



A SURVEY STUDY ON INVESTMENT BEHAVIORS AND
STRATEGIES FOR MIDDLE-AGED PEOPLE
IN KAOHSIUNG AREA, TAIWAN

Liao, Man-Ling
MA., College of Management, I-Shou university, Taiwan
graceliao0422@yahoo.com.tw

Dr. Lai, Ching-Sung^{*}
Associate Professor, College of Management, I-Shou University, Taiwan
^{*}Corresponding Author: cslai@isu.edu.tw

Abstract

Investing prudently and with stable returns is an urgent issue for everyone. The objective of this study is to investigate the investment and financial management behaviors and strategies adopted by middle-aged individuals residing in Kaohsiung, Taiwan. In-depth interviews with experts and questionnaire collection methods are used in this study. The experts' opinions are summarized and data from 388 subjects are collected for statistical analysis. The results show that investors with higher income and education levels have a more positive attitude, a higher level of risk tolerance, and more investment information resources. The results of this study can serve as a reference for government policy, financial management industries, and investors.

Keywords: middle-aged people, financial management, in-depth interview, investment strategy

Introduction

Investment and financial management are crucial for enhancing personal economic capabilities and creating assets in addition to fixed salary income. By effectively employing financial management tools and rationally allocating per-

sonal assets, one's financial situation can be improved. The quality of investment and financial management can have a substantial impact on one's life.

According to the International Handbook of Population Aging (2009) and the World Health Organization (WHO,

2023), people aged 45 to 59 years old are considered middle-aged. The Ministry of Interior of the Republic of China also defines 45 years old as the threshold for middle age. Besides, the report of “Population Estimates of the Republic of China” of the National Development Council (2022) defines individuals over 65 years old as elderly. This study takes the middle-aged group with relatively stable economic resources as the research subjects and the age of the middle-aged group is defined as the range of 45-64 years old.

Literature Review

People typically manage their money for different reasons such as quality of life, asset appreciation, children’s education, debt management, emergency preparedness, risk management, or retirement planning. However, Investment and financial management involve numerous aspects that are crucial for individuals or businesses (Lewellen, Lease, and Schlarbaum, 1977) For example, Investments typically come with varying levels of risk. Financial managers must assess investors' risk tolerance and aim for a balance between risk and return. Higher returns often come with higher risks. Spreading investments across different asset classes can help manage risk (Olsen, 1997). Diversification involves investing in a mix of savings, stocks, bonds, real estate, and other assets to reduce the impact of a poor-performing investment on the overall portfolio (Jayeola, 2017). Financial management considers the time frame for achieving financial goals. Long-term goals may involve various investment strategies compared to short-term goals. Time horizon influences the choice of in-

vestment tools and risk tolerance. Financial managers must ensure enough liquidity to meet short-term financial obligations. Balancing liquidity requirements with long-term investment goals is essential for effective financial management (Das, Ostrov, Radhakrishnan, and Srivastav, 2018).

Financial management includes budgeting to allocate resources efficiently and planning for future financial needs. This involves forecasting cash flows, setting financial goals, and implementing strategies to achieve them (Danon and Teker, 2020). Investors might continuously use various models to monitor the performance of investments and adjust strategies as needed (Ivanyuk, 2021). Economic conditions, market trends, and changes in personal or business circumstances may require adjustments to the financial plan. Analyzing financial statements, market trends, and economic indicators is essential for making informed investment decisions (Lewellen, 1977). These characteristics collectively contribute to effective investment and financial management, helping individuals and businesses achieve their financial objectives.

Investment tools are an important topic, especially for those who want to enter the financial markets. Financial management tools can be classified into four types (Bodie, 2022; Roy and Gupta; 2020, Morbee, 2023; Zholonko, etc., 2021): 1. Liquid investment tools, such as savings deposits, short-term bonds, and money market funds; 2. Safety investment tools, including savings insurance products, medium-term capital guaranteed fi-

financial products, and long-term public bonds and bond funds; 3. Risk-involved instruments, like real estate, stocks, stock funds, gold, foreign exchange, and art collections; 4. Protection insurance instruments, including life insurance, disease, accidental injury and medical insurance, and unemployment insurance. Each one has its specific risks and returns. For instance, investing in stocks may provide higher returns, but it also comes with higher risks because stock prices can be volatile. Bonds, on the other hand, are relatively stable but generally offer lower returns (Tuli and Bharadwaj, 2009).

