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Towards Sustainable Retirement Planning of Wageworkers in Thailand: A Qualitative Approach in Behavioral Segmentation and Financial Pain Point Identification

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Abstract: Thailand recently reached "aged" society status, signifying that over twenty percent of the population is over sixty. Considering that Thailand has a low literacy rate, a fractured pension system, and no regulations that could provide sufficient income to cover basic needs after retirement, there will be economic repercussions if the situation is not handled soon. The government and financial institutions have been encouraging Thai citizens to prepare retirement plans but lack understanding of the root causes of being unprepared for retirement. The objectives of this qualitative research were to explore the behavior, knowledge, and preparedness towards retirement in governmental and private wageworkers. Moreover, the study aims to identify the pain points of being unprepared for retirement and deliver the optimal solutions and sustainable retirement plans suitable for each segment. This article employed a sample of 46 wageworkers in Khon Kaen, Thailand with ages ranging from 20 to 59 years old. Qualitative semi-structured in-depth interviews and qualitative content analysis were conducted with the respondents asking about their income, expenses, pains, and problems towards saving for retirement, their desired outcome after they retire, and how they would achieve it. The framework used for the in-depth qualitative interview was by utilizing the customer, problem, and solution zoom tool. The research contributions were to facilitate Thai citizens being ready for retirement stages and overcome post-retirement risks sustainably. The results revealed that the sample could be divided into four segments by their characteristics. Two low-income segments share the same traits and behaviors that can prove that financial literacy plays an essential role in retirement readiness. Lower-income wage workers do not have their money put in place to prepare for retirement. Additionally, this article discussed the study's implications for wageworkers, employers, and the Thai government. This article recommended that Thai citizens should accumulate wealth in various ways, including investment in financial assets and earning additional income from a second job. Employers should provide suitable retirement contribution schemes. The government should launch a policy enabling above-60-year-old seniors to continue working.

Keywords: retirement readiness; pension system; financial behavior; financial literacy; sustainable retirement planning

1. Introduction

Since 2005, Thailand has been an "aging" society, signifying that 10% of the population is over 60. In 2021, Thailand is expected to reach the 20% mark considered by the global standard as an "aged" society and reach the 30% mark called the "super-aged" society

by 2030. With the general retirement age at 60, it leaves more than 20% of the population unemployed. Currently, Thailand is losing workers in the 50–60 age group due to early retirement policies (Thailand Development Research Institute Foundation 2019). Thailand's working-age population is declining more than other developing east Asia and Pacific countries, increasingly consuming the governmental fiscal budget every year to help the elderly (Yoda et al. 2021). For most people, retiring from their main professional job is a significant life event that marks the passage from one stage of life to the next (Vickerstaff and Cox 2005). While some research indicates that most retirees are content with their life, others show that up to one-third of retirees find the transition difficult or suffer a decrease in well-being after retirement (Bonsang and Klein 2012). García (2006) claimed that 84% of the respondents consider it their responsibility to fund their retirement. The Isan region is slightly higher as almost 87% of the respondents owned the responsibility (The Society of Actuaries of Thailand 2018). The numbers are also higher among young workers; 88% consider it their responsibility to fund their retirement and 91% of the respondents stated that they would rely on their savings and investments. However, 60% of the respondents regret starting to save or invest for retirement late in their life (The Society of Actuaries of Thailand 2018).

Furthermore, some have not even started saving or investing, suggesting that there will not be enough money prepared for retirement (Günay and Bener 2008). Having a portion of the population consisting of the elderly would mean fewer people in the workforce. According to the National Statistical Office (2020), 38,331,302 people are employed out of 69.63 million people. Moreover, this will have an impact on the government's fiscal burden because 22% of the government's annual expenditure between 2020 and 2021 are directed towards older adults; if there are no excellent plans or regulations put in place for the elderly, it would ultimately stagger the economic growth of Thailand (National Statistical Office 2019). While the proportion of families with financial plans for retirement increased to 67% in 2018, just 19% of households reported having both financial goals and the ability to save according to their plans (Bank of Thailand 2018). According to the National Statistical Office (2019), the household's national average monthly income was 26,317 baht per month and expenditure of 21,236 baht per month. The average amount of debt per household was 167,913 Baht which accounts for 6.4 times the average monthly income.

Additionally, 21% of the population has considered saving but has never begun, and 19.7% have not begun planning retirement savings (Afthanorhan et al. 2020). Among working individuals, 39% do not save, 26% have a balanced income and spending, 9% rely on borrowing to make ends meet, and 3% can save but do not (Desmette and Gaillard 2008). As a result, 25 out of 100 individuals may retire comfortably, whereas the remaining 75 cannot. Moreover, 34.7% of the elderly must rely on their family for income after retirement, with 31% continuing to work to support themselves and only 2.3% with ample savings to be independent in retirement (Jackson 2013). Sungkanon et al. (2020) claimed that older people rely on the following sources of income to maintain their standard of living: support from offspring (36.7%), earnings from work (33.9%), receiving an allowance for subsistence (14.8%), acquiring pension funds and annuity (4.9%), sharing with a spouse (4.3%), and savings account interest and proceeds from asset sales (3.9%). In addition, several Thai citizens above the age of 60 are paid monthly living allowances starting from 600 baht to 1000 baht per month, varying by age. The government provides this allowance as part of the social security welfare, which is not enough to cover their basic needs. Rising longevity combined with an aging society will cause inflation in the medical price. Many Thai citizens rely on the universal healthcare coverage scheme or the 30-baht gold card that heavily relies on taxpayer's money. There needs to be a reform in the pension system as the current economic situation combined with the workforce situation is worsening or would burden the next generation. Therefore, public old-age income support is expected to play an essential role in the future, providing sufficient income to cover the basic needs of

the retired population. Still, unfortunately, it is not included in the government's 20-year strategy (International Labor Organization 2021).

Moreover, the government and financial institutions have been encouraging Thai individuals to prepare retirement schemes but lack understanding of the root causes of being unprepared for retirement. Hence, most Thai citizens could not reach sustainable retirement plans. Ultimately, the majority of Thai retirees have been encountering post-retirement risks and difficulties after retirement life. Therefore, the purpose of this study attempted to understand wageworkers' financial behavior so as to analyze the problem associated with retirement planning. Furthermore, this paper also identifies the people segments based on their financial characteristics. More explicitly, this article studies the retirement goals and obstacles that prevent them from achieving their retirement goals. Understanding these pains and problems would allow policymakers and individuals to comprehend the financial planning motivations. Additionally, it would enable policymakers to accurately address retirement planning issues in Thailand, resulting in the nation's sustainable retirement planning. Recent research papers in the personal financial planning context conducted in Thailand mostly employed quantitative methods (e.g., structural equation modeling, regression analysis, and econometrics) (Ketkaew et al. 2019a, 2019b, 2019c; Naruetharadhol et al. 2021). Moreover, those studies were conducted using various sample respondents (e.g., salary workers, self-employed workers, and college students) and secondary economic data. However, we decided to use the qualitative method adapted from the ethnocentric marketing strategy, allowing the researchers to understand customer insights and financial pains since the quantitative research utilized closed-ended questions followed by a series of possible responses. These approaches have shortcomings in that they impose replies on participants and do not allow them to express their perspectives on a particular event. Furthermore, the selected method was adapted from Cooper and Vlaskovits (2016), who wrote a popular entrepreneurial textbook, "The Lean Entrepreneur: How Visionaries Create Products, Innovate with New Ventures, and Disrupt Markets". This approach includes the customer zoom tool, the problem zoom tool, and the solution zoom tool. These customer and problem zoom tools allowed the researchers to investigate the wageworkers' unique attributes, behaviors, desired outcomes, and pains in preparing for retirement. Eventually, the solution zoom tool allowed the researchers to deliver the optimal solutions suitable for each wageworker segment in Thailand. Thus, these qualitative semi-structured interviews and zoom tools facilitated the researchers discovering the unique financial characteristics and pain points in preparing retirement plans for each segment.

The paper is constructed as follows. Section 2 illustrates the related theories and literature review on pension systems in Thailand, financial literacy in Thai citizens, investment for retirement among the Thai population, and financial behavior in Thai people. Section 3 illustrates the methods, data collection, and analysis. Section 4 illustrates the findings. Section 5 covers discussion. Conclusions in Section 6 summarize this research article and highlight the recommending policy implications.

2. Literature Review

Retirement is a critical developmental stage because it signals the beginning of potentially significant changes in health, finances, and engagement in the domains of home, community, and employment (Hesketh et al. 2011). Retirement expectations seem to significantly impact both the timing and transition to retirement (Taylor et al. 2008).

This research paper used the life-cycle hypothesis as a grounded theory for developing interview questions that demonstrated the interaction between anticipated future income, consumption, and saving. Furthermore, this study established a relationship between grounded theory and financial characteristics and retirement obstacles. The following parts discuss economic theories and associated literature that aided in developing an understanding of pension systems, financial literacy, investment, financial behavior, and retirement readiness among Thai citizens and assumptions for this research study.

