Factors influencing Working Age's Decision Making in Digital Asset Investments: a study of Fraction Ownership in Thai Property

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Abstract

The research aims to study the factors influencing working-age individuals' decision-making in digital asset investments, focusing on fractional ownership in Thai property. This study is expected to provide valuable insights and serve as a guideline for future investments in Thailand's digital property sector. Data for this study were collected using an online questionnaire, which was distributed to 402 respondents, including 236 experienced investors and 166 inexperienced investors. The data were analyzed using descriptive statistics, and hypothesis testing was performed using inferential statistics. The findings revealed that experienced investors had a higher level of knowledge regarding property asset tokenization than inexperienced investors. Moreover, a positive relationship was observed between knowledge levels and increased awareness of property asset tokenization, particularly among inexperienced investors. Notably, the research also discovered that while experience in investment and awareness of property asset tokenization were important, they did not significantly influence the level of concern about property asset tokenization among respondents. Furthermore, the study examined the impact of the marketing mix factors (7Ps) on property asset tokenization. It was found that the price alignment with the property's location and type directly affected the concerns regarding property asset tokenization. The analysis also showed that experienced investors placed more emphasis on factors such as the location, post-investment value, and potential capital gain when making investment decisions. This indicates that experienced investors are more likely to consider a broader range of factors compared to inexperienced investors, who may be more focused on the fundamental aspects such as awareness and basic knowledge of tokenization.

Introduction

In recent years, Financial and investment are changing very rapidly. The advent of Cryptocurrency, a digital currency uses as medium of exchange on the Internet and can actually bought and sold, just like using cash. For example, Bitcoin has attracted a lot of attention, has become a new trend that the new generation must know, including investors starting to pay

attention and study more about crypto investments. (Hargitay & Yu, 1993) In addition, development of technology has created varieties of investments in the crypto market. the growth of digital currencies has attracted attention worldwide, including in Thailand. The growth of market value has increased. Rise various currencies and investment models through the digital investment that have gained popularity in a short time. (Achor et al., 2017)

Fractional Ownership is a new innovation designed for digital asset investment by using digital token on a blockchain. Investors can invest in property either by joint ownership or Tokenizing in property to share the holding ownership with others. (Gill et al., 2018). Blockchain is a key factor to remain the right of (deed) and the right to stay including receiving other owners' benefits. For this reason, investments are not concentrated only on people with high financial capabilities. Anyone can invest depending on their financial ability. This type of investment can eliminate the limitations of property investing. (Amutha, 2014)

Although the digital asset investment market, including cryptocurrencies and property ownership through tokenization, is rapidly growing and gaining significant attention globally, including in Thailand, there remains a lack of research concerning the factors influencing the decision-making processes of working-age investors in Thailand, particularly regarding investments in property through Fractional Ownership, a new investment model that utilizes blockchain technology to facilitate shared ownership and benefit distribution among multiple investors (Gill et al., 2018). While international studies have highlighted the growth of Fractional Ownership in the property market and the use of blockchain to enhance transparency and security in transactions (Achor et al., 2017; Amutha, 2014), there is insufficient in-depth research in Thailand concerning investment behavior, especially among working-age individuals, who are a crucial demographic for investment. These individuals often face barriers in accessing property investments.

This study aims to fill this gap by examining the factors influencing the investment decisions of working-age individuals in Thailand regarding digital asset and property investments through Fractional Ownership. The findings will provide valuable insights for digital investment platform developers, allowing them to better understand the needs and investment behaviors of their target demographic, and ultimately assist in the development and refinement of investment services within the property market in the future.

Research Objectives

1) To study influencing factors that affect working-age investment decisions in Property asset tokenization between investors and non-investors.

2) To analyze how each factor affects digital property asset investments.

3) To provide guideline for Digital Investment Property platforms about demographic information of Thai investors toward Property asset tokenization.

Literature Review and concepts

Investment means using assets or capital to generate future returns. Investors expect to receive returns higher than the current value and reward for risks or increase rates that may happen during the investment. The decision to invest, the investors have to consider it carefully and study to find significant information as well. To receive the expected return and to reduce the risks that arise from investment.