An effective investment also includes financial-related information. Information content helps investors understand the situation, choose appropriate targets, and help people make important decisions (Horrihan and Raine, 2006). To invest effectively, it is essential to have a complete understanding of all relevant information rather than making uninformed decisions. Financial information could be financial statements, investment product information, industry analysis, financial research reports, news information, professional investment advice, etc. (Olayinka, 2022).

People go through various stages, youth, middle age, and old age. The physical and economic conditions in each period are different. Young people have better physical strength but less work experience. In addition, their job stability is relatively lower, but there are still long working years (Bodie, etc., 1992). Middle-aged people have been working for years and have a stable income. Most must take care of the family and be responsible for household expenses. There-

fore, middle-aged people have a heavier financial burden. Older people are gradually retiring from the workplace and their children have grown up with independent finance, but their physical condition is relatively poor. The medical-related expenses could be higher. Therefore, investment preferences could be influenced by factors such as age, number of children, income, and economic conditions. A research survey by (Wang, Yu, Wang, and Yang, 2009) also found that people's understanding of savings, stocks, funds, insurance, real estate investment, bonds, and derivative financial products is significantly influenced by education levels, occupations, marital status, and number of children.

Based on the literature review, the objectives of this study are listed as follows:

- Through interviews with investment and financial management experts and scholars to clarify the investment characteristics and behavioral preferences of middle-aged people.
- Conducted a questionnaire survey to understand middle-aged people's attitudes towards investment and asset allocation.
- Proposes investment strategy suggestions for middle-aged people.

Research methods and assumptions

This study employs both expert in-depth interviews and questionnaire surveys. Initially, experts from various backgrounds were invited to conduct in-depth interviews to comprehend the financial management characteristics and

establish the framework for the research questionnaire. The questions of in-depth interviews cover four topics: Attitudes on financial management, Risk tolerance, Asset allocation, and Investment strategies.

A total of four experts were interviewed in this study. Their backgrounds are 1. Economist with a doctoral degree, serving as an independent director of many companies, with 28 years of experience; 2. Director and general manager of a securities company, master's degree, with 28 years of experience; 3. Manager of a life insurance company, master's degree, 28 years of experience; 4. Deputy general manager and supervisor of a bank, master's degree, 30 years of experience. In-depth interviews were conducted from October 18, 2022, to November 15, 2022. The questionnaires were then designed according to the results from in-depth interviews.

The opinions of four experts are summarized here.

1. **Attitude:** As middle-aged individuals are at the stage of supporting their families, they contend with ongoing fixed expenses such as mortgages, car loans, and insurance premiums, while possibly shouldering the responsibility of caring for elders. When financial resources are limited, adopting a conservative approach to financial management becomes paramount. This entails carefully balancing safety, profitability, liquidity, and potential for growth.
2. **Risk tolerance:** All financial products

come with certain levels of risk. Financial management must consider risk awareness and the ability to bear the risk. The proportion of core assets should be higher than that of satellite assets to reduce risk. High-risk commodities include virtual currencies, futures, or options. If an investor is close to the stage of retirement, the products should be carefully considered.

3. **Asset allocation:** The main consideration principle is to be able to transcend time deposits and have diversified investment targets. Middle-aged people can consider balanced funds, fixed-income commodities, bond funds, or funds with smaller risk factors. It is necessary to pay attention to the balance between asset allocation and cash flow. Therefore, the liquidity of stocks, investment policies, or funds can be considered. ETF stocks with stable dividend distribution are good choices as well.
4. **Investment Strategy:** Middle-aged people should avoid high-risk products and focus on fixed-income products. Wealth can be accumulated steadily over time. Investors should consider their financial capabilities and rationally allocate assets, focus on medium- and long-term capital-guaranteed commodities based on their capital status, and avoid short-term operations.

Based on the literature review and experts' opinions, the hypotheses of this study are listed:

H1 : The demographics have significant influences on financial management attitudes.

H2 : The demographics have significant influences on risk tolerance.

H3 : The demographics have significant influences on asset allocation preference.

