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# Assessment-Assisted and Relationship-Based Financial Advising: Using an Empirical Assessment to Understand Personal Investor Risk Tolerance in Professional Advising Relationships

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***Abstract*****—**A crucial component to the success of any financial advising relationship is for the financial professional to understand the perceptions, preferences and thought-processes carried by the financial clients they serve. Armed with this information, financial professionals are more quickly able to understand how they can tailor their approach to best match the individual preferences and needs of each personal investor. Our research explores the use of a quantitative assessment tool in the financial services industry to assist in the identification of the personal investor's consumer behaviors, especially in terms of financial risk tolerance, as it relates to their financial decision making. Through this process, the Unitifi Consumer Insight Tool (UCIT) was created and refined to capture and categorize personal investor financial behavioral categories and the financial personality tendencies of individuals prior to the initiation of a financial advisement relationship. This paper discusses the use of this tool to place individuals in one of four behavior-based financial risk tolerance categories. Our discoveries and research were aided through administration of a web-based survey to a group of over 1,000 individuals. Our findings indicate that it is possible to use a quantitative assessment tool to assist in predicting the behavioral tendencies of personal consumers when faced with consumer financial risk and decisions.

***Keywords*****—**Behavior based advising, behavioral finance, financial advising, financial advisor tools, financial risk tolerance.

## I. Introduction

In the social world, personal relationships are important. Research continually demonstrates that the interactions that individuals have with others impact mental health, life satisfactions, and even our physical health [1], [2]. Humans are social beings that look to create connections with the other social beings encountered. The relationships developed play a role in how conflict is handled when it arrives and the interpretation and coping abilities during times of stress. [3]

The importance carried by personal relationships can also be found in the profession of financial advising [4]-[6]. An idea is prevalent in the financial industry that personal investors do not care about the level of financial knowledge held by the advisor until they feel the advisor cares about them on a personal level. Just as in all personal and trusting relationships, however, the creation of a relationship of familiarity and trust between the financial professional and investor is important and takes effort and time to create. A clear obstacle faced by financial professionals is the challenge of learning and understanding the individual preferences and characteristics of the clients they serve within the constraints of the work being accomplished. This typically involves a process of getting to know the client over a period of time or through a course of trail-and-error interactions and interpersonal explorations. This process often requires the advisor to rely on their own intuition and ability, to gather and assess the interactions and behaviors displayed by the personal investor. This process can be time consuming, error-prone, and have the potential to jeopardize the relationship as the advisor goes about gathering information and testing what they believe that has been learned about the personal investor. Missteps along the way in the advisor's ability to understand and interpret the personal investor's risk capacity can have financial ramifications for both the financial professional and investor in the forms of lost business, miscues in terms of financial decisions made, and even the possibility of lawsuits and loss of income due to suspensions. Additionally, the nature of these personal relationships that have business ramifications can mean that personal investors expect professionals to be able to make decisions quickly, especially as the expected outcome of these relationships is financial gain. With finances and potential monetary losses and gains on the line, some individuals may expect or insist that action and positive outcomes be made to happen at a rapid pace. Simply, professionals are in a position of needing to understand the individuals they service quickly so that there is a little delay in profit generation as possible. Therefore, having a systematic vehicle to assist in the relationship-building process in a more time efficient, consistent, and insightful manner has clear beneficial outcomes for building a robust partnership between the financial professional and personal investor. This potential boon to the advisement relationship led to the current work of finding a vehicle for financial firms and financial professionals to better understand their clients' behavior and personality tendencies when it comes to making financial decisions. Unitifi, a financial software organization,

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has developed the UCIT to assist Financial Professionals and Financial Firms in better understand the individual personality and decision-making process of their clientele. The UCIT uses a quantitative assessment tool to build a compilation of information that professionals can use as a foundation to their relationship. The outcome of the tool for professionals is an individualized personal investor report that serves four distinct, but not limited purposes: (1) matches the individual to one of four financial risk tolerance categories, (2) identifies the strongest personality tendencies of 40 more specific financial personality tendencies and beliefs most likely to be exhibited by the personal investor during their association, (3) interprets how the investor is best suited for decision making and communication based on logical (cognitive) or passionate (emotion driven) preferences, and (4) provides applied guidance and insight for the advisor as they strategize their interactions.

