

Influence of information search on risky investment preferences: Testing a moderating role of income

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Abstract. Risk-taking in investment decision-making is a major means to create individual wealth. Investors search information for risk-reducing strategies in risky investment decision-making. Digital information on financial measures and advice-seeking information are two usual means in information searching. This study extends the information search aspects to discuss heuristics reliance to enrich our understanding of individual risk-taking in investment choices. A test for differences based on income is also conducted. In addition, this article discusses two forms of risky investments, stocks/options investments as well as mutual funds investments. We test our model with a sample of experienced investors by self-reported measurement. The findings thus expect to show that information searches and income have dramatic effects on investment preference variation. Accordingly, implications for financial consultants and ethics issues are discussed as well.

Keywords: information search, heuristics, income, investment preference

1. INTRODUCTION

Information plays a critical role in individual risk-taking in risky investment decision-making behavior [1][2][3][4]. Investors seek to achieve expected returns “by decreasing the level of associated uncertainty through information search” [5, p.505]. Digital information on financial measures and seeking advice are two usual means in information searching.

Research finds the positive effect of information search on individual hold risky investments [6][7][8]. Digital information on financial measures [6][9] and advice seeking information [10] are two usual studied variables. Nagy and Obenberger [9] and Clark-Murphy and Soutar [6] find that digital information search is the primary consideration in individual risky investment decisions, even combined with various other variables such as a personal- financial -need factor and an advocate-recommendation factor. Peress [7] and Shum and Faig [8] find that professional advice positively influences the decision to hold stocks.

People may also employ heuristics to reduce the associated effort with information processing [11]. These heuristics, such as viewing a company with strong prior performance as a good investment [12][13], are generally useful, although a reliance on the heuristics from an intuitive judgment based on psychological factors may lead to serious errors [14]. However, little empirical research focuses on the effects of heuristics on investment decision-making. This study extends the information search aspects to discuss heuristics reliance, a simplified information search method, on risky investment choices.

Specifically, the study here discusses two forms of risky investments, stocks/options investments as well as mutual funds investments. A test for differences based on income is also conducted. Two research questions are proposed: One, how do extended information searches influence individual investment preferences? Two, how does income moderate the effects of information searches on individual investment

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preferences? This study thus expects to better understand the influences of information searches on risky investment preferences.

2. Research Model and Hypotheses

2.1. Information search

Moutinho [15] defines information search as “an expressed need to consult various sources prior to making a purchase decision” [5, p. 505]. In Taylor’s [4] theory of risk-taking in consumer behavior, information search plays a risk-reducing strategy before individuals decide to buy. Digital information search based on financial measurements and advice-seeking information search receive extensive studies in financial decision-making [4][7][8][9][16].

Digital information based on financial measurements

Researches on individual investor behavior find some crucial determinants on corporate accounting information [9], including expected dividends [6][9][17], long-term growth, financial stability [6][17], and future expectations [9][17]. These economical determinants, digital information based on financial measurements, are called digital information for short in this study. Empirical studies show that digital information still remains as a valuable criterion, even when investors seem concerned about human skills in financial management [6][9]. Thus, we expect that digital information search will increase individual interest in risky investments because investors might reduce their uncertainty via greater understanding of company’s financial status.

Advice-seeking information search

Seeking advice, such as from professional financial advisors [8][12] and friends/relatives [9][12], is especially necessary since investors now have a greater choice of investment products due to the diversification of financial investments [18]. Moreover, due to the lack of understanding for various risky investments, investors desire advice and education from professional advisors [1][2]. They especially desire face-to-face contact when choosing more complex or riskier investments [2].

Studies on financial investments demonstrate the positive association between information search from advice and risky investments [7][8]. For example, Shum and Faig [8] use data from the U.S. survey of Consumer finances (SCF) in 1992, 1995, 1998, and 2001 to analyze the determinants of stock holdings. They find that professional advice positively influences the decision to hold stocks.

