

A study of factors that influence consumer behaviors of gold
saving via online platform in Thailand

Miss Janitta Chotichartmala



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การศึกษาปัจจัยที่มีอิทธิพลต่อพฤติกรรมของผู้บริโภ�ต่อการออมทองผ่านแพลตฟอร์มออนไลน์ใน
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ลิขสิทธิ์ของจุฬาลงกรณ์มหาวิทยาลัย

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By Miss Janitta Chotichartmala
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Thesis Advisor Assistant Professor PANUTAT SATCHACHAI, Ph.D.

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INDEPENDENT STUDY COMMITTEE

..... Chairman
(Assistant Professor SAN SAMPATTAVANIJA, Ph.D.)
..... Advisor
(Assistant Professor PANUTAT SATCHACHAI, Ph.D.)
..... Examiner
(Assistant Professor NIPIT WONGPUNYA, Ph.D.)



จณิฐตา โชติษาคิมมาลา : การศึกษาปัจจัยที่มีอิทธิพลต่อพฤติกรรมของผู้บริโภคต่อการออมทองผ่านแพลตฟอร์มออนไลน์ในประเทศไทย. (A study of factors that influence consumer behaviors of gold saving via online platform in Thailand) อ.ที่ปรึกษาหลัก : ผศ. ดร.ภาณุทัต สัชฌะไชย

อัตราเงินเฟ้อของประเทศไทยที่เพิ่มสูงขึ้นและนำไปสู่การที่ค่าของเงินลดลง ทองคำซึ่งถือเป็นสินทรัพย์ที่ปลอดภัยในการป้องกันภาวะเงินเฟ้อสูงและจากความต้องการซื้อทองคำภายในประเทศไทยที่เพิ่มขึ้น 44 เปอร์เซ็นต์ ในปี 2564 ผู้ค้าปลีกทองคำจำนวนมากได้พัฒนาโปรแกรมออมทองคำออนไลน์เพื่อรองรับความต้องการทองคำที่เพิ่มขึ้น ดังนั้นงานวิจัยนี้จึงมุ่งเน้นไปที่ปัจจัยที่มีอิทธิพลต่อพฤติกรรมผู้บริโภคในการออมทองผ่านแพลตฟอร์มออนไลน์

ข้อมูลหลักที่ใช้ในรายงานการวิจัยนี้รวบรวมจากผู้ตอบแบบสอบถาม 390 คนผ่านการสำรวจออนไลน์ แบบจำลองการวิเคราะห์ความแปรปรวนสองทางได้ถูกนำมาศึกษาเพื่อตรวจสอบผลกระทบของอายุและเพศต่อความสนใจออมทองผ่านแพลตฟอร์มออนไลน์ ซึ่งจากการวิจัยพบว่าคนอายุน้อยสนใจออมทองผ่านแพลตฟอร์มออนไลน์มากกว่าคนอายุมาก อีกทั้งผลการวิจัยจากแบบจำลองการถดถอยพหุคูณพบว่า อัตราเงินเฟ้อที่สูงเป็นปัจจัยสำคัญที่นำไปสู่การตัดสินใจออมทองคำเพื่อการลงทุนผ่านแพลตฟอร์มออนไลน์



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ปีการศึกษา 2564

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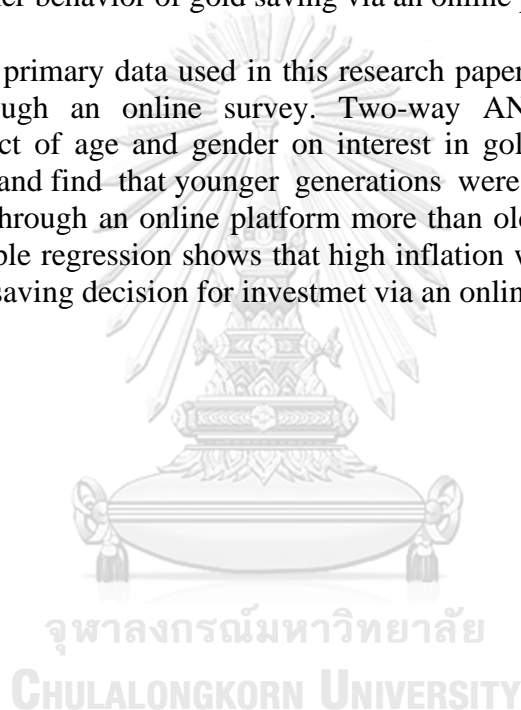
KEYWORD Inflation rate, Gold, Saving, Online platform

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Inflation rate in Thailand has increased and it leads to the devaluation of money. As gold is considered as a safe haven to hedge against high inflation and the demand of gold in Thailand has increased by 44 percent in 2021, a large number of gold retailers have developed an online gold saving program to capitalize the increase in gold demand. Therefore, this research was focused on the factors that influence consumer behavior of gold saving via an online platform.

The primary data used in this research paper were collected from 390 respondents through an online survey. Two-way ANOVA was conducted to examine the effect of age and gender on interest in gold saving program via an online platform and find that younger generations were more interested in gold saving program through an online platform more than older generations. Also, the result from multiple regression shows that high inflation was the significant factors that lead to gold saving decision for investmet via an online platform.



Field of Study:	Business and Managerial Economics	Student's Signature
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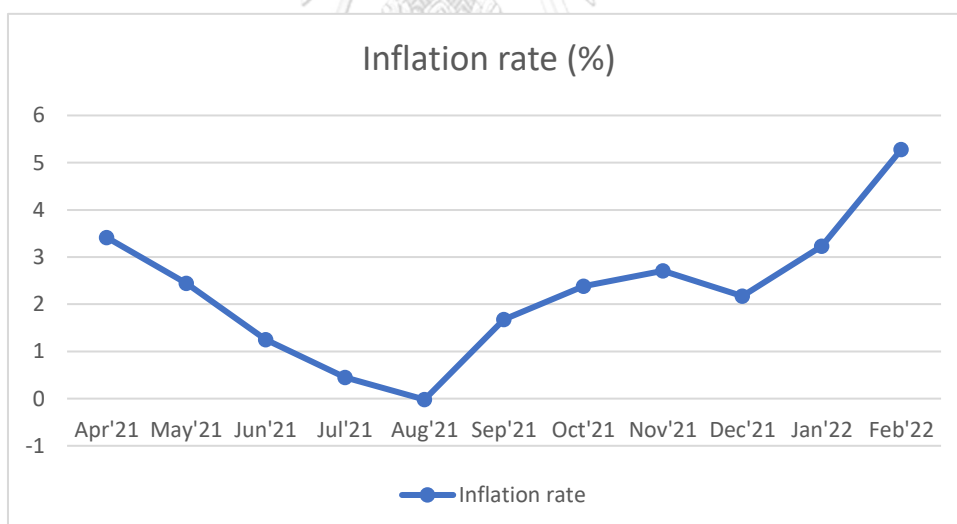


Chapter 1

Introduction

In accordance with the Ministry of Commerce cited in Trading Economics (2022), Thailand's inflation rate increased to 5.28 percent, in February 2022 up from 3.23 percent in the previous month. This number represents the highest rate since September 2008 and there is an upward trend for Thailand's inflation. As inflation devalues money, it stimulates consumers to spend and stock up on items which value depreciates slower. Consequently, it is better to hold other assets such as gold that yield higher return rather than money. Since gold price movements were consistent with gold rising in lockstep with the overall rate of inflation over time, it can be considered as an effective inflation hedge. (Ghosh, Levin, Macmillan, and Wright, 2004).

Figure 1.1 Thailand's inflation rate in percentage



Source: The Ministry of Commerce (2022)

Gold is used as a safe-haven asset or hedge in order to construct portfolios especially during the COVID pandemic (Akhtaruzzaman, Boubaker, Lucey, and Sensoy, 2021). According to Ms. Pawan Nawawattanasub, CEO of YLG Bullion International, although gold has historically been a popular way for Thais to hedge against inflation, the recent surge in global prices, combined with the weakening Thai

baht, has pushed the gold price to reach 30,000 Baht per 15.244 grams of gold in 2020 (YLG Group, 2021). This has also increased the number of Thai people at gold retailers to exchange gold jewelry and gold bullions for cash, which has a negative effect on gold businesses. Due to higher gold prices, the demand for gold is due to lack of funds (Napompech, Tanpipat, and Ueatrakunkamol, 2010).

However, "We saw a significant increase in demand for gold bars and coins as Thailand transitioned from net disinvestment to net investment, and the combination of lower gold prices and continued economic recovery, as well as concerns about inflation and a weakening baht, all contributed significantly to this investment trend" said Andrew Naylor, regional CEO for Asia-Pacific excluding China at the World Gold Council (Bangkok Post, 2022). According to the World Gold Council cited in Bangkok Post (2022), Thailand's consumer demand for gold reached 12 tonnes in the fourth quarter of 2021 which increased by 44 percent from the previous quarter. Also, Napompech, Tanpipat, and Ueatrakunkamol (2010) and Akhtaruzzaman, Boubaker, Lucey, and Sensoy (2021) found that the main motives that people purchased gold were to accumulate gold for precautionary expenses and investment. To seize the opportunity in an increase in gold demand, therefore, many gold retailers have developed an online gold saving application.

Gold savings through an online platform refer to the practice that consumers gradually accumulate their money in an account to purchase gold without holding physical gold bullion (YLG Group, 2022). They can purchase gold online without the need to spend large sums of money to purchase gold and they can keep it in a gold account. Once the total weight of gold reaches 1 gram in the account, customers can withdraw it via delivery or self-pickup at gold retailers. Also, they can sell gold and money is transferred back to the account. Moreover, this online platform enables customers on a tight budget to buy and sell gold at any time without having to visit a store. Nevertheless, many people are unaware that they can save gold through an online platform and have not heard about the new gold saving method, so consumer's response to the online gold saving program remains low.

Therefore, the gold saving program's service providers must understand Thais' saving and investment behaviors and the major determinants that influence gold saving behavior of Thai people. The findings of this study will assist gold

retailers in gaining a better understanding of Thai people's saving and investment behaviors. It will benefit gold retailers planning to launch an online gold saving program or who have already offered the service but need to develop a strategy to attract more gold savers.

In this research, we classified saving motives into two categories: (1) saving gold for precautionary expenses, and (2) saving gold for further investment. To clarify, savings for precautionary funds are low-risk funds that are liquid and readily available when required, and they can assist in meeting immediate or short-term needs. Savings for speculative motives, on the other hand, are used to build wealth and are intended to meet long-term needs.

This study is organized as follows: Section 2 presents a literature review. Section 3 shows the conceptual framework used in this study. Section 4 and 5 illustrates the data and methodology and survey summary of 390 respondents. The empirical result is analyzed in section 6, and section 7 is the conclusion with a discussion for future research.

1.1 Objectives of the study

1. To gain a better understanding of Thai consumers' preferences and behaviors regarding saving and investment in gold.
2. To identify the major determinants influencing gold saving decision for precautionary expenses and investment via online platform.

1.2 Scopes of the study

1. The respondents cover only Thai people who are living in Bangkok.
2. This study focuses on the Thai public's interest in online gold savings programs for investment purposes.

Chapter 2

Literature Review

In accordance with the Bank of Thailand (2015), there are three types of savings. First is the precautionary fund which is allocated for unexpected situations such as loss of jobs and medical expenses. As a consequence, savers should consider the saving which has the highest liquidity and lowest risk. Second is specific funds which are allocated for specific purposes such as retirement, education, travel. For this type of saving, savers should consider funds with a stable return with low risk. Lastly, it is the speculation funds which are allocated for further investment. This fund should have little effect on the financial status of the savers. Therefore, people can invest this fund in the high risk and high return assets. Also, Napompech, Tanpipat, and Ueatrakunkamol (2010) found that the primary reason that Thai people purchased gold was to accumulate savings in lieu of cash and to use as precautionary expenses, while Akhtaruzzaman, Boubaker, Lucey, and Sensoy (2021) found that people purchased more golds for investment.

Saving and investment are very important for individuals seeking to achieve their financial goals. The distinctions between saving and investment are the perceived risk and return and the purpose for which the money is being saved. Saving is risk-free, but money's value rarely increases. On the contrary, investment entails a high degree of risk, but individuals can earn a high rate of return (Standard Bank, n.d.). Thus, individuals will save money for future expenses such as tuition for a master's degree, but they will invest money in valuable assets in the expectation of appreciating wealth. Research on determinants affecting consumers' behavior on saving and investment decisions has been studied by several researchers, and determinants can be classified into three groups which are gold characteristics, general saving characteristics and individual gold saving behaviors.

Gold saving

Basco, D'Amato, and Garegnani (2009) found that people are less likely to hold money due to loss of the value of money. The higher the inflation, the higher the money velocity. Napompech, Tanpipat, and Ueatrakunkamol (2010), suggested that gold saving decisions were positively associated with inflation. Liu (2016) studied the gold consumption by middle-class consumers in emerging markets (China, India, Vietnam, and Thailand) focusing on psychological perceptions of gold and disposable income, and found that Thai consumers prefer saving gold rather than depositing money in the bank during the economic downturn such as financial crisis and geopolitical tension. Moreover, the reason for saving in gold when the financial market was unstable was that gold was considered to be safe haven. Also, the devaluation of the currency positively affected the price of gold (Baur, 2013). Even though changes in gold price potentially affect consumer behaviors of gold saving decision, in long run, several investors may take advantage of fluctuation in the market utilizing dollar cost average method for their continuous investment. Therefore, we will focus on inflation in this paper.

