

**Factors influencing Investment Decision and Behaviors of Thai
Mutual Funds Investors**

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**An Independent Study Submitted in Partial Fulfillment of the
Requirements
for the Degree of Master of Arts in Business and Managerial Economics
Field of Study of Business and Managerial Economics
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ปัจจัยที่มีผลต่อการตัดสินใจลงทุนและพฤติกรรมของนักลงทุนในกองทุนรวมไทย



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Mutual fund is are one of investment vehicle that capture attention for many reasons such as the increase in number of mutual fund investor, the increase in types of mutual fund, the behavior of investor and the change in technology and media. It is important for asset management companies to continue to attract new investors and understand the difference investment behavior of investors. In order to describe their behavior and explain influencing factors on their investment decision, this study use Chi-square test, as well as Ordinary least squared method. From the sample size of 281 observations, I find 178 of the respondents invest in mutual fund and 103 of the respondents do not invest. While lacking of knowledge in mutual fund investment is the reason for those non-mutual fund investors, the main purpose for those who invest is for capital gain. The difference characteristics between mutual fund investor and non-investor are education, income, and investment experience. The result from the least squared analysis, show the positive significant relationship between frequency of trading and income, investment experience and primary information source while age, education, old information source and environment factors shows the negative significant relationship. When using the average holding as dependent variables, only investment experience has the positive significant relationship while primary information has a negative significant relationship.



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1. INTRODUCTION

Thai interest rate had decreased to the historic lowest at 0.25% in November 2020 (Bank of Thailand, 2020). This event causes the Thai saving deposit interest rate to be between 0.1% and 0.25% per year on the average. In addition, inflation rate is also increasing and causes to the real value of money to be lower. From the decrease in saving deposit interest rate and increase in inflation, the return from putting money in saving account is closed to zero. The others way to receive more return is to invest in financial market, such as equity, mutual fund, bond and others. Bank of Thailand (2020) showed that at the end of 2019 Thai people preferred to save their money in saving account almost 41% followed by equity 19%, mutual fund 13%, insurance 11%, provident fund 10.6%, bond 4.7% and others 0.7%

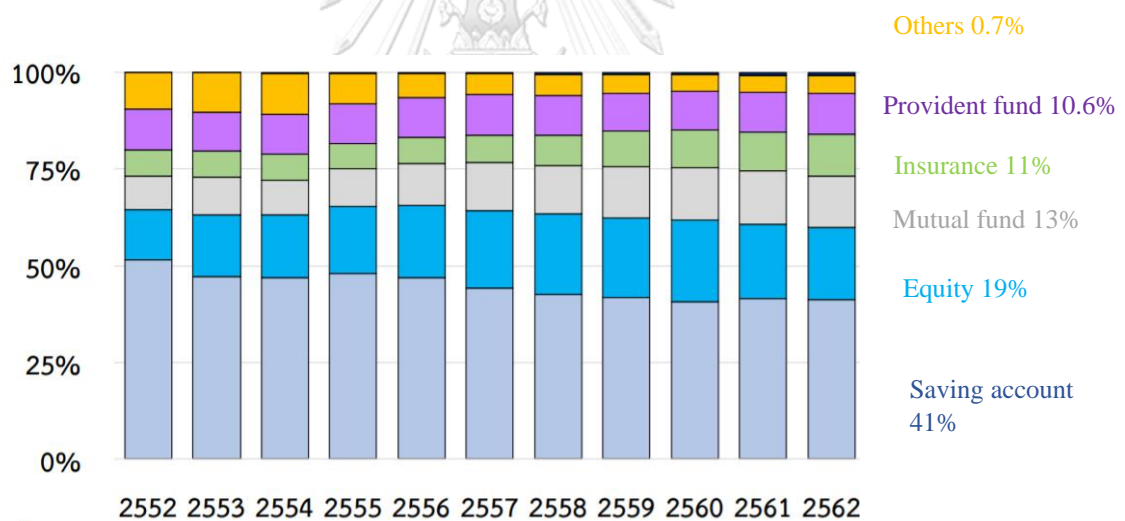


Figure 1: Outstanding financial asset of Thai households since year 2009 to 2019

From figure 1, we can see that mutual fund is the one of popular “investment” vehicle. This is because that investor can invest small amount of money, which will be pooled with other investors, and asset management company use this pool of fund to invest in many types of financial assets. The return on mutual fund investment is not only to get the capital gain and dividend, but sometime also to get the tax benefits. Moreover, it is easier and less complicate to buy or sell mutual fund comparing to the

past. Mutual fund investor can make transaction over the internet, application on mobile phone or buy via mutual fund agent.

In fact, Mutual fund is the easiest channel to invest for investor who do not have knowledge and do not have time.

We can see that the number of Thai mutual fund investors is increasing. The number of accounts was only 537,676 in 2001 and increased to 7,137,521 accounts at the end of 2019, a significantly average increase of 16.5% per year.

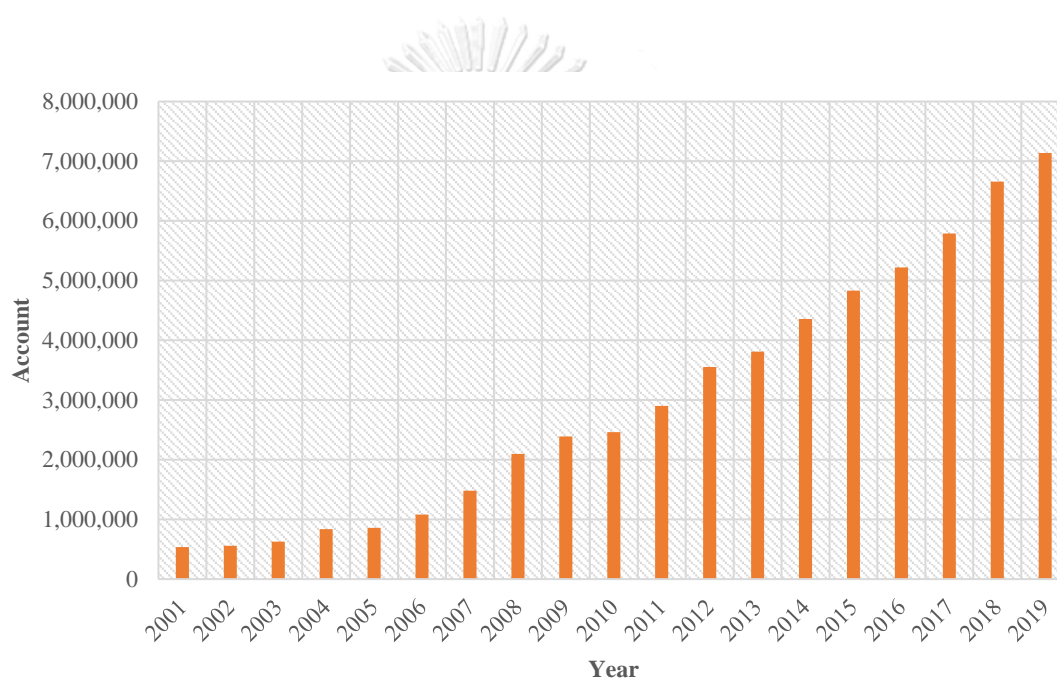


Figure 2: Total of Mutual Fund Account Since 2001 to 2019 (AIMC, 2020)

In term of the size is also increasing. The total asset of Thai mutual fund only was 1,607,309 million baht in 2001 while at the end of 2019, the total asset of Thai mutual fund was more than 16,747,455 million baht and accounted more than 45% of 2019 Thailand Gross Domestic Product.

