**Thesis**

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## Title of the Thesis

The effect of implementation of psychological profiling in the portfolio construction process in Kazakhstan.

## Introduction/Problem Statement

In the last ten years, the interest in investment portfolio in Kazakhstan has been growing. It's being considered as an attractive option as a source of additional income for both high- and middle-income individuals. However, starting investing in financial assets might seem intimidating or challenging without a considerable amount of knowledge. Thus, individuals might hire a portfolio manager. This decision can save substantial amount of time and effort, especially to those who have both demanding jobs and families, but also want to diversify their income streams. The option is not too costly either as such professionals mostly work for a fee which consists of a small percentage of a portfolio performance.

A suitable example of a company offering portfolio management services in Kazakhstan would be Freedom Finance, the headquarters of which are located in Almaty, and which is a part of international Freedom Holding Corp. Their portfolio planning step includes risk-profiling, but it focuses mainly on situational profiling, namely age and subsequent earning stage in life, rather than behavior and personality traits that correspond to psychological profiling. Therefore, omission of psychological factors in portfolio planning process decreases the effectiveness of portfolio's performance in the perception of a client, since that effectiveness is assessed based on how much risk the client is actually able to handle and accept psychologically, not simply wants or can afford. Hence, it is important to examine the effect of psychological profiling on the satisfaction and perceived effectiveness of portfolio performance in order to understand whether there is a substantial benefit in implementation of psychological profiling as the necessary step in the portfolio management.

## Research Purpose and Objectives

This research aims to determine whether the implementation of psychological profiling during the portfolio planning stage improves its performance as per investors' points of view, i.e. whether investors' satisfaction increases. In other words, psychological profiling will serve as independent variable, while the portfolio performance will serve as dependent variable.

## Research Questions/Hypotheses

In order to fulfill the objective of this study, the following hypotheses will be operated upon:

$H(0|\text{psychological profiling}): \beta(\text{psychological profiling})=0$

$H(a|\text{psychological profiling}): \beta(\text{psychological profiling})\neq 0$

Thus, the null hypothesis will be that psychological profiling will not affect the portfolio performance from the perspective of a client, and the alternative hypothesis- that it will.

## Preliminary Literature Review/Background

Psychological profiling of investors as a concept was formulated back in 1998, when Carducci and Wong who suggested that investment choices depended on certain personality traits that affect decision-making process, attitude to and psychological willingness to take risks. This direction in the research of psychological and behavioral perspectives on investments was continued by Maginn et al. (2007), who further expanded on the classification of investors based on their personality traits. They established 4 psychological profiles of investors, namely cautious, methodical, individualistic, and spontaneous. In a nutshell, individualist and spontaneous investors are less prone to risk than cautious and methodical ones, while in the process of making decisions, individualist and methodical rely mainly on reasoning, and cautious and spontaneous rely on emotions. In 2009, De Brouwer first suggested the practical application of various psychological and behavioral factors during the portfolio planning process thereby improving the portfolio by matching it to the different psychological profiles of investors compared to the disregard of psychological factors and operating on the notion that all investors are rational.

General overview of the existing academic literature on the topic can be seen in the bibliometric analysis, which was carried out based on the keywords “Financial assets” and “Behavior” as to see the picture, most relevant to the study. The resulting network visualization map showed that there are 4 main clusters of the research interests (Figure 1). The green cluster presents mostly financial topics from the macroeconomic point of view which involves concepts such as consumption, savings, investment. The red cluster consolidates quantitative aspects of financial area, thereby introducing various models in financial analysis, namely stochastic models, value-at-risk, optimization, etc. The next large cluster in the blue color concerns mainly behavioral and psychological aspects of the topic. Lastly, the yellow cluster’s focus falls on the areas, most closely connected to the topic of this study, like decision making, behavioral finance, and investment behavior.