Gold saving via an online platform has been developed from paper gold. Paper gold is a substitute for physical gold bullion, and it is a paper that can reflect the market spot price. When customers hold paper gold, they do not own physical gold bullion, but they own a promise to receive gold in the future. In the present time, customers can invest in gold savings via an online platform by depositing money into the account and accumulating enough amount of money in order to receive physical gold in the future. Tewaruangsap (2019) studied the factor of consumer behavior of gold saving toward the online platform and found that convenience, brand credibility, and security were the main indicators of saving decisions through an online platform. Most consumers were interested in trying online services because it could save time and traveling cost. In addition to convenience, Osman (2010) showed that consumers would make online transactions with reliable service providers, and they preferred websites that were user-friendly, provided enough information, and had a broader selection. Additionally, Adnan (2014) found that the Pakistanis consumer behaviors towards online shopping and indicated that there was a negative relationship between

security issues such as losing money and non-delivery issues and online saving behaviors.

According to Tewaruangsap (2019) who performed one-way ANOVA to study “The Factors that Influence Thai Consumer Behaviors of Gold Saving toward Online Platforms”, found that there were no significant differences among gender, educational level, and marital status toward gold savings via online platforms. He also found that business owners were less interested in experimenting with the gold online platform than salary workers and that Thai citizens whose age range between 26 to 35 showed more interest in online gold saving program than older people. Also, citizens with lower income were more interested in an online gold saving program. Moreover, Premkat (2016) and Tewaruangsap (2019) studied the factor impacting Thai consumers on gold purchasing through an online platform by focusing on the people who had purchased gold before. Both researchers believed that individuals who had previously purchased gold had a greater likelihood of doing so again than those who had never purchased gold. Chaisuriyathavikun (2015) also found that the key factors that affect Thai consumer purchasing behavior of gold which proved that friends’ and family’s opinions are positively associated with online gold purchasing intention.

Characteristic of gold

According to Chaisuriyathavikun (2015), Thai customers purchased gold to secure their financial status and their future needs as gold could be converted into cash easily. Moreover, Rattanaamarangkun (2014) also found that Thai people purchased gold because it was easily converted into cash. Therefore, savers have to consider the liquidity to match their goals.

There is a positive relationship between risk and return for each saving type. Low-risk saving will yield a stable or low return, but high-risk saving will yield a higher return. Even though the gold prices were relatively volatile, gold was an important asset for long-term store of financial value (Michaud, Michaud and Pulvermacher, 2011). Therefore, gold was considered as low-risk asset. In accordance with Baur and McDermott (2016), gold was a significantly strong safe haven during the aftermath of the 9/11 attacks in 2001 and in the bankruptcy of Lehman Brothers, a

global financial services firm, in 2008. However, gold could yield a higher return than cash when there was high inflation (Ghosh, Levin, Macmillan, and Wright, 2004).

Characteristics of general assets

Suppakitjarak and Krishnamra (2015) investigated household saving behaviors in Thailand and found that the most popular saving form was real estate followed by saving deposits, insurance and gold respectively. This was because property was a fundamental human need and investment in real estate could be viewed as a form of inflation protection. This result also reflected the saver sentiment in Thailand, which was accustomed to traditional saving with banks due to its convenience, ease of access, and low risk. Suppakitjarak and Krishnamra (2015) found that risk, return, convenience, financial literacy, and ease of access were the main determinants that impact saving and investment decisions. They found that savers typically invested a greater portion of their savings in higher-yielding assets.

Some saving and investment options can be used to reduce tax burdens such as provident funds and LTF/RMF, while some types of them cannot be used for tax reduction. Therefore, this is a factor that savers consider when deciding on saving and investment (Tewaruangsap, 2019). Also, she found that saving decision was positively influenced by tax-exempt benefits.

Deposit requirements such as initial deposit requirement and minimum deposit amount also affect savers' decision. Different types of saving options have different deposit requirements. For gold saving, the initial deposit to open an account is 100 Baht for YLG and 1,000 Baht for Huasengheng (YLG Group, 2022). On the contrary, the initial deposit to open a deposit account at the bank is 500 Baht. Suppakitjarak and Krishnamra (2015) found that the minimum requirement for deposit amount was the main factor that influences customers' saving decisions. Some savers decide not to put their money in some financial instruments due to its high minimum amount requirements. In terms of the minimum deposit amount, the minimum requirement for gold saving is only 100 Baht, nonetheless, the requirement of provident fund is 2-15% of an individual's salary (SET, 2015).

Demographic factors

Lupton and Smith (1999) suggested that married couples had a higher probability of saving than singles. Moreover, Swasdpeera and Pandey (2012) studied how demographic factors influenced the saving behavior of working people and found that income, age, marital status, number of dependents, and educational levels positively affect the average saving amount. Moreover, another result using the logit regression suggested that an individual's saving willingness was positively impacted by the level of income and number of dependents. However, there were no significant differences among, educational level on intention to save gold via an online platform (Tewaruangsap, 2019).

Sources of information

When people were in the process of making decision on each saving type, they normally sought more information and asked for more advice from a large number of sources such as family, bank staff, and friends (Suppakitjarak and Krishnamra, 2015). Also, Lupton and Smith (1999) suggested that sales representatives' knowledge had a positive influence on customers' saving decisions.

Chapter 3

Conceptual Framework

Based on the literature review, consumer decision behavior is the process that customers go through when they make a purchase, and it is influenced by a variety of circumstances. For instance, some product purchases are the result of a lengthy process that involves several information searches, comparisons, and reviews. There is a model that explain the purchase decision-making process, “five stages of consumer purchasing decision process” (Kotler and Keller, 2016).

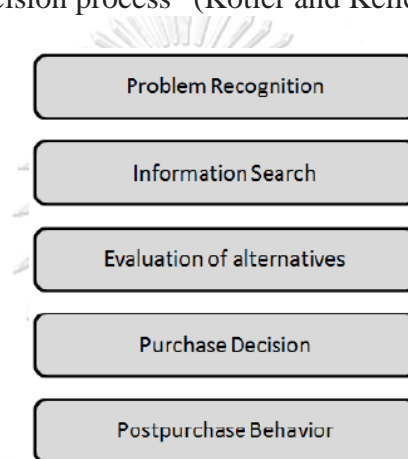


Figure 3.1 Five stages of consumer decision process

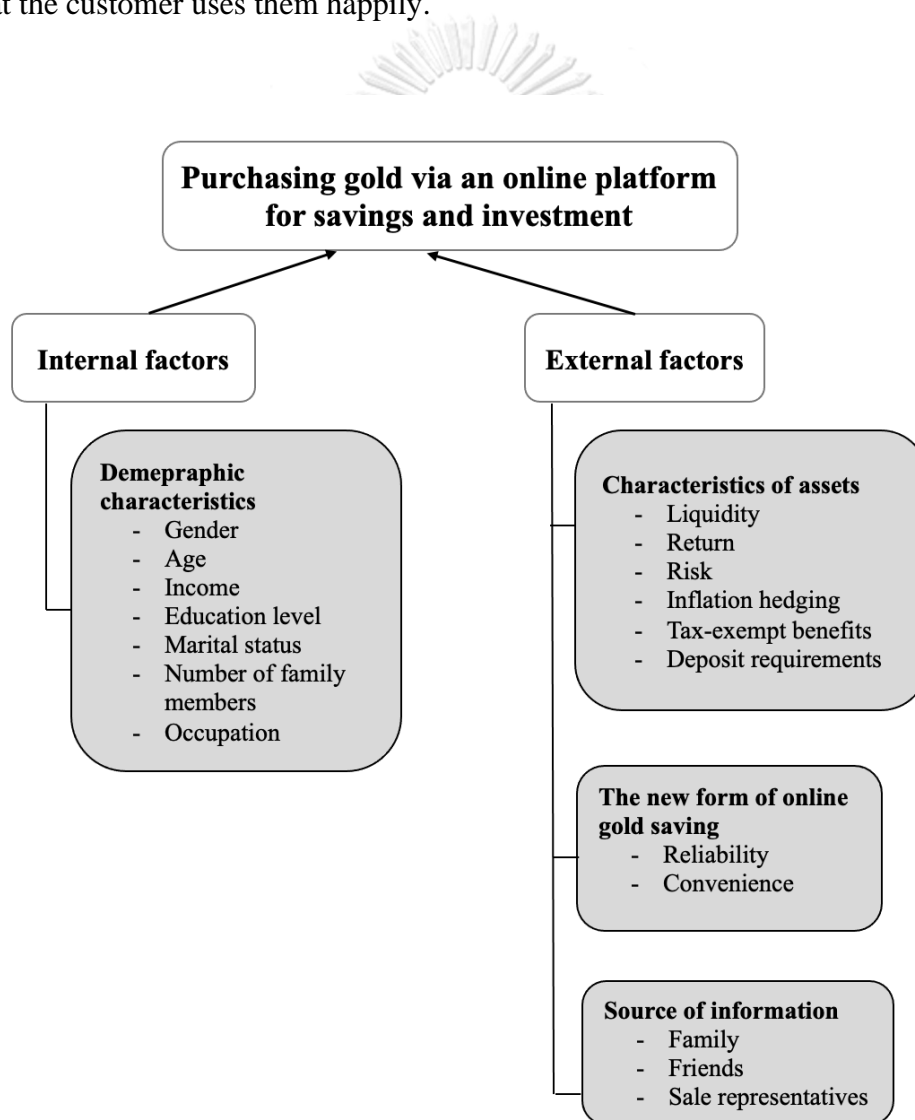
Stage 1: Problem recognition: The first stage occurs when consumer seek out and discover something to fulfill their needs. Needs might be triggered by internal causes such as hunger or external causes such as advertisement.

Stage 2: Information search: After the buyer identifies their requirement, they go to the step of searching. Customers gather information from a variety of sources, including the website, social media, sale representatives, family, and friends.

Stage 3: Evaluations of alternatives: After the consumers search all the information, they will select the best product or service to meet their needs. There are two major classifications of evaluation: objective and subjective. Objective refers to prices, quality, features, and functions of products and services. Subjective, on the other hand, refers to individual's feelings or prior experiences with products and services.

Stage 4: Purchase decision: Consumers decide to purchase a product after gathering information from a variety of sources, evaluate it and decide where and what to purchase. They will purchase the product that receive the highest rating during the evaluation stage.

Stage 5: Post purchase behavior: The last stage is necessary to ensure that the consumer receives constant support. The majority of customers will assess their decision's effectiveness. If a consumer has trouble using products or services, the marketer must make appropriate adjustments to their products or services to ensure that the customer uses them happily.



*Figure
3.2*

Conceptual Framework

The conceptual framework is described in Figure 3.2 above, and it was developed based on five stages of consumer purchasing decision (Kotler and Keller, 2016). Only three stages were linked with intentions to purchase gold via online platforms: problem recognition, information search and valuation of alternatives. Need for purchasing gold via online platforms was linked to problem recognition. Moreover, people have different perspectives and needs, thus, demographic factors also have an impact on how they find something to fulfill their needs. Source of information was linked to information search. Characteristics of assets and the new form of online gold saving program were linked to evaluation of alternatives.

Gold saving decision via an online platform depends on two main factors, which are internal factors (demographic characteristics) and external factors (characteristics of assets, the new form of online gold saving and source of information reliability). Source of information (friends, family, and sale representatives) is in the second stage of consumer purchasing decision process when consumers search for more information on assets. Based on literature review, consumers consider characteristics of assets, reliability and convenience of the new form of online gold saving as the criteria to evaluate the most appropriate asset that can meet their needs which is the third stage of consumer purchasing decision process.

As gold is an effective hedge against inflation and gold retailers aim to attract younger generations who usually have lower income than adults because they can spend less money to purchase gold via an online platform, therefore, these bring us to two research questions as follows:

1. Are younger Thai citizens more interested in gold savings programs for investment offered through online platforms than older Thai citizens?
2. Does inflation have a significant positive impact on gold saving decision for investment via an online platform?

Most of the literatures utilized one-way ANOVA to analyze the effect of demographic factors on an online gold saving program and there was no research that categorizes gold saving intentions and examines whether there are any differences in key determinants between the two intentions of purchasing gold via an online

platform for precautionary expenses versus for investment. Also, frequency of savings had never been studied by other researchers before. As a result, two-way ANOVA and two regression models were used to conduct an empirical analysis of the determinants of gold saving via an online platform for precautionary saving and investment purposes.



Chapter 4

Data and Research Methodology

4.1 Data collection

To study the key determinants that affect decision to save in terms of gold in Thailand, the questionnaire survey is used as a primary source of data. The data was gathered via an online platform (Google form) during January 2022, and there was a total of 390 respondents sent the form back. There are four main sections in this questionnaire survey.

Section 1: Demographic information

The first section is aimed to gather data to identify demographic information which are gender, age, monthly income, the highest level of education, marital status, number of family members, and occupations. As individual characteristics have an impact on saving and investment behaviors, it is significant to include this section in the questionnaire survey.

Section 2: Saving and investment behaviors

A set of questions asking for frequency of saving money, saving decisions, and the source of information they are seeking before making a saving decision is collected. Additionally, to gain a better understanding of consumers' saving and investment behaviors, respondents were asked to rank the top three of their purposes of saving and investment decision and rank the top three of their current saving and investment options. The 5-point Likert scale (1 = very low importance, 2 = slightly low importance, 3 = neutral and 4 = slightly high importance, and 5 = very high importance) was used to study respondents' perception of criteria that have an impact on their saving decision based on the importance level.