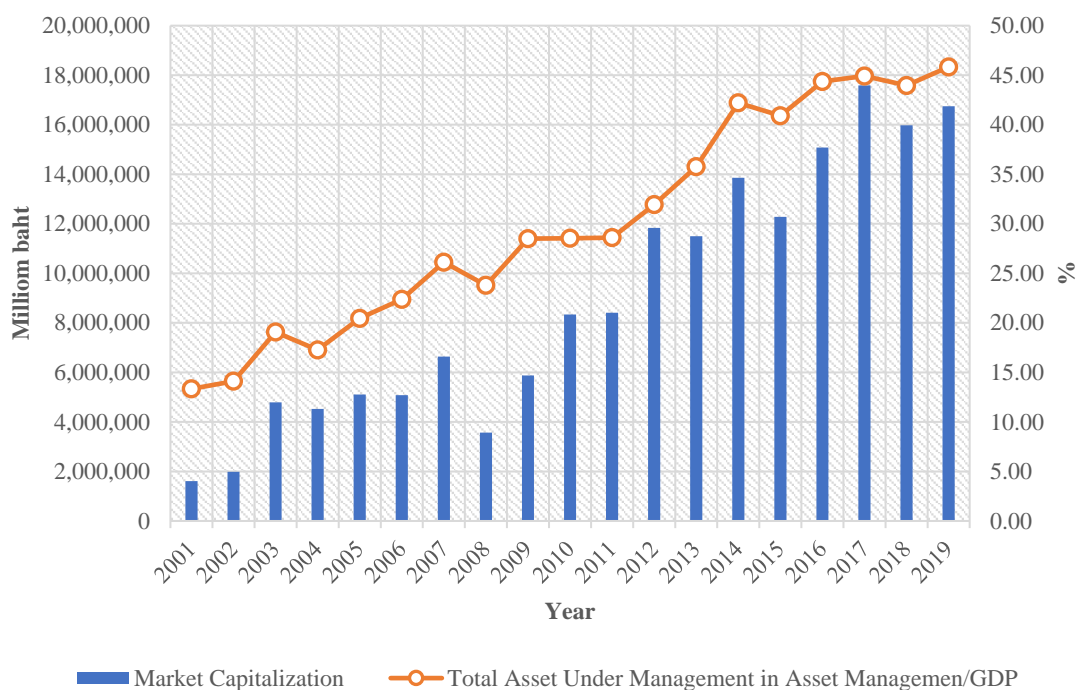


Figure 3: Total Asset Under Management in Asset Management Industry to Market Capitalization and GDP (AIMC, 2020)

For more than a decade, the role of Thai mutual fund investment has been one of important financial investment in Thailand, especially in channelizing the savings of individuals into the investment in equity and other financial assets. Moreover, mutual fund as an investment vehicle is capturing the attention for many reasons such as the increase in number of mutual fund investor, the increase in types of mutual fund, the behavior of investor and the change in technology and media that deserves an in -depth study.

This paper aims to study and understand the behavior and factors influencing Thai mutual fund investors. The results of this study will have implications for asset management company to concentrate and develop on investment product and policy for and increase the number of investors.

1.1 Object of the Study

There are two main objectives of this paper. The first is to attempt to find the characteristics differences between mutual fund investor and non-mutual fund investor. The characteristics are based on demographics factors and will be used to explain why investor does not invest in mutual funds.

Second, this paper attempts to investigate the behavior of mutual fund investor by focusing on more detail factors such as demographics, asset characteristics, sources of information and environment.



2. LITERATURE REVIEWS

From several previous studies on investment behavior, there are many factors that can influence investor's decision and behavior. Shafi and Mohammad (2014) found various factors influencing investors' behavior and can be grouped into demographic, economic, social and psychological. This is similar to Baker and Wurgler (2007) that found investment decisions of individual investor are influenced by factors such as psychological biases and demographics factors.

2.1 Investment Decision

Kristine, Stefan, Will and Zanna (2013) found the economics behavior in retail financial market which can be explain that when people make a decision, they have two modes of thought. First is the intuition and second is reasoning

Intuition	Reasoning
Fast	Slow
Automatics	Deliberately controlled
Effortless	Demanding
Associative	Serial, rule governed
Difficult to control or modify	Flexible

Table 1: Two modes of Thought (Dambe, Hunt, Iscenko and Brambley 2013)

From table above, when making a decision, people use both systematic intuition and reasoning, but their reasoning often just "accepts" the answers that their intuition processes providing (Dambe, Hunt, Iscenko and Brambley 2013). Most of the choices that people make every day are primarily based on these quick, automatic, intuitive processes. While intuition is efficient for performing many complicated tasks, it is not always rights. When making the decision, the biases can arise when making intuitive processes and lead people to make mistake in systematic and predictable ways. Especially in financial market, most investor tend to quickly make decision before by using the reasoning process to analyze the information or data.

Moreover, biases can affect investor's choices in financial markets because of the complex of financial product, too much information, and sometime many financial decisions require assessing risk. There is also uncertainty from persuasion and social influence biases.

Persuasion and social influences bias are found when emotions and norms in social interactions become important. Investor may allow themselves to be persuaded by trust the sales person, or advertising because they come across as 'likeable' and therefore trustworthy. Examples of these biases are investors follow suggestion from family and friends, social media, and advertising when making investment decision without giving thought about the trustworthy.

2.2 Demographics Factors

The demographics factors in most of studies are gender, age, education, income occupation and experience.

For gender, several studied found the different behavior between male and female especially in level of risk-taking. Grable and John (1997) and Peggy, Gilkson and List (2002) found that male tend to take more risk than female. They found that U.S males' investor were proportionately more risk-taking than females, but the impact of gender on risk taking is significantly weakened when investor has more knowledge on financial markets and investments. This is similar to Sashikala and Siva (2010) and Bhavani, Ganga, and Khyati (2017) that found Indian male investors to be more risk taking and aggressive than female. They found risk-taking behavior depends on age, gender and investment experience. Moreover, Engstrom (2007) found that Swedish female investors prefer to invest in low-fee funds whereas investor with higher education and more experience in financial markets invest in higher-fee funds and also found that male exhibit a more return-chasing behavior than female

Several studies found that education, income, and experience have a positive significance relationship to mutual fund investment decision. Alexander, Jones and Nigro (1998) and Bailey, Kumar and Ng (2011) found that U.S. investors with higher

income, higher educational level, and greater investment experience are more likely to invest in mutual funds compare to equity. Similar to the case of Indian, Das, Mohanty and Shil (2008) and Bhavani and Shetty (2017) found that Indian investor with the professional level degree in education tend to invest more in mutual fund than other financial assets. On the contrary, Akbar and Mona (2016) found that the demographic factors include gender, age, income and experience were not significant in the Islamabad investor decision, only education was significant.

Apart from decision making, there are many studies that found the relationship between demographic factors and frequency of trading. Graham, John Campbell, Harvey and Hai (2009) found that male investors, an investor with larger portfolios and high education are more likely to have high trading frequency compared to female investors. Similarly, Hui (2009) found that age and incomes had a significant positive influence on trading behavior. As investor become older and have higher income, they tend to trade more frequency.

Regarding the objectives of investment, Das, Sangeeta and Nikhil Chandra Shi (2008), Raj, Selva and Bala (2011), Agarwa (2017) and Arathy, Nair, Sai and R (2015) found that most of Indian investors are looking for the capital gain, followed by tax benefits and liquidity

2.3 Asset Characteristic Factors

Asset characteristics is the one of factors that can influence and motivate individual investor to invest especially the past performance, rating, brand and advertising.

Regarding the past performance and rating, Gerrans (2004) found that most of Australian investors used fund ratings or performance-based rankings especially Morningstar rating when making decision to invest in mutual fund. David, Li, Rossi and Song (2019) found that U.S investors primarily followed external ratings (Morningstar) and the past returns when choosing mutual funds. Barber, Odean, and Zheng, (2000) and Palmiter, Alan and Ahmed (2008) found that investors always bought mutual funds with strong past performance or had high ranking past year

returns. In addition, they also found that investors were sensitive to the fund expenses, high transaction fees and high fund management.

In term of brand and advertising, Das, Sangeeta and Nikhil (2008) found that brand image of the mutual funds was highly related to decision making of Indian investor. Similar to Gallaher, Kaniel and Starks (2015) and Korkeamaki, Puttonen, and Smythe (2007) found that fund advertising had significant effects on number of investors that tended to invest in highly advertising funds compared to non-advertised fund.

2.4 Sources of Information Factor

At the present, it is easy for investors to find and access information on the internet or social media comparing to the traditionally form of investment consulting. Information is one of influencing factors that affect investment decision especially for individual investor investment. Chandra and Kumar (2012) found that Indian investors followed fundamentals data and prefer information that were easily adjustable when making investment decision.