The purpose of this paper is to discuss the effectiveness of the UCTI to categorize investors financial risk tolerance into categories that provide helpful insight to the financial professional at the onset of a financial advisement relationship, during and existing relationship when financial events change how an investor behaves when risk is applied to their life. Exploring this potential is important as this information can be foundational to advisors in understanding how the personal investor conceptualizes financial decision making. Once this component is understood, it allows for further and more in-depth understanding within the relationship to be acquired and nurtured. Additionally, these behavior-based risk tolerance categories are explored to demonstrate, at a unique fundamental level, that individuals do think and behave in categorical ways when it comes to financial investments.

The idea that personal investors behave and react to financial decisions and risks and carry a tolerance level to risk builds off previous work in the realm of behavioral finance and consumer tendencies [7]-[19]. More specifically, these individuals have aimed to understand the decision-making process by personal investors under stress as it relates to financial fluctuations and financial risk tolerance [20]-[22]. Additionally, this work has worked to explore how individuals deal with financial outcomes that are not in a person's direct control. The creation of the UCIT builds from previous work in the arena of financial behaviors and is pushed forward through both qualitative and quantitative data gathered from financial advisors currently working in the financial services industry.

It has been stated by Kahneman and Riepe in relation to advising consumers in the financial industry that, "to advise effectively, financial professionals must be guided by an accurate picture of the cognitive and emotional weaknesses of investors that relate to making investment decisions: their occasionally faulty assessment of their own interests and true wishes, the relevant facts that they tend to ignore, and the limits of their ability to accept advice and how to live with the decisions they make." [23] Taking this step to relate Logical (cognitive) and Passionate (emotional) decision making tendencies against aggressive and conservative behavioral personality proclivities and employing an empirical assessment or measurement tool had not been accomplished. Our work intends to shore up this vacuity. Our studies, research, and development bridge the gaps between theories and empirical evidence on how investors behave in certain and uncertain financial situations. This bridging takes modern behavior biases and enhances the biases into positive personality tendencies that are readily identifiable in a scientific model. Similarly, relatable and actionable methods for the science of manage algorithms, and the art and theory of behavior/personality are developed to allow a relationship to flourish at a more meaningful and documented depth. The analytics behind the outcomes, as well as the questioning to measure the assessment, and question groupings are calculated into a single model. The findings are further enhanced by basing our research and modeling with a known risk analytics tool that has been developed and trusted in the financial industry for decades - Schwab Risk Questionnaire. [24] This anchoring point benchmarks the results of conservative vs. aggressive personal investor tendencies, and helps to highlight that the logical versus passionate decision makers answer the questions based on the scenarios presented for financial consumers to digest and relate their own personal situations. This work allows for the exploration of four basic Personal Investor Behavior Categories and, subsequently, building forty Personal Investor Personality Tendencies.

The purpose of this paper is to discuss the effectiveness of the UCTI to categorize investors financial risk tolerance into the four Personal Investor Behavior Categories that provide helpful insight to the financial advisor at the onset of a financial advisement relationship. Exploring this potential is important as this information can be foundational to advisors in understanding how the personal investor conceptualizes financial decision making. Once this component is understood, it allows for further and more in-depth understanding within the relationship to be acquired. Additionally, these risk tolerance groups are explored to demonstrate, at a unique fundamental level, that individuals do think and behave in categorical ways when it comes to financial investments.

## II. Methods

To begin, personal interviews were conducted with 350 Certified Financial Professionals (CFPs) and Chartered Financial Analysts (CFAs) from across the United States. These individuals were asked a non-structured schedule of questions aimed at identifying real-world experiences and practice of personal investors when faced with financial risk. Information supplied during these interviews highlighted the need to have a quick and accurate method for discovering and diagnosing consumer financial behavior as it relates to risk, and the consumer behavior associated when risk is applied to individual retirement and investment finances. The outcomes of these interviews were synthesized to identify patterns of investor behavior as well as aiding in the creation of survey items aimed at collecting personal investor behaviors, thoughts, and beliefs in an applied format.

Using the information from the personal interviews, quantitative questions were developed to be administered through a web-based survey platform. Exploratory tests of the survey questions were administered to approximately 150 individuals over an 18-month period. This pre-test was used to assess effectiveness of question format (for example, Likert scale response options versus use of a sliding scale question configurations), survey length, and construct comprehension. Initial survey questions were found to be too complex and revisions were made to simplify question wording. The outcome of this process was a set of 20 questions within the UCIT Initial Assessment that are used to identify financial consumer behavior and personality tendencies.

Next, empirical support for the UCIT was achieved by using data gathered through a pre-test survey to explore the reoccurring patterns in how individuals think and feel when it comes to their investment behaviors. A pre-test of the UCIT was conducted in the spring of 2016 to gather real-world data to test the validity of the tool. A total of 1,001 individuals completed the assessment between June 7th and 8th of 2016. The names and contact information for the individuals included in the pre-test were purchased from Survey Gizmo Participants and these individuals were sent an electronic invitation to complete the survey via the SurveyGizmo online survey administration tool. In order to be eligible to participate in the survey, respondents needed to indicate ownership of some form of investment account such as an investment brokerage account, individual retirement account, a qualified plan sponsored retirement account through an employer, or an individual qualified retirement account. This question served as a proxy for identifying individuals who could be more likely to engage the services of a financial investment professional. In all, the survey was sent to a total of 1,212 individuals with a response rate of 82.59%. The age range of the survey sample used was between 25 and 85 years of age and was split evenly between males and females.

In order to test the effectiveness of the Risk Tolerance Tool, these individuals were also asked to complete the Investor Profile Questionnaire developed by Charles Schwab as part of the pre-test study. Comparison of the Risk Tolerance Tool to the Investor Profile Questionnaire allows for evaluating the effectiveness of the Risk Tolerance Tool using an established and industry standard tool for assessing the risk tolerance of investors.

As part of the Risk Tolerance Tool questionnaire, respondents answer each item using a sliding scale to indicate their level of agreement or disagreement with a given statement. This sliding scale then calculates their position along a continuum ranging from strongly disagree, or negative 50 (-50), to strongly agree, or positive 50 (50), with a neutral point of zero.

## III. Results

Using the results of the pre-test, four distinct behavior-based risk tolerance investor categories were identified: Protector, Observer, Liberator, and Energizer. A brief description of each of these groups is as follows:

### *A. Protector*

This tolerance group falls on the most conservative end of the risk tolerance spectrum. Preservers tend toward safe investment opportunities and shy away from those which hold potential perils. These individuals closely shepherd their financial investments. They are often slow to take action investing and engage with trepidation when they do.

### *B. Observer*

Followers guide their actions based on the actions of others. These individuals are reactionary and make their investment decisions on what they see others doing. Because they tend to neither purposely take risks nor avoid risks, Observers can be persuaded to move more conservatively or aggressively with their investment decisions.

### *C. Liberator*

Liberating risk tolerance individuals prefer to be involved in the investment process. They often enjoy learning about investment opportunities but tend to rely on their own research or instincts when investing.

### *D. Energizer*

Individuals in the Energizer risk tolerance group are the most undaunted by the uncertainty that comes with financial investing. Energizers are confident in the outcomes of the decisions they make and are willing to move forward with investments even when the future is not yet certain.

A commonly used test for measuring internal consistency, Cronbach's alpha [25], is used here to assess the reliability of the UCIT tool. Results show that a Cronbach's alpha of between .74 and .77 were achieved for each of the four investor types. These scores are within the optimal statistical range (.70 to .90) and indicate the UCIT results meet reliability standards. The Cronbach's alpha for each investor types is included in Table I. These results demonstrate that the UCIT results are statistically reliable and can be expected to dependably measure the investment tendency of each personal investor.

TABLE I
Cronbach's Alpha Scores by Investor Type

| Theme | Cronbach's alpha |
|---|---|
| Protector | .74*** |
| Observer | .77*** |
| Liberator | .77*** |
| Energizer | .75*** |

*** p-value $\leq$ .001

Table II summaries the p-values for the UCIT where it can be seen that the tool is found to be a valid predictor of investor behavior. Table II indicates that the Personality and Tendencies measured have significant bivariate correlation with "Risk Tolerance." More specifically, each individual's "Risk Tolerance" has a strong, positive correlation to a self-reported "Pre-Risk Spectrum" (r=.35, p<.001) and self-reported "Personality" index when investing (r=.42, p<.001). More modest correlations were found for the "Liberator" (r=.14, p<.001) and "Energizer" (r=.17, p<.001) tendencies. In each case, it is clear that all four Liberator variables (Pre-Risk Spectrum, Personality, Liberator, and Energizer tendency) have a positive correlation to "Risk Tolerance". Additionally, when individuals self-report their risk score as high on the "Personality" index, and are either demonstrating Liberator or Energizer tendencies, "Risk Tolerance" is significantly higher. This means they will tolerate more risk in their financial decision making and therefore should be partnered with an advisor who will understand, and respond, to their [higher] Risk Tolerance. Contrastingly, individuals who score high on the Protector tendency demonstrated a negative, yet statistically significant correlation (r=-.08, p<.01) to Risk Tolerance. This means that Protectors have a negative correlation to "Risk Tolerance" or are significantly less likely to tolerate risk. Lastly, the only [statistically] non-significant relationship in the analysis was between Risk Tolerance and the Observer tendency. While not statistically significant, this finding explains the Observer investor theme well. In fact, by definition, the Observer does not fit either the aggressive or conservative personality/tendencies. These individuals take a "wait and see" approach and follow as they see fit given the circumstances before them. As such, they are could easily become a one of the other three investment types depending on the situation, messaging, and approach of the financial professional.

TABLE II
BIVARIATE CORRELATION BETWEEN "RISK TOLERANCE" AND INVESTOR PERSONALITY /TENDENCIES

| | "Risk Tolerance" | Pre-Risk Spectrum |
|---|---|---|
| "Risk Tolerance" | 1.00 | |
| Pre-Risk Spectrum | .35** | 1.00 |
| Personality | .42** | .37** |
| Protector | -.08* | 0.05 |
| Observer | 0.03 | .16** |
| Liberator | .14** | .23** |
| Energizer | .17** | .25** |

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

## IV. DISCUSSION

The purpose of the UCIT is to provide individuals in the financial advisement profession a vehicle for better understanding client risk tolerance and investment ideology. In doing so, financial professionals have a strategic advantage as to how they communicate with, guide, and administer to their clients based on each client's individual needs and preferences.

The outcomes of this research demonstrate that the UCIT is capable of capturing and categorizing the financial investing tendencies of individuals working with a financial advisor. More specifically, this tool is allowing professionals valuable insight into the behaviors and beliefs that drive the risk tolerance and risk response in a financial investment setting.

Based on statistical analysis, the "Personality" variable and the four distinct investor tendency types (Protector, Observer, Liberator, and Energizer) contained within the Risk Tolerance Tool are empirically supported. By using the UCIT tool to identify personality and tendencies of their clientele, financial professionals and institutions are better able to successfully support and guide each client based on their individual needs. Likewise, the validity of the UCIT is statistically sound, meaning it can be expected to reliably predict the personality type and tendency of financial personal investors within the four personal investor risk typologies (Protector, Observer, Liberator, and Energizer). This information is substantially valuable to the financial advisor in when building relationships with clientele and the overarching industry for financial advisement for several reasons.

First, results of this survey support previous research in this discipline and move it forward by using empirical evidence to support the idea that individuals do experience and respond to financial risk in different ways. The findings here move the understanding of how personal investors behave using empirical evidence and beyond theoretical discussions.

Second, use of the UCIT tool assists financial professionals by providing a vehicle to gain insight into the behaviors, perceptions and beliefs their clients bring to the table at the start of an advisement relationship. Having a tool that can be used on a consistent basis allows investors to best understand the personal investor in a more reliable way than more common practices of trail-and-error personal interactions. Additionally, this tool allows for the information that is foundational to building a healthy relationship between the financial advisor and personal investor in a timely and efficient manner.

Finally, this research can be utilized by the human to human (traditional) relationship, or the human to computer (Robo) relationships within the financial industry. Through administration in an online format, results can be shared directly to the financial advisor who can then use the information to tailor in-person interactions with the personal investor. In other situations, information captured through UCIT can be used in a more digital way to coordinate information and messaging that best suits the personal investor. Simply, the UCIT tool and corresponding research findings allow for more effective communication and more appropriate allocation of time, resources, and information to each personal investor on an individualized basis.

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