Investor behavior is determined by internal factors such as beliefs, attitudes, financial literacy, and awareness, as well as external environmental influences such as the media, recommendation from brokers, or friends. Investor awareness and attitude have been a core of understanding investment behavior. A study by Chowdhury and Rozario (2018) found that in the Bangladeshi stock market, increased awareness among investors led to more conservative investment behavior which mean the higher levels of awareness among investors tend to result in more cautious investment decisions, suggesting that informed information is more risk-averse. In contrast, investors with a greater understanding can perceived investment risk are more likely to participate actively in the stock market and showed greater market participation. Similarly, Raut and Kumar (2018) observed that behavioral factors such as overconfidence and judge the beliefs of society significantly influence Indian investors' decisions. The findings suggest that awareness may improve caution, emotional and Induction of thoughts often override rational analysis especially among retail investors in developing markets. In the Bangladesh Stock Exchange found that most investors behave in a way that is inconsistent with their level of knowledge, deciding to invest based on the advice of others without analyzing the information themselves. This agreeably with the research of Gauri Prabhu and Vechalekar (2014) in India, found that demographic factors such as age, income, or marital status not influence the choice of investment as much as behavioral factors, especially biases that affect the perception of investment risks and confidence, as well as investment concerns.

Khan (2016) and Raut et al. (2018) confirmed that financial literacy plays an important role in quality of investors' investment decisions. Those with high knowledge are better able to analyze risks and manage financial plans, while those with low knowledge feel anxious or indecisive when making investment decisions, especially in new markets or complex products such as cryptocurrency or investing through digital platforms. Lusardi & Mitchell (2014) stated that financial literacy is related to the ability to avoid illegal or high-risk investments, specifically among the elderly and young people with low knowledge are tend to fall victim to fraud, which is consistent with the Theory of Planned Behavior (TPB) of Ajzen (1991), explains that individual behavior is determined by "Behavioral intention" is influenced by 3 factors: attitude, subjective norm and perceived behavioral control. In the investment context, this theory can be applied to analyze investor behavior influenced by beliefs, perceived risk, and social pressure. In short, investment concerns.

Kotler & Armstrong (1991) proposed that customer satisfaction and brand confidence affect corporate loyalty and profits. Base on Property, decision making on house or land is a long-

term investment. Thangthong et al. (2020) studied the role of the marketing mix (4Ps) in the decision to buy a house in Kanchanaburi, Thailand. The result found that consumers gave the most importance to product factors, followed by price, promotion, and distribution channels, with no differences according to demographic characteristics.

Blockchain technology has begun to play a role in the investment sector, especially in the form of "Property Tokenization" or process of transforming physical property into digital tokens. Using Smart Contract technology can help ownership fragmentation and enable secondary market trading. An example of this is Security Token Offerings (STO) which are linked to tangible assets. In the book Applied Cryptography and Network Security, 2020, explain how smart contracts are capable of recording pertinent details like location and holding information, and computing the return distribution for each investor correctly. In addition, identity confirmation within the scope of KYC/AML also strengthens the system's overall security while minimizing legal risks. In term of Fractional Ownership is a unique and complex investment product that requires an inclusive marketing strategy to effectively communicate its value, manage customer expectations, and simplify transactions. The 7Ps of marketing provide a structured framework to design, promote, and deliver fractional ownership offerings successfully.

Therefore, investors and interested parties need to thoroughly study the investment approaches and understand methods to support their decision-making. The property business sector needs to understand the target groups and also monitor developments as well as technology and legal advancements in other countries to adapt to the current situation. It is necessary to accommodate the use of technology for fundraising and business operations related to Fractional Ownership. A conceptual framework developed from previous research as follows: Figure 1
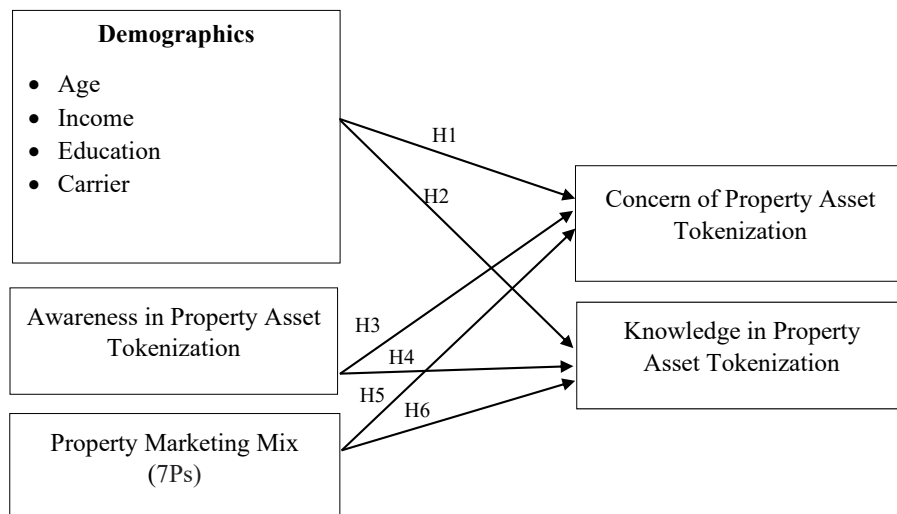
Figure 1 Research Conceptual Framework