Lin and Qihua (2002) found that U.S investor use the internet as source of information when making investment decision. Moreover, Ismail and Shakerin (2018) found that the information on online social media had significant impact on investment decision for Malaysian investors. Tan, Wee-Kheng and Yu-Jie Tan (2012) also found that Taiwanese investors search information on online and offline social networks, but found that online communities played a limited role in investment decision of Taiwanese investor.

Information can come from people such as family, friends and investment consulting as well. Raj, Selva and Bala. (2011) found that for Indian investor, friend's suggestions and investment consulting recommendation were the importance sources of information when making investment decision similar to Palmiter Alan and Ahmed (2008) in the case of U.S investor. Akbar, Salman, Mughual, Mehmood and Makarevic (2016) found that most of Pakistan investors did not make a rational decision on the basis of accounting information, and many times their decisions

depend on the recommendations of investment consultant, colleague, friends and family.

Moreover, there are several studies that found the positive significant relationship between information factors and trading behavior (measured by trading frequency). Shanmughamand Ramya (2012) found that social interactions and media had positive relationship with attitude towards the trading frequency behavior of Indian individual investors. This is similar to Abreu and Mendes (2012) that found the strong positive relationship between investment information and intensity of trading in financial assets. Tauni, Fang and Lqbal (2016) found that source of information used by investors such as suggestion from investment consulting and professional financial advice was likely to increase trading frequency, while Adhikari (2018) found that word-of mouth communication and specialized press had a significant positive impact on trading frequency.

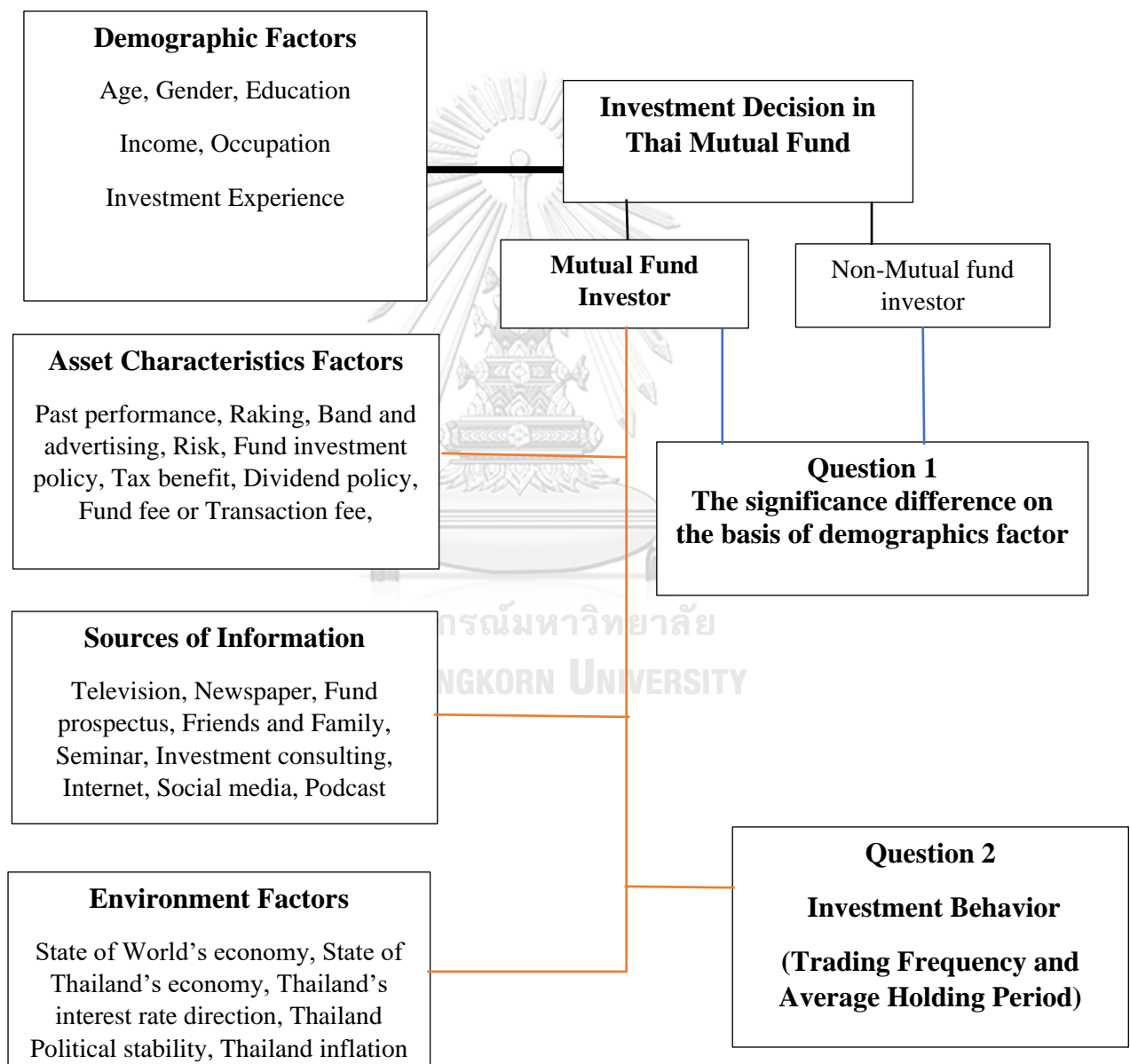
Another source of information are television and newspaper. Das, Sangeeta and Nikhil (2008) and Rakesh (2014) found that the major source of information for Indian individual investor was the newspapers and magazines, whereas a few get information directly from company.

2.5 Environment Factors

Environments factors are the unavoidable factors that affect all individual investor. Macroeconomic situation such as state of economy, interest rate and political stability can influence investor and their decision making. Nofsinger and John (2001) had studied the investment behavior of individual investors on firm specific news in Wall Street Journal and macro-economic announcements, and found that investors increase their investment when there was news about firm earnings, dividend report and economic news. Savor, Pavel, and Mungo (2013) found that U.S investors required higher expected returns on risky assets as a compensation for bearing risks associated with macroeconomic news about inflation, unemployment, and interest rates announcement. Amromin and Sharpe (2014) found that the subjective expectations of both risk and returns on equity were strongly influenced by perceptions of economic conditions from U.S investor.

2.6 Conceptual Framework

Based on the studied literature, the conceptual framework is based on the demographics factor of individual investor, asset characteristic factors, source of information factors and environment factors that can influence to investor investment decision and how these factors affect the trading behavior, which measured by trading frequency and average holding period.



3. RESEARCH METHODOLOGY

3.1 Data Collection and Description

This study uses primary survey data that distributed to Thai investor and collected between 3 February to 27 February 2021.

The questionnaires are made up of three main parts: demographic information, investment behavior and five-likert scale questions regarding the factor influencing investment decision on mutual fund and investment behavior. The five scales are the strongly disagree, disagree, neutral, agree, and strongly agree. The main methods of this study are the distribution comparison between mutual fund investor and non-mutual fund investor and the regression analysis to examine the investors behaviors.

The following table shows the descriptive statistics from the 281 respondents

Data descriptive of respondents.

Variables		Frequency	Percentage
Gender	Male	111	39.5
	Female	170	60.5
Age	20 - 30 year	204	72.6
	31 - 40 year	65	23.1
	41 - 50 year	7	2.5
	More than 50 year	5	1.8
Education Level	High School	2	0.7
	Diploma	2	0.7
	Bachelor	182	64.8
	Graduate Degree (Master or PhD)	95	33.8
Occupation	Private employee	204	72.6
	Government employee	28	10
	Business owner	21	7.5
	Freelance	5	1.8
	Housewife	3	1.1
	Student	4	1.4
	Other	16	5.6

Variables	Frequency	Percentage	Variables
Monthly Income	Less than 15,000	9	3.2
	15,001 – 30,000	99	35.2
	30,001- 50,000	74	26.3
	50,001 – 70,000	44	15.7
	70,001-100,000	27	9.6
	More than 100,000	28	10
Investment Experience	Less than 1 year	67	23.8
	1-3 years	64	22.8
	3-5 year	58	20.6
	More than 5 year	92	32.7
Total		281	100

Table 2: Data descriptive of respondents

From the survey data, 60.5% of the respondents are females and 39.5% of the respondent are males. 72.6% of respondent are age between 20 – 30 followed by 31 – 40. Bachelor degree are the highest education of respondent, followed by master degree or Ph.D. Most of respondent are private employee, followed by government employee and the rest of respondent are business owner, freelance, housewife, student and others. Most of respondent have monthly income between 15,001 – 30,000 followed by 30,001-50,000 baht per month. 32.7% of respondents have investment experience more than 5 year, followed less than 1 year.

