RESEARCH ARTICLE

Factors Influencing the Decision to Use Broker Applications for Stock Trading in Thailand

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Abstract

This study investigates the factors influencing Thai investors' decision to use broker applications for stock trading, focusing on demographic and external factors that may shape user preferences and behaviors. Demographic variables, including age, education, and gender, along with external factors such as brand trust and application quality, were examined to understand how these characteristics impact app adoption in an increasingly competitive digital trading environment. Data were collected through questionnaires administered to 400 investors with experience using broker applications in Thailand. Analytical methods, including descriptive statistics, t-tests, ANOVA, and regression analysis, were employed to identify significant relationships and test hypotheses regarding these influencing factors. These findings provide practical insights for broker companies, indicating that emphasizing application security and building brand credibility are key strategies to attract and retain users across diverse demographic segments. This research adds to the understanding of financial technology adoption by offering an in-depth analysis of user preferences in digital trading applications. The results provide actionable guidance for broker firms, helping them align app features with user expectations, thus enhancing engagement, fostering long-term satisfaction, and encouraging widespread adoption of their services.

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1. Introduction

The increasing adoption of mobile technologies has transformed financial services globally, notably in the realm of stock trading. Broker applications, which offer real-time trading, portfolio management, and market analysis, have become indispensable tools for both new and seasoned investors. In Thailand, the demand for broker applications reflects a growing trend towards digital-first trading solutions, driven by the convenience and accessibility these applications provide. With the rise in retail investors, understanding the factors that influence an investor's choice of broker application has become critical for broker companies. By identifying key decision factors, companies can align their products more closely with user needs, enhancing user retention and satisfaction in an intensely competitive market. Thus, this research

seeks to explore and analyze the demographic and external variables that influence Thai investors' selection of broker applications, providing a framework for companies to meet user expectations better.

Digital transformation in trading has not only introduced more convenient ways for individuals to manage investments but also broadened the accessibility of the stock market, allowing a wider demographic to participate in investment activities[1]. Broker applications appeal to various user segments by providing a self-directed, user-friendly interface that accommodates users with diverse backgrounds, financial goals, and levels of trading experience. However, this diversity poses specific challenges for broker firms, as the expectations and needs of each user can be differentiated, and both demographic and external factors can be analyzed to understand what drives investor preferences.

This study addresses these factors by focusing on age, education, and gender as demographic variables and exploring brand trust and application quality as external influences on broker application selection. Brand trust, a critical factor in financial services, significantly affects user adoption as it enhances the perceived reliability and security of a broker application[2]. Users are more likely to choose applications from reputable brands, particularly in contexts involving financial transactions and sensitive data handling. Application quality, which includes aspects such as usability, performance, and security, also plays a vital role[3]. High-quality applications tend to meet user expectations regarding functionality and responsiveness while offering strong security protocols that address the risks associated with online trading.

To provide a comprehensive framework for understanding these dynamics, this research applies a modified Technology Acceptance Model (TAM), which is widely used in technology adoption studies. TAM posits that perceived ease of use and perceived usefulness are fundamental drivers of technology acceptance[4]. However, since broker applications manage sensitive financial information and facilitate high-stakes transactions, the factors influencing user acceptance may extend beyond ease of use and usefulness. Thus, this study integrates additional constructs relevant to financial technology, namely brand trust and application quality, to offer a more complete understanding of broker app adoption in Thailand. By combining TAM with these fintech-specific factors, this research aims to provide both theoretical insight and practical guidance for the industry.

This study's hypotheses were formulated to examine the relationships between demographic characteristics, brand trust, and application quality in influencing broker application adoption among Thai retail investors. Specifically, it is hypothesized that demographic factors such as age and education significantly affect broker application selection. For example, middle-aged investors, who are mostly employed and have a stable income, are most interested in using broker applications for stock trading. Furthermore, brand trust is hypothesized to positively influence adoption, as trusted brands offer reassurance of data security and reliable service. Application quality, encompassing usability, functionality, and security, is also anticipated to significantly affect broker application choice, as users tend to prefer applications that meet high standards in these areas.

The expected outcomes of this study have practical implications for broker companies seeking to refine their applications to meet user needs better. By understanding user preferences, broker firms can make data-driven adjustments to

application features, prioritize security and trust-building in their marketing efforts, and develop targeted strategies that enhance user engagement across demographic segments. For example, if the results indicate that brand safety and trust are essential to users, firms can emphasize these issues in their product development and promotional efforts. Alternatively, firms can allocate resources to improving the security of their applications to enhance brand credibility and investor trust. This research thus offers broker firms actionable insights to improve user satisfaction and engagement, creating a foundation for sustained growth in the competitive market of digital trading.