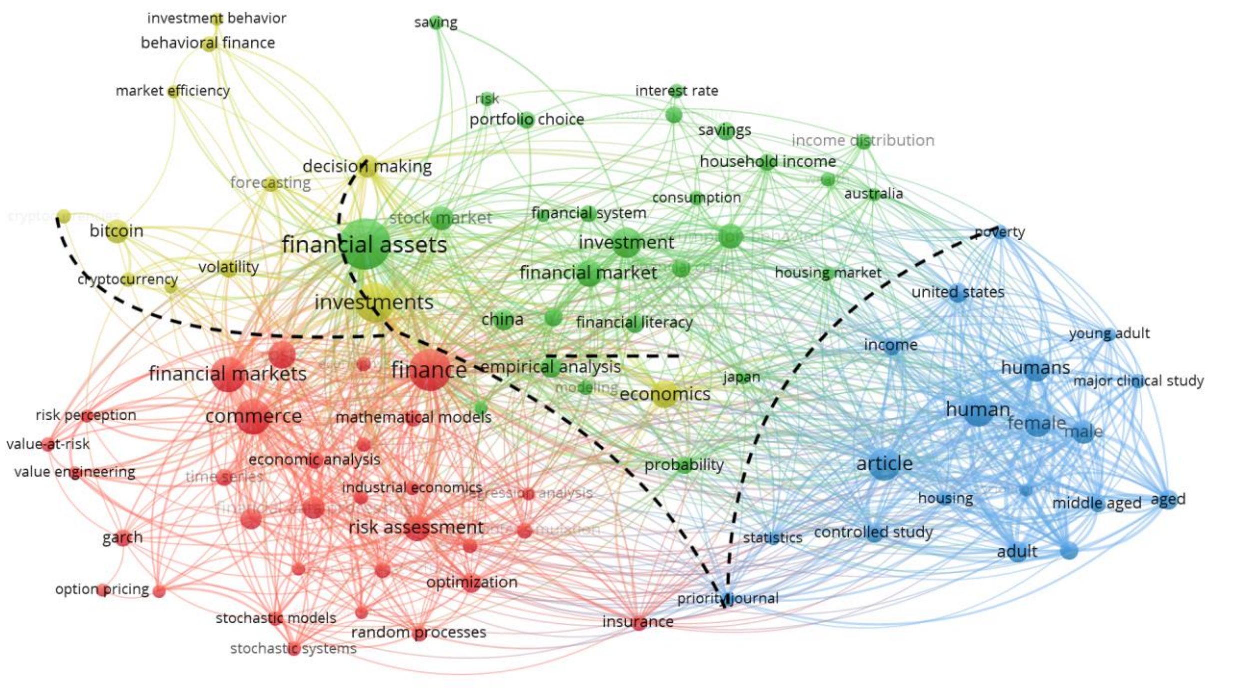


Figure 1.