2.1. Theory: Life Cycle Hypothesis

The life cycle hypothesis assumes that saving and spending over an individual's lifetime is dependent on the individual's expected future income (Modigliani and Ando 1957). The life cycle hypothesis displays the habit of spending and saving people throughout their life. Early working career individuals will accumulate debt expecting their future income to pay off the debt. Research on the impact of liquidity constraints on saving decisions indicates that individuals with more significant debt have a lower capacity to save, which complies with the hypothesis that there would be fewer savings early on in their life (Zeldes 2015). Additionally, there is an inverse connection between age and savings (age dependence), as well as the youth dependency ratio (Shorrocks 1975). Afterward, they will strive to acquire money during their working years as they will consume less to create net positive savings to invest in or for retirement. When they reach their retirement age, people will consume more than their income which their habit could cause while still earning good money. The life cycle hypothesis shows that the individual's consumption is based on the initial wealth endowment and the expected future income.

Assume that a customer has a life expectancy of T years and a wealth of W. Moreover, the customer expects to earn an annual salary of Y until he retires R years from now. Thus, the consumer's lifetime resources comprise their starting wealth endowment (W) and anticipated future income (R times Y). Therefore, consumption is considered a function of an individual's wealth (W) and anticipated future income ($R \times Y$).

2.2. Pension Systems in Thailand

Thailand presently has various official income maintenance systems to assist the elderly financially, including mandatory and voluntary systems and contributory and non-contributory systems (Barrientos et al. 2003). Each system has a distinct target audience and manner of public funding. Only commercial and public sector workers in the formal sector are covered by retirement income maintenance schemes (Pfau and Atisophon 2009). The formal sector presently maintains the following programs: old age (or social security) pension, government pension fund, voluntary provident fund, and retirement mutual fund (Beattie 1998). The following programs are presently being implemented or planned for the informal sector: elderly living allowance scheme, social security scheme, and national pension fund (proposed).

The government pension fund is a mandatory defined contribution plan. It is available to both government employees hired before the fund's inception as a voluntary member of the government pension fund system and those hired after the fund's inception. The government contributes 3% of the official's monthly salary under the government pension fund system, and the official cannot contribute more than 50% of their monthly salary. When the officials retire, they will be entitled to a government pension fund lump-sum retirement allowance and a traditional civil servant pension. On the other hand, the monthly pension amount is the highest at 70% of the average salary for the previous 60 months (Günay and Bener 2008).

A provident fund, a mutual fund for retirement, and a national savings fund are examples of privately funded personal provisions known as voluntary savings. It is subsidized by tax breaks and is intended to cover Thai citizens, particularly formal workers, who would not have access to another governmental pension plan. This fund is conducted voluntarily, jointly contributed to by the employee and employer. This fund aims to provide benefits for the employee and their family in death, disabilities, retirement, or resignation from their organization. Additionally, it encourages the employees to save and prepare for a secure financial future (Botterill 2017).

The social security scheme is used to fund mandatory savings. Employers and their employees pay the majority of the social security scheme's costs. Although the government contributes to the fund, it is a small portion of the total. The social security fund pays out benefits such as injury or sickness, maternity, death, child, and old-age benefits. The amount covered by the retirees is based on the contributions made by newcomers. The

fund's financial sustainability is determined by the balance between the amount paid and the pension. However, in many pension systems, both public and private, workers in both sectors are not covered by any mandatory pension system (Tangcharoensathien et al. 1999).

2.3. Financial Literacy in Thai Citizens

Financial literacy is often measured by understanding fundamental financial concepts such as interest rates, financial products, risk diversification, and financial planning (Huston 2010). This skill can affect life and work circumstances and may be remarkably beneficial in forecasting the future to enhance revenue (Philippas and Avdoulas 2019). It is widely recognized as a foundation for individuals to make financial decisions, such as saving, borrowing, financial planning, and pensions (Lusardi et al. 2010). Schmeiser and Seligman (2013) recommended that financial literacy, financial fragility, and financial behavior affect financial well-being. Previous research discovers that financial literacy is substantially and positively linked to retirement planning, including private pension funds in a nation with extensive state pension systems (Klapper and Panos 2011). Additionally, financial literacy fosters a positive financial mindset, which results in financial well-being.

In contrast, inadequate financial knowledge can result in inappropriate financial behaviors and attitudes because financial knowledge enables individuals to compare financial products and services and make appropriate, well-informed financial decisions (Te'eni-Harari 2016). Since a significant proportion of Thai families lack an understanding of the time value of money and inflation, they lose out on investment possibilities by keeping cash and depositing at commercial banks and specialized financial institutions (SFIs) (Schmeiser and Seligman 2013). Furthermore, the young population and university students also have poor financial literacy due to the absence of financial literacy instruction in secondary schools (Ergün 2018).

Additionally, the Bank of Thailand (2018) revealed that Thailand's financial literacy is lower when compared to other countries surveyed in the research. As a result, the financial position is complicated and encompasses both the commune's overall economic development and an individual's capacity to accumulate sufficient financial resources, offer public services, and manage debt (Dziekanski and Prus 2020).

2.4. Financial Behavior and Investment for Retirement among Thai Population

Financial conduct refers to an individual's attitude and behavior regarding handling their money (Tang and Baker 2016). Financial behavior is also described as an individual's or household's ability to manage financial resources effectively, including savings, budget planning, insurance, and investing (Tang and Baker 2016). A person's financial conduct may be gauged by his ability to handle cash, debt, savings, and other expenditures effectively (Dolan et al. 2012). However, Thai individuals are in debt from a young age and have overdue debts as adolescents. Over half of the working population between the ages of 25 and 35 years old has consumer or credit card debt (Günay and Bener 2008). Almost a third of Thai families did not make enough money to save (Pootrakool et al. 2005). Thai individuals are in debt for extended lengths of time. Individual debt levels often peak in the late twenties and early thirties and stay high throughout the individual's working years.

Additionally, households become indebted mainly due to their income falling short of their expenditures, which is related to a lack of financial discipline, most notably an inability to save consistently (Tang and Baker 2016). Individuals in debt spend more money overall, especially on travel, telephone services, and utilities. Moreover, they buy goods indicative of social statuses, such as houses and cars, compared to debt-free families (Chotewattanakul et al. 2019). Indebted families experiencing financial difficulties are three to five times more likely to indulge in excessive spending on goods such as clothes and leisure than indebted households experiencing no financial difficulties. Furthermore, family members' diseases, as shown in high healthcare costs, are a significant element contributing to families' financial difficulties. Thus, financial planning and emergency savings are critical and essential components of a household's financial stability. The debt

load does not seem to decrease as a person approaches retirement, indicating a lack of financial stability among Thais. Therefore, older people must continue to rely on family assistance in their later years (Ketkaew et al. 2019b).

Moreover, traditional savings forms such as bank deposits, insurance policies, gold, and real estate were preferred over financial assets such as government bonds, mutual funds, corporate bonds, and stock (Suppakitjarak and Krishnamra 2015). Moreover, most savings were allocated to real estate (property). Additionally, savers regarded physical assets to produce greater returns and to be less hazardous than financial ones. Thai families continue to depend primarily on cash and easy deposit methods to save for retirement. Previous research suggested that older adults are more sensitive to asset return (Jianakoplos et al. 1996). According to Talpsepp et al. (2020), an education degree substantially impacts saving decisions for company shares. In addition, a prior study recommended that their immediate family (i.e., husband, wife, and children) affects their determinant of saving behaviors due to risk-sharing and family shared objectives (Payne et al. 2014). However, long-term decumulation increases the risk of consuming capital accumulated through retirement savings at an unsustainable rate (outliving retirement savings). The possibility that retirees would "outlive" their savings increases as the average retirement age rises (Bednarczyk et al. 2021).

2.5. Human Capital, Well-Being, and Retirement

Human capital competence assessment, which serves as the foundation for adapting quickly to changing operating situations, is based on the existing interaction between employees and external factors (Dobrowolski et al. 2021). The dynamic and bidirectional interaction between employee behavior and the environment exists. Human capital adapts its operations to the environment in which it operates. Simultaneously, employees affect specific environment components via their competency potential (Dobrowolski et al. 2021). Reduced human capital translates into lower lifetime earnings and a lower cost of retiring earlier (Mackillop 2021).

Furthermore, mental health refers to the mental well-being influenced by social contentment, happiness, and stress. Pensions are a critical component in understanding elderly depression. There is a risk of depressive symptoms because older persons are more likely to experience prolonged poverty (He et al. 2021). This is especially true for those living in low- and middle-income countries (Nurmela et al. 2018). Pensions are frequently considered a form of pooled income, which can help safeguard older individuals' mental health by ensuring their ability to receive and utilize resources or reducing income inequality (Barrientos et al. 2003). Hence, pension income significantly impacts their mental health globally (He et al. 2021).