2.2. Heuristics

Heuristics are methods people use to reduce the effort associated with a task [11][19]. Limited to bounded rationality [11][20], people employ heuristics as “methods for arriving at satisfactory solutions with modest amounts of computation” [11, p.11] to reduce the effort they expend on the decision-making processes. Shah and Oppenheimer [19] summarized heuristics as “methods that use principles of effort-reduction and simplification.” Heuristics are usually useful for simplifying information processes [12][14][19]. However, reliance on heuristics from intuitive judgment under uncertainty may lead to severe errors [14]. Some studies on why people employ heuristics have noted that individuals will suffer from both information overload [3][7] and investment complexity [1][18] due to bounded rationality [11][20]. Kozup, Howlett, and Pagano [21] empirically supported the influence of prior fund performance on fund evaluation. They noted that investors “seemed to gravitate towards prior fund performance in a significant way” (p. 53). Thus, it is expected that heuristics, such as viewing a company with strong prior performance as a good investment, may increase an investor’s interest in higher risk investments. Shah and Oppenheimer [19] posited that heuristics made the decision process easier.

2.3. Income

Research suggests that the rich increase their information search [5][7] and hold a larger portion of their portfolios in risky investments [22]. For example, Peress [7] finds that wealth positively influences individual information searching. He concludes that wealthier households tend to hold more stocks through the demand for costly information with a higher precision. Shum and Faig [8] find that the decision to hold stocks is positively correlated with income, which is especially consistently significant across time.

Studies on risky investment decision-making find that income has prominent direct effects on information searching behavior and investment choices separately [8][22]. However, few research studies have examined whether income moderates the information searches effects in risky investment decision-making, a gap that this study endeavors to fill.

2.4. Research model and hypotheses development

According to the Taylor's [4] theory of risk-taking in consumer behavior, individuals acquire information under uncertainty to reduce risk and then decide to buy. Considering three types of information searches mentioned above, researches show that (1) digital information search is a crucial determinant in risky investment decision-making [6][9][17], (2) Peress [7] formulates that costly information acquisition, such as expert advice, induces investors to hold more stocks, and (3) Shah and Oppenheimer [19] posited that heuristics made the decision process easier by an effort-reduction framework. Accordingly, we propose our research model that information searches, including digital information, advice-seeking information, and heuristics reliance, positively affect individual risky investment preferences, as shown in Figure 1. We thus begin a series of hypotheses related to a proposed research model.

Hypothesis 1: *Investor's digital information search positively influences his/her preferences for (a) stocks/options investments or for (b) mutual funds investments*

Hypothesis 2: *Investor's advice-seeking information search positively influences his/her preferences for (a) stocks/options investments or for (b) mutual funds investments.*

Hypothesis 3: *Investor use of heuristics positively influences his/her preferences for (a) stocks/options investments or for (b) mutual funds investments.*

We also investigate the moderating role of income in information search – investment preference model. The information acquisition developmental approach adopted by Peress [7] suggests that rich investors become more likely to obtain costly information with a higher precision. More information acquisitions with higher precision induced them to purchase more high risk investments, such as stocks. Accordingly, we expect that information searches affect individual risky investment preferences even more when their income is high because their acquired information may be more accurate. Hence:

Hypothesis 4: *Income moderates (enhances) the positive relationship between information searches and risky investment preferences (including (a) stocks/options investments and (b) mutual funds investments).*

Hypothesis 4-1: *Income moderates (enhances) the positive relationship between digital information search and risky investment preferences (including (a) stocks/options investments and (b) mutual funds investments).*

Hypothesis 4-2: *Income moderates (enhances) the positive relationship between advice-seeking information search and risky investment preferences (including (a) stocks/options investments and (b) mutual funds investments).*

Hypothesis 4-3: *Income moderates (enhances) the positive relationship between use of heuristics and risky investment preferences (including (a) stocks/options investments and (b) mutual funds investments).*