In summary, this study provides a detailed examination of the factors influencing Thai investors' choice of broker applications using an expanded TAM framework that incorporates both traditional and financial-specific technology acceptance variables. By analyzing the demographic and external factors that affect user adoption, this research contributes to a deeper understanding of fintech adoption in the context of retail investment. The findings are intended not only to enhance application development but also to support marketing strategies that cater to user expectations, thereby promoting broader adoption and long-term user satisfaction in Thailand's digital trading market.

2. Literature Review

This research aims to study the factors influencing the decision to use a broker application for stock trading. The researchers have collected concepts, theories, and related research to create the following conceptual model.

A. *Rational Choice Theory*

Becker[5] explains human decision-making through Rational Choice Theory, which assumes individuals make rational choices to maximize their personal benefits. In investment contexts, this means investors select assets expected to yield the highest returns given the associated risks. The theory rests on several key principles, e.g., complete information, cost-benefit analysis, and utility maximization. In the context of choosing stockbroker applications, investors will likely consider both the potential financial gains and any inherent risks of using specific apps to enhance their investment outcomes.

B. *Technology Acceptance Model (TAM)*

Davis[4] developed the Technology Acceptance Model (TAM) to explain why people adopt or reject technology. It emphasizes two main factors, i.e., perceived usefulness referring to the degree to which a person believes the technology will improve their task performance, and perceived ease of use referring to the extent to which the technology is seen as easy to use and uncomplicated. This model is frequently applied in studies on information technology acceptance, including organizational computer systems, and has proven effective in predicting technology adoption behavior. For the use of stock broker applications, TAM helps explain user decisions by examining whether users perceive the app as beneficial for investing and easy to use[3].

C. *Related Research*

Several studies have explored factors influencing the use of financial applications, focusing on user satisfaction, technology acceptance, and investment decision-making as follows.

Technology Acceptance and Usage: Numerous studies highlight that ease of use significantly influences technology adoption. Rattanawiboonlap[6] emphasizes that perceived ease of use and usefulness are critical in driving first-time jobbers' acceptance of cryptocurrency trading platforms. Similarly, Sompoa[7] emphasized that streamlined mobile applications for financial transactions enhance adoption due to their simplicity and utility.

Trust and Security: Establishing trust and implementing robust security measures are essential for fostering user confidence. Soonthornvanich[8] found that privacy, security, and ease of transactions in financial applications significantly influence users' decisions to adopt online financial products. Kengatharan[9] corroborated that trustworthiness and financial security as vital factors for investor decision-making in Sri Lanka.

Marketing Mix and User Satisfaction: Research consistently shows the importance of marketing mix elements in driving user satisfaction[10]. Yanapan[11] reported a strong correlation between product quality, pricing, and promotional efforts in financial applications and user satisfaction. Moreover, Bunsong[12] observed that algorithmic trading adoption is closely linked to marketing mix factors such as safety, functionality, and user training.

Accessibility and Financial Literacy: Accessibility to real-time financial information and education is crucial. Nitsawang[13] developed an Android application that integrates comparative fund performance with financial literacy tools, significantly improving user confidence and decision-making capabilities.

Personalization and User Experience: Applications that cater to individual user needs promote long-term usage. Buariew and Nagamatsu[14] demonstrated that tailored broker services, combined with ethical standards, foster trust and encourage sustainable investment strategies.

Demographic Influence and Behavioral Patterns: Demographics such as age, gender, and education shape user preferences and behaviors. Studies by[11] and[8] illustrate that younger investors prefer user-friendly and dynamic applications, while older groups prioritize functionality and risk minimization.

3. Methodology

The researcher collected data using a structured questionnaire designed to measure various demographic characteristics and factors affecting the decision as shown in Figure 1. Each part of the questionnaire was designed with a 5-point Likert scale to assess the respondents' agreement or perception of the relevance of each factor[15]. The questionnaire was divided into two parts, i.e., demographic questionnaires and factors questionnaires. The data were collected from 400 samples using a broker application for stock trading consists of males and females aged 20 years and over[16]. The instrument used in this research was an online questionnaire created via Google Forms[17]. To ensure content validity, three experts reviewed the questionnaire using the Index of Item-Objective Congruence. Besides, the reliability of the entire questionnaire was tested using Cronbach’s Alpha, resulting in a value above 0.70, indicating strong internal

consistency.