Section 3: Gold saving decision

This section will focus on gold saving. Firstly, respondents were asked whether they currently save gold. Then, they were asked to clarify the percentage of

gold saving compared to their total saving. Lastly, the main question used to screen only respondents who are interested in online gold saving program is that 'If respondents are offered a gold saving service via an online platform, would they be interested to try the service'. To clarify, gold savings via an online platform is when the store owners hold physical gold, while customers gradually save their money in the account. Once the accumulated saving amount is large enough to purchase only 1 gram of gold, customers can withdraw physical gold. If the respondent answered 'yes', they would be asked to rate the degree to which they agree or disagree on each factor that influences the gold saving decisions via an online platform. On the contrary, if the respondents answered "no", they would continue and clarify why they are not interested in online gold saving service.

Section 4: Factors that mainly impact gold saving decision

For the respondents who are interested in the online gold saving, they will directly go to the 21 questions based on perceived risk and return, liquidity, deposit requirement, tax-exempt benefits, economic situations, reliability of store owner, and reference group. However, for those who are not interested in the gold saving program via an online platform, they have to answer different four questions based on past investment behavior, the knowledge related to gold, trust, and the fluctuation of the gold price. Ranking from 1 to 5; (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree) was applied to both parts to ask respondents to scale their opinion on each criterion.

(See the questionnaire survey questions in Appendix)

4.2 Data analysis

Statistical Package for Social Sciences (SPSS) software is used to analyze the data of 390 respondents in Thailand. The following are the step of data analysis in this research

1. **Descriptive analysis:** used to describe demographic information including gender, age, monthly income, level of education, marital status, number of

family members and, occupation. Also, the saving and investment behaviors of respondents and saving gold decisions will also be described.

2. **Two-way ANOVA:** used to measure how two demographic characteristics affect an interest in the gold saving programs for investment via an online platform and to analyze if there is interaction effect between the two demographic factors. The result from two-way ANOVA will determine the influence of gender, age, monthly income, frequency of savings, educational level and marital status on an interest in the gold saving programs for investment via an online platform.
3. **Multiple regression:** used to predict the relationship between dependent variables and independent variables and to estimate which independent variables that are the most affected and statistically significant. The regression model was adapted from Tewaruangsap (2019), Napompech, Tanpipat, and Ueatrakunkamol (2010), Suppakitjarak and Krishnamra (2015), Premkat (2016) and Chaisuriyathavikun (2015) with some modifications. They utilized characteristic of assets (risk, return, liquidity, inflation and high oil prices hedge, minimum initial deposit balance and tax-exempt benefits), reliability and convenience of an online platform and source of information (family, friends and sale representatives) in the multiple regression model to analyze the intention to save gold via both offline and online platforms. However, demographic factors were not added in their regression model, so we will add demographic factors in our regression model.

The differences between two models are saving gold for investment and saving gold for precautionary expenses. Respondents were asked separately based on their different goals of gold saving via online platforms.

The first multiple regression used in this study is illustrated below;

$$\begin{aligned}
 Y_i = & \beta_0 + \beta_1 \text{PRICEINCREASE} + \beta_2 \text{HLIQUID} + \beta_3 \text{LINITIALMIN} \\
 & + \beta_4 \text{NOEXEMPT} + \beta_5 \text{HINFLA} + \beta_6 \text{HOIL} + \beta_7 \text{ALLTIME} \\
 & + \beta_8 \text{GETGOLD} + \beta_9 \text{RELSTORE} + \beta_{10} \text{SALERES} + \beta_{11} \text{FAM} \\
 & + \beta_{12} \text{FRD} + \beta_{13} \text{AGE} + \beta_{14} \text{GENDER} + \beta_{15} \text{INCOME} + \beta_{16} \text{EDU} \\
 & + \beta_{17} \text{MARITAL} + \varepsilon
 \end{aligned}$$

Where Y_i is the dependent variable of the intention to save gold via an online platform for investment of individual i , β (beta) is regression coefficient, β_1 to β_{16} is the coefficient of each variable, and ε is error term.

The second multiple regression used in this study is illustrated below;

$$\begin{aligned}
 Y_i = & \beta_0 + \beta_1 \text{SAVEHAVEN} + \beta_2 \text{FINSTABLE} + \beta_3 \text{LINITIALMIN} \\
 & + \beta_4 \text{NOEXEMPT} + \beta_5 \text{HINFLA} + \beta_6 \text{HOIL} + \beta_7 \text{ALLTIME} \\
 & + \beta_8 \text{GETGOLD} + \beta_9 \text{RELSTORE} + \beta_{10} \text{SALERES} + \beta_{11} \text{FAM} \\
 & + \beta_{12} \text{FRD} + \beta_{13} \text{AGE} + \beta_{14} \text{GENDER} + \beta_{15} \text{INCOME} + \beta_{16} \text{EDU} \\
 & + \beta_{17} \text{MARITAL} + \varepsilon
 \end{aligned}$$

Where Y_i is the dependent variable of the intention to save gold via an online platform for precautionary expenses of individual i , β (beta) is regression coefficient, β_1 to β_{16} is the coefficient of each variable, and ε is error term.

SAVEHAVEN is the independent variable of perceiving gold as a safe-haven and saving gold when the economy is uncertain,

FINSTABLE is the independent variable of saving gold for financial security due to high liquidity,

PRICEINCREASE is the independent variable of believing that the gold price will increase in the future,

HLIQUID is the independent variable of perceiving that gold is easy to be sold and converted into cash,

LINITIALMIN is the independent variable of low minimum initial deposit,

NOEXEMPT is the independent variable of saving gold even though there is no tax-exempt benefit,

HINFLA is the independent variable of saving gold as a hedge against high inflation,

HOIL is the independent variable of saving gold when the oil price increase,

ALLTIME is the independent variable of being able to withdraw, deposit, and make online payment all the time,

GETGOLD is the independent variable of not holding physical gold due to safety issues and believing that I will receive physical gold after the withdrawal,

RELSTORE is the independent variable of reliability of service providers,

SALERES is the independent variable of the knowledge of sales representatives,

FAM is the independent variable of family as a reference group,

FRD is the variable of friends as a reference group,

AGE is the independent variable of age,

GENDER is the independent variable of being female,

INCOME is the independent variable of income,

EDU is the variable of educational level,

MARITAL is the variable of marital status

SAFEHAVEN and FINSTABLE were used in model 2 because savers are risk-averse and consider the highest liquid asset when their saving intention is for precautionary expenses (Bank of Thailand, 2015). Nevertheless, PRICEINCREASE and HLIQUID were used in model 1 because people consider expected return and liquidity of assets when their saving intention is for investment (Bank of Thailand, 2015). The rest of independent variables were used in both model 1 and model 2.

Table 4.1 The determinants of gold saving program via an online platform

Variables	Expected result	Sources
Characteristics of assets		
SAFEHAVEN	+	Risk aversion was positively related to intention to save gold for precautionary saving via an online platform because gold was considered as a safe-haven asset. (Baur and McDermott, 2016).
PRICEINCRE	+	Return was expected to have a positive relationship with intention to save gold for investment because price for gold was expected to increase in the future and yield higher return (Suppakitjarak and Krishnamra, 2015).
FINSTABLE	+	Saving gold via an online platform for financial security was expected to be positive as Chaisuriyathavikun (2015) found that Thai customers saved gold to secure their financial stability in the future as gold could be converted into cash easily.
HLIQUIDITY	+	Liquidity of an asset positively affected the intention to save gold since gold was sold and converted into cash easily (Rattanaamarangkun, 2014).
LINITIALMIN	+	Low minimum initial deposit, no minimum balance requirement, a variety of deposit options and no requirement of saving duration were positively associated with the saving decision (Suppakitjarak and Krishnamra, 2015).
NOEXEMPT	-	Saving decision was negatively affected by no tax-exempt benefit (Tewaruangsap, 2019).
HINFLA	+	Consumers' gold saving decisions were

HOIL	+	positively associated with inflation and oil price. (Napompech, Tanpipat, and Ueatrakunkamol, 2010).
Reliability and convenience of the new form of gold saving		
ALLTIME	+	All variables were assumed to be positive. Questionnaire was adapted from (Premkat, 2016)
GETGOLD	+	
RELSTORE	+	
Source of information		
FAM	+	Friends and family were assumed to be positively influence saving decision. Questionnaire was adapted from (Chaisuriyathavikun, 2015)
FRD	+	
SALERES	+	
Demographic factors		
AGE	-	Younger people and lower income people showed more interested in online gold saving. Also, there was no difference between gender and education on online gold saving programs (Tewaruangsap, 2019). Married people had a higher chance of saving than single people (Lupton and Smith, 1999).
GENDER	No effect	
INCOME	-	
EDU	No effect	
MARITAL	+	

Based on the expected results, two hypotheses are proposed as follow:

H1 (AGE): Younger Thai citizens are more interested in gold savings programs for investment offered through online platforms than older Thai citizens.

H2 (HINFLA): There is a significant positive impact of inflation on gold saving decision for investment via an online platform.

Chapter 5

Survey Summary

5.1 Demographic information

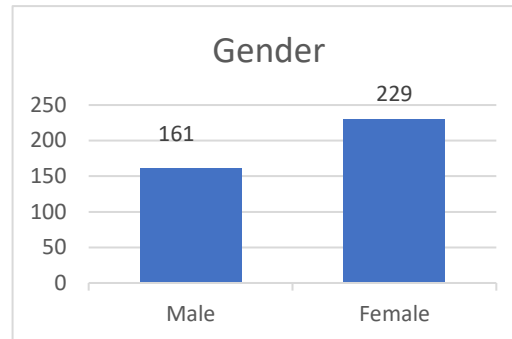
Demographic information consists of gender, age, income, educational level, marital status, number of family members and occupations. This part utilizes descriptive statistics consisting of minimum, maximum, mean values to generate demographic information. Total respondent were 390 people and more than half of them were female. Age is divided into four groups which are 20-24 years old, 25-35 years old, 36-50 years old and more than 50 years old. Monthly income section is divided into seven groups which are less than 20,000 Baht, 20,001 – 40,000 Baht, 40,001 – 60,000 Baht, 60,001 – 80,000 Baht, 80,001 – 100,000 Baht, 100,001 – 150,000 Baht, more than 150,000 Baht. Educational level is divided into four groups which are lower than high school, high school, bachelor's degree, master's degree or higher. Marital status section is divided into four groups which are single, married, married with children and divorced. Number of family members is divided into six groups which are one person, two people, three people, four people, five people and more than five people. Occupation section is divided into 21 groups (see Table 5.1.7 and Figure 5.1.7). Most of the respondent are 25-50 years old, earn 20,001 – 40,000 Baht a month, and have bachelor's degree as a highest educational level. In addition, most of them are single, have four family members and are employees in private sector.

5.1.1 Gender of respondents

Table 5.1.1 Gender of respondents

Gender	Number	Percentage
Male	161	41.28%
Female	229	58.72%
Total	390	100%

Figure 5.1.1 Gender of respondents



According to Table and Figure 5.1.1, there are a total of 390 respondents participated in the survey, and 161 respondents accounted for 41.28% is male, while 229 respondents accounted for 58.72% is female.

5.1.2 Age of respondents

Table 1.1.2 Age of respondent

Age	Number	Percentage
20 – 24 years old	14	3.59%
25 – 35 years old	159	40.77%
36 - 50 years old	157	40.26%
More than 50 years old	60	15.38%
Total	390	100%

Figure 5.1.2 Age of respondents

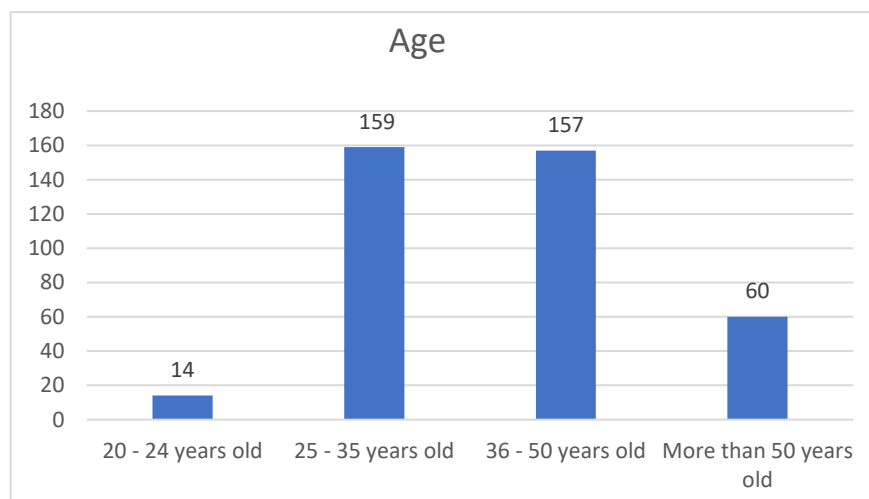


Table and Figure 5.1.2 illustrate that there are 14 respondents (3.59%) whose age is 20-24 years old, 159 respondents (40.77%) are 25-35 years old, 157 respondents (40.26%) are 36-50 years old, and 60 respondents (15.38%) are more than 50 years old. Also, there is no respondent whose age is less than 20 years old.