Research Methodology
Research Design

This study adopts a quantitative research design to examine the factors influencing the decision-making of working-age individuals in digital asset investments, specifically focusing on fractional ownership in Thai property. The research design involves the collection of primary data using an online questionnaire, followed by statistical analysis to test the formulated hypotheses. The data collected will provide insights into the impact of various factors such as experience, knowledge, and marketing mix on the decision-making process of Thai working-age investors.

Population and Sample

The target population for this research consists of working-age individuals in Thailand, aged 15 to 59, as per the 2020 Population Projections of Thailand compiled by the Office of the National Economic and Social Development Council, with an estimated total of 43.26 million working-age individuals. Given the large population size, Yamane's method (1976) was applied to calculate the appropriate sample size with a confidence level of 95% and a margin of error of 5%. This calculation determined the sample size required for the study to be 402 respondents. Out of the 402 respondents, 236 were experienced investors, and 166 were inexperienced investors, providing a balanced representation of the two groups. The participants were selected randomly to ensure a broad and unbiased sample from the working-age population.

Research Instruments

This research uses online questionnaires to collect data. Working Age's data collecting, uses a one-short descriptive study by picking groups of samples from random sampling. Include closed-ended and open-ended questions to gather information. With six parts which are demographic, awareness, investment trend, marketing ingredient factors, concerns, and suggestions.

Part1: There are questions about demographic behaviors that are personal information of the subject group. Using multiple choices in questions.

Part 2: In this part, there are two topics about basic knowledge of tokenization (K) and awareness (A) in Fractional Ownership with Close-Ended question, all of the positive questions are divided into 2 categories which are known/ aren't known about this information.

Part 3: There are two questions about investment decision trends in property investing. Using multiple choices in questions. (Respondents can select more than one choice.)

Part 4: The questions about factors affecting owned property investment in the marketing mix. Using a 5-level estimation (Rating Scale) to rate how important each marketing ingredient factor makes respondents give great importance to choosing to invest in property.

Part 5: Questions are about the level of concern in transition to Tokenization Asset Investment (Fractional Ownership), Rating Scale with level estimation (Strongly concern/Neutral/ Not concern).

Part 6: It is an open space for respondents able to give suggestions or comments to explain their point of view about topic research.

Data Collection

The data collection process consists of the following steps:

1. Designing the Questionnaire: The questionnaire was developed with six sections that focus on different aspects of the research objectives, including demographic information, awareness, investment trends, marketing mix factors, concerns, and suggestions.

2. Sampling Method: Data was collected using random sampling to select respondents. This method ensures that the sample is representative of the working-age population, making the research findings applicable to the entire population. The study used a one-shot descriptive study design, meaning data was collected at one point in time.

3. Questionnaire Structure: The questionnaire included both closed-ended and open-ended questions. The closed-ended questions had multiple-choice options, rating scales, and Likert scales to convert responses into quantitative data. The open-ended questions allowed respondents to provide more detailed responses, which helped gather deeper qualitative insights.

4. Online Survey Platform: Google Forms was used as the online platform for distributing the questionnaire. This platform facilitated easy access, distribution, and data collection, allowing respondents to complete the survey at their convenience.

5. Data Verification: After data collection, the responses were checked for completeness and consistency. Incomplete or inconsistent responses were reviewed and may have been excluded from the final analysis.

6. Data Analysis: Once data collection was completed, the responses were analyzed using statistical tools to identify patterns, relationships, and key insights related to the research questions.

Data Analysis

The data analysis process would involve the following steps

1. Data Cleaning and Preparation: Before analysis, it is essential to clean and organize the collected data. This includes removing any incomplete, inconsistent, or incorrect responses and ensuring that the data is formatted properly for analysis.

2. Descriptive Statistics: Descriptive statistics provide a summary of the data, such as mean, median, mode, frequency, and standard deviation. This helps to understand the central tendency, variability, and overall distribution of the responses. It. allows researchers to get an overview of the data and to identify patterns or trends.

3. Data Coding: For open-ended questions, responses will be coded into categories or themes to allow for easier analysis. This process helps in transforming qualitative data into quantifiable categories, making it easier to analyze and compare.

