: Recent Transactions

Recent Transaction	Gender			
	M	N=27	FM	N=36
	#	%	#	%
Today	3	11.11	0	0.00
Yesterday	0	0.00	1	2.78
2-7 days ago	8	29.63	5	13.89
→ a week ago	5	18.52	9	25.00
→ a month ago	10	37.04	16	44.44
→ a year ago	1	3.70	5	13.89

(Source: Primary data)

4.2 What Influences the Customers to Use OTA

4.2.1 Measurement Model

Measurement model (inner modelling) gave the results of various reliability indicators [refer Annexure 1]. To confirm the reliability of the constructs, Cronbach Alpha (CA), Composite Reliability (CR), Average Variance Extracted (AVE) and Discriminant Validity (DV) are obtained, and as suggested by Hair et al., (2011), Cronbach alpha (CA) should be higher than 0.70, Composite Reliability (CR) should be higher than 0.70 and Average Variance Extracted (AVE) should be higher than 0.50. For Discriminant Validity (DV), the Fornell-Larcker test is used. The Fornell-Larcker criterion states that the square root of the AVE for each latent construct should be greater than the correlations of any other latent construct. All DV values are fulfilling the required criteria, a clear indication that the constructs used in the study, are distinct from each other and are measuring unique aspects related to customer's perception towards the usage of OTA in Goa. Results shows that all criterion values fulfill the threshold value, hence suitable for further analysis, structural modelling.

4.2.2 Structural Model

The complex relationships between identified independent variables, namely, UI, CQ, PR, SEC, CON, USE, ENJ, EAU, TRU and the mediating variable SAT and the ultimate resulting dependent variable CI, which are shown in the proposed model in Figure 1 is being analysed using SEM, and the results are shown in Table 7. All the relevant values are used for testing the formulated hypothesis, namely, path coefficients, t-values, p-values, R^2 , Q^2 , F^2 and effect size. Of the eleven constructs, three constructs are having negative path coefficient, namely, User Interface (UI), Content Quality (CQ) and Security (SEC), indicates that the first two have negative impact towards confirmation, and the third one have negative impact towards satisfaction. Rest all have positive impact towards the corresponding dependent constructs.

When it comes to the level of significance, in the *first* stage, Content Quality and Security have significant impact on Confirmation, whereas User Interface and Prompt Response do not have any impact on Confirmation. The reliability aspect was r^2 0.769 (Q^2 0.721), which is considered as high. In the *second* stage, when Confirmation is considered, it does have significant impact on all four constructs, namely, Perceived Usefulness (with r^2 0.614, Q^2 0.670), Perceived Enjoyment (with r^2 0.633, Q^2 0.531), Perceived Ease of Use (with r^2 0.746, Q^2 0.632), and Trust (with r^2 0.650, Q^2 0.624). This result supports $H1(ii)$, $H1(iv)$, $H1(v)$, $H1(vi)$, $H1(vii)$, $H1(viii)$, and do not support $H1(i)$, $H1(iii)$. In the third *stage*, none of the constructs have any impact on Satisfaction, but the r^2 increased to 0.780 (Q^2 0.7562), which is a clear indication of higher reliability and also higher predictive power. The effect size also found to be within the acceptable region. The result shows that the following hypotheses were not supported, namely, $H1(i)$, $H1(iii)$, $H1(ix)$, $H1(x)$, $H1(xi)$, $H1(xii)$, $H1(xiii)$, $H1(xiv)$, $H1(xv)$, $H1(xvi)$, $H1(xvii)$. None of the constructs have any impact on the Satisfaction. In the *fourth* stage, of the three constructs used for assessing the impact on Continuous Intention to Use (CI), only two constructs have significant impact, namely, Satisfaction and Perceived Enjoyment, but Perceived Usefulness do not have any significant impact. But the final resulting r^2 increased to 0.807 and Q^2 remained in a way almost stagnant with 0.558. This is a clear indication of higher reliability and moderate predictive power when it comes to factors influencing customers use of OTA, in a way higher than earlier studies. This led to supporting hypothesis $H1(xviii)$, and $H1(xx)$, but $H1(xix)$ not supported.