2.6. Study Context

As the number of the elderly increase, there is a higher dependency on the working-age population and a slowdown in economic growth due to an aging population. Hence, there needs to be a comprehensive, adequate, and sustainable retirement and pension system—one that can help sustain the future financial needs of today's pre-retirees as well. Currently, Thailand has fragmented public income support schemes for the elderly and is managed by different governmental authorities. Different agencies tend to develop new policies with little regard to how they would integrate with other agencies. In addition, they do not have a clear vision of how the new policy would affect the fiscal space of other policy schemes (International Labor Organization 2021). Due to geographical constraints and the effect of many socioeconomic forces, local towns exhibit varying degrees of development. This immediately affects residents' living conditions and well-being. Along with the historical circumstances of specific communities, the reasons for this state of affairs can be connected to the execution of new investments, the creation of new jobs, the inflow (outflow) of capital, the increase in population income and services rendered, and so forth (Dziekanski and Prus 2020).

There have been several proposals by experts, government agencies, groups of citizens, and parliament members to combat the elderly income problems. Even with multiple social insurances and social assistant schemes provided by the government and NGOs, the income provided is inadequate for many retired citizens (International Labor Organization 2021). Consequently, Thai people now have a deeply engraved culture of taking care of and providing for their children in hopes that in the future, their children will look after and support them financially in return. The Department of Older Persons (2017) found that 34.7% of the elderly have to rely on their family for income after retirement, with 31% continuing to work to support themselves and only 2.3% with ample savings to be independent in retirement. The past and current generation of the elderly in Thailand often rely on their children; however, with lower fertility rates, higher life expectancy, and smaller family sizes, it will be more difficult for future generations to continue their support for their parents. It will be harder to count on their children to support them.

Based on all the related literature, a qualitative study is required to ascertain people's insights, including financial needs/pains and problems associated with their retirement planning. According to Cooper and Vlaskovits (2016), recognizing what your consumers need and want is critical to your business's success. Customer insights enable your business teams to get a complete picture of how consumers think and feel about your goods and services. By understanding this, you may develop profound customer empathy that goes beyond just understanding what customers need but also why they need it. Hence, the ethnocentric marketing approach was employed and adapted to this study. Figure 1 illustrates the research framework of this study. First, the respondents were divided into different segments. Then, specific pains and associated solutions were analyzed.

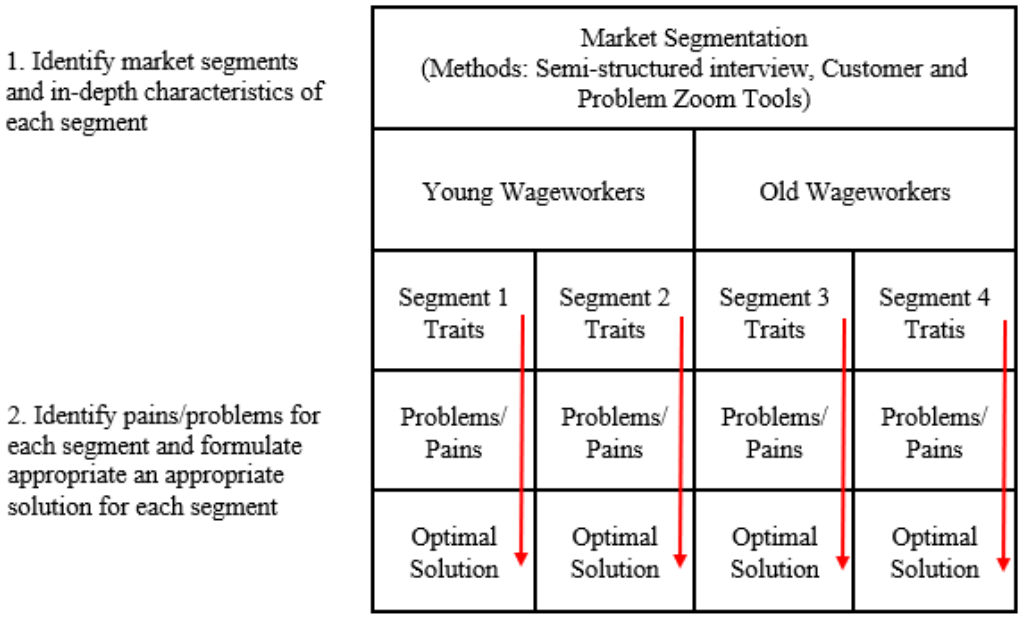

Figure 1. The research framework.

3. Research Methodology

3.1. Research Design and Sample

A qualitative research approach was used to gather the data needed, and the method used was in-depth interviews. Semi-structured in-depth interviews allow the discussion of sensitive issues so the responses by the interviewee would be more forthcoming and would reveal the respondent's true feelings, attitudes, and beliefs (Randle and Zainuddin 2020). The respondents were informed about the study details. They were handed a document to assure the ethical principles of this research, such as anonymity and confidentiality. They could abort or deny answering questions in the interview whenever they felt necessary before starting the interview. The researchers then started with a pilot test to understand the

quality and structure of the questions by having ten respondents interviewed face-to-face and recorded through various open-ended questions starting from easy to more challenging questions for a period of 15–20 min.

The questions were designed to understand the overall financial situation, financial literacy, and preparedness towards the retirement of each respondent. After a thorough review of the pilot test, the researchers configured the questions to guide each question into specific topics for the respondents to answer (see Appendix A). The questions were adapted from Ketkaew et al. (2019c) and merged with concepts suggested by Cooper and Vlaskovits (2016). The framework used for the in-depth interview includes the customer zoom tool, the problem zoom tool, and the solution zoom tool (Cooper and Vlaskovits 2016). The customer zoom tool is used to describe the respondents' unique attributes and behaviors to better understand their needs. The questions were designed in multiple-choice format (see Part 1 and 2 in Appendix A). The problem zoom tool helps identify and zoom in on specific pains and problems and the participants' desired outcomes, which were set as open-ended questions (see Appendix A Part 3). The solution zoom tool identifies solutions that would help resolve the respondent's problems to achieve their desired outcomes through the innovation creation process. The researchers will employ this tool after concluding the solution outcomes.

Next, data collection began using the target sample of 40 respondents, including governmental and nongovernmental wageworkers aged between 20 to 60 years old in the Northeast, Thailand. Ten respondents were assigned to each age group: 20–29, 30–39, 40–49, and 50–59. Most qualitative papers suggested a sample of 25 to 30 should be adequate (Marshall et al. 2013; Dworkin 2012; Boddy 2016). However, we decided that a sample $n = 40$ may be considered significant for an in-depth interview. Our justification for this large sample size is to thoroughly understand the struggles and mindsets of different age groups and generations (Boddy 2016). The interviews were conducted using a face-to-face approach (30 respondents) and by phone (16 respondents). The researchers recorded the interviewees' voices during the sessions.

Table 1 shows the demographic characteristics of the sample. The researchers decided to use semi-structured interviews to collect data from 46 salary workers. Table 1 shows that most of our respondents are female, 31 interviewees vs. 15 male interviewees. Most interviewees have a bachelor's degree and earn in the range of 10,000–30,000 baht per month, which is consistent with the National Statistical Office (2019), which shows that the household national average monthly income was 26,371 baht per month and the average expenditure was 21,236 baht per month.

Table 1. Demographic profiles of interviewees ($n = 46$).

Demographic Variable	Category	Number of Interviewees
Gender	Male	15
	Female	31
Age (years)	20–29	14
	30–39	11
	40–49	10
	50–59	11
Educational level	Vocational degree	1
	Bachelor	29
	Master	14
	PhD	2
Income (Baht)	10,000–30,000	26
	30,000–50,000	8
	50,000–70,000	6
	70,000–90,000	1
	Above 90,000	5

3.2. Data Analysis

First, the recorded voices were interpreted in words and transformed into codes following the qualitative content analysis method in marketing research (Ho et al. 2020). The qualitative data analysis software package Nvivo version 12 was utilized to facilitate data organization and performed qualitative content analysis. The qualitative data analysis began by regularly reviewing all data to create absorption and a feeling of the entire, much like reading a book (Tesch 1990). Then, data were read word by word to generate codes. This was accomplished by first highlighting certain words from the text representing essential ideas or concepts (Miles and Huberman 1994). Following that, the researchers approached the text by recording their first observations, ideas, and analyses. As this process proceeds, labels for codes were developed to represent many critical thoughts. These were often originated straight from the texts and served as the first coding system. The codes were then classified according to the degree to which they are connected and linked. These emerging categories were utilized to arrange and cluster codes (Coffey and Atkinson 1996). Ideally, the number of clusters should be between ten and fifteen to ensure that clusters are sufficiently wide to sort a significant number of codes (Morse and Field 1995). Moreover, note that we decided to use the age of 35 as a cut-off for analyzing the segments because most Thai individuals start to save and accumulate long-term assets around the age of 30 to 35 (Ketkaew et al. 2019c).