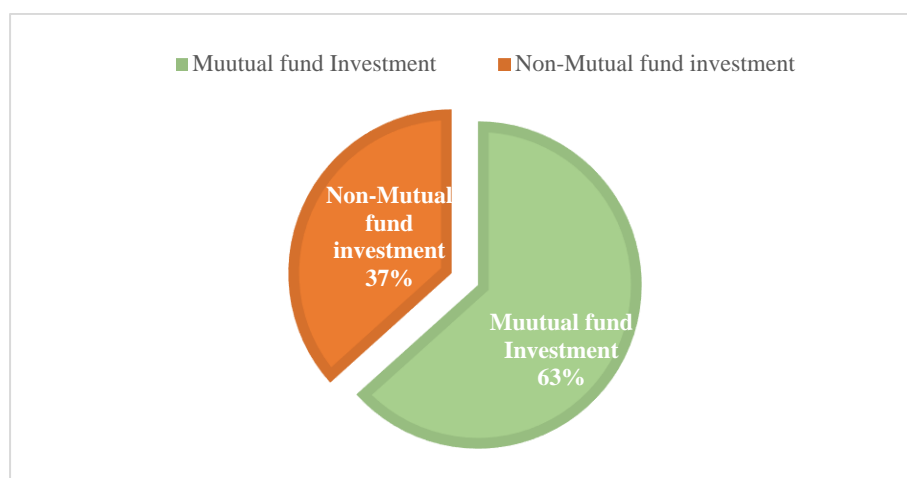


Figure 4: Proportion of mutual fund investor and non-mutual fund investors

One hundred and seventy-eight respondents are mutual fund investor, which made up 63.3% of the total respondents while 103 respondents or 36.7% of respondent are not invest in mutual fund by the most reason is lack of knowledge in mutual fund investment, followed by lack of capital for investment

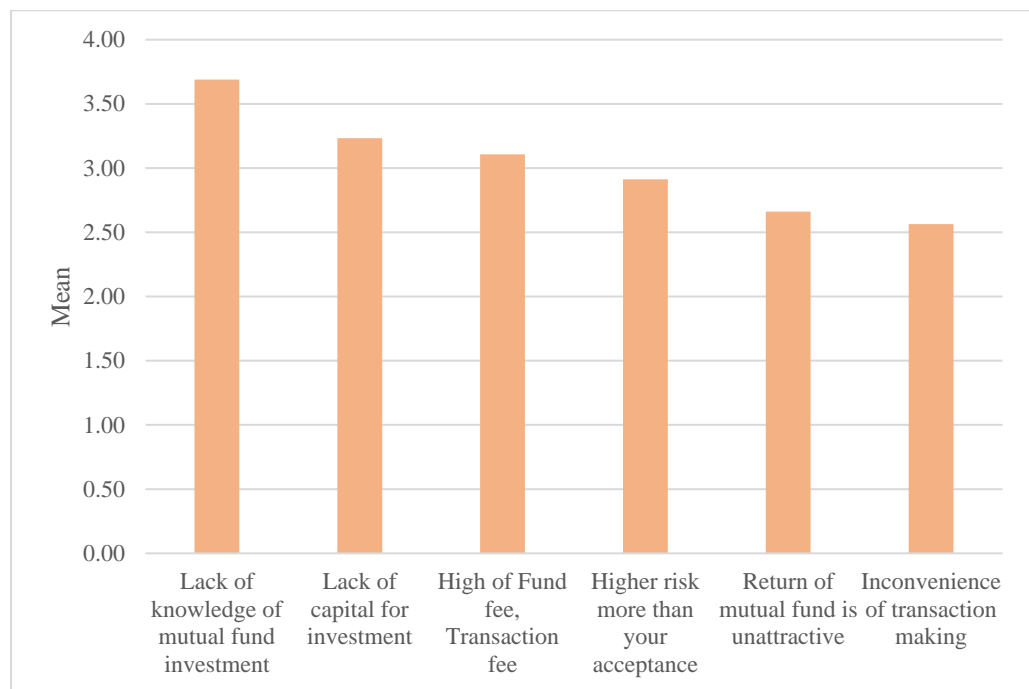


Figure 5: Reason for non- mutual fund investment

While the of objective of mutual fund investment of respondent is capital gain, followed by dividend and the least is tax benefit.

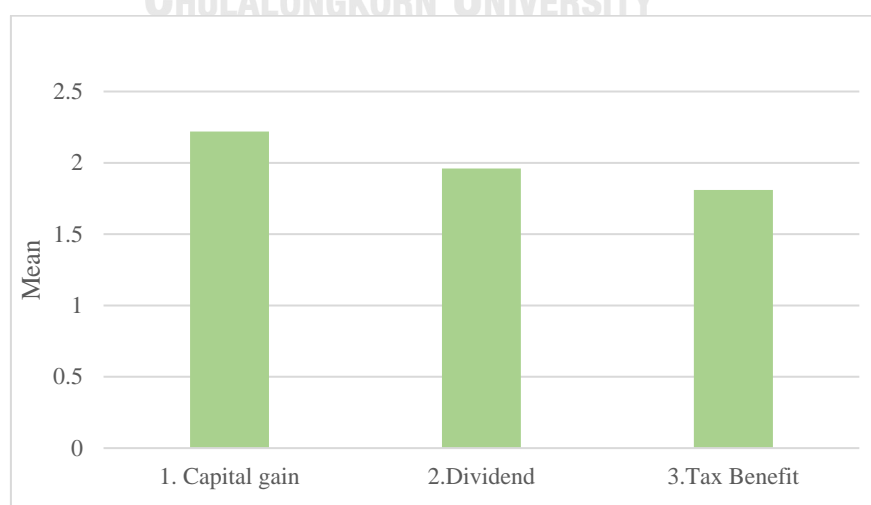


Figure 6: Objective of Mutual fund investment

The average frequency of mutual fund trading of respondent is 7 times per year and average time of holding normal mutual fund excluding special fund (RTF, LMF, SSF) is 4 years.

Variable	Mean
Frequency of your trading in your mutual funds	6.78
Average time of your holding period in normal mutual funds	3.62

Table 3: Frequency of trading and Average holding period

Asset characteristics of mutual fund that respondents are giving importance is fund investment policy as the most, followed by past performance of fund and name of asset management company.

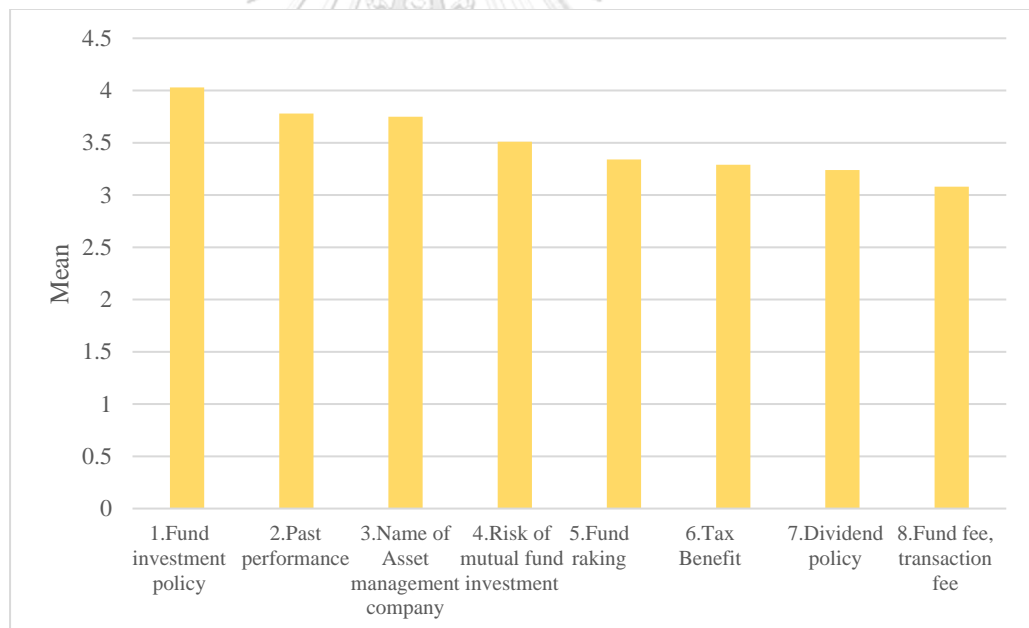


Figure 7: Asset characteristics Factors

Source of information that influences respondent to invest in mutual fund or investor mostly used and giving importance is investment website (such as Thai mutual fund, Morning star, AIMC), followed by Social media (such as Facebook,