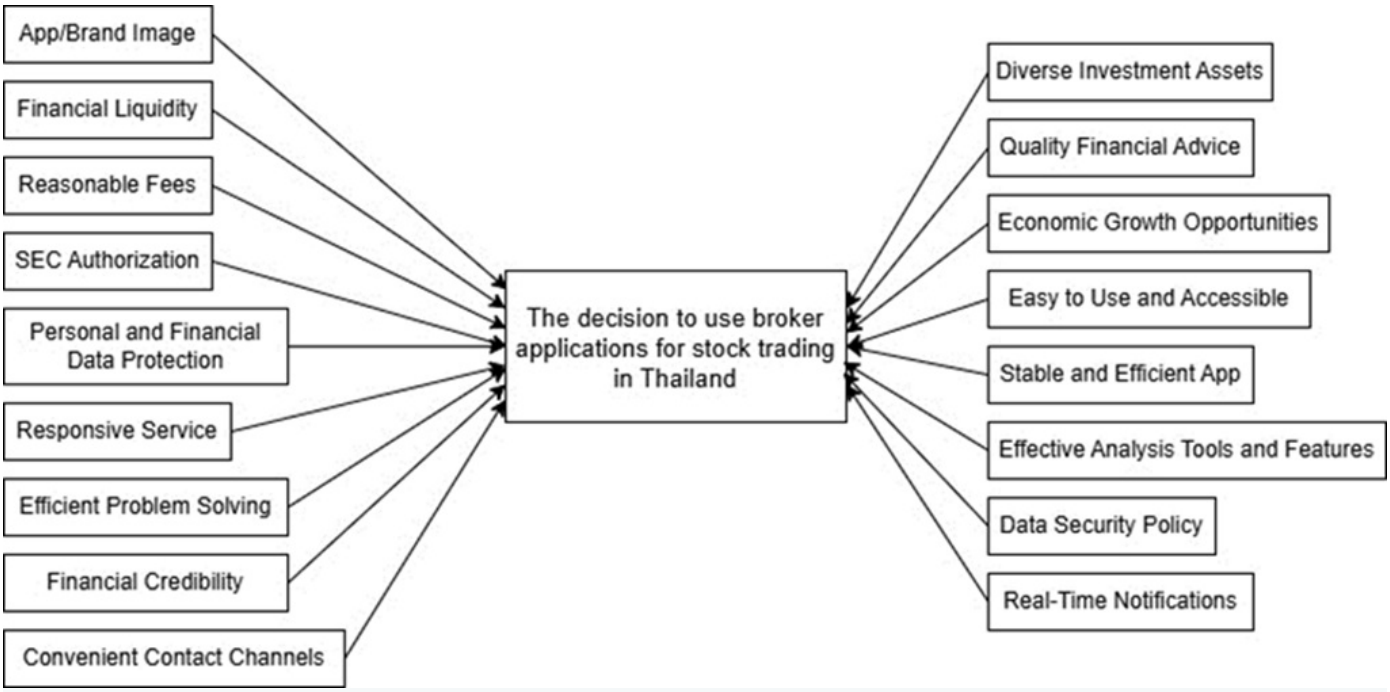

Figure 1. Research Model

4. Results

Demographic data from the sample showed a wide distribution of respondents across various age ranges, education levels, and gender. As shown in Table 1, Most respondents fell within the 31-40 age range, from undergraduate and graduate-educated individuals, as shown in Table 2. This diversity provided a broad perspective on how different demographic groups perceive broker applications.

Table 1. Age Ranges of the Sample Population

Age Range	N	Percent
20 – 30 years old	99	24.75
31 – 40 years old	234	58.50
41 – 50 years old	55	13.75
51 – 60 years old	12	3.00
Total	400	100.00

Table 2. Educational Levels of the Sample Population

Education Levels	N	Percent
Below Bachelor Degree	2	0.50
Bachelor Degree	209	52.25
Master Degree	185	46.25
Doctoral Degree	4	1.00
Total	400	100.00

In the context of brand trust, the most influential factor affecting the decision to use broker applications for stock trading is **personal and financial data protection**. This highlights the critical importance of safeguarding users' personal and financial information to build trust and confidence in the platform. The second most significant factor is **reasonable fees**, emphasizing the role of cost-effectiveness in shaping user preferences and satisfaction, as shown in Table 3.