4. Results

The results reveal the behavioral characteristics of each segment from the multiple-choice format questions. The following paragraphs show the repeated words that the participants utilized most often. Lastly, the findings demonstrate the common pain points of each segment.

Table 2 illustrates the results from asking questions to the interviewees. We used the questions from this table to divide the interviewees' data into groups. Each segment has different characteristics, divided into four segments:

Segment 1 is a group of younger and higher income from wealth accumulation, which is 20–35 years. They have two income channels, with additional income from their own business. Nonetheless, their profession is stable and gaining social security as their employee welfares. Additionally, they receive government welfares. These individuals have monthly budget planning. However, the financial burden and expenses account for 50%–75% of the total income, while food, utility, installment, and clothing payments are the fourth-highest expenditures. There is only one interviewee that has the burden of child expenses. Their payment method is mainly cash. Still, they have more assets than liabilities. After deducting all expenses, they can be taken as an average monthly savings of less than 5000 baht—most of their investment in bank deposits has 25% savings and investments per income. As a result, they go more than 3–5 years without taking money out from investment, which considers opportunities for consistent returns but may risk losing some principal. In addition, they understand and accept some degree of volatility involving the high potential for returns and a high chance of loss. However, they will feel anxious when the value of their investment has diminished by more than 10–20%. Still, they can accept to an extent investing in derivatives and foreign exchange risk.

Segment 2 is the younger and lower-income segment. These people have only one income stream but have stable jobs, aged 20–35 years. The majority of employee welfare is social security. Some of them do not acquire government welfare, but some of them do. They have monthly budget planning, with monthly expenses of 50–75% and 25–50%, while food, utility, and installment payments are the three highest expenses. Most of them bear the cost of caring for their parents. In contrast, only one person must pay for child support expenses. Cash is mainly paid for their expenses, and their assets are worth greater than liabilities. This segment invests largely in bank deposits, has savings of less than 5000 baht per month, and has 25% savings and investments per income. Thus, less than one year without taking money out from investment, the principal must be safe and receive

a consistent but low return. Nevertheless, those are unsatisfied, but it is understandable relating the high potential for returns and a high chance of loss. They will feel anxious when the value of their investment has decreased more than 5–10%. Additionally, they cannot accept investing in derivatives. In contrast, they can accept to an extent and can fully accept foreign exchange risk.

Table 2. Characteristics of interviewees' behavior.

Behavior Characteristics	Segment 1 (11 People)	Segment 2 (11 People)	Segment 3 (13 People)	Segment 4 (11 People)
1. How many channels of income do you currently have?				
a. 1 channel	0	11	13	0
b. 2 channels	10	0	0	9
c. 3 channels	1	0	0	2
d. 4 channels	0	0	0	0
2. Other sources of income				
a. Owner of a business	7	0	0	8
b. Rental income	0	0	0	1
c. Income from interests	0	0	0	1
d. Dividend income from investments	2	0	0	1
e. Income from being a brokerage	0	0	0	0
f. Other... (specify)	6	0	0	2
3. Do you think that your career is stable?				
a. Stable	8	8	13	10
b. Unstable	3	3	0	1
4. What are the fringe benefits that you receive from your organization?				
a. Social security	8	8	3	4
b. Health insurance	6	7	2	2
c. Medical insurance for the family or provides medical support	3	5	10	8
d. Child's tuition	1	0	6	7
e. Provides a place to live or pays for the place you live in	0	2	0	2
f. The organization provides transportation to work	2	2	0	0
g. Life insurance	3	6	4	1
h. Bonus	3	5	4	5
i. Overtime	6	7	3	4
j. Special savings such as savings or provident funds	3	2	13	9
k. Do not receive anything	2	1	0	0
5. Do you receive any governmental welfare? (Can answer more than one)				
a. Gold card	5	3	0	2
b. State welfare card	0	1	0	0
c. Handicap allowance	0	0	0	0
d. Other . . . (specify)	8	4	4	3
e. Do not receive anything	1	4	9	6

Table 2. *Cont.*

Behavior Characteristics	Segment 1 (11 People)	Segment 2 (11 People)	Segment 3 (13 People)	Segment 4 (11 People)
6. Do you have any insurance?				
a. Health insurance	5	6	8	8
b. Life insurance	4	4	8	8
c. Car insurance	6	3	9	9
d. Other . . . (specify)	1	2	2	0
7. How do you plan your finances?				
a. Daily plan	1	2	1	2
b. Weekly plan	0	3	0	1
c. Monthly plan	9	4	5	4
d. Yearly/annual plan	0	0	5	2
e. No plan	1	2	2	2
8. What percentage is your current financial burden and expenses compared to income?				
a. More than 75% of total income	1	3	4	3
b. 50% to 75% of total income	7	4	5	6
c. 25% to 50% of total income	3	4	3	1
d. Less than 25% of total income	0	0	1	1
9. Type of expenditure (more than 1 answer)				
a. Food expenses	11	11	13	11
b. Installment fee	6	8	8	5
c. Medical expenses	3	2	4	2
d. Cost of clothing	6	6	9	6
e. Child tuition	0	1	5	6
f. Various membership fees	3	5	4	2
g. Credit card bill	3	5	12	11
h. Insurance	5	7	11	10
i. Water bills, electricity bills, telephone bills	10	10	12	8
j. Other (specify)	2	5	2	2
10. How many people do you have to take care of? Who are they, and how old are they?				
a. Children (if there are children, answer the following questions)	0	1	5	9
b. Spouse	2	0	1	4
c. Parent	8	8	7	4
d. Relatives	3	3	2	2
e. other	1	3	3	0
11. How many family members do you have to provide tuition fees for?				
a. 1 person	0	1	2	7
b. 2 people	0	0	2	1
c. 3 people	1	0	1	0

Table 2. *Cont.*

Behavior Characteristics	Segment 1 (11 People)	Segment 2 (11 People)	Segment 3 (13 People)	Segment 4 (11 People)
d. 4 people	0	0	0	0
e. 5 people	0	0	0	0
f. Other . . . . (specify)	0	0	0	0
12. What is your children's education level?				
a. Kindergarten . . . people	0	1	1	1
b. Junior elementary school... people	0	0	1	0
c. Elementary school... people	0	0	1	2
d. Junior high school . . . people	0	0	2	2
e. High school . . . people	1	0	1	2
f. Bachelor's degree . . . people	1	0	3	2
13. How much do the child expenses cost per month (including child support and tuition fee)?				
a. Less than 50,000 baht	1	1	5	8
b. 50,001–100,000 baht	0	0	0	1
c. 100,001–250,000 baht	0	0	0	0
d. 250,001–500,000 baht	0	0	0	0
e. 500,001–700,000 baht	0	0	0	0
f. More than 700,000 baht	0	0	0	0
14. Do you usually shop with cash or credit cards?				
a. Cash	10	8	5	8
b. Credit card	1	3	11	5
15. What is your current financial situation?				
a. Have less assets than liabilities	2	1	6	2
b. Have assets equal to liabilities	2	2	2	3
c. Have more assets than liabilities	7	8	4	6
d. Confident that you have enough savings or investments for your retirement.	0	0	0	0
16. Have you had any experience or knowledge about investing in the following groups of assets? (Choose more than 1 item)				
a. Bank deposit	9	10	10	6
b. Government bonds or government bonds mutual funds	2	2	5	3
c. Debentures or bond funds	1	3	2	3
d. Ordinary shares or mutual funds or other high-risk assets (such as cryptocurrencies)	6	3	5	5
e. Other . . . . (specify)	2	0	2	2
17. Proportion of savings and investment to income				
a. Not saving and investing at all	1	0	4	3
b. 25% savings and investment to income ratio	9	8	7	5
c. 50% savings and investment to income ratio	1	2	0	3
d. 75% of savings and investment to income ratio	0	1	2	0
e. 100% savings and investment to income ratio	0	0	0	0