F^2 helps us understand the variance in dependent variables due to individual independent variables. Confirmation has a large effect on Perceived Usefulness, Perceived Enjoyment, Perceived Ease of Use, and Trust as the F^2 value exceeds 0.35. Satisfaction also has a large effect on the Continuous intention to use. Security has a medium effect on Confirmation, as the F^2 exceeds 0.15. Similarly, Perceived Enjoyment has a medium effect on Continuous intention to use. Content quality has a small effect on Confirmation and Satisfaction, as F^2 exceeds 0.02. Likewise, Prompt Response, Confirmation, Perceived Usefulness, and Trust have a small effect on Satisfaction. Perceived Usefulness also has a small effect on Continuous intention to use. User Interface and Prompt Response do not affect confirmation. Similarly, User interface, Security, perceived enjoyment, and Perceived Ease of use do not affect Satisfaction

Table 7: Path Coefficients, t-values, p-values, R^2 , Q^2 , F^2 and effect size (Source: Primary data)

Path	β	t	p	Hypothesis	R^2	Q^2	F^2
UI $\rightarrow$ CON	0.090	0.721	0.471	$H1(i)$ Not supported			0.010 [S]
CQ $\rightarrow$ CON	0.350	2.497	0.013*	$H1(ii)$ Supported			0.128 [S]
PR $\rightarrow$ CON	0.009	0.063	0.949	$H1(iii)$ Not supported			0.000 [S]
SEC $\rightarrow$ CON	0.473	2.288	0.022*	$H1(iv)$ Supported	0.769	0.721	0.173 [M]
CON $\rightarrow$ USE	0.784	10.043	0.000*	$H1(v)$ Supported	0.614	0.670	1.592 [L]
CON $\rightarrow$ ENJ	0.796	11.913	0.000*	$H1(vi)$ Supported	0.633	0.531	1.725 [L]
CON $\rightarrow$ EAU	0.864	22.194	0.000*	$H1(vii)$ Supported	0.746	0.632	2.939 [L]
CON $\rightarrow$ TRU	0.806	14.223	0.000*	$H1(viii)$ Supported	0.650	0.624	1.859 [L]
UI $\rightarrow$ SAT	-0.008	0.061	0.952	$H1(ix)$ Not supported			0.000 [S]
CQ $\rightarrow$ SAT	-0.211	1.117	0.264	$H1(x)$ Not supported			0.041 [S]
PR $\rightarrow$ SAT	0.282	1.413	0.158	$H1(xi)$ Not supported			0.095 [S]
SEC $\rightarrow$ SAT	-0.004	0.019	0.985	$H1(xii)$ Not supported			0.000 [S]
CON $\rightarrow$ SAT	0.235	1.441	0.150	$H1(xiii)$ Not supported			0.037 [S]
USE $\rightarrow$ SAT	0.266	1.166	0.244	$H1(xiv)$ Not supported			0.060 [S]

ENJ → SAT	0.027	0.188	0.851	<i>H1(xv)</i> Not supported			0.001 [S]
EAU → SAT	0.059	0.296	0.768	<i>H1(xvi)</i> Not supported			0.002 [S]
TRU → SAT	0.315	1.945	0.052	<i>H1(xvii)</i> Not supported	0.780	0.562	0.110 [S]
SAT → CI	0.519	4.475	0.000*	<i>H1(xviii)</i> Supported			0.445 [S]
USE → CI	0.176	1.295	0.195	<i>H1(xix)</i> Not supported			0.043 [S]
ENJ → CI	0.277	2.419	0.016*	<i>H1(xx)</i> Supported	0.807	0.558	0.151 [S]

4.3 How the Customers React after using OTA and does it leads to Habit ?

4.3.1 Measurement Model

Similar to factors influencing OTA and its continuous use, the factors identified by earlier researchers were used and proposed a new model which tries to see if all these factors leads to developing habit of posting the reactions based on the experience on different social media platforms. The data is being analysed initially for measurement modelling to see the reliability and validity of the constructs and items under each constructs. Then the structural model is applied for identifying the level of significance of each of the constructs towards habit building. The detailed results are given in Annexure 2, and found to have all values within the permissible limits as per Hair et al., (2011), hence applied further analysis to see the impact of various constructs towards developing habit.