5.1.3 Monthly income of respondents

Table 5.1.3 Monthly income of respondents

Monthly	Number	Percentage
Less than 20,000 Baht	53	13.59%
20,001 - 40,000 Baht	123	31.54%
40,001 - 60,000 Baht	70	17.95%
60,001 - 80,000 Baht	54	13.85%
80,001 - 100,000 Baht	30	7.69%
100,001 - 150,000 Baht	22	5.64%
More than 150,000 Baht	38	9.74%
Total	390	100%

Figure 5.1.3 Monthly income of respondents

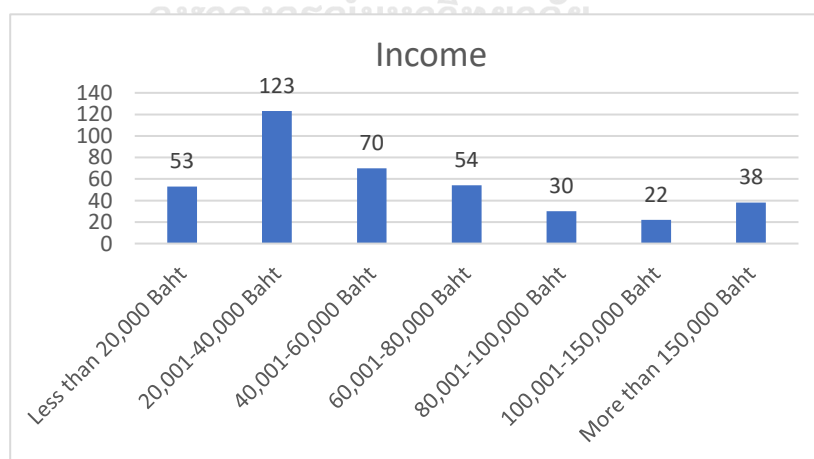


Table and Figure 5.1.3 show that 53 respondents (13.59%) earn less than 20,000 Baht, 123 respondents (31.54%) earn 20,001 – 40,000 Baht, 70 respondents (17.95%) earn 40,001 – 60,000 Baht, 54 respondents (13.85%) earn 60,001 – 80,000

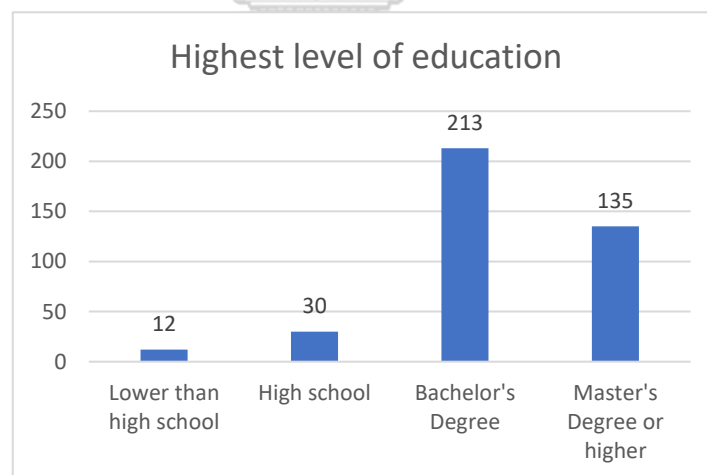
Baht, 30 respondents (7.69%) earn 80,001 – 100,000 Baht, 22 respondents (5.64%) earn 100,001 – 150,000 Baht, and 38 respondents (9.74%) earn more than 150,000 Baht.

5.1.4 Highest educational level of respondents

Table 5.1.4 Highest educational level of respondents

Highest educational level	Number	Percentage
Lower than high school	12	3.08%
High school	30	7.69%
Bachelor's Degree	213	54.61%
Master's Degree or higher	135	34.62%
Total	390	100%

Figure 5.1.4 Highest educational level of respondents



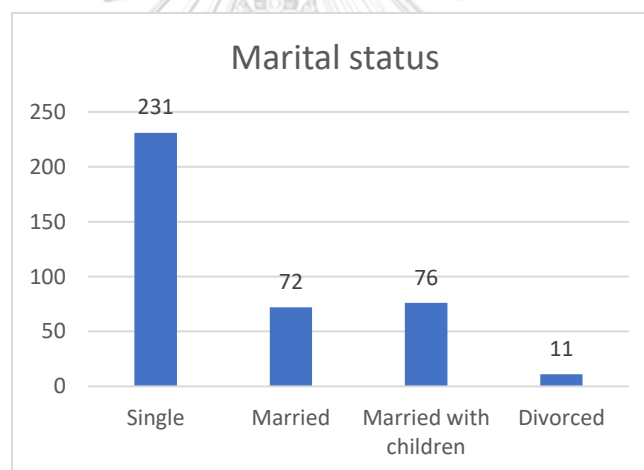
Based on Table and Figure 5.1.4, 12 respondents (3.08%) did not complete high school, 30 respondents (7.69%) completed high school, 213 respondents (54.61%) received bachelor's degree, and 135 respondents (34.62%) completed master's degree or higher degree

5.1.5 Marital status of respondents

Table 5.1.5 Marital status of respondents

Marital status	Number	Percentage
Single	231	59.23%
Married	72	18.46%
Married with children	76	19.49%
Divorced	11	2.82%
Total	390	100%

Figure 5.1.5 Marital status of respondents



From Table and Figure 5.1.5, out of total respondents, 231 respondents (59.23%) are single, 72 respondents (18.46%) are married, 76 respondents (19.49%) are married and have children, followed by 11 respondents (2.82%) are divorced.

5.1.6 Number of family members of respondents

Table 5.1.6 Number of family members of respondents

Number of family members	Number	Percentage
1	13	3.33%
2	29	7.44%
3	83	21.28%
4	114	29.23%
5	75	19.23%
More than 5 people	76	19.49%
Total	390	100%

Figure 5.1.6 Number of family members of respondents

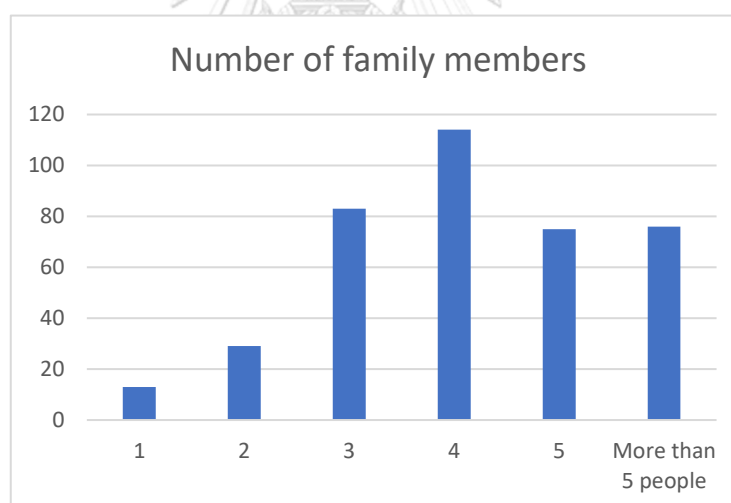


Table and Figure 5.1.6 illustrate that there are 13 respondents (3.33%) who do not have any family members, 29 respondents (7.44%) who have 2 family members, 83 respondents (21.28%) who have 3 family members, 114 respondents (29.23%) who have 4 family members, 75 respondents (19.23%) who have 5 family members, 76 respondents (19.49%) who have more than 5 family members.

5.1.7 Occupation of respondents

Table 5.1.7 Occupation of respondents

Occupation	Number	Percentage
Accountant	3	0.77%
Business owner	77	19.74%
Civil servant	51	13.08%
Consultant	1	0.26%
Doctor/nurse	83	21.28%
Engineer	2	0.51%
Freelance	1	0.26%
Housekeeper	7	1.79%
Lawyer	2	0.51%
Marketer	1	0.26%
Merchant	10	2.56%
Pharmacist	2	0.51%
Police/soldier	2	0.51%
Politician	1	0.26%
Private sector	114	29.23%
Retired	9	2.31%
Salesperson	7	1.79%
Service staff	6	1.54%
Student	4	1.03%
Teacher	6	1.54%
Unemployed	1	0.26%
Total	390	100%

Figure 5.1.7 Occupation of respondents

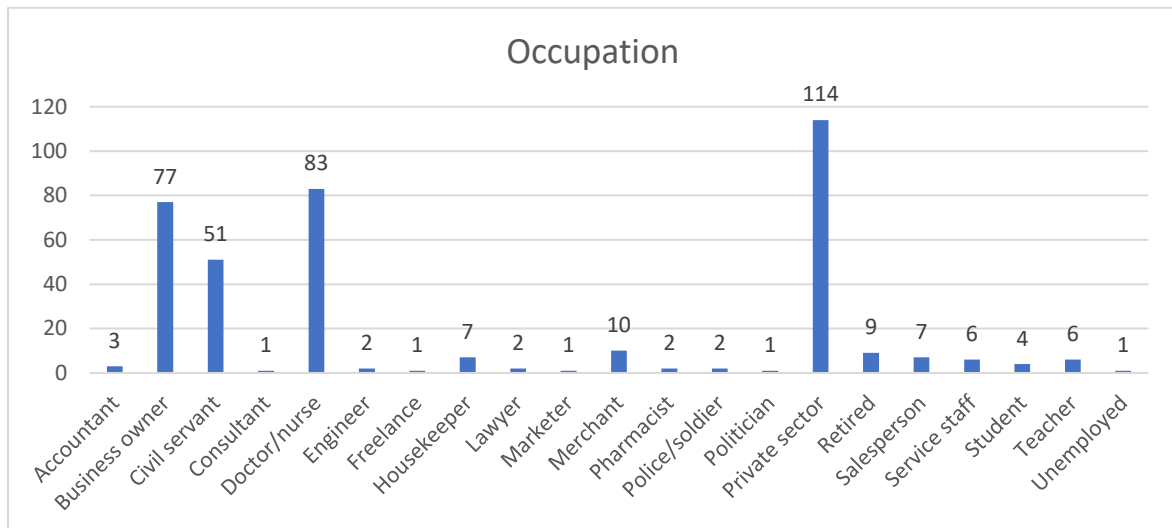


Table and Figure 5.1.7 show that the majority of respondents are employees in the private sector followed by doctors/nurses, business owners, and civil servants respectively. Moreover, there are only one consultant, freelance, marketer, politician, and unemployed, and there are two engineers, lawyers, pharmacists, and polices/soldiers. Also, there are three accountants, seven housekeepers, seven salespeople, ten merchants, nine retired people, six service staff, and six teachers.

5.2 Saving and investment behaviors มหาวิทยาลัย

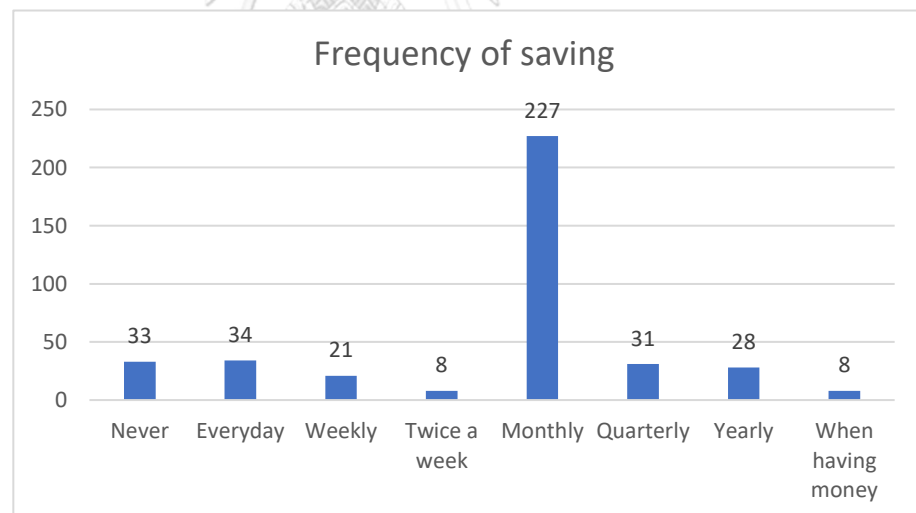
This part is about the saving and investment behaviors consisting of frequency of savings, source of information, purposes of saving and investment, options for saving and investment, money allocation between saving and investment and factors that influences saving and investment decisions.

5.2.1 Frequency of saving of respondents

Table 5.2.1 Frequency of saving of respondents

Frequency of saving	Number	Percentage
Never	33	8.46%
Everyday	34	8.72%
Weekly	21	5.38%
Twice a week	8	2.05%
Monthly	227	58.21%
Quarterly	31	7.95%
Yearly	28	7.18%
When having money	8	2.05%
Total	390	100%

Figure 5.2.1 Frequency of saving of respondents



As shown in Table and Figure 5.2.1, more than half of the respondents save money on monthly basis accounting for 227 respondents (58.21%) followed by 34 respondents (8.72%) who save money every day. 33 respondents (8.46%) who have never saved money before, 31 respondents (7.95%) who save money on a quarterly basis, 28 respondents (7.18%) save money on the yearly basis, 21 respondents

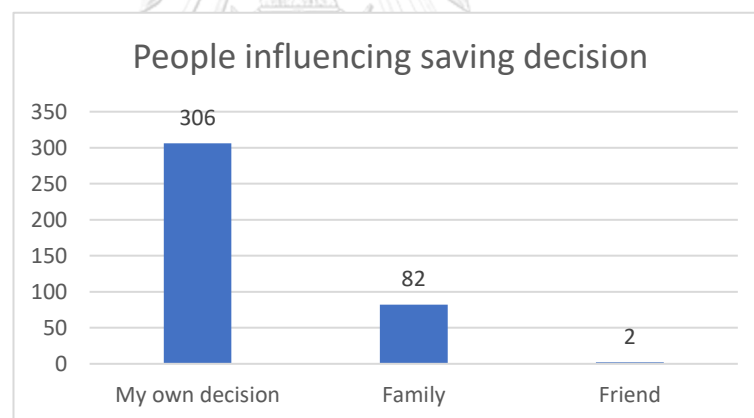
(5.38%) save money on the weekly basis. However, only 8 respondents (2.05%) save money twice a week and save money only when they have money.