Table 2. *Cont.*

Behavior Characteristics	Segment 1 (11 People)	Segment 2 (11 People)	Segment 3 (13 People)	Segment 4 (11 People)
18. What is your average monthly savings?				
a. Less than 5000 baht	7	7	6	3
b. 5001–10,000 baht	3	3	3	7
c. 10,001–25,000 baht	1	1	2	1
d. 25,001–50,000 baht	0	0	2	0
e. 50,001–100,000 baht	0	0	0	0
f. More than 100,000 baht	0	0	0	0
19. The period in which you will not need to take out your investment money/profits.				
a. Less than one year	2	6	2	1
b. More than one to three years	3	3	6	5
c. More than three years to five years	4	1	3	2
d. More than five years	2	1	2	3
20. The main objectives of your investment each time are:				
a. Emphasize that the principal must be safe and receive a consistent but low return.	4	7	4	4
b. Emphasize opportunities for consistent returns but may risk losing some principal	6	1	5	4
c. Emphasize opportunities for higher returns but may be at risk of losing more principal	0	1	4	3
d. Focusing on the highest return in the long run but may risk losing most of the principal	1	2	0	0
21. If you choose to invest in assets that have a high potential for returns, but there is also a high chance of loss, how will you feel				
a. Worry and panic about the loss	1	1	2	0
b. Unsatisfied, but is understandable	1	7	3	1
c. Understand and accept some degree of volatility	8	3	7	9
d. Do not worry about the potential for high losses in the hope of higher returns	1	0	1	1
22. You will feel anxious/unacceptable when the value of your investment has decreased in what proportion?				
a. 5% or less	1	1	0	0
b. More than 5–10%	3	5	4	3
c. More than 10–20%	6	4	4	4
d. More than 20% or more	1	1	5	4
23. If last year you invested 100,000 baht, this year you found that the investment value was reduced to 85,000 baht, what would you do?				
a. Be shocked and want to sell the remaining investment.	0	1	0	0
b. Worry and will shift some investments to less risky assets.	1	4	4	6
c. Able to endure and wait for the return to adjust.	9	6	6	4
d. Still confident about my position because I understand that I need to invest in the long term and increase investment in the same way to average the cost.	1	0	3	1

Table 2. *Cont.*

Behavior Characteristics	Segment 1 (11 People)	Segment 2 (11 People)	Segment 3 (13 People)	Segment 4 (11 People)
24. Investing in derivatives, if the investment is successful, you will receive a very high rate of return, but if your investment fails, you may lose all your investment and may have to pay some additional compensation. How much can you accept?				
a. I cannot accept.	3	8	6	2
b. I can accept to an extent.	8	3	7	7
c. I can fully accept.	0	0	0	2
25. In addition to investment risks, can you accept foreign exchange risk?				
a. I cannot accept.	0	1	1	0
b. I can accept to an extent.	6	5	6	7
c. I can fully accept.	5	5	6	4

The older and lower-income segment 3 is the group of older people with only one income channel. These individuals are between the age of 36 and 59 years. Most of them have secure jobs receiving special savings from their employee welfare (provident fund and saving cooperative) without obtaining government welfare. They have monthly and annual budget planning, with monthly expenses of 50–75%, while food, credit card, and utility costs are the three highest expenses. Moreover, parent and child support expenses are paid. Nevertheless, there are only five persons still paid for child tuition fees. Credit cards are mostly paid for their expenses, and their assets are worth less than liabilities. This segment invests mainly via bank deposits, has savings of less than 5000 baht per month, and has 25% savings and investments per income. Consequently, they will not need to take out their investment between one to three years while emphasizing opportunities for consistent returns but may risk losing some principal. Those can understand and accept some degree of volatility concerning the high potential for returns and a high chance of loss. Therefore, more than 20% is the proportion that they feel anxious when the value of their investment has declined. However, they can accept to an extent investing in derivatives and foreign exchange risk. Some of them can fully accept foreign exchange risk.

Segment 4 is older and higher income, aged 36–59 years. Most of the people in this segment have their businesses, which is part of receiving two channels. It can be seen that most of them have job stability and collecting special savings from their employee welfare (provident fund and saving cooperative) without accepting government welfare. They have monthly budget planning. However, they have a financial situation and total expenses at 50–75% and have money left over after deducting less than 5000 baht per month. They spend mainly on food and credit card expenses. Furthermore, these people have the burden of child support expenses. Cash is principally their primary payment method. As a result, this segment of people has more assets than liabilities. They mainly have bank deposit investment experience, which has 25% savings and investments per income. Hence, those have money left over after deducting all expenses at 5001–10,000 baht per month. Subsequently, more than 1 to 3 years is when this segment will not need to take out their investment money. Their primary investment objectives emphasize that the principal must be safe and receive a consistent but low return and emphasize opportunities for consistent returns but may risk losing some principal. They can understand and accept some degree of volatility concerning the high potential for returns and a high chance of loss. Thus, more than 10–20%, and greater than 20% are the proportion they feel unacceptable when the value of their investment has dropped. This segment can accept to an extent investing in derivatives and foreign exchange risk.

Table 3 indicates the frequently heard phrases from interviewees. According to this table, the young and high-income (Segment 1) mostly build wealth accumulation by having more than one income source along with their primary careers, such as selling products online, helping family businesses, teaching languages to children, creating video content, riding for food delivery, and owning a coffee shop.

Table 3. Frequently heard phrases from interviewees.

Segment	Quotation	Interviewee
Younger and higher income (Segment 1)	"I work as an administrative staff in school. Also, I am a private Chinese tutor. I teach primary children on Saturday and Sunday".	Interviewee 4
	"I've been working at a securities company. I started to buy cryptocurrency and stocks last year".	Interviewee 6
	"I'm a digital marketer at the fishing net company. Besides, I sell vitamin C online via Shopee and Lazada. I just bought mutual funds and stocks".	Interviewee 7
	"I'm an IT staff in the university. I sell Thai Buddha amulets online. Now, I'm trying to make money on YouTube by creating video content".	Interviewee 18
	"I'm a technician in the vocational school. I also sell lottery online".	Interviewee 21
	"I'm an engineer. I also have a family business that sells agricultural equipment".	Interviewee 25
	"I'm an employee at Pollution Control Department. I am also a food delivery driver after I finish the main work".	Interviewee 29
	"I'm a lecturer at a private university. I have heritages from my parents, which are houses and empty lands. Therefore, I rent out the houses and lands.	Interviewee 30
	"I'm a flight attendant. I love drinking coffee. Thus, I have a lovely coffee shop near my parent's house".	Interviewee 35
	"I'm an academic staff at university, but I also sell fashion accessories online on Instagram".	Interviewee 38
	"I'm a university employee. I have another income from the stock dividend".	Interviewee 46
Younger and lower-income (Segment 2)	"I've been working and studying Master's degree. I do not have time to work for a second job. My parents also support me with tuition fees".	Interviewee 3 Interviewee 17 Interviewee 37
	"I'm a ground crew, and my job is not stable. I think I will change the job soon".	Interviewee 12
	"I have only one job. I don't invest because I'm afraid of losing money when investing".	Interviewee 14
	"I only work at the company. I live with my parents. I still rely on their financial support sometimes".	Interviewee 15 Interviewee 43
	"I earn a tiny amount of salary. So, I don't have money left to invest".	Interviewee 22 Interviewee 28
	"I only work as an employee at the company, and I got paid with low wages. However, I must pay for transportation and accommodation costs. I don't even have money to save".	Interviewee 41 Interviewee 44
Older and lower-income (Segment 3)	"I used to invest in a government savings bank, but I stopped investing because I have to spend a lot of on child tuition fees and installment payments".	Interviewee 2 Interviewee 33
	"I'm the only one who works in my family. Thus, I have many expenditures such as car, house, spouse, and child expenses".	Interviewee 5
	"I have no knowledge about investment. So, I fear losing money because of investment".	Interviewee 8 Interviewee 23 Interviewee 36
	"I don't invest yet, but I think I will invest when my children graduate from university".	Interviewee 9
	"I have to pay for the debt, and my children are still studying. So, I have a lot of expenses. I may invest or deposit money after my children graduate from university".	Interviewee 10 Interviewee 11 Interviewee 20

Table 3. *Cont.*

Segment	Quotation	Interviewee
Older and lower-income (Segment 3)	"I have only one job, and I think I will have some certain amount of money that enough to spend after retirement. Since I have been working at this company for 35 years, and I have provident funds from myself and organization that contributes 13% of my salary every month".	Interviewee 27
	"I have provident funds from my organization. Besides, I just started to learn how to invest in the stock market from the Internet and books, but I am not sure yet. So, I may invest soon".	Interviewee 31 Interviewee 39
Older and higher income (Segment 4)	"I have two income streams by investing in real estate. I have a dormitory near the university".	Interviewee 1
	"I bought a new house. Then, I rent out the old one. So, I can have a rental fee".	Interviewee 13 Interviewee 19
	"I work at a state enterprise company. I have provident fund and RMF. So, I think I will have enough money after retirement". "I'm already planning everything for retirement. I'm investing in bonds, mutual funds, and stocks".	Interviewee 16 Interviewee 40
	"When I receive a salary, I will pay the bills. Then, I will deposit leftover money in a saving account".	Interviewee 24 Interviewee 26
	"I'm a doctor in a private hospital. I also have a clinic that opens on weekends".	Interviewee 32
	"I own a few houses, and I use it to be my extra income besides my main job. I earn about 200 US dollars from rental houses".	Interviewee 34
	"I'm a nurse in the public hospital, and I have a local clinic as well".	Interviewee 42
	"I work at the company, and I also have my own business like a coffee shop. Besides, I give loans to others, and I have loan interests every month".	Interviewee 45

"*I work as an administrative staff in school. Also, I am a private Chinese tutor. I teach primary children on Saturday and Sunday*". (Interviewee 4)

"*I'm an engineer. I also have a family business that sells agricultural equipment*". (Interviewee 25)

"*I'm an IT staff in the university. I sell Thai Buddha amulets online. Now, I'm trying to make money on YouTube by creating video content*". (Interviewee 18)

"*I'm a technician in the vocational school. I also sell lottery online*". (Interviewee 21)

"*I'm an employee at Pollution Control Department. I also a food delivery driver after I finish the main work*". (Interviewee 29)

"*I'm a flight attendant. I love drinking coffee. Thus, I have a lovely coffee shop near my parent's house*". (Interviewee 35)

"*I'm an academic staff at university, but I also sell fashion accessories online on Instagram*". (Interviewee 38)

Furthermore, these individuals generate their wealth accumulation by investing in financial assets, such as stocks, bonds, and mutual funds.