4.3.2 Structural Model

The result of the structural model shown in Table 8 shows that of the six constructs tested to see if these constructs leading to developing habit of posting reactions on social media or not. Altruism is the only construct having a negative impact on developing habit. Again Altruism and two more constructs, namely, Economic Benefit and Willingness to Create Content shows significant influence towards forming habit of posting their experiences on social media platforms by customers. This leads to supporting only three hypotheses, namely, H2(ii), H2(iv) and H2(vii). Though only three out of seven constructs have significant influence on developing habit, the values of r^2 (0.828) and Q^2 (0.760) are very high indicating higher reliability and also higher predictive power. The values of F^2 are also ranging between medium to small, which is also a clear indication that the result of the study is quite satisfactory. So the proposed model is considered as an alternative model for assessing the behaviour of customers when it comes to posting their reactions on different social media platforms.

Table 8: Path Coefficients, t-values, p-values, R^2 , Q^2 , F^2 and effect size (*Source*: Primary data)

Path	β	t	p	Hypothesis	R^2	Q^2	F^2
PI → HAB	0.088	0.729	0.466	<i>H2(i)</i> Not supported	0.828	0.760	0.022 [S]
ALT → HAB	-0.128	2.027	0.043*	<i>H2(ii)</i> Supported			0.063 [S]
SB → HAB	0.193	1.324	0.185	<i>H2(iii)</i> Not supported			0.067 [S]
EB → HAB	0.192	1.962	0.050*	<i>H2(iv)</i> Supported			0.089 [S]
HB → HAB	0.229	1.276	0.202	<i>H2(v)</i> Not supported			0.048 [S]
ATT → HAB	0.035	0.202	0.840	<i>H2(vi)</i> Not supported			0.001 [S]
WCC → HAB	0.377	3.044	0.002*	<i>H2(vii)</i> Supported			0.259 [M]

5 Conclusion

Result of the study is provided some interesting information regarding who the customers are, what factors influencing with it comes to using OTA, and how they react on social media as a habit about their experience on OTA. Regarding who the customers are, the sample gave majority female similar to Clarita & Handayani (2023) and Nguyen et al., (2020); mostly youngsters up to 30 years of age similar to Chong et al., (2021), Hermanto & Napitupulu (2023), Eugene et al., (2019), Hadi Putra et al., (2022), and Clarita & Handayani (2023). But the general observation was that gender do not have any impact when it comes to use of OTA, both gender

use OTA equally, but male was found to be more familiar and using it for longer time than females.

Regarding what factors influencing the customers to use the OTA, User Interface (UI) not significant in influencing Confirmation, which is contradicting the result found by Hadi Putra, et al., (2022), and User Interface also not having significant impact on Satisfaction, which is in tune with the result found by Hadi Putra et al., (2022).

About the Content Quality, it has significant impact on Confirmation which is similar to the findings of Park (2020), but Content Quality do not have significant impact on Satisfaction. When it comes to Prompt Response (PR), it has insignificant impact on Confirmation (CON) which is similar to Hadi Putra et al., (2022), and insignificant also on Satisfaction, which contradicts with findings of Hadi Putra et al., (2022). When it comes to Security (SEC), it has significant impact on Confirmation (CON) in line with Hadi Putra et al., (2022), but has insignificant impact on Satisfaction (SAT) similar to Oghuma et al., (2016).

Confirmation (CON) has a significant impact on Perceived Usefulness (USE), Perceived Enjoyment (ENJ), Perceived Ease of Use (EAU) and Trust (TRU) similar to the work of Jumaan et al., (2020), Jangir et al., (2023), Park (2020), Shao et al., (2020), Oghuma et al., (2016), and Hadi Putra et al., (2022). Confirmation (CON) has an insignificant impact on Satisfaction (SAT). This contradicts the studies of Jumaan et al., (2020), Hsu & Lin (2015), Jangir et al., (2023), Shao et al., (2020), and Oghuma et al., (2016).