4. Statistical Analysis: Depending on the type of data collected and the research questions, various statistical tests can be applied, such as:

4.1 Regression Analysis: To identify relationships between variables and determine the strength and direction of these relationships.

4.2 Correlation Analysis: To measure the degree of association between two variables.

4.3 ANOVA (Analysis of Variance): To compare means across different groups and check if there are significant differences.

4.4 Chi-Square Test: To analyze the relationship between categorical variables.

5. Interpretation of Results: Once the statistical analysis is complete, the results will be interpreted in light of the research questions and objectives. This step helps to identify key findings and insights that can be used to answer the research questions or test the hypotheses.

6. Visualization: Data visualizations, such as graphs, charts, and tables, will be used to present the findings clearly and effectively. These visual tools help to communicate complex data in a simple and easy-to-understand manner.

7. Drawing Conclusions: Based on the analysis, conclusions will be drawn regarding the research questions or hypotheses. This may include confirming or rejecting the hypotheses, providing insights into the behavior or preferences of the target population, and identifying trends or correlations.

8. Reporting: The final step in data analysis is to report the findings in a clear, structured, and coherent way. This includes discussing the implications of the results, limitations of the study, and suggesting areas for future research.

Research Results

Objectives: 1) To study influencing factors that affect working-age investment decisions in Property asset tokenization between investors and non-investors.

The factors influencing the investment decisions of working-age individuals in property asset tokenization for investors revealed that demographic characteristics, awareness of property asset tokenization, and the property marketing mix (7Ps) significantly impacted their investment decisions. In contrast, the factors influencing the investment decisions of working-age individuals in property asset tokenization for non-investors indicated that demographic characteristics, awareness of property asset tokenization, and the property marketing mix (7Ps) did not significantly affect their investment decisions.

Objectives: 2) To analyze how each factor affects digital property asset investments.

The study explored how demographic factors and investment experience influence concerns and knowledge related to property asset tokenization. Although overall results rejected the null hypothesis indicating that demographics and experience affect concerns investment experience alone was not statistically significant in predicting concern levels when assessed in multivariate regression.

Despite this, descriptive statistics revealed that experienced investors reported higher concern levels compared to inexperienced investors. This pattern suggests that experienced investors may approach tokenized property investments with more caution, potentially due to their deeper understanding of investment risks and structures. Knowledge levels about digital tokens and blockchain technology were significantly higher among experienced investors, particularly those aged 21–30 and those with postgraduate or doctoral degrees. Knowledge was

positively associated with age, education, and income, with the highest knowledge scores reported by respondents under 30 years old, earning over 100,000 baht monthly, and holding advanced degrees.

However, awareness of property asset tokenization was not significantly linked to concern levels, suggesting that being aware of the concept does not necessarily lead to greater or lesser concern. Interestingly, while awareness positively influenced investment behavior in both groups, the effect was more pronounced among inexperienced investors. This indicates that investment experience moderates the relationship between marketing influences and investor attitudes. A significant positive relationship was found between knowledge of property asset tokenization and perceptions of the property marketing mix (7Ps), suggesting that more informed individuals are more responsive to marketing strategies in this context

Objectives: 3) To provide guideline for Digital Investment Property platforms about demographic information of Thai investors toward Property asset tokenization.

The approach to providing demographic information of Thai investors regarding property asset tokenization for digital investment property platforms can be structured as follows:

1) Education and Training: Develop comprehensive online educational programs or workshops to enhance understanding of property asset tokenization, particularly for individuals with limited investment experience. Offer clear and accessible explanations of the fundamental principles of property tokenization and blockchain technology to ensure accessibility for a broad range of investors.

2) Marketing Strategy: Tailor marketing strategies (7Ps) to the specific demographic profiles of investors, considering factors such as age, educational background, and income level. Emphasize the availability of low-risk investment opportunities in property asset tokenization that offer stable returns, particularly targeted at investors who may be unfamiliar with digital asset investments.

3) Segmentation Based on Demographic Factors: Segment investors by demographic factors such as age, education, income, and investment experience to provide tailored and relevant information to each group. Conduct detailed analysis of the specific needs, concerns, and preferences of each demographic segment to improve platform responsiveness and user experience.

4) Building Trust and Confidence: Focus on fostering trust in property asset tokenization by offering transparent and credible information regarding the investment process, supported by endorsements or certifications from authoritative bodies. Present case studies of successful investors in property asset tokenization to enhance credibility and demonstrate the viability and potential benefits of such investments.

5) Surveying Investment Interests and Behaviors: Employ surveys and market research techniques to gain a deeper understanding of the attitudes, concerns, and investment behaviors of various demographic groups. This data will enable the platform to refine its strategies and better meet the needs of its investor base.