"*I've been working at a securities company. I started to buy cryptocurrency and stocks last year*". (Interviewee 6)

"*I'm a university employee. I have another income from the stock dividend*". (Interviewee 46)

Moreover, some have extra income from the second job and invest in financial assets.

"*I'm a digital marketer at the fishing net company. Besides, I sell vitamin C online via Shopee and Lazada. I just bought mutual funds and stocks*". (Interviewee 7)

In addition, some young adults have family heritages such as houses and lands. Therefore, those can have extra earnings from these inheritances while working with their primary job.

"*I'm a lecturer at a private university. I have heritages from my parents, which are houses and empty lands. Therefore, I rent out the houses and lands*". (Interviewee 30)

Additionally, young adults who grew up in middle- or higher-income households may have financial support from their parents at the early-career stages.

"*I only work at the company. I live with my parents. I still rely on their financial support sometimes*". (Interviewee 15 and Interviewee 43)

"*I've been working and studying Master's degree. I do not have time to work for a second job. My parents also support me with tuition fees*. (Interviewee 3, Interviewee 17, and Interviewee 37)

In contrast, younger individuals with lower income (Segment 2) have only one source of income and it is often not sufficient for them to cover their basic needs and invest or save at the same time. Only having enough money to live paycheck to paycheck, the following statement can be heard commonly:

"*I earn a tiny amount of salary. So, I don't have money left to invest*". (Interviewee 22 and Interviewee 28)

"*I only work as an employee at the company, and I got paid with low wages. However, I must pay for transportation and accommodation costs. I don't even have money to save*". (Interviewee 41 and Interviewee 44)

Moreover, young generations experience employment instability. These individuals are more likely to get a better cultural fit by changing employment more often. Conversely, some of them may encounter job-related losses because of a nationwide financial crisis.

"*I'm a ground crew, and my job is not stable. I think I will change the job soon*". (Interviewee 12)

Furthermore, some young people are afraid of losing money because they may encounter a past personal incident or the experiences of their household and companion. Hence, these reasons can affect their financial decisions in investment.

"*I have only one job. I don't invest because I'm afraid of losing money when investing*". (Interviewee 14)

The old and low-income segment (Segment 3) has only one income stream. However, many respondents stated that they have too many expenses at present.

"*I used to invest in a government savings bank, but I stop investing because I have to spend a lot of on child tuition fees and installment payments*". (Interviewee 2 and Interviewee 33)

"*I'm the only one who works in my family. Thus, I have many expenditures such as car, house, spouse, and child expenses*". (Interviewee 5)

"*I don't invest yet, but I think I will invest when my children graduated from university*". (Interviewee 9)

"*I must pay for the debt, and my children are still studying. So, I have a lot of expenses. I may invest or deposit money after my children graduated from university*". (Interviewee 10, Interviewee 11, and Interviewee 20)

Moreover, the absence of personal finance education can cause a personal financial crisis and a problematic retirement transition.

"*I have provident funds from my organization. Besides, I just started to learn how to invest in the stock market from the Internet and books, but I am not sure yet. So, I may invest soon*". (Interviewee 31 and Interviewee 39)

"*I have no knowledge about investment. So, I fear losing money because of investment*". (Interviewee 8, Interviewee 23, and Interviewee 36)

Furthermore, they only rely on their employee welfares such as provident funds.

"*I have only one job, and I think I will have some certain amount of money that enough to spend after retirement. Since I have been working at this company for 35 years, and I have provident funds from myself and organization that contributes 13% of my salary every month*". (Interviewee 27)

"*I have provident funds from my organization. Besides, I just started to learn how to invest in the stock market from the Internet and books, but I am not sure yet. So, I may invest soon*". (Interviewee 31 and Interviewee 39)

The last segment is the older and higher-income wage workers (Segment 4). In this segment, the respondents are financially prepared or are preparing for retirement. In this group, we can find that the people have multiple sources of income, such as investment in properties and real estate.

"*I have two income streams by investing in real estate. I have a dormitory near the university*". (Interviewee 1)

"*I bought a new house. Then, I rent out the old one. So, I can have a rental fee*". (Interviewee 13 and Interviewee 19)

"*I own a few houses, and I use it to be my extra income besides my main job. I earn about 200 US dollar from rental houses*". (Interviewee 34)

Moreover, this segment accumulates the wealth by earning extra income from the second job, such as opening private medical practice and owning a coffee shop.

"*I'm a doctor in a private hospital. I also have a clinic that opens on weekends*". (Interviewee 32)

"*I'm a nurse in the public hospital, and I have a local clinic as well*". (Interviewee 42)

"*I work at the company, and I also have my own business like a coffee shop. Besides, I give loans to others, and I have loan interests every month*". (Interviewee 45)

Furthermore, some individuals generally invest in financial assets such as stocks, bonds, and mutual funds.

"*I work at a state enterprise company. I have provident fund and RMF. So, I think I will have enough money after retirement*". (Interviewee 16)

"*I'm already planning everything for retirement. I'm investing in bonds, mutual funds, and stocks*". (Interviewee 40)

In addition, some respondents accumulate their personal wealth from cash deposits.

"*When I receive a salary, I will pay the bills. Then, I will deposit leftover money in a saving account*". (Interviewee 24 and Interviewee 26)

Table 4 shows the most common pains from interviewees of segment 1. Health issues, emergencies, and retirement unpreparedness are significant obstacles for this group. However, the absence of financial knowledge is the most crucial barrier for segment 2, as shown in Table 5. Nevertheless, individuals with no financial literacy are the acute pain for segment 3 (Table 6). In contrast, high consumption expense is the main problem for segment 4, as displayed in Table 7. Moreover, high consumption expenditure is also frequently repeated words in every segment.

Table 4. Most common pains from interviewees of segment 1.

Interviewee	Pains														
	Low Expected Future Income	High Consumption Expenditures	No Savings	Health Issues and Emergencies	Lack of Knowledge about Investment in Financial Assets	Investment Loss	Job Insecurity	Family Status	Unprepared for Retirement	Short-Term Financial Goal (Planning for Wedding)	Lack of Financial Discipline	Fear of Taking the Risk from the Investment	Debt	The Late Start for Retirement Planning	Lack of Financial Planning
Interviewee 4	√			√			√		√	√					
Interviewee 6		√		√		√	√		√						
Interviewee 7	√	√			√		√		√						
Interviewee 18	√			√	√	√									
Interviewee 21	√			√	√		√					√			
Interviewee 25				√		√									
Interviewee 29		√			√		√		√		√				
Interviewee 30									√						
Interviewee 35	√	√							√		√				
Interviewee 38		√		√	√		√		√						
Interviewee 46		√		√	√										

Table 5. Most common pains from interviewees of segment 2.

Interviewee	Pains														
	Low Expected Future Income	High Consumption Expenditures	No Savings	Health Issues and Emergencies	Lack of Knowledge about Investment in Financial Assets	Investment Loss	Job Insecurity	Family Status	Unprepared for Retirement	Short-Term Financial Goal (Planning for Wedding)	Lack of Financial Discipline	Fear of Taking the Risk from the Investment	Debt	The Late Start for Retirement Planning	Lack of Financial Planning
Interviewee 3	√	√			√		√		√						
Interviewee 12		√		√	√							√			
Interviewee 14	√			√	√										
Interviewee 15	√				√		√								
Interviewee 17		√		√	√				√		√				
Interviewee 22	√	√			√				√		√				
Interviewee 28		√	√										√		
Interviewee 37		√			√				√		√	√			
Interviewee 41	√			√											
Interviewee 43	√				√		√				√			√	
Interviewee 44		√	√	√					√						√

Table 6. Most common pains from interviewees of segment 3.

