

Analysing the Life Satisfaction of Risk-averse and Risk-loving Investors in South Africa

PA Shenjere, SJ Ferreira-Schenk*

North-West University, South Africa. *Email: 23261048@nwu.ac.za

Received: 16 November 2023

Accepted: 23 February 2024

DOI: <https://doi.org/10.32479/ijefi.15440>

ABSTRACT

Financial well-being is normally referred to as a person's contentment with their financial situation. The level of life satisfaction among investors may vary depending on factors such as their risk tolerance and demographics. Demographic variables such as age and gender may influence an investor's life satisfaction, which, in turn, could influence their financial decisions. Furthermore, an investor's willingness to take risks can also affect financial decisions, ultimately influencing their life satisfaction. The objective of this paper is to identify and determine the influence of demographics and risk tolerance levels on individual investor life satisfaction. Secondary data were obtained in the private domain from an investment company that collected 1,059 from its client base. The results of this research paper indicated that there is a significant difference between the satisfaction of life of risk-averse and risk-loving investors. Risk-averse investors showed a negative relationship with life satisfaction, while risk-loving investors showed a positive relationship. This meant that the more risk-averse investors were, the lower the life satisfaction, indicating that high life satisfaction was accompanied by high risk. A significant difference was also found between life satisfaction and age and gender. Male investors were more satisfied with their lives than female investors. Older investors experienced higher levels of life satisfaction compared to investors in other age groups. As a result, these findings will make a considerable contribution to the way financial managers create investment portfolios for their clients.

Keywords: Investor Behaviour, Life Satisfaction, Age, Risk Tolerance, Investors

JEL Classifications: D14, G23, G41

1. INTRODUCTION AND BACKGROUND TO THE STUDY

'Investors will be more accepting of low-yielding, low-risk investments when they are more satisfied with life' (Dickason-Koekemoer & Ferreira, 2020).

It has been said that having a high level of self-awareness improves decision making (Carden et al., 2022), and this awareness can cause individuals to set goals and objectives for themselves. Diener and Pavot (1993) defined life satisfaction as the subjective awareness of the evaluation of one's life in which the rationale for the evaluation is up to the person. Life satisfaction is an assessment of one's entire life and not just their current state of happiness; it relates to an individual's general feelings about his

life, but happiness alone does not lead to a happy life (Ciorbagiu et al., 2020). The degree of satisfaction in life that different people experience can be influenced by the level of financial risk that people are prepared to assume.

Grable (2000) and Nguyen et al. (2019) defined financial risk tolerance as the highest degree of uncertainty that an individual is willing to assume when making financial choices. Every investor has different levels of risk tolerance, some are very risk-loving and others are very risk-averse. According to the Investor's Life Cycle Theory, older investors are assumed to have low risk levels, as they have less time to recover from losses and may be in retirement, while the opposite is assumed for younger investors (De Beer et al., 2017). Moreover, De Beer et al. (2017) stated the three phases in an investor's life, which are the accumulation phase,

consolidation phase, and spending phase. These phases explain the levels of risk that investors are advised to take on based on their ages and how far into retirement they are. Although there may be truth in that, age is not always the only factor that determines the willingness to take on risks of an individual. An investor may be old, but if unhappy with their lives, they may take on more risk to fulfil their satisfaction. Similarly, a young investor who has high life satisfaction would not feel the need to take on more risk, but will rather take on less risk. The willingness to take on different levels of risk could determine the level of satisfaction with the life of investors.

There is a contrast in risk-taking behaviour between men and women, where more men seem to be more eager to take on more risks than women (Eckel and Grossman, 2008). Gender is a demographical factor that can contribute to life satisfaction. Although it can be argued that the life cycles of investors can determine their willingness to take on risk, and more men are willing to take more risk than women, age, or gender are not the only factors to consider. As Diener and Pavot (1993) stated, if one is satisfied with the quality of his life according to them, then the person is considered to have high life satisfaction. Hence, an investor's level of life satisfaction could be determined by their willingness to take on risk.

This article aims to determine how risk-averse and risk-loving investors categorised between age and gender groups derive their investment decisions according to their levels of life satisfaction in a South African context. Financial managers create investors' risk profiles on the basis of their demographics and the degree of risk they are willing to take (Dickason-Koekemoer and Ferreira, 2019). Dickason-Koekemoer and Ferreira (2019) furthermore stated how investors' investment objectives are not only specified by their type of risk tolerance but rather by incorporating other variables, including life satisfaction.

Determining the effect of life satisfaction on investor investment decisions would help companies take into account their investor life satisfaction levels, which inversely affects their risk levels, and this could lead to potential investment decisions that could have potential consequences (Dickason-Koekemoer and Ferreira-Schenk, 2022). This would assist portfolio managers in managing portfolios according to the investor's level of life satisfaction, not just the life cycles. Financial planners within investment firms must do research to precisely identify the variables that could affect their clients' financial risk tolerance and, ultimately, the performance of their portfolios (Dickason-Koekemoer and Ferreira, 2022).