Twitter, Online- communities) and Podcast Chanel (such as Finomena, Money every day and The Standard podcast)

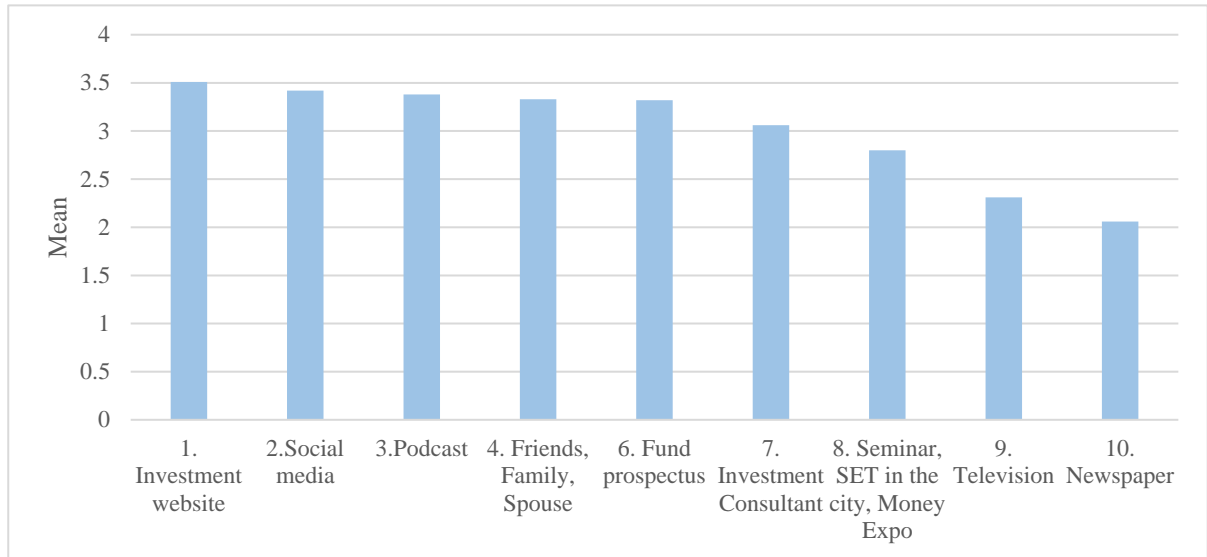


Figure 8: Sources of Information Factor

For environment factor, the state of Thailand’s economy is the most influence to respondent to invest in mutual fund or mostly considered, followed by the state of world’s economy and Thailand’s interest rate direction.

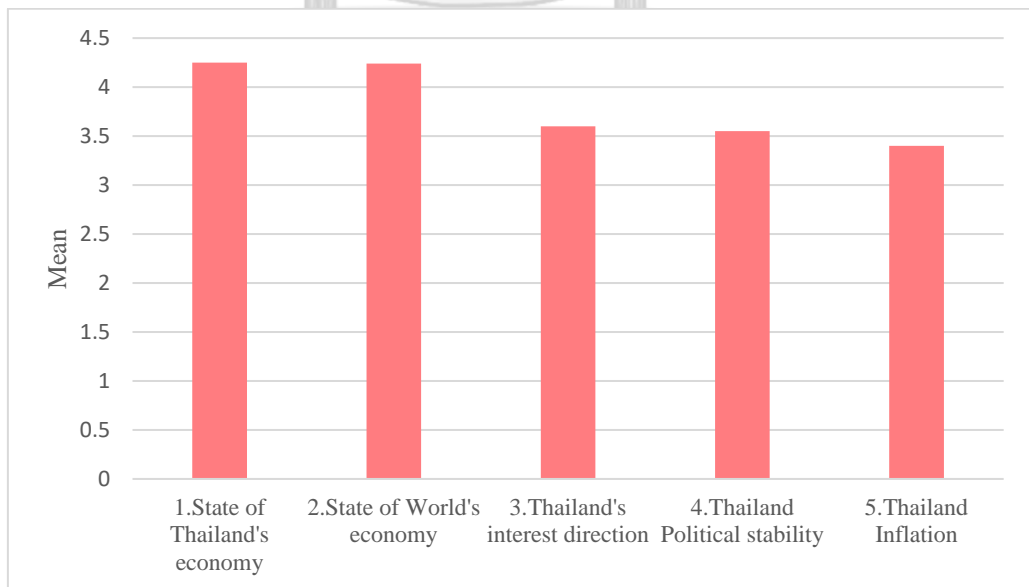


Figure 9: Environment factors

3.2 Methodology and Econometric Models

To find the differences in term of the demographics factor between mutual fund investor and non-mutual fund investors. I use Chi-square to test the distribution of observations different across categories. The null hypothesis (H_0) is that the observed frequencies between mutual fund investor and non-mutual fund investor are the same. If the observed and expected frequencies are the same, then $\chi^2 = 0$. If the observed frequencies are different from expected frequencies, the value of χ^2 increase. The larger the value of χ^2 , the more likely it is that the distributions are significantly different. Thus, the hypotheses are the following

H_0 : There is no significant difference between mutual fund investor and non-mutual fund investors based on age, gender, education, income, and investment experience.

H_1 : There exists a significant difference between mutual fund investor and non-mutual fund investors based on age, gender, education, income, and investment experience.

To investigate the influence of factors on frequency of trading and average holding period, I use the ordinary least square method. There are two models considered in this paper.

The first model, explain the relationship between trading frequency of mutual fund investor under and demographic, asset characteristics, sources of information and environment. The standard model from this is:

$$\text{Model 1, } \textit{Frequency} = \beta_0 + \beta_1\textit{GEN} + \beta_2\textit{AGE} + \beta_3\textit{EDU} + \beta_4\textit{INCOME} + \beta_5\textit{EXP} + \beta_6\textit{PER} + \beta_7\textit{RISK} + \beta_8\textit{FEE} + \beta_9\textit{POLI} + \beta_{10}\textit{BEN} + \beta_{11}\textit{BRAND} + \beta_{12}\textit{PERSON} + \beta_{13}\textit{PRIM} + \beta_{14}\textit{OLD} + \beta_{15}\textit{SOCIAL} + \beta_{16}\textit{ENVI} + \varepsilon +$$

The second model is the that shows the relationship between average holding period of mutual fund investor and demographic, asset characteristics, sources of information and environment.

$$\text{Model 2, Holding} = \beta_0 + \beta_1\text{GEN} + \beta_2\text{AGE} + \beta_3\text{EDU} + \beta_4\text{INCOME} + \beta_5\text{EXP} + \beta_6\text{PER} + \beta_7\text{RISK} + \beta_8\text{FEE} + \beta_9\text{POLI} + \beta_{10}\text{BEN} + \beta_{11}\text{BRAND} + \beta_{12}\text{PERSON} + \beta_{13}\text{PRIM} + \beta_{14}\text{OLD} + \beta_{15}\text{SOCIAL} + \beta_{16}\text{ENVI} + \varepsilon$$

The independent variables are demographics, asset characteristic, sources of information and environment factors.