Perceived Usefulness (USE) has an insignificant impact on Satisfaction (SAT), This is similar to Jumaan et al., (2020) and Gao et al., (2020). Perceived Usefulness (USE) has an insignificant impact on Continuous Intention to use (CI), this contradicts the studies of Jumaan et al., (2020), Jangir et al., (2023), Oghuma et al., (2016) and Hadi Putra et al., (2022).

Perceived Enjoyment (ENJ) has an insignificant impact on Satisfaction (SAT), this contradicts the results of Oghuma et al., (2016) and Hadi Putra et al., (2022). Perceived Enjoyment (PENJ) has a significant impact on Continuous intention to use (CI), this is supported by Oghuma et al., (2016), Hadi Putra et al., (2022). Perceived Ease of Use (EAU) has an insignificant impact on Satisfaction (SAT), this is supported by the results of Nguyen et al., (2020), Gao et al., (2020). Trust (TRU) has an insignificant impact on Satisfaction (SAT), this is contradictory to Hadi Putra et al., (2022), Liu et al., (2018) and Nguyen et al., (2020). Satisfaction (SAT) has a significant relationship with Continuous Intention to use (CI), this is similar to the results found in Jumaan et al., (2020), Jangir et al., (2023), Park (2020), Kim et al., (2019), Hadi Putra et al., (2022), Oghuma et al., (2016), Shao et al., (2020), and Gao et al., (2015).

So the result of the present study is not fully supporting or opposing earlier studies, but gives a new perspective that when the geographical location demographic profile of respondents changes, the result automatically varies and gives some conflicting results, but that is what the purpose of theory development, to see what changes takes place and what can be considered as the crucial factors influencing behaviour of customers.

And about the factors influencing the development of habit among customers when it comes to reacting on different social platforms after experiencing the use of OTA, it was found that only three constructs have significant impact on forming habit, namely, Altruism (ALT), Economic Benefit (EB), and Willingness to Create Content (WCC). Remaining all four constructs were found to be insignificant, but again the reliability and predictive power was found to be very high, making the proposed model suitable for applying in different geographical region having different demographic profile.

6 Future Direction

Content Quality and Security have significant relationship with confirmation. Brokerage Companies should focus more on the content quality of the information they make available to their users. Security is another aspect that users look out for while using online trading apps. Users use their hard-earned money to invest and grow their wealth. If the expectations of the users of online trading apps are met, they will continue to use online trading apps. Confirmation of app quality leads to users finding the apps useful, enjoyable, easy to use, and trustworthy to invest in. The satisfaction of all the factors together leads to a continuous intention to use the apps. If the users are enjoying the experience of using the app, it also leads to a continuous intention to use the app.

Continuous intention has a negative and insignificant influence on habits of content co-creation on social media. This suggests that online trading app users are not so keen on sharing their experience on social media. This might be because users do not want share their experience as it involves their financial dealings and prefer to keep it confidential

7 Theoretical Contribution, Limitation, and Suggestion for Future Research

This study focused on factors influencing users' continuous intention to use online trading apps. The model of Hadi Putra et al., (2022) was modified and enhanced by adding new items to different constructs to suit the problem under study at the location. This study also aimed at investigating factors influencing habits of content co-creation on social media. The new model proposed are based on various constructs identified by earlier scholars but these constructs were used for developing a new model, tested and found to be highly reliable with high predictive power. Future studies should examine this model to gain more insights on this topic.

The study has certain limitations. First is the number of respondents. A questionnaire was distributed to around 200 respondents. Only 63 usable responses were collected due to time constraints. The reason for fewer responses could be the lengthy nature of the questionnaires or respondents not being willing to spend time answering them. Also, the number of users of online trading apps could be lower due to a lack of awareness of stock trading.

Future studies could use this model with a larger sample size to get more clarity on the actual picture of factors influencing the continuous intention to use online trading apps in Goa. Future studies can also focus on particular online trading apps, e.g., Groww App, Zeroda Kite users, etc. This model can also be studied in a different location. The composite model can be used by researchers to gain a better understanding with a larger sample size.

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