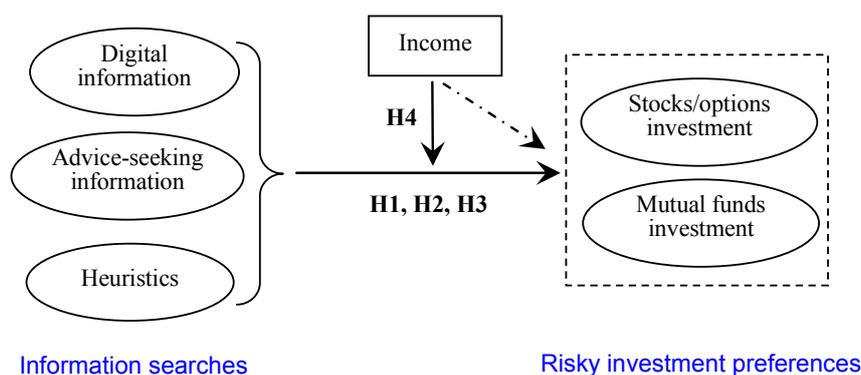


Fig. 1: Research model and research

3. Research Methodology

3.1. Instrument development

To evaluate investor attitudes and behavioral intentions in risky investment decision-making, the survey instrument measurement was a psychometric scale developed from the literature wherever possible. This article including five constructs with thirteen items. Five constructs are digital information search, advice-seeking information search, heuristics, stocks/options investment preferences, and mutual funds investment preferences.

All items were measured on a five-point Likert scale (with the following definitions: 1= strongly disagree, 3= neither agree nor disagree, and 5= strongly agree). The preliminary instrument was reviewed by four financial scholars and two investment scholars to assess its clarity. The instrument items were pretested with 55 investors using the same data collection method. Of the 55 questionnaires, seven were discarded due to the respondents' inexperience with investments. The Cronbach's α of scales was acceptable [23] with the minimum score being above 0.7.

3.2. Data collection

Data was collected using a questionnaire survey administered through an interview. In an effort to motivate subjects to respond, an incentive in the form of a US\$10 supermarket coupon was offered to all participants. 395 investors who were holding or had experienced investing in higher risk investments were randomly selected. The reason for selecting individuals with some investment experience was that, based on the feedback from the pilot study, they were more likely to understand and complete the questionnaire and seemed to be more interested in participating.

A total of 378 successful questionnaires were obtained (effective response rate: 95.7%). Of the respondents, 65.3% were females; 76.8% had at least a university degree; and 52.6% had annual incomes of US \$20,000 or more.

3.3. Data analysis and discussions

Data analysis was performed in two stages, the development of a measurement model and the evaluation of a research model. LISREL 8.5 was used for data analysis with confirmatory factor analysis (CFA) [24] as the first stage and PASW 18.0 was used for hierarchical regression analysis as the second stage.

The data analysis, results and discussions will be presented in the future related Journals.

4. Contributions and limitations

4.1. Contributions

This study contributes to the individual information searching in investment choices in two ways. First, by extending the information search aspects to discuss heuristics reliance, this empirical study may enrich our understanding of individual risk-taking in investment choices. Second, this article takes on step forward in examining a moderating role of income in a proposed model to shed light on how income affects the effects of individual information searching on investment choices. In addition, reporting on two dimensions of stocks/options and mutual funds investment, the findings thus show that information searches and income have dramatic effects on investment preference variation. Accordingly, implications for financial consultants and ethics issues are discussed as well.

4.2. Limitations

In this article, we use a psychometric scale to measure the investors' investment preferences to reflect their investment decision-making behavior. Although behavioral intentions such as investment preferences are the principal antecedents of voluntary behavior according to the TRA (Theory of Reasoned Action) [25], methodological problems of surveys in the research design limit our study in terms of an individual's actual investment behavior. This study has investigated the moderating effect of income, focusing on demographic element, on individual higher risk investment preferences. The results may be also influenced by individual psychological characteristics, such as risk aversion [1][2]. Therefore further studies related to this angle may be necessary.

5. References

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