For demographics factors can be explained as follow. The “GEN” and “AGE” are referred to gender and age of the respondents that they were filling in the survey. “EDU” refers to the highest education level of the respondents. “INC” is referred their average monthly income and “EXP” is referred to investment experience of respondent

For asset characteristics that can influence investor on investment decision and investment behavior are classified into six variables, which are PER, RISK, FEE, POLI, BEN, and BRAND. “PER” are referred to performance which are grouped together with past performance and fund raking. “RISK” is the risk of mutual fund investment. “FEE” is mutual fund fee including fund fee, fund management fee and transaction fee. “POLI” are referred to investment policy of mutual fund. “BEN” are referred to benefit of fund are grouped together with tax benefit and dividend policy which investor can receives when invest in mutual fund. “BRAND” is referred to name of asset company.

For source of information factor is classified into four variables which are PERSON, PRIM, OLD, and SOCIAL. “PERSON” is referred to information from friends, family, spouse and investment consultant. PRIM” is referred to primary information that investor can get without any opinion or bias from another people, for example fund prospectus and investment websites (Thai mutual fund, Morning star, AIMC). “OLD” is referred to information from old media or channel such as newspaper, television and seminar. “SOCIAL” is referred to information from social

media platform that can communicate with each other (such as Facebook Fanpage, Twitter, Blogs, Pantip and Podcast)

Environment or “ENVI” are referred to the unavoidable factor that can affect investor especially is macroeconomic situation such as the state of world's economy, state of Thailand's economy, Thailand's interest direction, Thailand Political stability and Thailand Inflation.

Variables	Stand for	Factor types
Frequency	The frequency trading in a year of mutual fund investor	Dependent Variable
Holding	Average holding period of mutual fund	
1. GEN 2. AGE 3. EDU 4. INCOME 5. EXP	Gender Age Highest education level Monthly income Investment experience	Demographic
6. PER 7. RISK 8. FEE 9. POLI 10. BEN 11. BRAND	Performance data of fund Rick of mutual fund investment Fund fee, transaction fee Fund policy Fund benefit Branding of fund	Asset Characteristics
12. PERSON 13. PRIM 14. OLD 15. SOCIAL	Personal source Primary source Old source Social media source	Source of Information
16. EN	Environment	Environment factors

Table 4: Variables Description

4. RESULT AND DISCUSSION

The first part is to test the significance difference in characteristics between mutual fund investor and non-mutual fund investor and the second part will be discussing about the results from two regression models.

4.1 The Significance Difference between Mutual fund investor and Mon-mutual fund investor

Education

Types	Education				Total	Pearson Chi-Square Sig.
	High School	Diploma	Bachelor	Master or PhD		
Mutual fund investment	1 0.6%	1 0.6%	98 55.1%	78 43.8%	178 100%	0.00
Non-mutual fund investment	1 0.1%	1 0.1 %	84 81.6%	17 16.5%	103 100%	
Total	2 0.7%	2 0.7%	182 64.8%	95 33.8%	281 100.0%	

Table 5: Significance difference between education level and mutual fund, non-mutual fund investor

Table 5 shows 64.8% of respondents have the bachelor degree and 33.8% have master or PhD degree. The result of Chi-Square test shows that there is a significant difference in level of education between mutual fund investor and non-mutual fund investors at the 5%.

Income

Types	Income						Total	Pearson Chi- Square Sig.
	Less than 15,000	15,001 – 30,000	30,001- 50,000	50,001 – 70,000	70,001- 100,000	More than 100,000		
Mutual fund investment	2 1.10%	53 29.80%	43 24.20%	34 19.10%	22 12.40%	24 13.50%	178 100%	0.00
Non-mutual fund investment	7 6.80%	46 44.66%	31 30.10%	10 9.70%	5 4.90%	4 3.90%	103 100%	
Total	9 3.2%	99 35.2%	74 26.3%	44 15.7%	27 9.6%	28 10.0%	281 100%	

Table 6: Significance difference between income level and mutual fund, non-mutual fund investor

From the table 6 shows that majority of investor in both mutual fund investment and non-mutual fund investment fall in the monthly income group of 15,001 – 30,000 baht at 35.2%, followed by 30,001 – 50,000 baht and then 50,001-70,000 baht. The result of Chi-Square test shows that there is a significant difference in level of monthly income between mutual fund investor and non-mutual fund investors at the 5%.

Investment experience

Types	Investment Experience				Total	Pearson Chi- Square Sig.
	Less than 1 year	1-3 years	3-5 years	More than 5 year		
Mutual fund investment	17	38	43	80	178	0.00
	9.60%	21.3%	24.20%	44.90%	100.00%	
Non-mutual fund investment	50	26	15	12	103	
	48.54%	25.24%	14.60%	11.70%	100.00%	
Total	67	64	58	92	281	
	23.8%	22.8%	20.6%	32.7%	100.0%	

Table 7: Significance difference between investment experience and mutual fund, non-mutual fund investor

From the table 7 shows that majority of mutual fund investor fall in having investment experience more than 5 years by 44.9%, followed by 3-5 years of investment experience by 24.2% while the majority of non- mutual fund investor fall in having investment experience less than 1 years by 48.54%, followed by 1 -3 years of investment experience. The result of Chi-Square test shows that there is a significant difference in investment experience between mutual fund investor and non-mutual fund investors at the 5%.

Age

Types	Age				Total	Pearson Chi-Square Sig.
	20-30 years	31-40 years	41-50 years	More than 50 years		
Mutual fund investment	120 67.4%	50 28.1%	4 2.2%	4 2.2%	178 100%	0.053
Non-mutual fund investment	84 81.56%	15 14.57%	3 2.9%	1 1.0%	103 100%	
Total	204 72.6%	65 23.1%	7 2.5%	5 1.8%	281 100%	

Table 8: Significance difference between age and mutual fund, non-mutual fund investor

From the table 8 shows that majority of investor belong to the age of 20-30 and 31-40 in both mutual fund investment and non-mutual fund investment. There are very few constitute the middle age group of 41-50 and more than 50 year. The result of Chi-Square test shows that there is not a significantly difference in age between mutual fund investor and non-mutual fund investors at the 5%.

Gender

Types	Gender		Total	Pearson Chi-Square Sig.
	Male	Female		
Mutual fund investment	71 39.9%	107 60.1%	178 100%	.862
Non-mutual fund investment	40 38.8%	63 61.2%	103 100%	
Total	111 39.5%	170 60.5%	281 100%	

Table 9: Significance difference between gender and mutual fund, non-mutual fund investor

From the table 9 shows the percentage of male mutual fund investment is 39.5% and female mutual fund investment is 60.5%, whereas for non-mutual fund investor it is 38.8% and 61.2% respectively. The male constitutes 39.5% and female 60.5%, It implies that mutual fund investment is prevalent among female rather male. The result of Chi-Square test shows that there is not a significantly difference in age between mutual fund investor and non-mutual fund investors at the 5%.

From the result that found the three characteristics difference between mutual fund and non-mutual fund investor. Those are education level, income level and investment experience. While characteristics in term of age and gender are not difference between both groups.

4.2 Model 1: Frequency Trading of Mutual Fund Investor

Only one hundred and seventy – eight observations with mutual funds are analyzed by “Ordinary least square estimation regression.”

I consider using the frequency trading per year of mutual fund investors as dependent in model 1 to find the relationship between control variables. Those are characteristics, sources of information and environment factors. The following is the basic model which includes all controls namely GEN, AGE, EDU, INCOME, EXP, PER, RISK, FEE, POLI, BEN, BRAND, PERSON, PRIM, OLD, SOCIAL and ENVI.

(*** indicates significant at 1%)

Model.1	Variable	Coefficient	P-value
Frequency of Trading	GEN	-0.942429	0.133
	AGE	-0.156101***	0.0001
	EDU	-1.21788***	0.0099
	INCOME	1.05798***	<0.0001
	EXP	0.923049***	0.0004
	PER	-0.908068	0.0151
	RISK	0.0655416	0.7898
	FEE	-0.0335379	0.891
	POLI	0.394829	0.0809
	BEN	0.241731	0.4237
	BRAND	0.225371	0.281
	PERSON	-0.665417	0.0898
	PRIM	1.35295***	0.0004
	OLD	-1.13686***	0.0031
	SOCIAL	0.324772	0.267
	ENVI	-1.48279***	0.0006
	Observations	178	
	Adjusted R-square	0.446745	

Table 10: Result of model 1 from ordinary least square estimation (OLS) model

Table 10 presented result from the basic model which indicate that INCOME, EXP and PRIM have a positive significant relationship with trading frequency of mutual fund investor at the 1 percent level. AGE, EDU, OLD and ENVI have a negative significant relationship at the 1 percent level. However, GEN, PER, RISK, FEE, POLI, BEN, BRAND, PERSON and SOCIAL are statistically insignificant. The percentage of the coefficient of determination (adjusted R-squared) is 44.67

Primary Information Source (PRIM)

The coefficient of primary information is 1.35295, which mean that for additional 1 level of primary information source, the frequency of trading increase by an average of 1.35295 time per year. This can indicate that investor who gives more importance to primary information especially fund prospectus or usually used information from investment website source such as Thai mutual fund, AIMC and Morning Star that tend to trade more frequent in mutual fund.