2. REVIEW OF THE LITERATURE

Investor financial decisions may be influenced by their level of well-being, which may vary according to their demographics (Dickason-Koekemoer & Ferreira, 2019). The way an individual makes their decisions, especially financial decisions, is usually manipulated by their level of life satisfaction and current lifestyle. Pavot and Diener (1993) stated that a person would have a high level of satisfaction with satisfaction with life if the goals they set for themselves were fulfilled. Investors, like everyone else,

want to know what it means to have a good life and to live a good life. Life satisfaction assessments tend to be mostly based on readily available information; these information sources include satisfaction in major life domains, a person's state of mind, and feelings, which are all influenced by temperament, and therefore life satisfaction judgments appear to be responsive to changes in significant aspects of an individual's life (Diener and Pavot, 2008).

According to Diener (2000) and Dickason (2019), a good life involves qualities such as financial security, pleasure, affection for others, and self-awareness. An investor will take on a desired level of risk that satisfies his current investment and his goals. If an investor has a high level of life satisfaction, they might take on less risk compared to low levels of life satisfaction. According to De Beer et al. (2017), investors' risk levels are advised to decrease as they age, and researchers Eckel and Grossman (2008) stated that men are more risk-takers than women. However, an investor's willingness to accept risk will influence how satisfied or unsatisfied they are with their life regardless of age or gender.

Life satisfaction is considered as an aspect of subjective well-being (SWB), alongside positive and negative affect (Proctor and Linley, 2014). SWB measures often include a global assessment of all factors in an individual's life (Diener, 1984; Villani et al., 2019). These assessments included experiences about satisfaction with life, interest and participation, affective responses such as sadness and happiness with life circumstances, and satisfaction with work, relationships, well-being, enjoyment, meaning, and purpose, among other important domains (Diener and Ryan, 2009). The advantage of life satisfaction over the word 'subjective well-being' is that life satisfaction refers to an overall judgement of life rather than to existing emotions (Veenhoven, 1996). SWB refers to the evaluations of people about their own lives, and this assessment includes a cognitive and an affective component (Villani et al., 2019). Diener and Pavot (1993) explained the affective component as a component that is divided into both pleasant and unpleasant affect, and the cognitive component is also referred to as life satisfaction. When investors are satisfied with their financial decisions, they are far more satisfied with their lives than dissatisfied (Dickason-Koekemoer and Ferreira, 2019). Investor investment objectives are determined by combining risk levels with other factors such as financial stability, desired life satisfaction, and the existing lifestyle of investors. Potential investment decisions can be influenced as soon as there are differences between the existing degree of life satisfaction and the desired level of life satisfaction (Dickason-Koekemoer and Ferreira, 2019). Life satisfaction provides an integrated judgement of how an individual's life as a whole is progressing because it includes information from the important domains in a person's life (Diener and Pavot, 2008).

Life satisfaction refers to how people judge their lives as a whole, rather than expressing their current emotions (Berggren and Bjørnskov, 2020). It can be influenced by the amount of risk that a person is willing to take when investors make financial decisions. Even if these domains have little influence on affect, the feeling of success or failure in key life domains may affect life satisfaction (Diener and Pavot, 2008). Every individual, including investors,

has different meanings and definitions of the word “success”; therefore, there are different levels of satisfaction in life for every individual, regardless of their age, sex, or presumed levels of risk tolerance. The term quality of life refers to one’s general well-being, and an individual’s opinion of his own quality of life can be subjective and influenced by mood or circumstances (Bidzan-Bluma et al., 2020). Some of the theories behind subjective well-being include cognitive theories, telic theories, and top-down versus bottom-up theories (Diener and Ryan, 2009). Diener and Ryan (2009), who explained telic theories, stated that people experience happiness when a specific endpoint such as their goals or desires are met, and bottom-up theories as where the subjective well-being of an individual is compromised by the positive and negative moments of that individual’s life, while cognitive theories are similar to top-down theories, in that they emphasise the importance of cognitive processes in determining the well-being of an individual.

Cordell (2001), Grable (2017), Koekemoer and Ferreira (2020), Gibson et al. (2013) define financial risk tolerance as the highest degree of risk that a person is ready to endure while making financial decisions that may result in a loss. There are different levels of risks, where some individuals are prepared to take on more risk and others shy from it. Risk tolerance is primarily driven by the different levels of life satisfaction that each investor can experience (Dickason-Koekemoer and Ferreira, 2019). According to De Beer et al. (2017), as individuals get older, they are assumed to have lower risk tolerance. De Beer et al. (2017) argue that older investors are closer to retirement and thus should be more risk-averse, as opposed to younger investors who have more time to recover from financial losses and should therefore be more risk-loving. Yao et al. (2004) furthermore stated that as retirement approaches, the length of the horizon, the diminishing relative amount of human wealth, and the increase in the size of the portfolio itself may lower the willingness to take risks. One of the theories associated with risk tolerance is the theory of the Investor Life Cycle, which includes different phases that investors go through in their lifetime from accumulation to retirement. These phases include the accumulation, consolidation, and expenditure phases. Brown et al. (2019) defined the accumulation phase as the phase that is characterised by individuals who want to satisfy their immediate needs by attempting to accumulate assets and are willing to make high-risk investments. Furthermore, the consolidation phase was defined as the phase that is characterised by investors who are generally past the midpoint in their careers and are concerned with capital preservation. These investors make moderate high-risk investments. The expenditure phase is the phase where individuals are normally retired and now live with their income from previous investments; they consider investments that are low risk (Brown et al., 2019).

These different levels of life satisfaction can affect investors’ investment decisions (Dickason-Koekemoer and Ferreira, 2019). According to Dickason (2019) and Diener (2000), when an investor experiences positive emotions as a result of smart investing decisions, their quality of life improves. Therefore, without taking into account demographics such as age, sex, and level of risk tolerance, if a person has low life satisfaction, they

are more likely to take on additional risk. The dangerous thing is that this additional risk might not also generate additional returns.

Age is another demographic variable that has an influence on life satisfaction. As individuals age, they are advised to take less risk (De Beer et al., 2017). The theory of an investor’s life cycle and its phases explain how investors in different age categories should take different levels of risk in each phase of their lives (De Beer et al., 2017). De Beer et al. (2017) and Brown et al. (2019) place younger individuals aged 25-35 in the accumulation phase and define them as risk-loving, while individuals in the consolidation phase are of age 36-60 years, and are advised to have moderate risk. Investors from the age of 60 upwards are advised to be more risk-averse (De Beer et al. (2017), Brown et al. (2019)). Diener and Ryan (2009) found contemporary studies showing how as age increases, so does the level of life satisfaction, or at the very least does not decrease. Older individuals are assumed to already have high life satisfaction and, in turn, should take less risk, as they are already satisfied with their life. McAdams et al. (2012) stated that life satisfaction has been shown to have an upward trend during life, which makes sense considering the changes in the underlying domain rating of satisfaction. Chen (2001) showed how the level of life satisfaction decreased as the age increased. This goes to show that if the investor is not satisfied with their current investment goals, no matter what age they are at, they are going to take the necessary risk to satisfy their current life.

Gender, according to Helgeson (2008), is the social differentiation between men and women, whereas sex is the biological distinction. Gender is a demographic variable that is recognised as an important factor that also influences an investor’s life satisfaction (Dickason, 2017). According to researchers Roszkowski et al. (1993), Eckel and Grossman (2008), Fisher and Yao (2017), Dickason (2017), and Neelakantan (2010), male investors take on higher risks than female investors, and men are less risk-averse than women. Similarly, Dickason (2017) and Sung and Hanna (1996) have found that men have higher levels of risk tolerance than women. Furthermore, studies have revealed that women have a low tolerance for financial risk and invest their money more cautiously than men (Fisher and Yao, 2017, Neelakantan (2010)). Looking at other previous research, it has not yet been universally agreed on whether gender disparities have an effect on risk tolerance levels (Dickason-Koekemoer and Ferreira, (2019), Dickason, (2017)). Little research has been done to determine whether gender disparities in risk tolerance are due to gender itself or other variables that mitigate the connection between risk tolerance and gender (Fisher and Yao, 2017). Several researchers such as Fisher and Yao (2017), Sung and Hanna (1996), and Sunden and Surette (1998) showed that single women are more risk-averse and have less risk tolerance than single men. Moreover, Yao et al. (2004) showed that both women who are married and not married also have less risk tolerance than men who are married, whereas unmarried men have a higher risk tolerance.

3. METHODOLOGY

The sections of the methodology that follow indicate the research approach and instrument used, the hypothesis implemented, the sample size, and the statistical analysis.

3.1. Secondary Data

Secondary data obtained in the private domain was used in this study. An electronic questionnaire was sent out by a private investment firm to their client base. According to Chadwick (2017), determining the population of objects or events that researchers would like to comprehend is an important step, and these objects or events are generally referred to as the target population. If the sample represents the target population, then researchers can generalise the target population from the sample, since “generalisation” is the process by which researchers take conclusions derived from observations of a sample and events those conclusions in all other unobserved cases in the same category as the sample. The target population of this research paper consists of individual investors from one of the biggest South African investment companies. A prospective sample of individual investors in an investment company in South Africa was used as the sample framework for this research article. The inclusion criteria for individual investors consisted of the following:

- Investors must be over 18 years old.
- Must reside in South Africa.
- The participant must be a current investor.

An electronic questionnaire was distributed electronically to 2000 investors from an investment company in South Africa where 1059 responses were received.

3.2. Measurement Instrument

The electronic questionnaire sent by the investment company to their clients had five sections, beginning with a cover letter describing the fundamental concept of the research study, as well as the benefit of participation in the engagements.

The following sections and datasets of the questionnaire will be used for this study.

3.2.1. Section A: Demographical and sociocultural information

Lee and Schuele (2010) defined demographics as the study of traits of a particular population, such as gender, race, and age. Sociocultural information refers to a broad range of socioeconomic and cultural elements that influence attitudes, feelings, behaviours, and eventually health-related outcomes (Gonzalez and Birnbaum-Weitzman, 2020). Section A of the questionnaire included demographic and sociocultural questions. The demographic and sociocultural information questions in the questionnaire were enough for the purpose of this research paper, which was to analyse and compare the life satisfaction of men and women and the difference in life satisfaction between age groups.

3.2.2. Section B: Self-report on risk tolerance behaviour

Section B of the questionnaire included a self-report and a 20-item scale on risk tolerance behaviour. Bhandari et al. (2021) defined risk tolerance as the level of risk an individual is set to accept. This section included risks related to financial events that resulted from existing risk scales and theories, such as the Consumer Finance Survey (SCF), domain-specific risk-taking (DOSPERT), and the Grable and Lytton risk tolerance scale (GL-RTS), in which individual investors were requested to indicate the amount financial risk they would be prepared to accept

when making financial decisions (VD Bergh-Lindeque, 2021). Consumers, financial advisors, and researchers have frequently used risk scales such as the GL-RTS, SCF, and the DOSPERT scale to determine an individual’s willingness to take part in risky financial behaviours (Kuzniak et al., 2015; Grable and Schumm, 2007; Breuer et al, 2017). In this study, two risk-related variables were examined: risk-loving and risk-averse, and only the domain-specific risk-taking (DOSPERT) scale was used in the self-report on risk tolerance behaviour. A six-point Likert scale was used to measure the self-report of risk tolerance behaviour (1 = strongly disagree and 6 = strongly agree). Furthermore, using Cronbach’s alpha coefficient, the internal consistency accuracy approach was used to determine the accuracy of the scale and the accuracy of the components placed on the scale. Cronbach’s alpha is the most widely used metric to measure the accuracy of internal consistency (Hermosilla and Alvarado, 2016). The Cronbach alpha for low and high risk tolerance was greater than 0.6, with 0.8 and 0.7 indicating very good reliability for high and low risk tolerance, respectively (VD Bergh-Lindeque, 2021).

3.2.3. Section C: Self-report on life satisfaction

Section C focused on the satisfaction of life of individual investors. Life satisfaction is subjective awareness of the evaluation of one’s life in which the rationale for the evaluation is up to the person (Pavot and Diener, 1993). To achieve the objective of this research paper, the Satisfaction with Life Scale (SWLS) was used; SWLS has been used as a measurement of an individual’s life satisfaction over time (Pavot and Diener, 2008). It has been used in various sociodemographic groups, and researchers have found it useful to assess satisfaction with life in various subgroups; however, such cross-group evaluation requires that the precision of the conclusions from SWLS scores be consistent among other groupings (Emerson et al., 2017).

The SWL is a 5-item scale that was meant to assess individuals’ global reasoning of assessments in their individual lives, where:

- 1 = *In most ways my life is close to my ideal*
- 2 = *the conditions in my life are excellent*
- 3 = *I am satisfied with my life*
- 4 = *so far I have achieved the important things I want in my life*
- 5 = *if I could live my life over, I would change almost nothing*

(Diener et al., 1985).

Furthermore, the scale included a self-report component in which respondents reported their degree of approval on a six-point Likert scale, where 1 indicated strongly disagree and 6 indicated strongly agree (Emerson et al., 2017).

3.3. Hypothesis

A null hypothesis was implemented to identify the statistical disparity between the category variables.

- Null hypothesis (H_{0_1}): Investor life satisfaction is not influenced by different levels of risk tolerance.
- Null hypothesis (H_{0_2}): Investor life satisfaction is not influenced by age groups.
- Null hypothesis (H_{0_3}): Investor life satisfaction is not influenced by gender categories.

3.4. Statistical Analysis

IBM Statistical Package for the Social Sciences (SPSS) and Version 27 for Microsoft Windows was used to analyse the quantitative data (IBM SPSS, 2020). To achieve the empirical objectives of the research study, the following statistical approaches were used:

Descriptive statistics are evaluations that summarise, characterise, and present data in ways that make it more understandable (Conner and Johnson, 2017). Furthermore, the most common types of descriptive statistics are central tendency measures (mean, mode, and median), which describe the most fundamental region of the frequency distribution of a data set (Conner and Johnson, 2017). Inferential statistics examines the importance of a test result, such as whether the variations between two samples were due to randomness or a true effect (Marshall and Jonker, 2011). It offers an extensive range of statistical significance tests that researchers can use to deduce conclusions from their sample data (Allua and Thompson, 2009). Furthermore, Allua and Thompson (2009) stated how these tests can be categorised into three basic groups based on their intended use: examining relationships, evaluating differences, and making predictions. Statistical tests such as the t-test, analysis of variance (ANOVA), simple regression, and correlation will be used. Marshall and Jonker (2011) defined the t-test as a parametric test that compares the means of two samples that may or may not be related, such as using a t-test to determine the difference in gender life satisfaction, while correlation tests look for correlation rather than the difference between two samples, such as where correlation is used for the other variables like life satisfaction, age, gender, and risk tolerance. ANOVA is used to determine whether the means of distinct categories are statistically different from each other and was used to evaluate the relationship between age and life satisfaction.

A negative relationship between the variables is expected when considering the null hypothesis because the aim of this paper is, therefore, to assume and to expect that life satisfaction is indeed influenced by the risk tolerance of investors in different age and gender categories negatively.

LIFE SATISFACTION

$$= \beta_0 + \beta_1 RISK\ TOLERANCE + \beta_2 AGE + \beta_3 GENDER \quad (1)$$

Where:

- B_0 is the constant
- Y is the individual investor's life satisfaction
- B_1 is the risk tolerance, where low-risk and high-risk will be analysed on their effect on life satisfaction. A categorical predictor will be used to separate the two different levels of risk tolerance (such as $c_{low\ risk}$ and $c_{high\ risk}$).
- B_2 is the age, where different age categories will be evaluated to identify their effect on life satisfaction.
- B_3 is the gender, where a dummy variable will be created to represent a binary gender variable. In this research study, men will take a value of 1 and women 0.

4. EMPIRICAL RESULTS AND DISCUSSION

To achieve the ideal empirical objectives and test the hypotheses, inferential statistics such as t-tests, ANOVA, and correlation were used. The p-value is the result of hypothesis testing using multiple statistical methods and is considered significant when it is 0.05 or less (Marshall and Jonker, 2011). The null hypothesis should be rejected if the $P < 0.05$; otherwise, do not reject the null hypothesis.

The subsections that follow are concerned with achieving the empirical objectives of the research paper using the inferential statistics aforementioned.

4.1. Determine Demographics and Risk Tolerance Relationship on Investor Life Satisfaction

To achieve the first empirical objective of determining the relationship between investor life satisfaction with demographics and risk tolerance, correlation analysis was used. The Spearman correlation coefficient is used to determine the magnitude of a relationship between two variables, and it is a nonparametric rank statistic (Hauke and Kossowski, 2011). This research paper will use the Spearman correlation to determine the relationship between investor life satisfaction, risk tolerance, age, and gender. Spearman's rho ranges from -1 to $+1$, where 0 means that there is no correlation, 1 means a positive or perfect correlation, and -1 denotes an inverse relationship (Akoglu, 2018; Schober et al., 2020). The relationship has been categorised using descriptions such as if $r < 0.40$ = weak, if $r = 0.40$ to 0.69 = moderate, and if $r \geq 0.70$ = strong (Schober et al., 2020).

From Table 4, there is a weak positive relationship between age and life satisfaction ($r = 0.168$ and $P < 0.05$). The alternative hypothesis (H_{0_2}) can be concluded and the null hypothesis (H_0) can be rejected at the 5% significance level. This means that as age increases, life satisfaction will move in the same direction. There is a weak negative relationship between low risk and life satisfaction ($r = -0.118$ and $P < 0.05$), implying that the more risk-averse an investor is, the lower their life satisfaction. Therefore, the null hypothesis (H_{0_1}) can be rejected and the alternative hypothesis (H_{0_1}) concluded, and it is statistically significant at the 5% significance level ($P = 0.00 < 0.05$). Given that there is a negative relationship with low risk, it can be concluded that there is a weak positive correlation with high risk, but it is statistically insignificant at the 5% significance level ($P = 0.08 > 0.05$). A significant weak positive relationship was also found between men and life satisfaction ($r = 0.202$ and $P = 0.00 > 0.05$). Thus, the alternative hypothesis (H_{0_3}) which is statistically significant at the 5% significance level can be concluded, and the null hypothesis (H_{0_3}) is rejected ($P = 0.00 < 0.05$). Given that there is a positive relationship between men and life satisfaction, it can be concluded that there is a negative relationship between women and life satisfaction.

4.2. Report on the Effect of Independent Variables on Life Satisfaction in Investors' Decision-making

Table 2 presents the results of the independent sample t-test used to identify and analyse the influence of gender on the life satisfaction of the investor.

As demonstrated in Table 2, men reported the highest mean value of life satisfaction of 19.77, suggesting that men are more satisfied with their lives than women. In contrast, women had the lowest mean value of life satisfaction of 17.49. The mean difference in life satisfaction between men and women is 2.28 under assumed equal variance and not assumed equal variance, showing that this difference is consistent and is not affected by assumptions about the variances. The Levene test for equality of variances had significance values less than 0.05. As a result, it was considered that the male and female variations were not the same. The effect sizes of the independent t-test samples were also calculated using Cohen’s d to determine whether statistically significant variations are of practical importance and give a sense of the extent of variations between groups. Cohen provided widely understood discussions of effect sizes (Rice and Harris, 2005). Cohen’s d is a method to analyse and standardise the difference between two means (Goulet-Pelletier and Cousineau, 2018). Cohen indicated that the values for d were 0.20 ($0.20 \leq d < 0.5$), 0.50 ($0.50 \leq d < 0.80$), and 0.80 ($0.80 \leq d$) for small, medium, and large, respectively (Rice and Harris, 2005). Cohen’s d value was 0.40, which implies that there was a small effect size between the levels of life satisfaction of male and female individual investors ($d = 0.40 < 0.50$).

From Table 2, at the 5% level of significance, the null hypothesis (H_0) can be rejected and the alternative hypothesis (H_1) can be concluded. As a result, the influence of gender on an investor’s

Table 1: Correlation analysis of the relationship between life satisfaction, risk tolerance, age, and gender

Scale	Spearman’s correlation	Life satisfaction
Age	Correlation coefficient	0.168
	Significant (two-tailed)	0.000
	n	1059
Risk-averse	Correlation coefficient	-0.118
	Significant (two-tailed)	0.000
	n	1059
Risk-loving	Correlation coefficient	0.054
	Significant (two-tailed)	0.079
	n	1059
Dummy male	Correlation coefficient	0.202
	Significant (two-tailed)	0.000
	n	1059

Table 2: Independent t-test analysis for gender and life satisfaction

	Gender	n	Mean	SD	SEM
Life satisfaction	Male	488	19.77	5.57	0.25
	Female	571	17.49	5.74	0.24

Significant <0.001

Statistically significant at the 0.05 level (two-tailed). SD: Standard deviation, SEM: Standard error of mean

Table 3: Analysis of variance analysis on life satisfaction and age

Age (years)	Life satisfaction		Effect sizes			Significant
	Mean		18–24 with	25–34 with	35–49 with	
18–24	18.18					>0.001
25–34	17.40		0.13			
35–49	17.64		0.10	0.04		
50+	19.64		0.26	0.36	0.35	

Statistically significant ($P < 0.05$)

life satisfaction is statistically significant ($P < 0.05$).

Table 3 shows the variations in life satisfaction across different age ranges. The age range of 50 years and older has the highest level of life satisfaction, with a mean value of 19.64. The second highest mean of 18.18 was amongst individual investors aged 18–24, suggesting that they experience higher life satisfaction than the 25–34 and 35–49 age groups. The third highest mean was 17.64, indicating that individual investors in the 35–49-year age group tend to experience more life satisfaction than the 25–34-year age group. The lowest mean was 17.40, which showed that investors in the 25–34-year range experience the least amount of life satisfaction. In terms of effect sizes, investors across the different age ranges had small, some practically nonsignificant effects on life satisfaction. Among the age ranges of 18–24 with 50+ ($d = 0.26$), 25–34 with 50+ ($d = 0.36$), and 34–49 with 50+ ($d = 0.35$), individual investors had a small effect on life satisfaction. From Table 3, the null hypothesis (H_0) can be rejected, and conclude the alternative hypothesis (H_1) at the 5% significance level ($P < 0.05$). As a result, it can be concluded that there are statistically significant differences between life satisfaction and age.

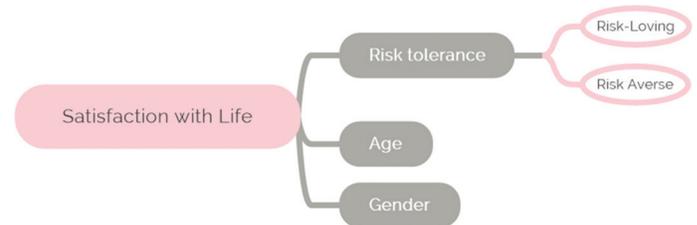
4.3. Regression Analysis

Table 4 summarises the effect of age, gender, and risk tolerance levels on life satisfaction. A null hypothesis had to be implemented to determine the relationship between demographic characteristics and life satisfaction. The following null hypotheses were formulated:

The R^2 value was reported as 0.258, indicating that 25.8% of the variability in the dependent variable was explained by the independent variables in the regression model. The adjusted R^2 value was 25.5%.

From Table 4, there is a positive relationship between life satisfaction and men. On average, men report a life satisfaction level that is 1.817 units higher than women and is statistically significant at the 5% significance level ($P = 0.00 < 0.05$). Therefore, reject the null hypothesis (H_0) and conclude the alternative

Figure 1: Conceptual model of life satisfaction



Source: Author compilation

Table 4: Regression analysis of life satisfaction, age, gender, and risk tolerance

Variables	B	SE	Beta	T	Significant
C	15.572	1.195		13.028	0.000
Dummy male	1.817	0.360	0.157	5.042	0.000
Age	0.893	0.231	0.119	3.863	0.000
Risk-averse	-0.495	0.194	-0.077	-2.559	0.011

Statistically significant at the 0.05 level. SE: Standard error

hypothesis (H₁₃). There is also a positive relationship between age and life satisfaction. Specifically, as age increases, life satisfaction is expected to increase by 0.893 units. As a result, the null hypothesis (H₀₂) can be rejected, and the alternative hypothesis (H₀₂) can be concluded. It is statistically significant at the 5% level of significance. Furthermore, there is a negative relationship between a low-risk investor and life satisfaction. This implies that on average low-risk investors report life satisfaction levels that are 0.495 units lower than high-risk investors and are statistically significant at the 5% level of significance ($p=0.011<0.05$). Hence reject the null hypothesis (H₀₁) and conclude the alternative hypothesis (H₁₁). There is an overall statistically significant difference between life satisfaction, gender, and risk tolerance. The null hypotheses can be rejected and alternative hypotheses that there are significant differences between life satisfaction, age, gender, and risk tolerance at the 5% significance level ($P < 0.05$). These results are similar to those of Diener and Ryan (2009) and McAdams et al. (2012) who found a positive relationship between age and life satisfaction. Furthermore, Fisher and Yao (2017) and Dickason (2017) found that men were more risk-loving than women.

5. CONCLUSION

When investors experience pleasant feelings as a result of their investment decisions, they tend to be more satisfied than dissatisfied. As a result, investors' willingness to take risks can influence their overall satisfaction with life. Investor attitudes toward their self-determined life goals can also be influenced by demographic factors such as age and gender. The primary objective of this research article was to determine whether investor life satisfaction was influenced by risk tolerance levels and demographic factors such as age and gender.

The results showed how most investors, with regard to their demographics and levels of risk tolerance, had achieved the most important things in their lives so far. The results of this research study indicated that there was a significant difference between life satisfaction and risk tolerance. There was a negative relationship between life satisfaction and risk-averse investors, indicating that the more risk-averse investors were, the lower their life satisfaction. In contrast, risk-loving investors showed higher life satisfaction. Furthermore, a significant difference was also found between life satisfaction and demographics such as age and gender. Male investors reported higher life satisfaction than female investors. Among different age groups, older investors were found to be more satisfied with life, followed by investors aged 18-24, while the age group with the lowest life satisfaction was investors aged 25-34.

In the research, the shortcomings of this paper have been acknowledged. This research paper used results from a questionnaire from an investment company in South Africa with a sample size of 1059 investors, and it is recommended that more than one investment company and a larger investor sample size be used. Moreover, this study used a quantitative method. It is advised that mixed-method research can be conducted by using a questionnaire in which investors respond to questions with complete sentences.

6. ACKNOWLEDGEMENT

North-West University for funding this research study and the National Research Foundation (NRF). The views of this paper is purely those of the authors and not those of these institutions.

REFERENCES

- Akoglu, H. (2018), User's guide to correlation coefficients. *Turkish Journal of Emergency Medicine*, 18(3), 91-93.
- Allua, S., Thompson, C.B. (2009), Inferential statistics. *Air Medical Journal*, 28(4), 168-171.
- Bhandari, S., Hallowell, M.R., Alruqi, W., Salas, R. (2021), Modeling the relationship between personal risk tolerance, work-related risk tolerance, and risk-taking behavior of construction workers. *Journal of Construction Engineering and Management*, 147(4), 04021016.
- Bidzan-Bluma, I., Bidzan, M., Jurek, P., Bidzan, L., Knietzsch, J., Stueck, M., Bidzan, M. (2020), A polish and German population study of quality of life, well-being, and life satisfaction in older adults during the COVID-19 pandemic. *Frontiers in Psychiatry*, 11, 585813.
- Breuer, W., Kollath, J.A., Salzmann, A.J., Nitzsch, R.V. (2017), The assessment of risk behavior: A cross-cultural analysis using the DOSPRT scale. In: *Behavioral Finance: Where Do Investors' Biases Come From?* Singapore: World Scientific. p159-180.
- Brown, K.C., Leeds, S.J., Reilly, F.K. (2019), *Investment Analysis and Portfolio Management*. United States of America: South-Western College Publishing.
- Carden, J., Jones, R.J., Passmore, J. (2022), Defining self-awareness in the context of adult development: A systematic literature review. *Journal of Management Education*, 46(1), 140-177.
- Chadwick, A.E. (2017), *The SAGE Encyclopedia of Communication Research Methods*. Sage Research Methods. United States: Sage Publication Ltd. p1-6.
- Chen, C. (2001), Aging and life satisfaction. *Social Indicators Research*, 54(1), 57-79.
- Ciorbagiu, I., Stoica, A., Mihaila, M. (2020), Life satisfaction and migration-what relationship? *Journal of Social and Economic Statistics*, 9(1), 105-127.
- Conner, B., Johnson, E. (2017), *Descriptive statistics*. *American Nurse Today*, 12(11), 52-55.
- Cordell, D.M. (2001), RiskPACK: How to evaluate risk tolerance. *Journal of Financial Planning*, 14(6), 36-40.
- De Beer, J.S., Mpofu, R.T., Mynhardt, R.H. (2017), *Portfolio management*. In: Marx, J. editor. *Investment Management*. 5th ed. South Africa: Van Schaick Publishers. p243-247.
- Dickason, Z. (2017), *Modelling Investor Behaviour in the South African context*. South Africa: Vaal Triangle Campus, North-West University (Thesis-PhD).
- Dickason, Z., Ferreira, S. (2020), Understanding behavioral finance and life satisfaction among South African investors. *Asia-Pacific Social Science Review*, 20, 135-144.

- Dickason-Koekemoer, Z. (2019), Risk tolerance: The influence of gender and life satisfaction. *Journal of Economics and Behavioral Studies*, 11(1(J)), 66-72.
- Dickason-Koekemoer, Z., Ferreira, S. (2019), A conceptual model of financial well-being for South African investors. *Cogent Business and Management*, 6(1), 1676612.
- Dickason-Koekemoer, Z., Ferreira-Schenk, S. (2022), Constructing a model for domain-specific risk-taking, life satisfaction and risk tolerance of investors. *International Journal of Economics and Financial Issues*, 12(4), 84-90.
- Diener, E. (1984), Subjective well-being. *Psychological Bulletin*, 95(3), 542.
- Diener, E. (2000), Subjective well-being. The science of happiness and a proposal for a national index. *American Psychologist*, 55(1), 34-43.
- Diener, E., Emmons, R.A., Larsen, R.J., Griffin, S. (1985), The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71-75.
- Diener, E., Ryan, K. (2009), Subjective well-being: A general overview. *South African Journal of Psychology*, 39(4), 391-406.
- Eckel, C.C., Grossman, P.J. (2008), Men, women and risk aversion: Experimental evidence. *Handbook of Experimental Economics Results*, 1, 1061-1073.
- Emerson, S.D., Guhn, M., Gadermann, A.M. (2017), Measurement invariance of the Satisfaction with Life Scale: Reviewing three decades of research. *Quality of Life Research*, 26, 2251-2264.
- Fisher, P.J., Yao, R. (2017), Gender differences in financial risk tolerance. *Journal of Economic Psychology*, 61, 191-202.
- Gibson, R.J., Michayluk, D., Van de Venter, G. (2013), Financial risk tolerance: An analysis of unexplored factors. *Financial Services Review*.
- Gonzalez, P., Birnbaum-Weitzman, O. (2020), Sociocultural. In: Gellman MD, editor. *Encyclopedia of Behavioral Medicine*. Cham: Springer International Publishing. p2105-2107.
- Goulet-Pelletier, J.C., Cousineau, D. (2018), A review of effect sizes and their confidence intervals, Part I: The Cohen's d family. *The Quantitative Methods for Psychology*, 14(4), 242-265.
- Gable, J. (2000), Financial risk tolerance and additional factors that affect risk taking in everyday money matters. *Journal of Business and Psychology*, 14, 625-630.
- Gable, J.E. (1997), Investor risk tolerance. *Testing the Efficacy of Demographics as Differentiating and Classifying Factors*. Blacksburg: Virginia Tech.
- Gable, J.E. (2017), Financial risk tolerance: A psychometric review. *Research Foundation Briefs*, 4(1), 1-27.
- Gable, J.E., Schumm, W. (2007), An Estimation of the Reliability of the Survey of Consumer Finances Risk Tolerance Question. TCAI Working Paper: University of Arizona.
- Hauke, J., Kossowski, T. (2011), Comparison of values of Pearson's and Spearman's correlation coefficients on the same sets of data. *Quaestiones Geographicae*, 30(2), 87-93.
- Helgeson, V. (2008), *Psychology of Gender*. 3rd ed. Upper Saddle River, NJ: Prentice Hall.
- Kuzniak, S., Rabbani, A., Heo, W., Ruiz-Menjivar, J., Grable, J.E. (2015), The Grable and Lytton risk-tolerance scale: A 15-year retrospective. *Financial Services Review*, 24(2), 177-192.
- Lee, M., Schuele, C.M. (2010), *Encyclopedia of Research Design*. Sage Research Methods. United States: Sage Publications Ltd. p2-4.
- Marshall, G., Jonker, L. (2011), An introduction to inferential statistics: A review and practical guide. *Radiography*, 17(1), e1-e6.
- McAdams, K.K., Lucas, R.E., Donnellan, M.B. (2012), The role of domain satisfaction in explaining the paradoxical association between life satisfaction and age. *Social Indicators Research*, 109, 295-303.
- Neelakantan, U. (2010), Estimation and impact of gender differences in risk tolerance. *Economic Inquiry*, 48, 228-233.
- Nguyen, L., Gallery, G., Newton, C. (2019), The joint influence of financial risk perception and risk tolerance on individual investment decision-making. *Accounting and Finance*, 59, 747-771.
- Pasuluri, B., Sonti, V.J.K.K. (2022), Learning and investing during COVID-19 crisis: A behavioral finance perspective. Dassani, P., Manda V.K, editors. *Innovative Teaching and Learning Process during COVID 19*. Ch. 17. New Delhi: IOR International Press. p49-51.
- Pavot, W., Diener, E. (1993), Review of the satisfaction with life scale. *Psychological Assessment*, 5(2), 164-172.
- Pavot, W., Diener, E. (2008), The satisfaction with life scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology*, 3(2), 137-152.
- Proctor, C., Linley, P.A. (2014), Life satisfaction in youth. *Increasing Psychological Well-Being in Clinical and Educational Settings*. In: Interventions and Cultural Contexts. Germany: Springer. p199-215.
- Rice, M.E., Harris, G.T. (2005), Comparing effect sizes in follow-up studies: ROC Area, Cohen's d, and r. *Law and Human Behaviour*, 29, 615-620.
- Schober, P., Vetter, T.R. (2020), Correlation analysis in medical research. *Anesthesia and Analgesia*, 130(2), 332.
- Sunden, A.E., Surette, B.J. (1998), Gender differences in the allocation of assets in retirement savings plans. *The American Economic Review*, 88(2), 207-211.
- Sung, J., Hanna, S.D. (1996), Factors related to risk tolerance. *Financial Counseling and Planning*, 7, 11-20
- Trizano-Hermosilla, I., Alvarado, J.M. (2016), Best alternatives to Cronbach's alpha reliability in realistic conditions: Congeneric and asymmetrical measurements. *Frontiers in Psychology*, 7, 769.
- Ullman, J.B., Bentler, P.M. (2012), *Structural Equation Modeling*. In: Weiner, I., Schinka, J.A., Velicer, W.F. *Handbook of Psychology*. 2nd ed., Ch. 23. United States: John Wiley and Sons Ltd. p661-683.
- VD Bergh-Lindeque, A. (2021), *The Influence of Endogenous and Exogenous Factors on Investor Risk-Tolerance Behaviour*. South Africa: North-West University (Thesis-PhD).
- Veenhoven, R. (1996), The study of life satisfaction. In: Saris WE, Veenhoven R, Scherpenzeel AC, Bunting B, editors. *A Comparative Study of Satisfaction with Life in Europe*. Hungary: Eötvös University Press. p11-48.
- Vetter, T.R. (2017), Descriptive statistics: Reporting the answers to the 5 basic questions of who, what, why, when, where, and a sixth, so what? *Anesthesia and Analgesia*, 125(5), 1797-1802.
- Villani, D., Sorgente, A., Iannello, P., Antonietti, A. (2019), The role of spirituality and religiosity in subjective well-being of individuals with different religious status. *Frontiers in Psychology*, 10, 1525.
- Yao, R., Hanna, S.D., Lindamood, S. (2004), Changes in financial risk tolerance. 1983-2001. *Financial Services Review*, 13, 249-266.