H4 : The demographics have significant influences on investment strategies.

Questionnaire Design

Referring to the literature review and the expert's opinions, we developed a questionnaire to gather data on the opinions of middle-aged individuals toward investment and financial management. The questionnaire contains two parts: the demographics and the behavior parts. The demographics include gender, age, education level, occupation, income, marital status, number of children, and consumption habits. The investment opinion part contains investment attitude (9 plus one reverse questions), risk tolerance (7 plus one reverse questions), asset allocation (13 items), and investment strategy (10 questions). The asset allocation items include fixed deposits, stocks, funds, investment link products (ILP), futures, ETFs (exchange-traded funds), options, bonds, foreign currency, precious metals, real estate, jewelry, and artwork.

The 5-point Likert scale was used to measure the variables. (1-Mostly Disagree, 2-Disagree, 3-Neutral, 4-Agree, and

5-Mostly Agree). The statistical analyses used in this study include descriptive statistics, t-test, Chi-square, and Analysis of Variance. To the variables with significant differences found in Chi-square or ANOVA, Scheffe's post hoc test was conducted to identify the sources of the difference.

Results and Analyses

The questionnaire was distributed to middle-aged people residing in Kaohsiung, Taiwan from December 26, 2022, to January 26, 2023. The questionnaires are all in paper format. A total of 400 questionnaires were issued, and 392 copies were collected. Four invalid questionnaires were discarded, and the total number of valid questionnaires was 388. The effective recovery rate was 97%. For the classification of demographic variables, the percentage of some categories is less than 5% with only several people and were merged into related categories. For example, only 5 respondents answered that they have three or more children. Therefore, this group was merged into the category of 2 children and renamed "2 or more children". The demographic information of respondents is listed in Table 1.

The results from descriptive statistics show that in the investment attitude, the overall average responses are between 3.338 to 4.322. The highest three scores are "financial management is a continuous lesson", "financial management is a 'must' task", and "financial management can increase passive income". The overall averages are between 2.691 to 4.023 in the risk tolerance aspect. The highest three scores are "the product must have a reasonable

Table 1. Demographic Information of Respondents

Variable	Descriptions	Frequency	Percent (%)
Gender	Male	195	50.3
	Female	193	49.7
Age (y/o)	45-49	125	32.2
	50-54	96	24.7
	55-59	90	23.2
	60-64	77	19.8
Education Level	H.S. and below	84	21.6
	College	191	49.2
	Graduate	113	29.1
Occupation	No Response	88	22.7
	Gov. and Edu	55	14.2
	Manufacturing	66	17.0
	Service	147	37.9
	Freelance	32	8.2
Monthly Income (NTD)	30,000 and below	28	7.2
	30,001-50,000	92	23.7
	50,001-70,000	90	23.2
	70,001-90,000	57	14.7
	90,001-110,000	38	9.8
	110,001 and more	83	21.4
Marital Status	Not married yet	63	16.2
	Married	296	76.3
	Others	29	7.5
Number of Children	No Response	73	18.8
	0	62	16.0
	1	184	47.4
	2 and more	69	17.8
Consumption Habits	Immediate Gratification	84	21.7
	Step-by-step	237	61.1
	Frugal	67	17.3

Note: The sum of percentages may not be one hundred percent due to rounding.

allocation", "appropriate risk is needed to get rewards", and "the stable profit is essential". In the asset allocation, the highest three scores are "stocks", "real estate", and "mutual fund" and the overall aver-

ages are between 2.206 to 3.631. The "futures" has the lowest score. In the investment strategy, the overall averages are between 3.101 to 4.111 and the highest three strategies are "long-term and stable

reward", "a reward higher than fixed saving", and "the understanding of the product". The lowest score goes to "recommendation from relatives or friends". The results from the t-test, Chi-square test, and ANOVA show that gender, age, marital status, and number of children don't significantly influence all the dependent

variables of attitude, risk tolerance, allocation, and strategy. At the same time, education, occupation, income, and consumption habits do. All the results with significant differences were conducted in the post hoc test. The results, with significant differences, of the demographics in four aspects are shown in Table 2.