Monthly Income (INCOME)

The coefficient of monthly income is 1.05798, which mean that for additional 1 level of monthly income (three hundred thousand baht increasing per each level), the frequency of trading increase by an average of 1.05798 time per year. This can indicate that investor who have more income, more wealth that tend to trade more frequent in mutual fund.

Investment Experience (EXP)

The coefficient of investment experience is 0.923049, which mean that for the additional 1 level of investment experience (three year increasing per each level), the frequency of trading increase by an average of 0.923049 time per year. This can indicate that investor who has more experience on financial investment that tend to trade more frequent in mutual fund.

Old Media Information Source (OLD)

The coefficient of old media information is negative 1.13686 which mean that for additional 1 level of old media information source, the frequency of trading decreases by an average of 1.13686 time per year. This can indicate that investor who

usually used or giving importance on the information from television, newspaper or radio for making investment decision on mutual fund that tend to trade less frequent in mutual fund.

Education (EDU)

The coefficient of age is negative 1.21788 which mean that for additional 1 level of education level such as moving from bachelor to master degree, the frequency of trading decreases by an average of 1.21788 time per year. This can indicate that investor who has higher of education level that tend to trade less frequent in mutual fund.

Age (AGE)

The coefficient of age is negative 0.156101 which mean that for additional 1 year of age, the frequency of trading decreases by an average of 0.156101 time per year. This can indicate that investor who is older that tend to trade less frequent in mutual fund.

From the result shown that, the frequency trading of investor has a positive significant relationship with level of income, investment experience and primary information. This can indicate that investors who have high income level, high investment experience and usually use or giving importance on primary information such as fund prospectus or investment website that tend to trade more frequent in mutual fund. This relationship is so reasonable due to investor who have the high level of income that tend to have more investment capital and tend to have ability to trade more than the lower income also with investment experience of investor because investor who have higher investment experience, they always known about the fund that suit for them and time that suit for trading that can lead them to have a high frequency of trading. In contrast, education level, age and old media information source have negative significant with the frequency trading. This can indicate that investors who are older that they actually more given importance on their saving and always save their money for retirement or future expenditure, investor are higher level of education and usually use information source such as television, radio and newspaper that tend to trade less frequent in mutual fund.

4.3 Model 2: Holding Period of Mutual Fund Investor

In the second model, I change the dependent variable to the average holding period. The control variables are identified to model 2 to find the relationship between control variables. The results of model 2 is the following table

(*** indicates significant at 1%,)

Model.2	Variable	Coefficient	P-value
Average Holding Period	GEN	-0.364528	0.2886
	AGE	0.0519214	0.086
	EDU	-0.138123	0.7142
	INCOME	0.270145	0.0934
	EXP	0.554895***	0.0076
	PER	-0.429855*	0.0483
	RISK	-0.510562	0.0117
	FEE	0.228671	0.2269
	POLI	-0.291664	0.0961
	BEN	0.0259424	0.9123
	BRAND	-0.234091	0.1785
	PERSON	0.434872	0.0716
	PRIM	-0.667659***	0.0061
	OLD	0.378175	0.0544
	SOCIAL	0.4397	0.0222
	ENVI	0.56271	0.0418
	Observation	178	
	Adjusted R-square	0.250975	

Table 11: Result of model 2 from ordinary least square estimation (OLS) model

Table 11 presented the outcome of model 2, which indicates that EXP have a positive significant relationship with average holding period at 1 percent, while PRIM have a negative significant relationship at 1 percent level. The percentage of the coefficient of determination (adjusted R-squared) is 25.09

Investment Experience (EXP)

The coefficient of investment experience is 0.554895, which mean that for additional 1 level of investment experience (three year increasing per each level), the holding period increase by an average of 0.554895 year. This can indicate that investor who has more experience on financial investment that tend to have a longer holding period of mutual fund.

Primary Information Source (PRIM)

The coefficient of primary information source is negative 0.667659 which mean that for additional 1 level of primary information source, the holding period increase by an average of 0.667659 year. This can indicate that investor who gives more importance to primary information especially fund prospectus or usually used information from investment website source such as Thai mutual fund, AIMC and Morning star that tend to have a shorter holding period of mutual fund

From the result shown that, holding period has a positive significant relationship with, investment experience. This can indicate that investors who have high investment experience that tend to have a longer holding period behavior. In contrast, primary information source has negative significant with holding period. This can indicate that investors who usually use or giving importance on primary information such as fund prospectus or investment website that tend to have a shorter holding period of mutual fund.

5. CONCLUSION AND IMPLICATIONS

5.1 Research Conclusion

Based on the survey of 281, I found 178 of invest in mutual fund, while 103 do not invest in mutual fund. The main objective for those who invest in mutual fund is to get the capital gain. While those who not invest in mutual fund is because of their lacking in knowledge of investment in mutual fund.

To examine their behavior. I use the trading frequency and average holding period. I find that an average trading of respondent is 7 times per year and holding time is 4 years exclude special fund (RTF, LMF, SSF). The asset characteristics that most influence investor to invest is the fund investment policy. The most influencing source of information is investment website such as Thai mutual fund, Morning star, AIMC.

The significance difference between mutual fund investor and non-mutual fund investor.

To understand the difference characteristics between those who invest in mutual fund and those who do not invest, I use Chi-square test and find three demographics characteristic that are significance difference between two group. Those are education level, income, and investment experience. These are similar to Alexander, Jones and Nigro (1998), Bailey, Kumar and Ng (2011), Das, Mohanty and Shil (2008), Bhavani and Shetty (2017) which found that mutual fund investor tend to have more higher education, income, and experience more than others financial assets.

However, age and gender are not significantly difference between mutual fund and non-mutual fund investor which similar to Akbar and Mona (2016). They found that investor decision making to were not differences based on demographic factors gender and age.

Trading frequency of Mutual Fund Investor

Based on regression analysis, I find three factors that have positive relationship with trading frequency. Those are income, investment experience and primary information source. This finding is similar to Hui (2009), which found that incomes factor has significant positive influence on trading behavior or can indicate that high-income investors tend to trade more frequent. I also find that investor who has more investment experience tends to trade more frequent. Moreover, primary information source such as fund prospectus and investment websites (Thai mutual fund, Morning star, AIMC) are most influence factors that lead to higher frequency of trading.

While four factors that have negative relationship with trading frequency of mutual fund. Those are age, education level, old information source and environment factors. The results are inconsistent with Graham, John Campbell, Harvey and Hai (2009) that find investor with high education degree are more likely to trade more frequent. Hui (2009) also found age has a significant positive influence on trading behavior or older investor tends to trade more frequent.

However, there is no relationship between personal information source such as the suggesting of friends and family or the suggesting from investment consultant and trading behaviors. This is inconsistent with Tauni, Fang and Lqbal (2016) and Adhikari (2018) that find that source of information as a suggesting from investment consulting, professional financial advice and the word-of mouth communication have a significant positive impact on trading frequency of individual investor.

Average Holding Period of Mutual Fund Investor

I find one factors that positive relationship with the average holding period of mutual fund investor that are investment experience. This can indicate that investors who have high investment experience that tend to have a longer holding period behavior

While one factors, which are primary information source have a negative relationship with the average holding period of mutual fund. This can indicate that

investors who usually use or giving importance on primary information such as fund prospectus or investment website that tend to have a shorter holding period.

