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## **THEORY OF PLANNED BEHAVIOUR MODEL -ACT AS BRIDGING THE GAP BETWEEN THE PSYCHOLOGICAL VARIABLE, INTENTION AND ITS INFLUENCE ON ONLINE STOCK TRADING BEHAVIOUR**

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### **Abstract**

The investing industry plays a significant part in investors' lives. An investor will choose to invest in the stock market depending on risk and reward. Mobile technology is an extra advantage of investment. Technology has revolutionised investors' perceptions of investing, and individuals with appropriate technological and financial literacy have dramatically altered the investment industry. An investor manages many portfolios at one time. Mobile technology has changed the investing business, allowing investors and traders to actively trade and manage their portfolios from anywhere in the globe. This study looked at how investors' attitudes, perceived behavioural control, and subjective norms influenced their online stock trading behaviour. The investigation verified attitude, perceived behavioural control, and subjective norms positively influence online stock trading behaviour. This research uniquely integrates the Theory of Planned Behaviour with the transformative role of mobile technology, highlighting how investors' attitudes, perceived behavioural control, and subjective norms collectively shape online stock trading behaviour in a tech-driven environment. It underscores the importance of technological and financial literacy in enhancing investors' active engagement and portfolio management globally.

**Key words:** Attitude, Perceived behavioural control, Subjective Norms, Investment Intention, Online Stock Trading Behaviour

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## INTRODUCTION

In the current situation, information technology, or IT, is important. Individual decision-making has been altered by innovation, technological advancement, and upgrading. The strategic users profit strategically from information technology. The company's competitive edge and sustainability are improved by potential information technology (Malar et al., 2019). Comprehending the technology aspect is a crucial feature that influences the process of making decisions (Taylor & Todd, 1995). Web-based technology offers significant advantages to e-commerce businesses, such as reduced costs (Ahmed et al., 2003), more business prospects, and a reduction in lead time through individualised customer service (Khare, 2010).

The combination of web technology and conventional banking offers the banking industry better service delivery and higher-quality services (Dawes & Rowley, 1998). According to the McKinsey Banking Annual Review study, fintech and digital firms collaborate with big data and analytics to monitor and evaluate risk. The back-office costs are decreased as a result of the digitization process (McKinsey's Global Banking Annual Review | McKinsey, n.d.).

The interaction between the online banking system and mobile devices, where security codes are applied and sent, is one area where information technology plays a major part in online banking services. This relationship improves the services offered in India. Value co-creation benefits from online banking service systems include comfort, flexibility, centralised customer (McKinsey's Global Banking Annual Review | McKinsey, n.d.) support, and efficient information technology. According to Malar et al. (2019), an information technology strategy that effectively enhances value co-creation must have a multi-dimensional focus.

These days, having several sources of income is preferred by people who want to benefit from financial independence, increased security and stability, faster scaling, the ability to work from home, and the opportunity to live the life of their dreams (Entrepreneur, n.d.). All of the information is accessible with only one click for a person. As a result, a person's investment and portfolio will be a crucial factor in determining which alternative to choose.

India will have 750 million smartphone users in 2021 out of 1.2 billion subscribers, according to a Deloitte report research, and the country's smartphone industry is predicted to reach one billion users by 2026 (Smart phone user, n.d.). Demand for

smartphones is predicted to rise as more people use the internet. Telephone customers in India grew from 996.13 (in million) in 2015 to 1200.88 (in million) in 2021, according to Telecom Statistics India 2021. The number of internet subscribers among Indian smartphone users rose from 302.36 (in million) in 2015 to 825.30 (in million) in 2021 Telecom Ministry of Communication, 2021).