5.2.2 People who affect the saving decision of respondents

Table 5.2.2 People who affect the saving decision of respondents

People who affect the saving decision	Number	Percentage
My own decision	306	78.46%
Family	82	21.03%
Friend	2	0.51%
Total	390	100%

Figure 5.2.2 People who affect the saving decision of respondents



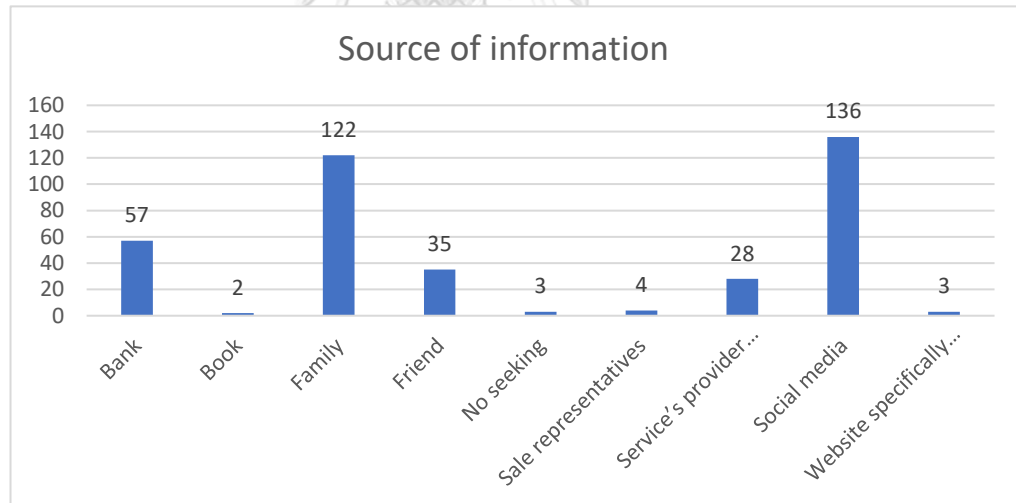
As illustrated in Table and Figure 5.2.2, the majority of respondents who make their own saving decisions account for 306 respondents (78.46%), while 82 respondents (21.03%) are influenced by family. Also, friends have the least impact on saving decisions accounting for only 2 respondents (0.51%)

5.2.3 Source of information on saving decision of respondents

Table 5.2.3 Source of information on saving decision of respondents

Source of information	Number	Percentage
Bank	57	14.62%
Book	2	0.51%
Family	122	31.28%
Friend	35	8.97%
No seeking	3	0.77%
Sales representatives	4	1.03%
Service's provider website	28	7.18%
Social media	136	34.87%
Website for saving	3	0.77%
Total	390	100%

Figure 5.2.3 Source of information on saving decision of respondents



Based on Table and Figure 5.2.3, most respondents seek information on saving from social media and friends accounting for 136 respondents (34.87%) and 122 respondents (31.28%) respectively. 57 respondents (14.62%) seek information from the bank, 35 respondents (8.97%) ask friends for advice, 28 respondents (7.18%) find information on the service provider's website, 4 respondents (1.03%) receive information from sales representatives, 3 respondents (0.77%) search on the internet,

and the other 3 respondents do not seek for information. Lastly, 2 respondents (0.51%) find information from the books.

5.2.4 Purpose of saving and investment of respondents

Table 5.2.4 Purpose of saving and investment of respondents

Rank	Purpose of saving	Purpose of investment
Top 1	Financial stability	Financial freedom
Top 2	Unexpected/Emergency fund	Expected return
Top 3	Retirement	Retirement

In this question, respondents were asked to rank the top three purposes of their saving and investment. There are many purposes of saving provided in the question which are financial stability, financial discipline, education, real estate, unexpected or emergency fund such as loss of employment and medical expenses, travel, retirement, and heritage for children. The survey showed that the 3 main purposes of saving are financial stability, funds for unexpected expenses, and funds for retirement respectively. For investment, financial freedom, expected return, and funds for retirement are the 3 main purposes of investment respectively. Those 3 purposes outweigh other purposes which are tax-exemption, wealth accumulation, and heritage for children.

5.2.5 Selected option for saving and investment of respondents

Table 5.2.5 Selected option for saving and investment of respondents

Rank	Option for saving	Option for investment
Top 1	Deposit money in the bank account	Deposit money in the bank account
Top 2	Insurance	Gold
Top 3	Stocks	Insurance

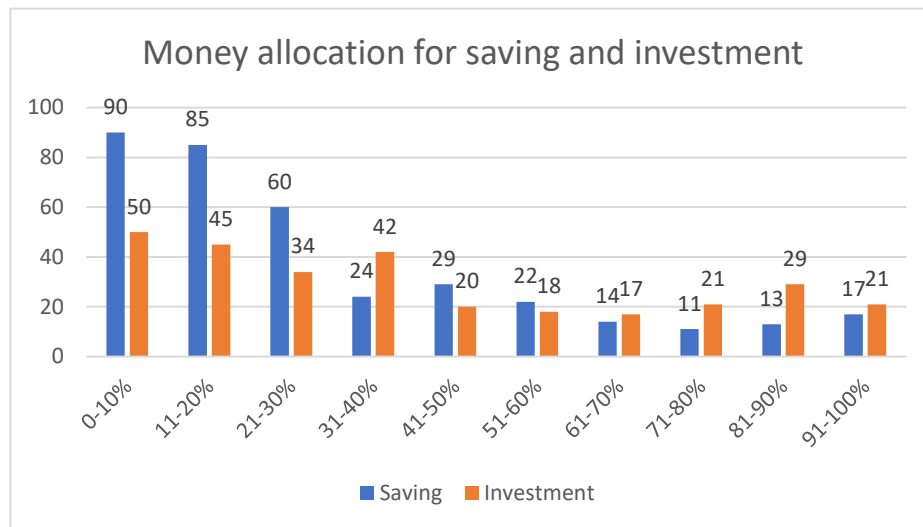
This question asked respondents to rank the top three options of their saving and investment in terms of importance. There are various options provided in the question which are deposit money in a bank account, gold saving, stocks, insurance, real estate, provident fund, mutual fund, fixed income fund, LTF (Long Term Equity Fund), RMF (Retirement Mutual Fund) and cryptocurrency. As a consequence, depositing money in the bank account is the most important option for both saving and investment. For the second option, insurance was selected for saving, while gold was selected for investment. For the third option, the option for saving goes to stocks, and the option for investment goes to insurance.

5.2.6 Money allocation between saving and investment

Table 5.2.6 Money allocation between saving and investment

Money allocation for saving	Number	Percentage	Money allocation for investment	Number	Percentage
0-10%	90	25%	0-10%	50	17%
11-20%	85	23%	11-20%	45	15%
21-30%	60	16%	21-30%	34	11%
31-40%	24	7%	31-40%	42	14%
41-50%	29	8%	41-50%	20	7%
51-60%	22	6%	51-60%	18	6%
61-70%	14	4%	61-70%	17	6%
71-80%	11	3%	71-80%	21	7%
81-90%	13	4%	81-90%	29	10%
91-100%	17	5%	91-100%	21	7%
Total	365	100%	Total	297	100%

Figure 5.2.6 Money allocation between saving and investment



Respondents were asked how they are likely to allocate monthly income between saving and investment. Some respondents allocate money for both saving and investment, however, some of them allocate money for saving only, and some allocate money for investment only. According to Figure 5.2.6, respondents prefer saving money more than investing money. The majority of respondents save money approximately 0-10% of their total income accounted for 25%, and also invest money approximately 0-10% of their total income accounted for 17%. The average percentage of allocating monthly income for saving is 35.23%, while the average percentage of allocating monthly income for investment is 46.33%. This can be summarized that Thai people allocated a different percentage of their monthly income to savings and investment, and they allocated monthly income to investment more than saving.

5.2.7 The importance of factors affecting the saving and investment decision

Table 5.2.7 The importance of factors affecting the saving and investment decision

Criteria	Average score out of 5
Perceived risk	3.97
Expected return	4.28

Liquidity	4.10
Deposit requirement	3.58
Tax-exempt	3.61
Economic situation	3.85
Convenience from online platform & Reliability of service provider	4.21
Reference group	3.68

Respondents were asked to rate the factor influencing the saving and investment decision based on the importance level from 1 to 5; 5 = Strongly high important, 4 = Slightly high important, 3 = Neutral, 2 = Slightly low important, 1= Strongly low important. The importance level measures the factors that respondents need to consider before making a saving and investment decision. Each factor is calculated by the average score in which a higher score indicates the higher importance level of that determinant. This question will help the researcher to understand which factors that are more impactful on respondents' saving and investment decision making. As shown in Table 5.2.7 above, the most important determinants that affect respondents' saving and investment decisions were expected return, convenience from online platform and reliability of services providers, and liquidity of an asset respectively. In contrast, deposit requirements (initial deposit, the required minimum balance, the variety of deposit options, and required saving duration) are the least important factors before making saving and investment decision.

5.3 Gold saving decision

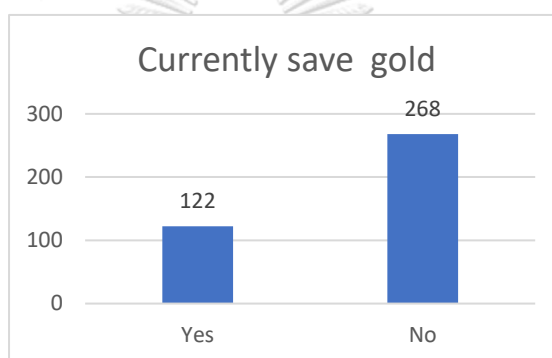
This section will help the researcher to focus on the targeted group in this study which is respondents who are interested in the gold saving program via an online platform.

5.3.1 Gold saver

Table 5.3.1 Total number of gold saver

Currently save gold	Number	Percentage
Yes	122	31.28%
No	268	68.72%
Total	390	100%

Figure 5.3.1 Total number of gold saver



From Table and Figure 5.3.1, only 122 respondents (31.28%) are currently saving gold, and more than half of the respondents accounting for 268 respondents (68.72%) have never saved gold before.

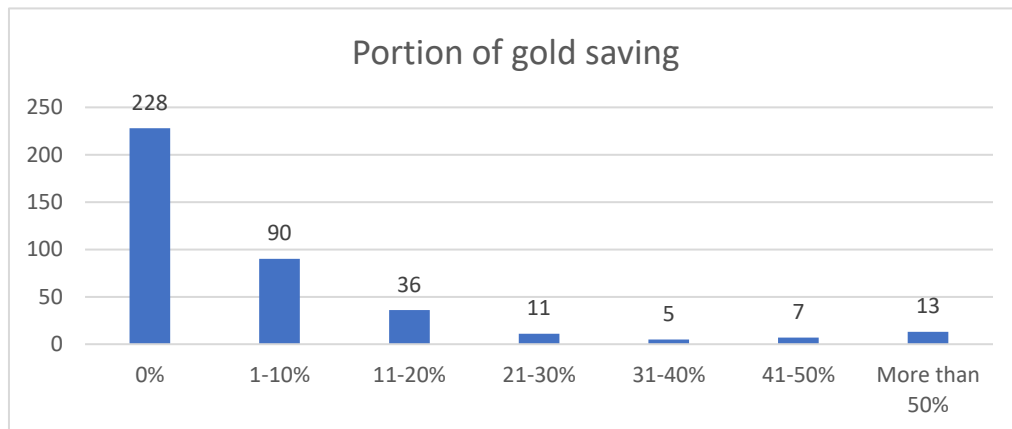
5.3.2 Portion of gold saving

Table 5.3.2 Portion of gold saving

Portion of gold saving	Number	Percentage
0%	228	58.46%
1-10%	90	28.08%
11-20%	36	9.23%
21-30%	11	2.82%
31-40%	5	1.28%
41-50%	7	1.80%

More than 50%	13	3.33%
Total	390	100%

Figure 5.3.2 Portion of gold saving



In this question, respondents were asked to specify the portion of gold saving in terms of percentage. There are 228 respondents (58.46%) who do not save gold at all, however, the number mismatch with the number taken from section 5.3.1 which indicates that there are 268 respondents who are not currently save gold. Those 40 respondents may own gold ornament as an accessory, so they consider that as a valuable asset. Thus, they consider gold ornament as another portion of their saving. Also, for those who are currently save gold, 90 respondents (28.08%) save in gold approximately 1-10% of their total saving, 36 respondents (9.23%) save in gold approximately 11-20% of their total saving, 11 respondents (2.82%) save in gold approximately 21-30% of their total saving, 5 respondents (1.28%) save in gold approximately 31-40% of their total saving, 7 respondents (1.80%) save in gold approximately 41-50% of their total saving, 13 respondents (3.33%) save in gold more than 50% of their total saving.