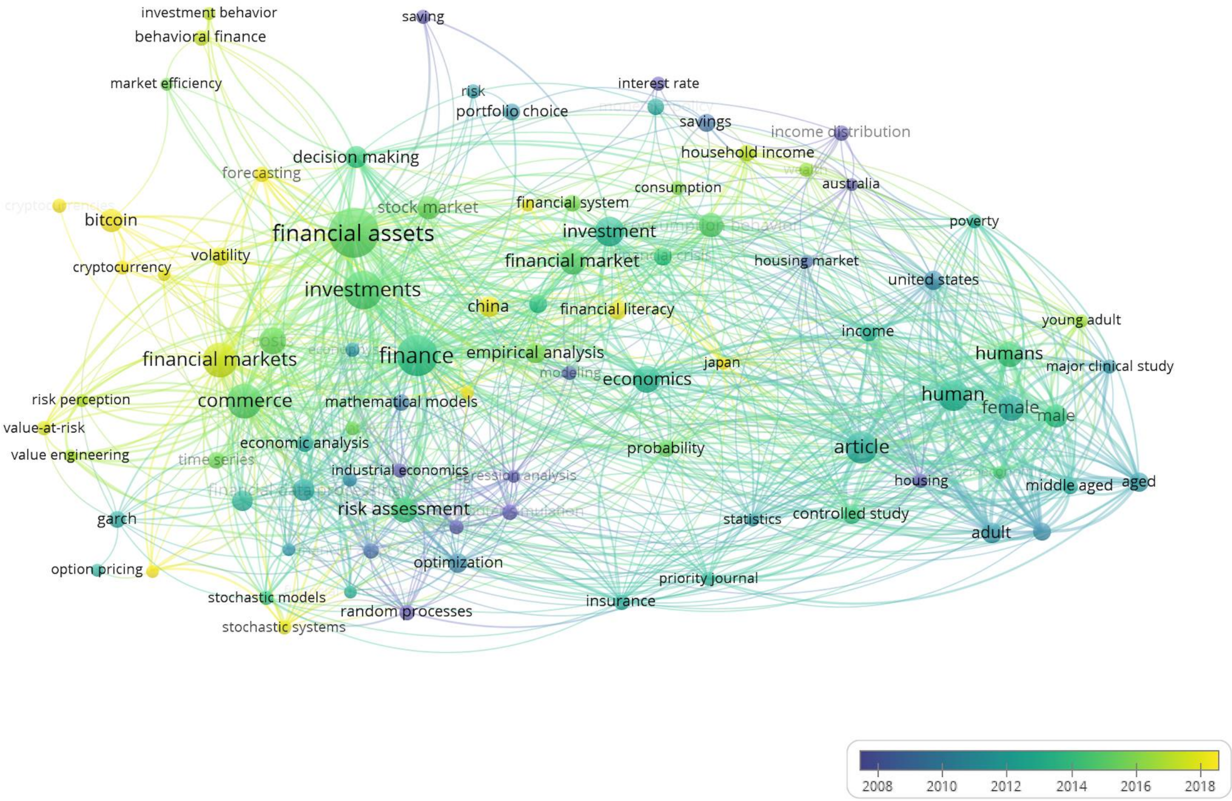


Figure 2.

The overlay visualization map in the Figure 2 demonstrates the evolutionary process in the research of psychology and behavior in connection to financial assets. The terms “Investment behavior” and “Behavioral finance” on the left side of the yellow cluster, that in definition correspond most accurately to this paper’s topic imply that its research purpose indeed follows the latest research trends. Thus, the conclusions of this study might shed some light onto the more pressing issues.

## Methodology/Approach/Data

The nature of this paper is primary rather than secondary research, so the results will be analyzed first-hand. Online surveys and questionnaires will serve as data sources, distributed mainly among foreign investing individuals who will be picked among the users of Quora which is quite a popular Q&A internet platform in the United States, since portfolio investments are much more developed there compared to Kazakhstan. During the research, the steps in portfolio planning would be compared among the companies that offer portfolio management services. Thus, respondents on Quora will be divided into two groups, namely those whose portfolio managers apply psychological profiling during the portfolio planning stage and those who do not. The questions will be designed with the intention of determining how satisfied both groups of respondents feel.

## Analysis Techniques / Tools

To get a numerical estimations of the results, a simple OLS regression model will be run where the difference in the mean satisfaction scores drawn from the survey that will be different for the respondents who whose psychological profile was established before portfolio planning and whose was not. Thus, the use of psychological profiling or lack thereof will be treated as an independent binary variable, which takes value of 1 profiling is used and 0- if not.

STATA software will serve as a software for running the aforementioned regression. Further, t-value resulting from the regression will be compared to the table values to conclude whether the results are statistically significant, and thus whether the application of psychological profiling does indeed increase satisfaction of the investors/respondents with the portfolio performance.

**Contribution/Impact/Recommendation (expected)**

The results if this study will indicate if the inclusion of the psychological profiling in the portfolio planning phase improves the portfolio performance from the investor's perspective, thereby increasing the investor's satisfaction with the work of portfolio manager. Such conclusions will prove to be useful for investment companies that provide portfolio management services in Kazakhstan, since currently it is not considered as an important step. Also, such addition would benefit investors as well, as portfolios of various financial assets will be tailored according to their personality traits, and not only earning stage of life and attitude to risk.

From the academic perspective, this research might provide some further direction in behavioral finance which is itself quite a recent research trend, and thus, there is not a whole lot of quantitative and practical body of knowledge formed. Further recommendation might be to establish and examine other theories of psychology and behavior in relation to financial industry and investments.

**Research Limitations / Ethical and Other Considerations**

The first limitation of the study might be faced during the data gathering step, since online format often decreases credibility of the answers in comparison to the live format. Another problem might arise during the assembly of respondents, i.e. sampling will not be random, since users of the Quora platform might be similar to each in regard with age and sociocultural background, thus resulting in research conclusions that might not be applicable to all investors who use portfolio management services.

**Research Progress Plan (with dates and deadlines)**

- July 2022- Literature review
- August 2022- Designing the online surveys
- September 2022- Data collection and sampling
- October 2022- Data and subsequent regression analysis
- November 2022- First draft of the research paper
- December 2022-January 2023 Final version of the research paper

**References**

Carducci, B. J., & Wong, A. S. (1998). Type A and risk taking in everyday money matters. *Journal of Business and Psychology*, *12*(3), 355-359.

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