The financial industry has completely changed as a result of mobile technology, which enables traders and investors to manage several portfolios and engage in active trading from any location in the globe. According to (Chong et al., 2021), mobile technology has made it easier for investors to research the stock market and offers advantages including speed, transparency, and flexibility while trading stocks online. According to the August 2022 Mode of Trading report, just 9.87% of trading was done online (*Equity Derivatives Internet Trading | Online Trading in India - NSE India*, n.d.). Because internet trading brokers offer lower commissions than traditional investment methods, self-investing trading services are more common (Teo et al., 2004). The TPB is still a reliable paradigm for comprehending and forecasting behaviour in a variety of contexts. To close the intention-behavior gap, it may be improved by incorporating other factors such as risk perception, environmental concerns, and firm reputation (Rhodes et al., 2002). Recently, there has been much advancement and usage of Ajzen's Theory of Planned Behaviour (TPB) to understand and influence a wide range of behaviours. The TPB states that behaviours are driven by behavioural intents, which are influenced by attitudes, subjective standards, and perceived behavioural control. (Ajzen, 1991). Acikgoz et al., comprehensive study from 2023 showed that TPB is a reliable indicator of eating habits. Individuals' intentions to adopt better diets were significantly predicted by their attitudes towards healthy eating, perceptions of behavioural control, and subjective standards. The intention-behavior gap, however, continued to be a significant obstacle. Assist investors in their preference for safe online trading services over conventional ones (Roca et al., 2009). Investors who trade online have a number of advantages, including lower transaction costs and trading transparency (Chong et al., 2021).

There are still gaps in our knowledge of the complete range of factors impacting online stock trading behaviour, notwithstanding recent developments. For example, research must be done on the influence of emotional variables on trading behaviour, such as

enthusiasm and fear. Furthermore, further research is necessary to determine how market volatility and technology improvements affect how behavioural control is seen. Closing these gaps might lead to a more thorough knowledge of the environmental and psychological elements influencing the behaviour of people who trade stocks online (Benítez et al., 2023; Nair et al., 2022; Pandurugan & Al Shammakhi,

2024). This research aims to investigate how the Theory of Planned Behaviour (TPB) explains the intents and behaviours associated with online stock trading, as well as to pinpoint the influences of technical improvements on these intentions and behaviours. The study intends to improve TPB's prediction ability in the context of online stock trading by including these characteristics.



Figure 1: Conceptual Framework

**REVIEW OF LITERATURE**

**Attitude:**

Positive or negative thoughts that influence a person's behaviour are referred to as attitudes (Raut & Das, 2017). One of the key elements that directly affects an investor when they make an internet investment is their attitude (Lee, 2009). The interest in online trading is growing, which is good news for investors (Butler & Peppard, 1998). Technology innovation makes an investor's mindset more feasible in the transaction (Chong et al., 2021). Previous studies have demonstrated that investor confidence has improved greatly as a result of adopting technology changes and having a positive attitude towards online trading (Ajzen & Fishbein, 2000; Chong et al., 2021; Gopi & Ramayah, 2007). The good attitude gained from the cost-effectiveness and time-utility of mobile stock trading is confirmed by Chong et al. (2021). Even though financial education does not help with judgements requiring numerical skills, it does enhance people's knowledge of financial products and attitudes towards making financial decisions. Programs for educating people about money might need to be customized for a particular target and purpose (Jonsson et al., 2017). A key predictor of the relationship between investment and uncertainty is attitude towards risk, which is expressed in the utility function of those who make investment decisions. A disregard for risk skews the impact of other important indicators that forecast how uncertainty will affect investing. (Bo & Sterken,

2007). It is presumed that individuals have different risk attitudes that exist regardless of their financial situation and that these attitudes influence investing behaviour. Risk attitudes are more often thought to be predictive of people's comfort level with different investing strategies and their degree of dissatisfaction with subpar investment results. (Corter & Chen, 2006). Thus, the following hypothesis is constructed as:

H1: Attitude has positive influence on online stock trading Intention.