Interviewee	Pains														
	Low Expected Future Income	High Consumption Expenditures	No Savings	Health Issues and Emergencies	Lack of Knowledge about Investment in Financial Assets	Investment Loss	Job Insecurity	Family Status	Unprepared for Retirement	Short-Term Financial Goal (Planning for Wedding)	Lack of Financial Discipline	Fear of Taking the Risk from the Investment	Debt	The Late Start for Retirement Planning	Lack of Financial Planning
Interviewee 2		√					√			√					
Interviewee 5		√			√				√						
Interviewee 8		√	√		√				√						
Interviewee 9		√			√				√				√		√
Interviewee 10		√			√			√	√						
Interviewee 11					√				√						
Interviewee 20	√	√													
Interviewee 23				√	√						√	√			
Interviewee 27				√	√										
Interviewee 31				√							√				
Interviewee 33		√		√	√	√	√					√			
Interviewee 36				√	√	√									
Interviewee 39		√	√		√										

Table 7. Most common pains from interviewees of segment 4.

Interviewee	Pains														
	Low Expected Future Income	High Consumption Expenditures	No Savings	Health Issues and Emergencies	Lack of Knowledge about Investment in Financial Assets	Investment Loss	Job Insecurity	Family Status	Unprepared for Retirement	Short-Term Financial Goal (Planning for Wedding)	Lack of Financial Discipline	Fear of Taking the Risk from the Investment	Debt	The Late Start for Retirement Planning	Lack of Financial Planning
Interviewee 1								√							
Interviewee 13	√	√		√			√								
Interviewee 16		√	√	√				√	√						
Interviewee 19	√	√	√												
Interviewee 24		√			√			√	√		√				√
Interviewee 26				√	√				√		√	√			
Interviewee 32		√						√					√		
Interviewee 34		√			√				√		√	√			
Interviewee 40	√		√		√							√			
Interviewee 42	√	√		√	√						√				
Interviewee 45			√		√				√						√

Table 8 illustrates the most common pains from interviewees of each segment. From all the four segments that we have grouped, different problems and obstacles will lead to the respondents not retiring according to plan. Health problems and accidents were among the common pains for people in segment 1. Most interviewees saw that illness or accidents would increase costs and potentially increase the amount of time it takes to pay for medical care. Moreover, it was discovered that a young wage worker's health condition affects their retirement contribution and short-term financial objectives. As long as employees are physically and mentally well, they may work and contribute to meet both retirement and short-term financial objectives. Additionally, physical health was shown to be more important than mental well-being in increasing a worker's retirement contributions in prior quantitative research (Ketkaew et al. 2019c).

Table 8. Most common pains from interviewees of each segment.

Pains	Segment 1	Segment 2	Segment 3	Segment 4
Low expected future income	5	6	1	4
High consumption expenditures	6	7	8	7 *
No savings	0	2	2	4
Health issues and emergencies	7 *	5	5	4
Lack of knowledge about investment in financial assets	6	8 *	10 *	6
Investment loss	3	0	2	0
Job insecurity	6	3	2	1
Family status	0	0	1	4
Unprepared for retirement	7 *	5	5	5
Short-term financial goal (planning for wedding)	1	0	1	0
Lack of financial discipline	2	4	2	4
Fear of taking risk from investment	1	2	2	3
Debt	0	1	1	1
The late start for retirement planning	0	1	0	0
Lack of financial planning	0	1	1	2

* indicates the pain faced by interviewees in each segment that appears the most frequently.

> "*I think health issues may affect my retirement saving goals because I am just 25 years old, but I get sick quite often. Even though I have health insurance, but it covers only IPD (hospital inpatient care). Thus, I have to pay for the OPD cost*". (Interviewee 6)

> "*The most significant factors that prevent me from reaching retirement goal is maybe a sudden illness since my mother and sister have chronic diseases. So, I think I probably have a chance to get sick as well*". (Interviewee 4)

> "*Severe illness could be the hindrance for my retirement funds. However, I bought some health insurance that covers all kinds of illness to ensure that when I get sick, the insurance company will pay for my medical fees*". (Interviewee 7)

In addition, being unprepared for retirement is another pain of this segment because young people think it is too early to plan for retirement. Consequently, individuals who lack retirement preparedness are more likely to have retirement unreadiness (Kimiyaghalam et al. 2017).

> "*I'm not prepared for retirement yet because I think it's too soon. I still have time to plan for retirement*". (Interviewee 18 and Interviewee 25)

> *"I just started working in this company last year. I did not think about retirement yet"*. (Interviewee 38)

For segments 2 and 3, the barrier to retirement preparedness is the absence of financial literacy. This pain can result from a lack of readiness to learn more seriously, such as the importance of saving for retirement, poor investment decisions, and unclear goals. Low financial literacy is associated with a lack of stock market participation, whereas stock ownership and proper investment diversification help reduce risk and provide needed inflation protection for long-term savings (Van Rooij et al. 2012).

> *"The pain point of my retirement purpose is not good at managing money and budget because I spend a lot on both necessary and unnecessary things"*. (Interviewee 22)

> *"I just only save retirement fund by a cash deposit. I do not know about investment in financial assets"*. (Interviewee 14)

> *"I have the only provident fund for my retirement fund. I never buy stocks"*. (Interviewee 23)

> *"I just bought bitcoin with Bitkub because of my friends"*. (Interviewee 44)

High consumption expenditures are the most significant barrier in segment 4 as some are heads of families who must take care of household expenses. There may be an increase in child support costs for those who have children, including their tuition fees. If a person has a chronic disease, there may be a camp to pay for medical expenses. Their pains are directed towards losing the money they have invested or saved so far faster than expected in the fourth segment.

> *"I think high expenditure could be my obstacle for early retirement because I have to pay for an auto loan, mortgage, and child tuition fees"*. (Interviewee 13)

> *"I will save and invest more in the future when my kids graduate from universities"*. (Interviewee 24)

> *"The biggest pain point for my retirement is spending a lot. So, that may affect the retirement funds"*. (Interviewee 45)

5. Discussion

This study performed a qualitative research study on sustainable retirement planning of wageworkers. The behavioral characteristics of wageworkers are critical factors for sustainable retirement planning since financial behaviors play essential roles in retirement preparedness, including savings and investments in financial assets. The incomes also impact the retirement scheme because the more income they have, the more they invest. Additionally, the age of wageworkers is significantly related to the income levels, which leads to the retirement schemes from the organizations. Hence, the article divides wageworkers into four segments.

5.1. Younger and Higher-Income

Young individuals have low income because of early careers. However, this younger segment earns extra income from a second job or having their family businesses. Some of them have heritages from their parents. They tend to have financial literacy by accumulating wealth via different approaches, such as investing in financial assets such as cryptocurrency, stocks, and mutual funds. Therefore, this segment is more likely to have sustainable retirement planning since the more they invest and the sooner they begin, the more time and opportunity for growth their retirement funds will have (Dong et al. 2019). Furthermore, younger individuals wish to retire early to achieve financial independence. This helps explain the appeal of mini-retirements, which consist of a series of meaningful breaks from work (Bratun and Asaba 2021).

5.2. Younger and Lower-Income

Many younger people are not preparing for retirement because they think it is too early. However, some of the younger generations did not have enough money to save. Due to high costs of living but low income, the majority of young residents in metropolitan regions are unable to meet their current consumption requirements entirely on their own. Many young individuals in Thailand today must financially rely on their parents (Ketkaew et al. 2019a). This segment does not become familiar with investment in financial assets. Thus, the younger individuals with low income are afraid of losing money from the investment.

5.3. Older and Lower-Income

This segment lacks the readiness to learn more seriously, such as the importance of saving for retirement, poor investment decisions, and unclear goals. They have low financial literacy for preparing retirement schemes. Moreover, they could not save much for retirement because of high expenditures on their children, accommodations, and transportations. Therefore, this segment tends to decide to work longer to prepare for retirement. However, the civil servants and private employees must rely on pensions and social security schemes (Palmer 2017).

5.4. Older and Higher-Income

This segment has financial knowledge before preparing retirement planning. Most of them accumulate wealth via investment in financial assets such as bonds, mutual funds, and stocks or have cash deposits every month. They also earn extra income from second jobs by having their businesses. Additionally, these individuals work at stable organizations that provide excellent welfare, such as provident funds. Therefore, this segment tends to have sustainable retirement planning after their retirement stages.

5.4.1. Research Implications

The following suggestions were made based on the study results to three significant stakeholders in Thailand: individual wageworkers, employers, and policymakers at the national level.

It was suggested that wage earners build wealth in various ways, including investment in financial assets such as stocks, bonds, mutual funds, real estate, additional income from a second job, or simply cash deposits. Individual workers were expected to acquire financial knowledge about portfolio diversification and the capital market in order to build wealth more effectively. Moreover, wageworkers should practice financial discipline to manage the saving and spending that allows ensuring their retirement funds.