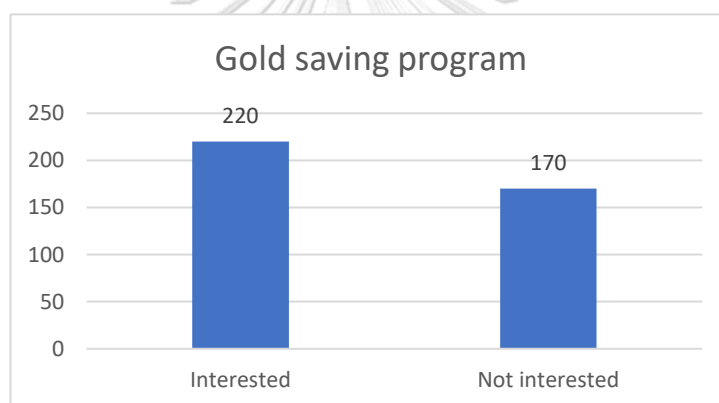
5.3.3 Interest in the gold saving program via an online platform

This question was used to screen only the respondent interested in the gold saving program via an online platform.

Table 5.3.3 Total number of respondents interested in the gold saving program via an online platform

Gold saving program via an online platform	Number	Percentage
Interested	220	56.41%
Not interested	170	43.59%
Total	390	100%

Figure 5.3.3 Total number of respondents interested in the gold saving program via an online platform



According to Table and Figure 5.3.3, there are 220 respondents (56.41%) who are interested in trying the gold saving program via an online platform, on the other hand, 170 respondents (43.59%) are not interested in trying the online gold saving program. To study the factor affecting their decision of gold saving via an online platform, therefore, these two groups of respondents will be directed to different sets of questions based on their interest in gold saving via an online platform in the next section.

5.4 Factors that influence gold saving decision

This section of the survey provided statements and asked respondents to rank the level in terms of from 1 to 5; 1 to 5; 5 = Strongly agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly disagree. Each statement is calculated by the average score to

reflect which determinants mostly impact respondents' gold saving decisions via an online platform. To easily understand the meaning of average score, the interpretation of the results is developed as follows:

Table 5.4 The criteria for the interpretation

Criteria	Interpretation
Below 2	Strongly disagree
2 – 3	Slightly disagree
3 - 4	Slightly agree
Above 4	Strongly agree

5.4.1 Respondents who are interested in the gold saving program via an online platform

Table 5.4.1.1 The level of agreement on deciding gold saving via an online platform in the future

Interest in gold saving in the future via an online platform	Average score out of 5	Interpretation
I intend to try a gold saving program via an online platform for investment in the future.	4.06	Strongly agree
I intend to try a gold saving program via an online platform for cash saving and unexpected situations	3.87	Slightly agree

From Table 5.4.1.1 above, the statement “I intend to try a gold saving program via an online platform for investment in the future.” got an average score of 4.06 out of 5 which means most respondents certainly decide to save gold for investment in the future. Moreover, second statement got the average score of 3.87 out of 5 suggesting that when respondents have an intention of saving for unexpected situations, the gold

saving via an online platform will be considered as an option. Both questions will be used as the dependent variable in both multiple regression analysis.

Table 5.4.1.2 The level of agreement on risk and expected return criteria

Risk and Expected return	Average score out of 5	Interpretation
Gold is a safe haven asset, so I consider gold savings when the economy is uncertain.	4.28	Strongly agree
I consider gold saving as I certainly believe that gold prices will increase in the future.	4.15	Strongly agree

As shown in Table 5.4.1.2, the average is slightly different in terms of risk and return. the statement “Gold is a safe haven asset, so I consider gold savings when the economy is uncertain.” got the higher average score with the average score of 4.28 out of 5, and the statement “I consider gold saving via an online platform as I certainly believe that gold price will increase in the future.” got the lower score with the average score of 4.15 out of 5. This indicates that respondents perceive gold as a risk-free asset, and it can maintain its value during economic uncertainty. In terms of return, they certainly believe that they will get a higher return if they save gold now because the gold price tends to increase in the future.

Table 5.4.1.3 The level of agreement on the liquidity of an asset criteria

Liquidity	Average score out of 5	Interpretation
I consider gold savings as it is easy to be sold and converted into cash	4.38	Strongly agree
I consider gold savings for my financial security due to high liquidity.	4.23	Strongly agree

Based on Table 5.4.1.3, both statements got an average score which is higher than 4 meaning that the liquidity of an asset has an impact on gold saving decisions via an online platform. Furthermore, to secure financial status, respondents prefer gold as an option due to its high liquidity.

Table 5.4.1.4 The level of agreement on deposit requirements

Deposit requirements	Average score out of 5	Interpretation
I consider gold savings due to low minimum initial deposit (100 Baht).	3.90	Slightly agree
I consider gold savings as there is no minimum balance requirement.	3.95	Slightly agree
I consider gold saving because there are a variety of deposit options such as monthly deposit and daily deposit (no need to deposit every day)	4.00	Slightly agree
I consider gold savings if there is no requirement of saving duration.	4.17	Strongly agree

As illustrated in Table 5.4.1.4, minimum initial deposit amount, minimum balance requirement, and the variety of deposit options slightly influence gold saving decisions \ via an online platform with and average score of 3.90, 3.95, and 4 out of 5 respectively. Moreover, saving duration strongly affects gold saving decisions via an online platform with the highest average score of 4.17 out of 5.

Table 5.4.1.5 The level of agreement on tax-exempt benefit

Tax-exempt benefits	Average score out of 5	Interpretation
I consider gold savings even though I cannot get tax-exempt benefits.	3.85	Slightly agree

In accordance with Table 5.4.1.5, respondents are still interested in gold saving via an online platform although they will not get tax-exempt benefits like other

financial instruments. This indicates that tax-exempt benefit has no effect on gold saving decisions via an online platform.

Table 5.4.1.6 The level of agreement on economic situations

Economic situations	Average score out of 5	Interpretation
I consider gold savings as a hedge against high inflation.	4.12	Strongly agree
I consider gold savings when the oil price increase	3.80	Slightly agree
I consider gold savings when the USD is depreciated	3.81	Slightly agree

As shown in Table 5.4.1.6, the first highest average score that respondents strongly agree with is “I consider gold savings as a hedge against high inflation” with an average score of 4.12 out of 5. This means that respondents tend to save more gold when there is high inflation which has a positive relationship with gold saving decisions via an online platform. Additionally, when there is an increase in oil price and the depreciation of USD which are the key determinant of the gold price, respondents also tend to save more gold with the lower average score of 3.80 and 3.81 out of 5. This can be interpreted that all inflation, oil price, and exchange rate have an impact on gold saving decisions via an online platform with high inflation being the most impacted factor.

Table 5.4.1.7 The level of agreement on online shopping behaviors and credibility of services provider

Online shopping behaviors/Credibility of services provider	Average score out of 5	Interpretation
I consider gold savings as I can withdraw, deposit, and make payments all the time (24/7).	3.94	Slightly agree

I consider gold savings as its online platform is user-friendly.	3.89	Slightly agree
I consider gold savings as its platform can be accessed on multiple devices.	3.86	Slightly agree
I consider gold savings because I do not want to hold physical gold by myself due to safety issues and think that I will certainly receive physical gold after the withdrawal.	3.90	Slightly agree
I consider gold savings because service providers are reliable.	4.10	Strongly agree
I consider gold savings when sales representatives are knowledgeable.	3.87	Slightly agree

From Table 5.4.1.7, respondents' gold saving via online platform decisions are mostly affected by the reliability of service providers with the highest average score of 4.10 out of 5. The second-highest average score is related to the convenience from an online platform meaning that respondents tend to save gold if there is an online platform provided where they can make online transactions all the time. However, the user-friendly design of an online platform, having access on multiple devices, and saving gold via an online platform due to security issues from holding physical gold have less impact on gold saving decisions via an online platform.

Table 5.4.1.8 The level of agreement on reference groups

Reference group	Average score out of 5	Interpretation
I consider gold savings as my family is investing in gold and recommend me a gold saving program.	3.58	Slightly agree
I consider gold savings as my friends are investing in gold and recommend me a gold saving program.	3.56	Slightly agree

As shown in Table 5.4.1.8, respondents' gold saving decisions via an online platform are slightly affected by reference groups which are family and friends with an average score of 3.58 and 3.56 out of 5 respectively.

5.4.2 Respondents who are not interested in the gold saving program via an online platform

Table 5.4.2 The level of agreement on not save gold via an online platform

Determinants	Average score out of 5	Interpretation
I do not consider gold saving as I have never invested in gold before.	3.42	Slightly agree
I do not consider gold saving as I have insufficient knowledge.	3.64	Slightly agree
I do not consider gold saving as I do not trust gold transactions via online platforms without physical gold backup.	3.96	Slightly agree
I do not consider gold saving as the gold price highly fluctuates and it is too risky.	3.52	Slightly agree

Another set of statements will be provided to respondents who are not interested in the gold saving program via an online platform to understand the reason why they decide not to save gold via an online platform. Due to Table 5.4.2, trust issues on an online platform that respondents are not holding the physical gold is the most influential factor that makes them decide not to save gold via an online platform. Also, having insufficient knowledge on gold, the fluctuation of the gold price, having no experience in gold saving before have a negative relationship with the gold saving decisions via an online platform with the lower average score of 3.64, 3.52, and 3.42 out of 5 respectively. The result is consistent with previous research done by Tewarueangsap (2019) as the researcher found that the reason for not saving gold via an online platform is the distrust in an online platform.

From a total of 390 respondents, there are 220 respondents interested in the gold saving program via an online platform, and 170 respondents who are not

interested in the gold saving program via an online platform. Therefore, the researcher will study whether interest in the online gold saving program is varied by demographic characteristics. Moreover, the researcher will study the main factors that affect gold saving decisions via an online platform whether they are statistically significant by focusing on 220 respondents.



Chapter 6

Empirical Results and Analysis

6.1 Two-way ANOVA result of age and gender

Two-way ANOVA was performed to determine whether age and gender have a significant effect on the interest in gold saving program for investment via an online platform, and to analyze if there is interaction effect between age and gender on an interest in online gold saving program for investment. From table 6.1.2, as the p-value for age is less than 0.1, age has a statistically significant effect at a 10% significance level on an interest in the gold saving program for investment via an online platform.

Based on Table 6.1.1, the age group of 20 - 24 had mean value at 4.44 and the age group of 25 - 35 had mean value at 4.13 which is higher than the total mean value of all age group at 4.06. However, mean value of the age group of 36-50 was 4.02, and mean value of the age group of more than 50 was 3.65 which is lower than the total mean value of all age group at 4.06. This can be concluded that younger citizens are more interested in gold saving program for investment via an online platform than older citizens. The result is in line with the previous research conducted by Tewaruangsap (2019) because he found that Thai citizens whose age range between 26 to 35 showed more interest in online gold saving program than older generation groups. Therefore, the hypothesis 1 can be established. On the contrary, there is no statistically significant difference of gender on the interest in gold saving program for investment via an online platform and age and gender interaction is also not significant since the p-value is more than 0.05. The result is consistent with Tewaruangsap (2019) because he found that there were no significant differences among gender, educational level, and marital status toward gold savings via an online platform.

Table 6.1.1 Descriptive statistics based on age and gender

Age	Gender	Mean	N
20-24	Female	4.33	6
	Male	4.67	3

	Total	4.44	9
25-35	Female	4.13	80
	Male	4.16	19
	Total	4.13	99
36-50	Female	4.14	37
	Male	3.95	58
	Total	4.02	95
More than 50	Female	3.38	8
	Male	3.89	9
	Total	3.65	17
Total	Female	4.09	131
	Male	4.01	89
	Total	4.06	220

Table 6.1.2 Two-way ANOVA result of age and gender

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	7.022a	7	1.003	1.370	0.219
Intercept	1259.273	1	1259.273	1720.038	1.1E-103
Age	5.090	3	1.697	2.317	0.077
Gender	0.568	1	0.568	0.776	0.379
Age*Gender	2.129	3	0.710	0.969	0.408
Error	155.209	212	0.732		
Total	3787	220			
Corrected Total	162.232	219			

a. R Squared = 0.043 (Adjusted R Squared = 0.012)

6.2 Two-way ANOVA result of monthly income and frequency of savings

In addition, two-way ANOVA was performed to analyze whether monthly income and frequency of savings have a significant influence on interest in gold saving program for investment via an online platform, and to analyze if there is interaction effect between monthly income and frequency of savings on an interest in online gold saving program for investment. From Table 6.2.2, the p-value for monthly income and the interaction between monthly income and frequency of savings is less than 0.05. Both have a statistically significant effect at a 5% significance level on an interest in the gold saving program for investment via an online platform.