**Perceived Behavioural Control:**

The idea that one has such personal control over one's behaviour is known as perceived behavioural control. Performance is influenced by the availability of resources and the capacity to regulate the behavioural barrier (J Z E N, 2002). It also takes into consideration the idea of control over people's actions (Hansen et al., 2018). According to a study on investment intention, behavioural control factors have a significant impact on investors' complicated stock purchase decisions (Ibrahim & Arshad, 2018). The availability of resources and technical advancements influences behavioural control (Lau et al., n.d.). The two splits of perceived behavioural control are self-efficacy and the enabling situation. While the latter relates to confidence in one's capacity to do well in a certain situation, the former refers to having access to the resources required to carry out an activity (Chong et al., 2021). According to Chong et al. (2021), Intention and perceived behaviour control

are positively correlated. Thus the following hypothesis is constructed as:

H2: Perceived behavioural control has a positive influence on online stock trading intention.

### Subjective Norms

Subjective norms describe how a person feels about the social pressure or influence that important people, such as family, friends, or peers, have on their choice to eat organic food. Because they represent society norms, attitudes, and beliefs around sustainable and ecologically friendly food choices, these subjective norms can have a significant impact on how someone intends to consume organic food and behaves in that regard (Al-Swidi et al., 2014). According to the theory of planned behaviour, subjective norms are an individual's evaluation of the social norms and expectations around a certain activity. According to Ajzen (1991), these norms show how social influences—like the views of friends, family, and significant others—have an impact on people's intentions to engage in certain behaviours. Subjective norms in exercise behaviour include expectations of others regarding one's exercise behaviour and views about the degree to which important persons support or oppose regular exercise. The practical help, inspiration, and company people receive from their social networks to be physically active is referred to as social support. Subjective norms, on the other hand, centre on the perceived expectations and acceptance of others and reflect views of social pressure or influence from important individuals on exercise behaviour (Rhodes et al., 2002). Subjective norms, as they relate to exercise, include a person's understanding of the expectations and social constraints around their physical activity. According to the integrated approach of the Technology Acceptance Model (TAM) and Theory of Planned Behaviour (TPB) with financial literacy and perceived risk for online trading intention, subjective norms refer to perceived social pressures and expectations from significant others regarding engaging in online trading activities. (Rhodes et al., 2002). Hence the hypothesis is constructed as:

H3: Subjective Norms has a positive impact on online stock trading intention.

### Online Stock trading Intention

The term "online stock trading intention" describes a person's purposeful and organised choice to use

online trading platforms for the purchase and sale of stocks. According to the Theory of Planned Behaviour, this intention is impacted by several variables, including perceived utility, perceived ease of use, financial literacy, attitudes towards risk, social influences, and perceived behavioural control (Gopi & Ramayah, 2007). risk perception in TPB, demonstrating its significant impact on trading intentions and behaviour. This highlights the necessity of incorporating psychological factors like fear and overconfidence into TPB to better predict trading behavior (Li & Zhang, 2023). (*INTERNATIONAL JOURNAL OF CONTEMPORARY BUSINESS RESEARCH*, n.d.) confirmed that perceived ease of use and usefulness of trading platforms significantly affect trading intentions. Incorporating technology acceptance factors into TPB enhances its predictive capability for online trading behaviour. (Li & Zhang (2023) findings suggest that while TPB provides a solid framework for understanding online stock trading intentions, its predictive power can be enhanced by including additional factors such as technology acceptance, social influences, and psychological variables. Hence the hypothesis is constructed as:

H4: Online Stock trading intention has a positive impact on online stock trading behaviour.

### RESEARCH METHODOLOGY

This study aims to identify the ways in which technical advancements impact online stock trading-related intentions and actions, and to explore how the Theory of Planned Behaviour (TPB) impacts the investor's behaviours.

Retail investors that trade online are included in the study's population. A self-reporting questionnaire was used to gather the data, and the snowball sampling technique and purposive sampling were both used. A Google form was used to deliver the questionnaire through the stockbrokers network, and 360 answers were gathered for the study. The information was gathered in January through May of 2024. The demographics of the respondents are as follows: almost 75% of them are men, 64% are between the ages of 31 and 35, 49% are graduates, 58% are salaried, and 69% have invested for five years or more.

The Theory of Planned Behaviour (TPB) was measured in terms of attitude, perceived behavioural control, subjective norms, online stock trading intention of online traders, and its impact on online

stock trading behaviour. This measure was also included in the self-reporting questionnaire that was used to collect the primary data. Stock traders are asked to complete Likert-scale questionnaires, which have response options ranging from strongly disagree (1) to strongly agree (5).

Data dependability has been measured using Cronbach's alpha. SPSS-20 has been used for reliability, correlation analysis, and regression analysis.. The impact of attitude, perceived behavioural control, subjective norms, online stock trading intention of online traders, and its impact on

online stock trading behaviour has been investigated using regression analysis.

**DATA ANALYSIS**

Analysing the theory of planned behaviour model and how it affects online stock trading conduct is the primary goal of the research. To investigate the impact, validity, and connection of on the behaviour of online stock traders, the following analyses were carried out.

**Table No.4.1: Reliability Analysis**

Scale	Items	Cronbach's Alpha (α)
Attitude	4	0.832
Perceived Behavioural Control	3	0.795
Subjective Norms	4	0.749
Online Stock Trading Intention	3	0.733
Online Stock Trading Behavior	5	0.883

Source: Primary source Data

The reliability study revealed that the range of Cronbach's alpha values for all the constructs was 0.733 to 0.883. Every construct shows an alpha point greater than 0.7 (Nunnaly, 1978). This indicates that the research variables with acceptable reliability values and internal consistency were: Online Stock Trading Behaviour (α = 0.883), Subjective Norms (α

= 0.749), Perceived Behavioural Control (α = 0.795), Attitude (α = 0.832), and Online Stock Trading Intention (α = 0.733). A Likert scale with values ranging from 1 (strongly disagree) to 5 (strongly agree) was used to evaluate each item for the constructs.

**Table No. 4.2: Relationship between Attitude, Perceived Behavioural Control, Subjective Norms, Online Stock trading Intention on Online Stock Trading Behaviour**

Variables	Attitude	Perceived Behavioural Control	Subjective Norms	Online Stock Trading Intention	Online Stock Trading Behaviour
Attitude	1				
Perceived Behavioural Control	.761**	1			
Subjective Norms	.725**	.752**	1		
Online Stock Trading Intention	.728**	.781**	.756**	1	
Online Stock Trading Behavior	.832**	.735**	.931**	.846**	1

Source: Primary source data

Online stock trading behavior is certainly related to and Attitude (r=.832), Perceived Behavioural Control(r=.735), Subjective Norms(r=.931) and Online Stock Trading Intention(r=.846) at p<0.05.

The bivariate correlation between the variables shows a significant and positive relationship that explains how attitude, subjective norms, perceived behavioural control, and desire to trade stocks online

all positively affect investors' online stock trading activity. According to the regression model in Table 4.3a, variations in attitude, subjective norms, perceived behavioural control, and online stock trading

intention account for 83.7% (Adjusted R Square 0.837) of the variability in online stock trading behaviour. Meanwhile, the remaining 16.3 per cent was due to other variables which are not included in the objectives of the research study.

**Table No. 4.3a: Determinants of online stock trading behaviour**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.813a	.828	.837	.42233
a. Predictors: (Constant), Theory of Planned Behaviour (attitude, Perceived Behavioural control, subjective Norms and online stock trading intention)				

Source: Primary Data

**Table no.4. 3b: Predictors of Online stock trading behaviour**

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)		.079		.843	.341
		.867				
	<b>Attitude</b>	.947	.085	<b>.841</b>	12.149	<b>.000</b>
	<b>Perceived Behavioural Control</b>	.874	.074	<b>.719</b>	7.631	<b>.000</b>
	<b>Subjective norms</b>	.711	.143	<b>.736</b>	15.143	<b>.000</b>
	<b>Online Stock trading Intention</b>	.834	.089	<b>.987</b>	8.67	<b>.000</b>
a. Dependent Variable: Online stock trading behaviour						

Source: Primary Data

Table 3b presents a comprehensive analysis of the predictors affecting online stock trading behavior. The results reveal significant insights into how individuals' theory of planned behaviour influence their engagement in online stock trading. Attitude emerges as a potent factor, with a substantial unstandardized coefficient of 0.947 and a high standardized coefficient (Beta) of 0.841. This indicates that individuals who find online stock trading beneficial for achieving their financial goals are more inclined to participate in this digital investment activity. An unstandardized coefficient of 0.874 and a beta of 0.719 indicate that perceived behavioural control has a significant influence as well, suggesting that people are more likely to trade stocks online if they believe the technology to be accessible and user-friendly. Moreover, Subjective Norms, with an unstandardized coefficient of 0.711

and a Beta of 0.736, significantly influences online stock trading behavior, suggesting that individuals who believe they can gain tangible advantages from this technology are more inclined to participate. The remarkably low p-values (all < 0.001) further affirm the robustness of these relationships. Overall, these findings underscore the pivotal role of psychological factor and technology in shaping online stock trading behavior, where attitude, perceived behavioural control, subjective norms and online stock trading intention act as crucial drivers for individuals navigating the complex landscape of online financial markets. These results offer valuable insights for financial service providers and policymakers aiming to encourage and facilitate online stock trading, by emphasizing the importance of enhancing technology acceptance through user-friendly interfaces, clear

benefits, and effective communication of the advantages of online trading platforms.

### LIMITATION OF THE RESEARCH

This study offers insightful information on how intentions are shaped and online stock trading activity is influenced by attitude, perceived behavioural control, and subjective standards. Its weakness, meanwhile, is the limited range of psychological factors it takes into account. The research may miss other important elements that might also have a substantial impact on trading behaviour if it just looks at these three factors, such as emotional states, risk tolerance, prior trading experiences, and socioeconomic considerations. Furthermore, the study could not have taken into consideration how dynamic online trading environments are, and how quickly trader intentions and actions can change due to real-time data and market volatility. Self-reported data may not fully reflect individuals' genuine intentions or behaviours, which makes it susceptible to bias. In order to offer a thorough knowledge of the elements influencing online stock trading behaviour, future research should take a wider variety of psychological and environmental aspects into account.

### CONCLUSION

In order to increase participation in online stock trading, this research emphasises how crucial it is for managers to promote positive investor attitudes, improve perceived behavioural control, and take advantage of subjective norms through focused communication and assistance. According to the findings, these psychological elements greatly increase investors' online trading activity, highlighting the necessity of deliberate programmes that improve technology and financial literacy.

The research findings indicate that online stock trading activity was highly influenced by attitude, perceived behavioural control, subjective standards, and intention. This suggests that technological advancements have streamlined daily operations, made financial services easily accessible at an investor's fingertips, and encouraged investing intention and behaviour. This investigation verified the cause of the post-pandemic spike in stock market involvement. Despite this, the study has certain

limitations because it only looked at three factors in order to determine technological acceptability. Furthermore, because the study was limited to the Bangalore area, perceptions and experiences may differ due to regional, cultural, and demographic variations. This suggests that the study's conclusions might not apply to other regions of the nation.

The cross-sectional design of the study, which does not show causality, the sample size of 360, which might not accurately reflect the variety of online stock traders, and the dependence on self-reported data, which may be subject to response bias, are just a few of the study's noteworthy flaws. In order to better understand the psychological variables at work, future research should take into account longitudinal or experimental designs to investigate causal correlations, expand sample sizes and diversity individuals, and combine quantitative data with qualitative insights. Furthermore, examining outside factors such as market dynamics and new technological developments can yield thorough understandings for the banking and technology industries as well as academics.

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