In addition, employers may make a significant contribution to wageworkers' retirement success. Employers may contribute to a sustainable retirement for their workers by designing retirement contribution plans appropriate for their employees' ages and the amount of money needed after retirement.

Furthermore, institutional and legal barriers that prevent older people from working should be abolished. Many skilled and experienced seniors would prolong their job but are affected by factors that are out of their control. Labor laws and pension regulations should be reformed as the average health of the elderly has improved and the average lifespan has increased since the laws and regulations came into place. The seniors in Thailand could also be forced to retire early due to the corporate attitude towards the senior employees. There should be more education on investing or preparing for retirement to increase the population's financial literacy. There should be more savings promotions and investment promotions so the new generation can prepare themselves and get involved in investing for their future.

5.4.2. Strengths and Limitations of This Study

To our knowledge, this is the first published qualitative study on wageworkers' sustainable retirement planning with adopting the lean entrepreneur concept by Cooper and

Vlaskovits (2016). The article had an integrated technique and continued from previous studies concerning retirement contributions, wealth accumulations, and pension systems. Such a technique goes beyond simply combining existing understanding and methods from sustainable retirement planning and preparedness. It is essential to understand the wageworkers' financial behavioral characteristics and pain points for preparing retirement schemes. Otherwise, financial institutions, policymakers, and associated stakeholders will not enhance policy, systems, and solutions suitable to the wageworkers.

However, this study includes some limitations, which also offer opportunities for further research. First, sampling and data collecting was restricted to Muang Khon Kaen, Thailand, implying that this research might have empirical applicability. Readers should be cautious when interpreting the results. Second, this study focuses only on salary workers. Hence, future research may benefit from replicating the current research utilizing a sample of Thai wageworkers from both public and private sectors in other provinces in Thailand to evaluate whether the current results are replicated.

6. Conclusions

This research was conducted to understand the overall financial situation, financial literacy, and preparedness towards the retirement of Thailand's wageworkers. We used the life cycle hypothesis combined with information and statistics of the financial literacy, investment, and financial behaviors of Thai wageworkers to find out the pains and problems of our interviewees and their desired outcomes on preparing for retirement. The findings in this research demonstrate that four types of behavior contribute to the preparedness for retirement. After reviewing the data collected from the interviews, a division of the sample into four segments was made to identify the similarities of each segment: young people with high income, young people with low income, old people with low income, and old people with high income. Young people with high income and older people with high income behave alike as they do not rely on one source of income and have higher financial literacy as they know more about options to invest their money. Old and young low-income segments do not invest and often rely on one source of income. Low financial literacy is the main factor that affects the investment option as they are too afraid or have little information to invest in stocks or mutual funds. Some do not have enough money to invest because they have to use their paycheck to cover their monthly needs while the rest is saved for emergencies such as medical costs.

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Appendix A

Questionnaire on the study of financial planning behavior for retirement of government and private sector employees.

Part 1: Unique attributes

Name _____

Age_____ y/o

Career_____ Industry_____

Wage/Salary _____ per month

Education level: Bachelor's degree/Master's Degree/Doctoral Degree
Status: Single/Married
Number of children _____
number of members in the family _____
Do you work in the government sector/government official?

Part 2: Behavior

1. How many channels of income do you currently have?
   a. One channel
   b. Two channels
   c. Three channels
   d. Four channels
2. Other sources of income
   a. Owner of a business
   b. Rental income
   c. Income from interests
   d. Dividend income from investments
   e. Income from being a brokerage.
   f. Other... (specify)
3. Do you think that your career is stable?
   a. Stable
   b. Unstable
4. What are the fringe benefits that you receive from your organization?
   a. Social security
   b. Health insurance
   c. Medical Insurance for the family or provides medical support.
   d. Child's tuition
   e. Provides a place to live or pays for the place you live in?
   f. The organization provides transportation to work.
   g. Life insurance
   h. Bonus
   i. Overtime
   j. Special savings such as savings or provident funds
   k. Do not receive anything.
5. Do you receive any governmental welfare? (Can answer more than one)
   a. Gold card
   b. State welfare card
   c. Handicap allowance
   d. Other . . . (specify)
6. Do you have any insurance?
   a. Health insurance
   b. Life insurance
   c. Car insurance
   d. Other . . . (specify)
7. How do you plan your finances?
   a. Daily plan
   b. Weekly plan
   c. Monthly plan
   d. Yearly/annual plan
   e. No plan

8. What percentage is your current financial burden and expenses compared to income?
   a. More than 75% of total income
   b. 50 % to 75% of total income
   c. 25% to 50% of total income
   d. Less than 25% of total income
9. Type of expenditure (more than one answer)
   a. Food expenses
   b. Installment fee
   c. Medical expenses
   d. Cost of clothing
   e. Child tuition
   f. Various membership fees
   g. Credit card bill
   h. Insurance
   i. Water bills, electricity bills, telephone bills
   j. Other (specify)
10. How many people do you have to take care of? Who are they, and how old are they?
   a. Children (if there are children, answer the following questions)
   b. Spouse
   c. Parent
   d. Relatives
   e. Other
11. How many family members do you have to provide tuition fees for?
   a. One person
   b. Two people
   c. Three people
   d. Four people
   e. Five people
   f. Other . . . . (specify)
12. What is your children's education level?
   a. Kindergarten . . . people
   b. Junior Elementary school... people
   c. Elementary school... people
   d. In junior high school . . . people
   e. In high school . . . people
   f. Bachelor's degree . . . people
13. How much does the tuition fee cost? (Child's tuition fee) (How much per year per person)
   a. Approximately not more than 50,000 baht per person (1500 US dollars)
   b. Approximately 50,001–100,000 baht per person (1500–3000 US dollars)
   c. Approximately 100,001–250,000 baht per person (3000–7500 US dollars)
   d. Approximately 250,001–500,000 baht per person (7500–15,000 US dollars)
   e. Approximately 500,000 baht per person (15,000 US dollars)
14. Do you usually shop with cash or credit cards?
   a. Cash
   b. credit card
15. What is your current financial situation?
   a. Have fewer assets than liabilities.
   b. Have assets equal to liabilities.
   c. Have more assets than liabilities.
   d. Confident that you have enough savings or investments for your retirement.

16. Have you had any experience or knowledge about investing in the following groups of assets? (Choose more than 1 item)
    a. Bank deposit
    b. Government bonds or government bonds mutual funds
    c. Debentures or bond funds
    d. Ordinary shares or mutual funds, or other high-risk assets (such as cryptocurrencies).
    e. Other . . . . (specify)
17. Proportion of savings and investment to income
    a. Not saving and investing at all
    b. 25% savings and investment to income ratio
    c. 50% savings and investment ratio
    d. 75% of savings and investment to income ratio
    e. 100% savings and investment ratio
18. What is your average monthly savings?
    a. Less than 5000 baht
    b. 5001–10,000 baht
    c. 10,001–25,000 baht
    d. 25,001–50,000 baht
    e. 50,001–100,000 baht
    f. More than 100,000 baht
19. The period in which you will not need to take out your investment money/profits.
    a. No more than one year
    b. More than one to three years
    c. More than three years to five years
    d. More than five years
20. The main objectives of your investment each time are:
    a. Emphasize that the principal must be safe and receive a consistent but low return.
    b. Emphasize opportunities for consistent returns but may risk losing some principal.
    c. Emphasize opportunities for higher returns but may be at risk of losing more principal.
    d. Focusing on the highest return in the long run but may risk losing most of the principal.
21. If you choose to invest in assets that have a high potential for returns, but there is also a high chance of loss, how will you feel
    a. Worry and panic about the loss.
    b. Unsatisfied, but it is understandable.
    c. Understand and accept some degree of volatility.
    d. Do not worry about the potential for high losses in the hope of higher returns.
22. You will feel anxious/unacceptable when the value of your investment has decreased in what proportion?
    a. 5% or less
    b. More than 5–10%
    c. More than 10–20%
    d. More than 20% or more
23. If last year you invested 100,000 baht and this year you found that the investment value was reduced to 85,000 baht, what would you do?
    a. Be shocked and want to sell the remaining investment.
    b. Worry and shift some investments to less risky assets.

c. Be able to endure and wait for the return to adjust.
d. I would still be confident about my position because I understand that I need to invest in the long term and increase investment in the same way to average the cost.

24. Investing in derivatives, if the investment is successful, you will receive a very high rate of return, but if your investment fails, you may lose all your investment and may have to pay some additional compensation. How much can you accept?
    a. I cannot accept.
    b. I can accept to an extent.
    c. I can fully accept.
25. In addition to investment risks, can you accept foreign exchange risk?
    a. I cannot accept.
    b. I can accept to an extent.
    c. I can fully accept.

Part 3: Retirement goals and obstacles that prevent you from achieving your retirement goals

26. How do you want to live after retirement, and what factors or obstacles will prevent you from achieving your desired retirement goals. (at least 5)

Desired Outcome

Pains and Problems

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