5.2 Implication and Recommendation

Asset management companies can use the differences in demographic of investors, characteristics of mutual fund and the information channel used by investors to do marketing, promotion programs or products developing to attract more clients and meet their customers' needs.

To increase the trading frequency, I find that investor who are younger, lower education level, higher income and higher investment experience tend to trade more frequent than others. Companies should use the marketing or promotion program by focusing on those characteristic's investors such as younger investor, high income investor and high investment experience. Moreover, companies should provide the easier way to access the fund prospectus such as directly sending email to investor. Companies can also promote and provide the instruction of mutual fund investment website to investor because it can influence the trading frequency of investors. However, companied should stop providing or promoting fund information on television and radio.

My recommendations for further studies are as follows, First, the number of observations should be increase to provide a clearer picture of result. Second, further research should also consider other factors that also influence non-mutual fund investor to make decision and invest in mutual fund.

APPENDIX

Appendix A, Questionnaire

1. Gender

Male

Female

2. Age years old

3. Education

Less than high school

High school

Diploma

Bachelor

Graduated Degree (Master or PhD)

4. Occupation

Private employee

Government employee

Business owner

Freelance

Housewife

Student

Retired

Other

5. Monthly income (baht)

Less than 30,000

30,001 – 50,000

50,001- 70,000

70,001 – 100,000

More than 100,000

6. How many % of your monthly income that you save in your saving account per month (exclude provident fund)

Less than 5%

5%- 10%

11%-20%

20 – 30 %

more than 30%

7. Objective of your saving are (Ranking by 1-3, 1 is the most and 3 is the least)

- For purchase asset For your family For vacation
 For future investment For retirement
 For Emergency and unforeseen circumstance

8. Your investment experience in financial market (year)

- Less than 1 year 1-3 years 3-5 year
 more than 5 years

9. Please approximate percentage in each investment product (exclude provident fund) in your investment portfolio (100%)

- Mutual Fund Stock Bond
 Insurance Real Estate Commodities
 Cryptocurrency

10. Do you invest in mutual fund (exclude provident fund) ?

- Yes No

If no, please answer question number 11 and if yes please answer question number 12 and finish the survey.

11. What is your reason for no mutual fund investment? (Ranking by 1-3, 1 is the most and 3 is the least)

- Lack of knowledge of mutual fund investment
 The return of mutual fund is unattractive
 Higher risk more than your acceptance
 High of fund fee
 Inconvenience of transaction making
 Lack of capital for investment

12. Objective of your mutual fund investment are (Ranking by 1-3)

- Capital gain Dividend payment Tax benefit

13. Duration of your mutual fund investment

- Short-term investment (less than 1 year) Medium-term (1-3 year)
 Long-term investment (more than 3 year)

14. What are your mutual fund types that you have invest in your present portfolio? (can more than 1 answer)

- Money Market Fund Fixed Income Fund
 Mixed Fund Equity Fund
 Property and Infrastructure Fund Commodities Fund
 Special Fund (RMF, LMF, SSF) Foreign Investment Fund (FIF)

15. People who mostly influence you to invest in mutual fund (Ranking by 1-3, 1 is the most and 3 is the least)

- Yourself Family/spouse Friends/Acquaintance
 Investment Consultant
 Famous Investor

16. Chanel of your mutual fund investment (mostly use) only 1 answer

- Internet/Mobile Application
 Selling Agents (Commercial banks, Insurance companies)
 Investment Consultant

17. Frequency of your trading in your mutual funds' investment times/year

18. Average of your holding period in normal mutual funds' investment (exclude LTF, RMF, LTF) years

There are many factors that could affect your mutual funds investment. Please indicate importance of the following in your decision. (Likert Scale)

19.

Influencing factors for mutual fund investment					
Asset characteristics	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Past performance					
2. Fund raking (by morning star, other agencies)					
3. Risk of mutual fund investment					
4. Fund investment policy					
5. Tax Benefit					
6. Dividend policy					
7. Fund fee, transaction fee					
8. Promotion from Asset management company or Selling agent					
9. Name of Asset management company					

20.

Influencing factors for mutual fund investment					
Perception Factor (source of Information)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Friends and Family					
2. Newspaper					
3. Fund prospectus					
4. Television					
5. Seminar, SET in the city, Money expo					
6. Investment Consultant					
7. Investment website (Thai Mutual Fund, Morningstar, AIMC)					
8. Social media (Facebook Fanpage, Twitter, Blogs, Pantip, etc)					
9. Podcast (Finnomena, Money every day, The standard, etc)					

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Influencing factors for mutual fund investment					
Environment Factor	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. State of World's economy					
2. State of Thailand's economy					
3. Thailand Saving Interest direction					
4. Thailand Political stability					
5. Thailand Inflation					

Appendix B, Ordinary least square estimation (OLS) Result

Ordinary least square estimation (OLS) Result on Model 1

Model 1: Heteroskedasticity-corrected, using observations 1-178

Dependent variable: Frequency

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>	
const	14.9866	3.36598	4.452	<0.0001	***
Gender	-0.942429	0.624161	-1.510	0.1330	
Age	-0.156101	0.0396163	-3.940	0.0001	***
Edu	-1.21788	0.466434	-2.611	0.0099	***
Income	1.05798	0.258203	4.097	<0.0001	***
Experience	0.923049	0.252740	3.652	0.0004	***
PER	-0.908068	0.369655	-2.457	0.0151	
RISK	0.0655416	0.245443	0.2670	0.7898	
FEE	-0.0335379	0.244285	-0.1373	0.8910	
POLI	0.394829	0.224744	1.757	0.0809	
BEN	0.241731	0.301380	0.8021	0.4237	
BRAND	0.225371	0.208349	1.082	0.2810	
PERSON	-0.665417	0.389879	-1.707	0.0898	
PRIM	1.35295	0.372486	3.632	0.0004	***
OLD	-1.13686	0.377990	-3.008	0.0031	***
SOCIAL	0.324772	0.291575	1.114	0.2670	
ENVI	-1.48279	0.423081	-3.505	0.0006	***

Statistics based on the weighted data:

Sum squared resid	454.1159	S.E. of regression	1.679463
R-squared	0.496757	Adjusted R-squared	0.446745
F(16, 161)	9.932795	P-value(F)	4.90e-17
Log-likelihood	-335.9257	Akaike criterion	705.8514
Schwarz criterion	759.9417	Hannan-Quinn	727.7865

Statistics based on the original data:

Mean dependent var	6.629213	S.D. dependent var	7.281091
Sum squared resid	7612.411	S.E. of regression	6.876195

Ordinary least square estimation (OLS) Result on Model 2

Model 2: Heteroskedasticity-corrected, using observations 1-178
Dependent variable: Average

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>	
const	1.17155	2.35556	0.4974	0.6196	
Gender	-0.364528	0.342394	-1.065	0.2886	
Age	0.0519214	0.0300608	1.727	0.0860	
Edu	-0.138123	0.376554	-0.3668	0.7142	
Income	0.270145	0.160065	1.688	0.0934	
Experience	0.554895	0.205338	2.702	0.0076	***
PER	-0.429855	0.216006	-1.990	0.0483	**
RISK	-0.510562	0.200192	-2.550	0.0117	**
FEE	0.228671	0.188500	1.213	0.2269	
POLI	-0.291664	0.174230	-1.674	0.0961	
BEN	0.0259424	0.235131	0.1103	0.9123	
BRAND	-0.234091	0.173241	-1.351	0.1785	
PERSON	0.434872	0.239810	1.813	0.0716	
PRIM	-0.667659	0.240065	-2.781	0.0061	***
OLD	0.378175	0.195172	1.938	0.0544	
SOCIAL	0.439700	0.190405	2.309	0.0222	**
ENVI	0.562710	0.274179	2.052	0.0418	**

Statistics based on the weighted data:

Sum squared resid	800.9921	S.E. of regression	2.230495
R-squared	0.318684	Adjusted R-squared	0.250975
F(16, 161)	4.706701	P-value(F)	9.50e-08
Log-likelihood	-386.4331	Akaike criterion	806.8661
Schwarz criterion	860.9565	Hannan-Quinn	828.8012

Statistics based on the original data:

Mean dependent var	3.713483	S.D. dependent var	2.856638
Sum squared resid	1245.231	S.E. of regression	2.781070

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