Table 2. The Results with Significant Difference and Scheffe's post hoc Tests

Independent variables	Dependent Variables	Significance (p-value)	Scheffe's post hoc test
	Attitude	0.002	H.S. < Co. < Gr.
Educational Level	Risk tolerance	0.001	H.S. < Co. < Gr.
	Asset allocation	0.008	H.S. < Co. < Gr.
	Investment strategy	0.049	H.S. < Co. < Gr.
Occupation	Investment strategy	0.003	Fl. < Mfg. < G.E. < Sr.
Income	Attitude	0.000	30k < 50k < 70k < 90k < 110k < 110k and more
Consumption habits	Attitude	0.01	Fr. < I.G. < S.S.
	Investment strategy	0.018	Fr. < I.G. < S.S.

Note: H.S.: high school; Co.: college; Gr.: graduate school; Fl.: Freelance; Mfg.: manufacturing; G.E.: government and education; Sr.: service; 30k: income less than 30,000 NTD; 50k: income from 30,001 to 50,000, and so on. Fr.: frugal; I.G.: immediate gratification; S.S.: step-by-step

Regarding the education variable, respondents with higher education levels have more positive attitudes, higher risk tolerances, higher degrees of asset allocation, and more choices of investment strategy toward financial management. The results show that people with higher education levels are more likely to choose stocks, precious metals, watches, and artwork compared to lower-education people.

Regarding the occupation variable, people who serve in service industries

have more choices of investment strategy while people in manufacturing sectors have fewer investment strategies. People in the manufacturing industry tend to choose real estate and foreign currencies while retired people tend to choose real estate and fixed deposit.

According to the results of post-hoc analysis, respondents with higher average monthly income have a more positive attitude towards financial management. They are also more positive about planning retirement financial management and

are more willing to accept investment-related information. The reason may be that people with higher incomes have higher levels of wealth freedom.

Consumption habits have a significant influence on attitudes and investment strategies. In attitude, people who are "step by step" tend to believe "financial management is a 'must' task" and believe that financial management can increase income, stabilize retirement life, and achieve wealth freedom. In investment strategy, people who are "step by step" have a higher level of risk-bearing and have a better understanding of the investment products.

Conclusions

This study conducted in-depth interviews and questionnaire surveys to analyze the investors' behaviors. The results show that education level, occupation, income, and consumption habits have remarkable influences on financial management attitudes. The possible reasons are that the education levels affect the quality/quantity and ability to absorb the domain knowledge and information in the area of financial management. It then influences the selection of products and preferences. Since monthly income and consumption habits could also affect the level of disposable expense, they will in turn affect the choice and allocation of investment products. People with different occupations may have dissimilar consumption habits, which could also be the factors leading to different investment willingness and products.

Contributions and Limitations

The contributions of this study are manifold. Government departments can use the study's findings to propose retirement policies that better align with the needs of today's society, such as pension systems, labor insurance, or working years. Industry players can refer to this research to design more suitable products for middle-aged people in today's society, such as insurance systems, claims content, investment portfolios for financial planning products, and so on. People of similar age can benefit from other's financial management ideas to obtain more information and choices to make better use of personal assets and time, resulting in diverse benefits in their lives. Those who are about to enter middle age can learn from relatively more experienced people to gain the necessary assistance and experience.

This study focuses on middle-aged individuals in Kaohsiung, Taiwan only. Therefore, there exist some application limitations. Firstly, this study discusses investment and financial management behaviors and strategies of middle-aged people and does not include other age groups. Secondly, the study conducted a sample questionnaire survey from the Kaohsiung area only. Hence, the conclusions drawn from this study apply only to regions or countries that share similar cultural backgrounds and consumption habits. The suitability should be considered when applying these conclusions to regions with remarkable differences in culture and habits. Finally, Taiwan has a seriously declining birth rate and an aging population. In 2018, the population aged 65 and over in Taiwan accounted for more than 14%. The population structure has entered an aged society. The application

extension should be cautious in areas with different social population age structures.

Future studies can consider the following areas:

1. Compare attitudes towards financial management across different countries or regions as the limitation stated.
2. Add other factors, such as different perspectives, that may affect investment decisions into the analysis. The investors' asset attributes can be considered as well.
3. Future research can include financial crisis-related issues, such as diseases, war, and trade conflicts, to expand the scope of research.

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