Based on Table 6.2.1, mean value of monthly income group of less than 20,000 Baht is 4.42, 4.09 for income group of 20,001- 40,000 Baht and 4.16 for income group of 60,001-80,000 Baht. All of which are higher than the total mean of all income group of 4.06. In contrast, mean value of income group of 40,001 – 60,000 Baht is 3.94, 3.65 for income group of 80,001 – 100,000 Baht, 4.00 for income group of 100,001-150,000 Baht and 3.83 for income group of more than 150,000 Baht. All of which are lower than the total mean of all income group of 4.06. This can be indicated that people with lower monthly income are more interested in gold saving program for investment via an online platform than those with higher monthly income. As people can spend only 1,000–2,000 Baht to purchase gold via an online platform, offering online gold saving platform can attract lower income people. The result is consistent with previous study showing that citizens with income above 100,000 had less interest in gold saving program via an online platform than citizens with lower income (Tewaruangsap, 2019). Furthermore, the result shows that people with income below 20,000 and save their monthly income quarterly and twice a week had more chance to save gold for investment via an online platform than people with the same monthly earnings and save their monthly income weekly. However, there is no difference in the frequency of savings.

Table 6.2.1 Descriptive statistics based on monthly income and frequency of savings

Monthly income	Frequency	Mean	N
Less than 20,000	Everyday	4.60	5
	Monthly	4.27	11
	Never	4.75	4
	Quarterly	5.00	1
	Twice a week	5.00	1
	Weekly	3.67	3
	Yearly	5.00	1
	Total	4.42	26
20,001- 40,000	Everyday	4.67	6
	Monthly	3.95	42
	Never	3.80	5
	When having money	3.00	1
	Quarterly	3.50	2
	Twice a week	5.00	3
	Weekly	4.25	4
	Yearly	4.75	4
Total	4.09	67	
40,001- 60,000	Everyday	4.50	2
	Monthly	4.00	24
	Never	3.25	4
	When having money	4.00	1
	Quarterly	3.50	2
	Yearly	5.00	1
Total	3.94	34	
60,001- 80,000	Everyday	4.00	1
	Monthly	4.00	19
	Never	4.00	1
	Quarterly	4.40	10
	Yearly	4.25	12
	Total	4.16	43
80,001- 100,000	Everyday	3.00	1
	Monthly	3.56	9
	Quarterly	3.67	3
	Yearly	4.00	4
	Total	3.65	17
100,001- 150,000	Everyday	5.00	2

	Monthly	4.09	11
	Quarterly	4.00	1
	Yearly	1.00	1
	Total	4.00	15
More than 150,000	Everyday	3.00	2
	Monthly	3.92	12
	Twice a week	3.00	1
	Weekly	4.00	1
	Yearly	4.50	2
	Total	3.83	18
Total	Everyday	4.37	19
	Monthly	3.98	128
	Never	3.93	14
	When having money	3.50	2
	Quarterly	4.11	19
	Twice a week	4.60	5
	Weekly	4.00	8
	Yearly	4.24	25
	Total	4.06	220

Table 6.2.2 Two-way ANOVA result of monthly income and frequency of savings

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	41.781a	38	1.099	1.652	0.016
Intercept	758.243	1	758.243	1139.399	5.01E-80
Income	10.303	6	1.717	2.580	0.020
Frequency	2.501	7	0.357	0.537	0.806
Income*Frequency	27.618	25	1.105	1.660	0.032
Error	120.451	181	0.665		
Total	3787	220			
Corrected Total	162.232	219			

a. R Squared = 0.258 (Adjusted R Squared = 0.102)

6.3 Two-way ANOVA result of educational level and marital status

Two-way ANOVA was performed to figure out whether educational level and marital status have a significant impact on interest in gold saving program for investment via an online platform, and to analyze if there is interaction effect between educational level and marital status on an interest in online gold saving program for investment. Refer to Table 6.3.2, only the interaction between marital status and educational level has a significant effect at a 1% significance level on interest in the gold saving program for investment via an online platform.

Based on the mean value in Table 6.3.1, we found that married people who have children and do not have children with bachelor's degree are likely to save gold for investment via an online platform than single people with bachelor's degree. The result is in conjunction with the previous literature conducted by Lupton and Smith (1999) because they proved that married people had a higher probability of saving than single people. In contrast, number of family members and occupations have no influence on online gold savings for investment. For online gold saving for precautionary expenses, all demographic factors are not statistically significant.

Table 6.3.1 Descriptive statistics based on educational level and marital status

Educational level	Marital status	Mean	N
Lower than high school	Single	2.67	3
	Married with kids	4.33	3
	Divorced	5.00	1
	Total	3.71	7
High school	Single	4.20	10
	Married	4.00	3
	Married with kids	5.00	1
	Total	4.21	14
Bachelor's Degree	Single	4.03	70
	Married	4.41	22
	Married with kids	4.05	22
	Divorced	3.00	2

	Total	4.09	116
Master's Degree or higher	Single	4.06	65
	Married	3.33	6
	Married with kids	4.09	11
	Divorced	5.00	1
	Total	4.02	83
Total	Single	4.03	148
	Married	4.16	31
	Married with kids	4.11	37
	Divorced	4.00	4
	Total	4.06	220

Table 6.3.2 Two-way ANOVA result of educational level and marital status

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	17.087a	13	1.314	1.865	0.036
Intercept	541.95	1	541.946	769.166	1.77E-71
Edu	2.28	3	0.761	1.08	0.358
Status	4.05	3	1.351	1.917	0.128
Edu * Status	15.21	7	2.172	3.083	0.004
Error	145.15	206	0.705		
Total	3,787	220			
Corrected Total	162.23	219			

a. R Squared = .105 (Adjusted R Squared = .049)

6.4 Multiple regression result

Table 6.4.1 The multiple regression result

Variables	OLS 1 (Investment)	OLS 2 (Precautionary expenses)
SAFEHAVEN		0.133 (1.592)

FINSTABLE		0.061 (0.668)
PRICEINCREAE	0.060 (1.013)	
HLIQUIDITY	0.052 (0.822)	
LINITIALMIN	0.013 (0.253)	0.221*** (3.722)
NOEXEMPT	0.092* (1.834)	0.148** (2.527)
HINFLA	0.255*** (3.726)	0.263*** (3.396)
HIOIL	0.180*** (3.120)	0.168** (2.471)
ALLTIME	0.040 (0.673)	0.103 (1.486)
GETGOLD	0.067 (1.152)	0.062 (0.924)
RELSTORE	0.105 (1.450)	0.019 (0.227)
SALERES	0.091 (1.263)	0.039 (0.469)
FAM	0.099* (1.767)	0.097 (1.486)
FRD	0.010 (0.179)	0.010 (0.145)
GENDER	0.099 (1.040)	-0.057 (-0.512)
AGE	-0.115* (-1.787)	-0.164* (-1.959)
INCOME	-0.014 (-0.514)	-0.030 (-0.948)
EDU	0.071 (1.049)	-0.002 (-0.026)
MARITAL	0.092 (1.566)	-0.086 (-1.222)
C	0.489 (1.228)	0.189 (0.402)
R-squared	0.521	0.542
Adjusted R-squared	0.481	0.503
F-statistic	12.922	14.055
Observations	220	220

*(Note: *, **, *** indicate the significance level of 10%, 5%, and 1% respectively, and the t statistic in brackets.)*

From the analysis results of regression model 1, out of 17 independent variables, there are five statistically significant determinants that influence the interest in gold saving programs via an online platform for investment.

1. HINFLA = Saving gold as a hedge against high inflation is statistically significant at 1% significance level. This means that saving gold as a hedge against high inflation has a positive association with an interest in the gold saving program for investment via an online platform. The result can be supported by the previous research that shows people will hold less money due to loss of the value of money when there is high inflation (Basco, D'Amato, and Garegnani, 2009). Therefore, consumers tend to save more golds which is considered as a hedge against high inflation rather than money (Ghosh, Levin, Macmillan and Wright, 2004). Therefore, hypothesis 2 can be proved.
2. AGE: Age is statistically significant at a 10% significance level. There was a negative relationship between age and an interest in online gold savings for investment. The result is the same as two-way ANOVA result since it represents that younger generations have higher chance to save gold online for investment than older generations. Thus, hypothesis 1 can be proved.
3. HOIL = An increase in oil price is statistically significant at a 1% significance level. The high price level of oil positively affects an interest in the gold saving program for investment via an online platform. The result is related to the previous study done by Napompech, Tanpipat, and Ueatrakunkamol (2010) who explored the key factors influencing gold consumption for savings in Thailand, gold saving decision depends on the fluctuation of oil prices. Also, the oil price is positively related to gold prices meaning that gold will increase if there is an increase in oil prices (Ibrahim, Kamaruddin, and Hasan, 2014). Therefore, people tend to save more gold when there is an increase in oil prices since the value of gold will also increase.

4. NOEXEMPT = No tax-exempt benefit is statistically significant at a 10% significance level. Therefore, saving gold without tax-exempt benefit has positive influence on the interest in saving gold for investment via an online platform. In other words, purchasing gold is not driven by tax-exempt benefits. On the contrary, the result is inconsistent with Tewaruangsap (2019)'s viewpoint because she found that saving decision was driven by tax-exempt benefits. On the contrary, the result is similar to the previous research proving that purchasing gold was driven by precautionary savings (Napompech, Tanpipat, and Ueatrakunkamol, 2010) and investment motive rather than tax-exempt benefits (Akhtaruzzaman, Boubaker, Lucey, and Sensoy, 2021)
5. FAM = Family is statistically significant at a 10% significance level. When people are evaluating on assets, family has a positive influence on an interest in online gold savings for investment. The result is in conjunction with the previous literature that family's opinion was the most influential source of information when consumers are making decision to purchase gold (Chaisuriyathavikun, 2015).

From the analysis results of regression model 2, out of 17 independent variables, there are five statistically significant determinants that influence the interest in gold saving programs via an online platform for precautionary saving.

1. HINFLA = Saving gold as a hedge against high inflation is statistically significant at 1% significance level, and the coefficient is equal to 0.263. This can be concluded that saving gold as a hedge against high inflation has a positive relationship with an interest in the gold saving program for precautionary expenses via an online platform.
2. AGE = Age is statistically significant at a 10% significance level, and the coefficient is equal to -0.164. There was a negative relationship between age an interest in online gold savings for precautionary expenses. This can be interpreted that younger people are likely to save gold online for precautionary

expenses than older people. The result is also in line with two-way ANOVA result.

3. LINITIALMIN = Low minimum initial deposit is statistically significant at a 1% significance level, and the coefficient is equal to 0.221. Therefore, a low minimum initial deposit is positively associated with the interest in online gold saving for precautionary expenses. Also, the result is consistent with the previous study that showed Thai savers were sensitive to the minimum deposit requirement, and they would not save their money if the minimum deposit requirement of that financial instrument was too high (Suppakitjarak and Krishnamra, 2015). As a result, to simulate the demand for gold savings, the owner of the gold saving program can decrease or cancel the minimum deposit requirement.
4. NOEXEMPT = No tax-exempt benefit is statistically significant at a 5% significance level, and the coefficient is equal to 0.148. Thus, purchasing gold without tax-exempt benefit is positively related to the interest in saving gold for precautionary expenses via an online platform.
5. HOIL = An increase in old price is statistically significant at a 5% significance level, and the coefficient is equal to 0.168. The result can be summarized the high price level of oil positively impacts an interest in the online gold saving program for precautionary expenses.

Based on the result from two regression models, inflation is the common statistically significant factor influencing an interest in gold saving via an online platform for both precautionary saving and investment. Moreover, age is statistically significant affected the interest in online gold saving for both investment and precautionary savings. However, belief in an increase in gold prices in the future, perceiving that gold is easy to be sold and converted into cash, low initial minimum deposit requirement, ability to make online transaction all the time, reliability of service providers and platforms, sale representatives, friends, gender, income,

educational level and marital status are not statistically significant in model 1, while being a safe-haven asset during economic uncertainty, saving gold for financial security due to high liquidity, making an online transaction all the time, reliability of service providers and platforms, sale representatives, family, friends, gender, income, educational level and marital status are not statistically significant in model 2.



Chapter 7

Conclusion and Future Extension

The purpose of this research is to analyze the major determinants influencing the interest to save gold via an online platform. The data was gathered through questionnaire survey, and there was a total of 390 Thai respondents. Based on two-way ANOVA analysis, we find that younger people are more interested in gold saving for investment via an online platform than older people. Furthermore, low-income consumers tend to save gold online for investment toward an online platform more than high-income consumers. This implies that offering an online platform for gold saving can attract more younger customers with low-income because they can spend less money to purchase gold via online platforms. The result also represents that low-income people who save income on a quarterly basis tend to save gold online more than those with the same level of income and save their money on a weekly basis. In addition, married people having children and no children with bachelor's degree are likely to save gold online more than single people with bachelor's degree.

In addition, multiple regression analysis shows that the factors that significantly affect the interest to save gold for investment via online platforms are inflation, oil prices, no tax-exempt benefits, family as a source of information and age. On the contrary, the determinants that significantly influence the interest to save gold for precautionary expenses via online platforms are inflation, oil prices, no tax-exempt benefits, low minimum initial deposit amount and age. All of factors have positive effect on interest in online gold saving program sign except age as older people are less interested in an online platform for gold saving which is consistent with two-way ANOVA result.

Future Extension and Limitation

There are some limitations in this study. The distinction between saving and investment was not considered separately in some questions in the survey, so we could not clearly distinguish the differences of factors that affect types of saving and investment. Due to time limitation, this research covered only 390 Thai respondents

living in Bangkok only. Moreover, the samples in future study could cover other people living in other provinces in Thailand. As people have different behaviors and preferences, the more various sample groups are, the more researchers gain more insightful and various perspectives in future study.