Table 3. Descriptive Statistics on Brand Trust Factors

Brand Trust Factors	N	Mean	Std. Deviation
1. App/Brand Image	400	4.14	0.62
2. Financial Liquidity	400	4.64	0.51
3. Reasonable Fees	400	4.82	0.39
4. SEC Authorization	400	4.81	0.39
5. Personal and Financial Data Protection	400	4.84	0.37
6. Responsive Service	400	4.31	0.52
7. Efficient Problem Solving	400	4.40	0.49
8. Convenient Contact Channels	400	4.71	0.45
9. Financial Credibility	400	4.79	0.40
10. Diverse Investment Assets	400	4.60	0.52
11. Quality Financial Advice	400	4.73	0.46
12. Economic Growth Opportunities	400	4.81	0.39

Regarding application quality, **data security policy** is the most influential factor affecting the decision to use broker applications. This underscores the necessity of robust security protocols to ensure the safety and privacy of user data, which is vital in fostering confidence in the application, as shown in Table 4.

Table 4. Descriptive Statistics on Application Quality Factors

Application Quality Factors	N	Mean	Std. Deviation
1. Stable and Efficient App	400	4.73	0.45
2. Easy to Use and Accessible	400	4.20	0.54
3. Effective Analysis Tools and Features	400	4.77	0.44
4. Data Security Policy	400	4.85	0.36
5. Real-Time Notifications	400	4.76	0.43

A multiple linear regression analysis examined the factors influencing users' decisions to adopt stock trading applications. The results of the model summary are presented in Table 5.

The correlation coefficient (R) was 0.690, indicating a strong positive relationship between the predictor and dependent variables, the decision to adopt the application. The R^2 value of 0.476 signifies that approximately 47.6% of the variance in users' decisions can be explained by the predictors included in the model. After adjusting for the number of predictors, the adjusted R^2 decreased slightly to 0.453, suggesting that the model remains robust even when accounting for potential overfitting. In addition, the standard error of estimation at 0.260, which is relatively low, also supports the predictive accuracy of the model.

The F-statistic for the model was 20.437, with a p-value of 0.000, indicating that the model is statistically significant at the 95% confidence level ($p < 0.05$). This confirms that the predictors, collectively, have a significant effect on users' decisions to adopt stock trading applications.

Table 5. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F Change	Sig. F Change
1	0.690	0.476	0.453	0.260	20.437	0.000

a. Predictors: (Constant), App/Brand Image, Financial Liquidity, Reasonable Fees, SEC Authorization, Personal and Financial Data Protection, Responsive Service, Efficient Problem Solving, Convenient Contact Channels, Financial Credibility, Diverse Investment Assets, Quality Financial Advice, Economic Growth Opportunities, Stable and Efficient App, Easy to Use and Accessible, Effective Analysis Tools and Features, Data Security Policy, Real-Time Notifications
b. Dependent Variable: Trend to use broker applications for stock trading

The coefficient table in Table 6 provides detailed insights into the regression model, predicting factors influencing users' decisions to use applications for stock trading.

Among the predictors, real-time notifications emerged as the most significant factor, with the highest standardized coefficient ($\beta = 0.450$, $p = 0.000$). This finding reflects users' need for timely and accurate updates to make informed decisions.

SEC Authorization was the second most influential factor (β = 0.372, p = 0.012), emphasizing the critical role of regulatory compliance in fostering user trust and confidence in the platform. The importance of security and adherence to regulations is clearly a decisive factor in users' adoption behavior.

In contrast, several variables, including App/Brand Image, Diverse Investment Assets, and Stable and Efficient App, did not show statistically significant effects (p > 0.05) and were thus rejected from the model as key predictors.

These findings highlight the influence of real-time notifications and SEC Authorization in driving user decisions. While other factors may still play supportive roles, their impact was insignificant in this model.

Table 6. Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Results
		B	Std. Error	Beta			
1	(Constant)	0.729	0.281		2.598	0.010	
	App/Brand Image	-0.021	0.029	-0.037	-0.724	0.469	Rejected
	Financial Liquidity	0.070	0.029	0.102	2.420	0.016	Accepted
	Reasonable Fees	0.090	0.043	0.099	2.116	0.035	Accepted
	SEC Authorization	0.331	0.131	0.372	2.518	0.012	Accepted
	Personal and Financial Data Protection	-0.162	0.157	-0.170	-1.027	0.305	Rejected
	Responsive Service	-0.091	0.050	-0.135	-1.800	0.073	Rejected
	Efficient Problem Solving	0.094	0.049	0.132	1.909	0.057	Rejected
	Convenient Contact Channels	0.035	0.035	0.045	1.013	0.312	Rejected
	Financial Credibility	-0.251	0.129	-0.288	-1.945	0.053	Rejected
	Diverse Investment Assets	0.022	0.032	0.033	0.698	0.486	Rejected
	Quality Financial Advice	0.054	0.033	0.070	1.627	0.105	Rejected
	Economic Growth Opportunities	0.142	0.037	0.158	3.796	0.000	Accepted
	Stable and Efficient App	-0.007	0.034	-0.009	-0.197	0.844	Rejected
	Easy to Use and Accessible	0.044	0.034	0.067	1.293	0.197	Rejected
	Effective Analysis Tools and Features	0.026	0.035	0.032	0.728	0.467	Rejected
	Data Security Policy	0.124	0.160	0.128	0.777	0.438	Rejected
	Real-Time Notifications	0.368	0.037	0.450	9.944	0.000	Accepted

5. Discussions

Analyzing factors influencing broker application adoption among Thai retail investors provides valuable insights into how demographic and external factors shape users' preferences. The findings indicate that age, education, brand trust, and application quality are significant determinants of adoption, while gender does not play a critical role. These insights are crucial for broker firms aiming to tailor their platforms to meet investor expectations and enhance user satisfaction.

Firstly, age emerged as a significant predictor, with the study showing that working-age investors, particularly those between 31 and 40 years old, are more likely to adopt broker applications for stock trading compared to other age groups. This finding aligns with the Technology Acceptance Model (TAM), which emphasizes that individuals with stable incomes and greater technological literacy are more inclined to adopt digital tools for financial management[4]. Additionally, higher levels of education are associated with a greater likelihood of using broker applications. Educated investors tend to seek platforms offering advanced analytical tools, comprehensive research resources, and features that support well-informed decision-making. Interestingly, the results indicate that gender does not significantly influence the choice of broker applications. Both male and female investors prioritize similar criteria when selecting a platform, suggesting that essential features such as security, reliability, and usability are universally valued. This finding supports the development of gender-neutral application designs that appeal to a diverse user base, emphasizing core functional attributes over gender-specific preferences[18].

External factors also play a crucial role in influencing user adoption. Brand trust, in particular, is a key determinant. Investors prefer applications that prioritize privacy protection and demonstrate strong security measures, as these are seen as indicators of reliability. To capitalize on this, broker firms should focus on building a reputable brand through transparent operations, regular security updates, and obtaining certifications that enhance user confidence. Strengthening brand trust can significantly boost adoption rates by reassuring users of the platform's integrity and commitment to safeguarding their financial information. Application quality, encompassing usability, functionality, and security, is another critical factor affecting user preferences. The study underscores the importance of developing high-quality applications that offer intuitive navigation, robust features, and secure environments. These aspects align with TAM's emphasis on ease of use and perceived usefulness, reinforcing the need for firms to prioritize user experience. By maintaining high standards of functionality and security, broker firms can enhance customer satisfaction, foster long-term engagement, and achieve a competitive edge in the market.

The study also found that Real-Time Notifications and SEC Authorization were the most significant factors influencing users' decisions to adopt a broker application. Real-time notifications provide users with timely updates and enable them to make informed investment decisions, highlighting the importance of delivering accurate, up-to-date information. On the other hand, SEC authorization instills confidence in the platform's compliance with regulatory standards, further enhancing its perceived reliability and trustworthiness.

In summary, this study highlights the importance of customizing broker applications to meet the specific needs of investors. By prioritizing brand credibility, maintaining high application quality, and emphasizing critical features such as real-time notifications, broker firms can better meet user expectations and drive continued adoption. Focusing on these elements will not only enhance user satisfaction but also position firms for success in Thailand's competitive digital trading market.

6. Conclusions

These findings offer practical implications for broker companies aiming to increase user engagement. Companies can better meet investor expectations by focusing on brand credibility, application quality, and demographic-specific features. For instance, providing robust security features and premium support can appeal to higher-income investors, while ease of use and innovative designs may attract working-age users. Additionally, offering analytical tools and educational resources enhances the application's value for educated investors, promoting informed decision-making and fostering user loyalty. However, this study has limitations. The convenience sampling approach may restrict the generalizability of the findings, as the sample may not fully represent the broader Thai retail investor population[19]. Furthermore, the cross-sectional design captures only a single point in time, whereas investor preferences may evolve with technological advancements and changing market dynamics[20]. Future research could benefit from a longitudinal approach to capture shifts in investor behavior over time and incorporate qualitative methods, such as interviews, to provide a deeper understanding of user motivations.

In conclusion, this research contributes to the understanding of broker application adoption by providing an in-depth analysis of the demographic and external factors that shape user preferences. The insights generated offer actionable guidance for broker firms, supporting the development of applications that align with user expectations and promoting sustained user satisfaction in the rapidly evolving digital trading market.

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