Research Discussion

Objectives: 1) To study influencing factors that affect working-age investment decisions in Property asset tokenization between investors and non-investors.

The results of the study indicated that the factors influencing investment decisions in property asset tokenization among working-age investors include demographic characteristics, awareness of property asset tokenization, and the property marketing mix (7Ps), which significantly impacted their investment decisions. In contrast, for the non-investor group, these factors did not significantly affect their investment decisions. This can be explained by the fact that experienced investors possess a greater level of knowledge and understanding regarding property asset tokenization, making them more likely to be influenced by these factors compared to those without such experience. These findings align with existing research on digital asset investment behavior, such as the study by Alam & Binsardi (2020), which found that knowledge of digital assets significantly influenced investment decisions in cryptocurrency, emphasizing the crucial role of awareness among experienced investors. Furthermore, the research by Zohar & Hacohen (2018) corroborates that property asset tokenization affects investment decisions in digital real estate, consistent with the results observed among the group of experienced investors as opposed to the non-investor group.

Objectives: 2) To analyze how each factor affects digital property asset investments.

The study found that demographic factors and investment experience significantly influenced concerns and knowledge about property asset tokenization. Although investment experience was not a significant predictor of concern levels in multivariate regression, experienced investors reported higher concern levels, likely due to their deeper understanding of investment risks. Knowledge of digital tokens and blockchain technology was higher among experienced investors, particularly those aged 21–30 and those with advanced degrees. Knowledge was positively correlated with age, education, and income, with the highest scores observed in individuals under 30, earning over 100,000 baht monthly. While awareness of property asset tokenization was not strongly linked to concern levels, it positively influenced investment behavior, especially among inexperienced investors. This suggests that investment experience moderates the relationship between awareness and investor attitudes. Additionally, a significant positive relationship was found between knowledge of property asset tokenization and perceptions of the property marketing mix (7Ps), indicating that those with more knowledge about property asset tokenization respond more effectively to marketing strategies in this context. These findings are consistent with various studies, such as Liu & Zhang (2019), which found that investor knowledge has a significant impact on decisions to invest in digital assets, and Gomber & Kauffman (2020), which highlighted the role of blockchain knowledge in digital asset investment decisions. These studies support the findings of the present research, emphasizing the importance of knowledge in property asset tokenization in influencing investment decisions among experienced investors.

Objectives: 3) To provide guideline for Digital Investment Property platforms about demographic information of Thai investors toward Property asset tokenization.

To provide guidelines for digital investment property platforms regarding demographic information of Thai investors in property asset tokenization, it is essential to develop online programs to enhance knowledge about property tokenization and tailor marketing strategies based on demographic factors such as age, education, and income. Segmenting investors by demographic characteristics will ensure that information is appropriate for each group. Additionally, transparent information should be provided, supported by certifications from trusted authorities, and surveys should be used to understand investors' interests and behaviors in order to refine strategies that better meet their needs. Several studies support this approach, such as Pereira & Oliveira (2020), which found that education and training in digital assets increase the likelihood of investment in property tokenization, and Liu & Zhang (2019), which emphasizes using appropriate marketing strategies based on demographic factors to enhance responsiveness to investor needs. Furthermore, Yao & Wang (2021) confirmed the importance of providing transparent information and certification from trusted authorities to build investor trust in digital assets. These studies highlight the importance of developing educational programs, adjusting marketing strategies based on demographics, and building trust in property asset tokenization, which will help digital investment platforms effectively meet the needs of investors.

Research suggestions

The research can contribute to empowering working-age individuals in Thailand to make informed decisions and capitalize on opportunities in digital asset investments, particularly Fractional Ownership in Property. For example, create educational programs or materials aimed at working-age individuals to increase awareness and understanding of digital asset investments, particularly Fractional Ownership in Thai Property. These initiatives could include seminars, workshops, online courses, or informational resources accessible through digital platforms and design digital investment platforms tailored to the needs and preferences of working-age investors in Thailand. Consider incorporating user-friendly interfaces, educational resources, and tools for fractional ownership investment in property assets to enhance accessibility and engagement.

Additionally, Foster collaboration and knowledge sharing among industry stakeholders, including investors, developers, regulators, and academia. Facilitate forums, conferences, or networking events where insights, best practices, and lessons learned can be exchanged to foster a supportive ecosystem for digital asset investments. And it is relatively helpful for researchers who might be interested in studying the digital asset to observe the patterns of research: research structure, questionnaires, and analysis, to use to benefit their own research in the future.

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