Recommendation for gold retailers

Due to the current situation of the war between Russia and Ukraine, it leads to the surge in gold price and inflation. As a result, young and low-income consumers cannot afford to purchase gold. The implication of this research is that providing online services for gold savings can reach young and low-income customers since saving gold via online platforms allow customers to gradually accumulate money in the gold account and purchase gold when the prices are reasonable and acceptable for them. Even though older generations are more conservative to traditional way of purchasing gold, they can benefit from using online platforms because it can save time and traveling cost especially when there are many customers are gathered in front of the gold retailers to purchase and sell gold. Also, gold retailers cannot control external factors such as inflation which is the most influential factor for saving gold through online platforms. Therefore, the important thing that gold retailers should focus on is to develop the application to be easy to use for every generation and improve the brand image to become more trustworthy and reliable.

REFERENCES



จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY

- Adnan, H. (2014). An analysis of the factors affecting online purchasing behavior of Pakistani consumers. *International Journal of Marketing Studies*, 6(5), 133.
- Akhtaruzzaman, M., Boubaker, S., Lucey, B. M., & Sensoy, A. (2021). Is gold a hedge or a safe-haven asset in the COVID–19 crisis? *Economic Modelling*, 102, 105588.
- Bangkok Post (2022). *Thai gold demand recovering*. Retrieved Feb 6, 2022, from <https://www.bangkokpost.com/business/2258531/thai-gold-demand-recovering>
- Bank of Thailand. (2015). *Long-tern Saving Thailand*. Retrieved Jan 17, 2022, from https://www.bot.or.th/Thai/MonetaryPolicy/ArticleAndResearch/SymposiumDocument/paper5_2548.pdf
- Basco, E., D'Amato, L., & Garegnani, L. (2009). Understanding the money–prices relationship under low and high inflation regimes: Argentina 1977–2006. *Journal of International Money and Finance*, 28(7), 1182-1203.
- Baur, D. G. (2013). Gold-Fundamental drivers and asset allocation.
- Baur, D. G., & McDermott, T. K. (2016). Why is gold a safe haven?. *Journal of Behavioral and Experimental Finance*, 10, 63-71.
- Chaisuriyathavikun, N. (2015). Key factors influencing Thai customers purchasing behavior toward purchasing behavior in gold ornament.
- Ghosh, D., Levin, E. J., Macmillan, P., & Wright, R. E. (2004). Gold as an inflation hedge?. *Studies in Economics and Finance*.
- Ibrahim, S. N., Kamaruddin, N. I., & Hasan, R. (2014). The determinants of gold prices in Malaysia. *Journal of Advanced Management Science Vol*, 2(1).
- Kotler, P., & Keller, K. L. (2016). *A framework for marketing management* (p. 352). Boston, MA: Pearson.
- Liu, J. (2016). Covered in Gold: Examining gold consumption by middle-class consumers in emerging markets. *International Business Review*, 25(3), 739-747.
- Lupton, J., & Smith, J. P. (1999). *Marriage, assets, and savings*. RAND CORP SANTA MONICA CA.

- Michaud, R. O., Michaud, R., & Pulvermacher, K. (2011). Gold as a strategic asset. *World Gold Council*, 10.
- Napompech, K., Tanpipat, A., & Ueatrakunkamol, N. (2010). Factors influencing gold consumption for savings and investments by people in the Bangkok metropolitan area. *International Journal of Arts and Sciences*, 3(7), 508-520.
- Osman, S., Yin-Fah, B. C., & Hooi-Choo, B. (2010). Undergraduates and online purchasing behavior. *Asian Social Science*, 6(10), 133-146.
- Premkat, S. (2016). Key factors influencing Thai customers in purchasing gold ornament through online channel.
- Rattanaamarangkun, M. P. (2014). *Consumption Behaviors and Beliefs of Gold Purchasers in Southern Thailand* (Doctoral dissertation, THAMMASAT UNIVERSITY).
- SCB. (2022). บัญชีเงินฝากออมทรัพย์ทั่วไป. Retrieved Jan 17, 2022, from <https://www.scb.co.th/th/personal-banking/deposits/savings-account/savings-account.html>
- SET. (2015). กองทุนสำรองเลี้ยงชีพ (PVD) คืออะไร. Retrieved Jan 17, 2022, from <https://www.ylgbullion.co.th/th/gold-saving>
- Standard Bank. (n.d.). *The Difference Between Savings and Investments*. Retrieved Jan 14, 2022, from <https://www.standardbank.co.za/southafrica/personal/learn/the-difference-between-saving-and-investments>
- Suppakitjarak, N., & Krishnamra, P. (2015). Household saving behavior and determinants of the forms of saving and investment in Thailand. *Journal of Economics, Business and Management*, 3(3), 326-330.
- Swasdpeera, P., & Pandey, I. M. (2012). Determinants of personal saving: a study of salaried individuals in Thailand. *Afro-Asian journal of finance and accounting*, 3(1), 34-68.
- Tewaruangsap, M. T. (2019). *A STUDY OF FACTORS THAT INFLUENCE CONSUMER BEHAVIOR OF GOLD SAVING TOWARD ONLINE PLATFORMS* (Doctoral dissertation, THAMMASAT UNIVERSITY).

Trading Economics. (2022). *Thailand's Inflation Rate*. Retrieved Mar 9, 2022, from <https://tradingeconomics.com/thailand/inflation-cpi>

YLG Group. (2021). Thailand: Gold Provides Liquidity Amid Pandemic By K.Pawan Nawawattanasub, CEO, YLG Bullion International. Retrieved Feb 14, 2022, from <https://www.ylgbullion.co.th/th/updates/news-research/economic-news/pr-news/1945/thailand-gold-provides-liquidity-amid-pandemic-by-kpawan-nawawattanasub-ceo-ylg-bullion-international>

YLG Group. (2022). *ออมทอง / เริ่มต้นเพียง 100 บาท กับ YLG GOLD SAVING*. Retrieved Jan 17, 2022, from <https://www.ylgbullion.co.th/th/gold-saving>





APPENDIX

จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY

Questionnaire

Topic: A study of factors that influence consumer behaviors of gold saving in Thailand

Objective: This questionnaire is conducted for educational purposes only, and it is a part of a ‘Individual Study’ as a part for Master’s Degree at Chulalongkorn University. This questionnaire aims to study the factors that impact consumer behaviors of gold saving in Thailand.

Part 1: Demographic information

1.1 Gender

- Male Female

1.2 Age

- 20 – 24 years old 25 – 35 years old
 36 – 50 years old More than 50 years old

1.3 Monthly income

- Less than 20,000 Baht 20,001- 40,000 Baht
 40,001- 60,000 Baht 60,001- 80,000 Baht
 80,001- 100,000 Baht 100,000 – 150,000 Baht
 More than 150,000 Baht

1.4 Highest level of education

- Lower than high school High school
 Bachelor’s Degree Master’s Degree or higher

1.5 Marital status

- Single Married Married with kids Divorced

1.6 Number of family members (including yourselves) people

1.7 Occupation

- Students Business owner Civil servant
 Private sector Teacher Doctor/nurse
 Lawyer Farmer Engineer
 Marketer Salesperson Accountant
 Merchant Retired Housekeeper
 Others, please specify

Part 2: Saving and investing behaviors

2.1 How often you save your money?

- Not save at all Everyday Weekly Twice a week
 Monthly Twice a month Quarterly Yearly
 Others, please specify

2.2 Who will be involved in my saving decisions?

- My own decision Family Friends
 Others, please specify.....

2.3 What kind of source of information that you seek before making saving decisions?

- Social media Family Friends Banks
 Sale representatives Service provider websites
 Others, please specify

2.4 Please select **the top 3 of the purpose of saving** that can significantly impact your saving decision. (Please select only 3 options where 1 is the most important and 3 is the least important)

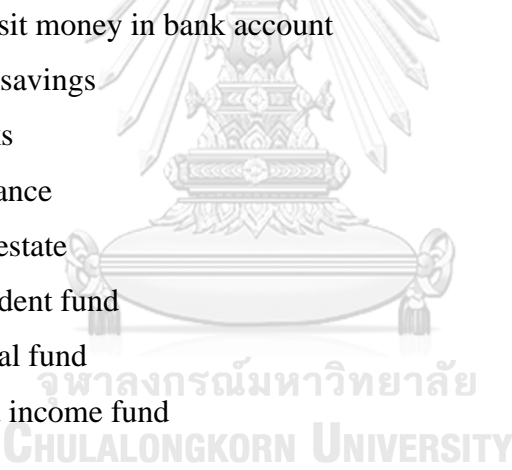
Note: Saving is the portion of income not spent on current expenditures and kept it for future use

_____Financial stability

_____Financial discipline

- Education
- Real estate
- Unexpected or emergency fund i.e. loss of employment, medical expenses
- Travel
- Retirement
- Heritage
- Others, please specify

2.5 Please select **the top 3 of your saving options** that you currently save your money. (Please select only 3 options where 1 is the most important and 3 is the least important)

- 
- Deposit money in bank account
 - Gold savings
 - Stocks
 - Insurance
 - Real estate
 - Provident fund
 - Mutual fund
 - Fixed income fund
 - LTF
 - RMF
 - Crypto currency
 - Others, please specify

2.6 Please select **the top 3 of the purpose of investment** that can significantly impact your investment decisions. (Please select only 3 options where 1 is the most important and 3 is the least important)

Note: Investing is the act of allocating money with the expectation of more income and profit.

- _____ Financial freedom
- _____ Higher return in the long term
- _____ Tax exemption
- _____ Wealth accumulation
- _____ Retirement
- _____ Heritage
- _____ Others, please specify

2.7 Please select **the top 3 of your investment options** that you currently invest your money in. (Please select only 3 options where 1 is the most important and 3 is the least important)

- _____ Deposit money in bank account
- _____ Gold savings
- _____ Stocks
- _____ Insurance
- _____ Real estate
- _____ Provident fund
- _____ Mutual fund
- _____ Fixed income fund
- _____ LTF
- _____ RMF
- _____ Crypto currency
- _____ Others, please specify

2.8 How would you allocate your monthly income between saving and investment?

Please specify your answer in terms of percentage

- % for saving
- % for investment

2.9 Please rate the following criteria that can impact your saving decision in terms of importance. From a scale 1 to 5, 1 being the lowest important and 5 being the highest important.

	Very high important (5)	High important (4)	Neutral (3)	Low important (2)	Very low important (1)
Perceived risk					
Expected return					
Liquidity					
Deposit requirements (initial deposit, min. deposit amount, and required saving duration)					
Tax-exempt benefits					
Intention of saving					
Economic situations (high inflation, increase in oil price and interest and devaluation of THB)					
Convenience from online platform reliability of service provider					
Reference group					

Part 3: Gold saving behavior and decision

3.1 Do you currently invest in gold saving program?

- Yes (please go to question 3.3) No (please go to question 3.4)

3.2 If you currently invest in gold, please specify approximate percentage of your gold saving out of your total investment

.....

3.3 If you are offered gold saving service would you be interested to try the service? (Gold savings is when the store owners hold physical gold, while customers gradually save their money in the account. Once the accumulated saving amount is large enough, customers can withdraw physical gold)

() Yes (Please go to question 4.1)

() No (Please go to question 4.2)

Part 4: Factors that affects gold saving decision

4.1 Please specify the degree to which you agree or disagree with the following statements (for those who are interested in trying gold savings service)

	Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)
I intend to try a gold saving program for investment in the future.					
I intend to try a gold saving program for cash saving and unexpected situations					

Risk					
Gold is safe haven asset, so I consider gold savings when the economy is uncertain.					
Return					
I consider gold saving as I certainly believe that gold price will increase in the future.					
Liquidity					
I consider gold savings as it is					

easy to be sold and converted into cash					
I consider gold savings for my financial security due to high liquidity.					
Deposit requirements					
I consider gold savings due to low minimum initial deposit (100 Baht).					
I consider gold savings as there is no minimum balance requirement.					
I consider gold saving because there are a variety of deposit options such as monthly deposit and daily deposit (no need to deposit everyday)					
I consider gold savings if there is no requirement of saving duration.					
Tax exempt benefits					
I consider gold savings even though I cannot get tax exempt benefits.					
Economic situations					
I consider gold savings as a hedge against high inflation.					
I consider gold savings when oil price increase.					
I consider gold savings when USD is depreciated.					
Online shopping behaviors/ Reliability of service providers					
I consider gold savings as I can withdraw, deposit and make payment all the time.					

I consider gold savings as its platform can be accessed on multiple devices.					
I consider gold savings because I do not want to hold physical gold by myself due to safety issues and think that I will certainly receive physical gold after the withdrawal.					
I consider gold savings because service providers are reliable.					
I consider gold savings when sale representatives are knowledgeable.					
Reference groups					
I consider gold savings as my family investing in gold and recommend me a gold saving program.					
I consider gold savings as my family investing in gold and recommend me a gold saving program.					

4.2 Please specify the degree to which you agree or disagree with the following statements

	Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)
I do not consider gold saving as I have never invested in gold before.					
I do not consider gold saving as have insufficient knowledge.					
I do not consider gold saving as I do not trust gold transaction via online platform without physical gold.					
I do not consider gold saving as the gold price is highly fluctuates, and it is too risky.					



VITA

NAME Janitta Chotichartmala

DATE OF BIRTH 13 February 1994

PLACE OF BIRTH Bangkok

HOME ADDRESS 120 Soi. Charansanitwong 49/1 Charansanitwong Road,
Bangbamru, Bangphlat, Bangkok 10700



จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY