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# GENDER: BEHAVIOURAL FINANCE AND SATISFACTION OF LIFE

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## Abstract

*Behavioural finance is becoming more predominant in the financial and investment industry. The general concept of behavioural finance suggests that investors do not necessarily make rational investment decisions. It argues that investment decisions are often influenced by emotional or other non-rational factors leading to irrational investment choices. One may conclude that in many instances investors display investment behaviour in line with behavioural finance theory without realising it. Behavioural finance is based on the "emotional" experiences of investors when investing. Different "types of emotional experiences" are labelled as behavioural finance biases which may lead to or cause subjective investment decision-making. The aim of this study was to configure which behavioural finance biases influence male and female investors and to analyse the satisfaction with life of male and female investors. Results from this study indicated that male and female investors are subject towards behavioural finance biases. Representative bias was most relevant for male and female investors and male investors were found to be more satisfied with their lives than female investors.*

***Keywords**: Gender, behavioural finance, satisfaction with life*

## Introduction

Behavioural finance challenges efficient market theories as it proves that markets can be inefficient due to human irrationality. Moreover, behavioural finance is based not only on psychology but also on sociology (Ricciardi & Simon, 2000:1; Lucarelli & Brighetti, 2011:2; Chaudhary, 2013:85-92). The theories that capture behavioural finance, in terms of choice under uncertainty, in different groups are the regret theory, theory of mental accounting, prospect/loss aversion theory, over/under reacting theory and the theory of overconfidence (Jagongo & Mutswenje, 2014). To illustrate one may consider the regret theory. According to the regret theory people may experience negative emotions after realising an error related to judgement of and investment choice, an investment that generated a negative outcome, was made (Quiggin, 1994). The concept regret aversion argues that in the case of financial loss, the pain experienced by the decision-maker is not limited to the emotional pain but includes a feeling of responsibility for making an incorrect decision. Investors can follow conventional wisdom and attempt to invest where the rest of the market invest in order to be regret averse. In the case where regret occurs, and the decision cannot be reversed, investors tend to deviate away from the emotion by managing, deny, or suppress the emotion in any possible way.

This study aims to determine to which behavioural finance bias females and males are subject towards and simultaneously determine which gender are most satisfied with their lives.

## Literature review

From a behavioural perspective investors can be classified into different categories based on their individual risk tolerance levels. Risk tolerance in turn is composed of risk appetite and risk capacity. At a next level each of risk appetite and capacity can be decomposed into known and unknown risks. Known risk can be discounted for in the investment decision process. Unknown risks on the contrary has the potential to cause realised investment returns to deviate from expected returns (Pompian, 2016). In cases where a negative return or where the realised return is less than the expected return the possibility exists that the investor may experience negative emotions related to the investment decision. A bigger than expected return on the contrary may also elicit, and one may argue cause inflated positive emotional experiences. From the latter it may be concluded that either an experience of or the expectation, at a personal level, of a significant deviation from the investment outcome may result in what is termed behavioural finance experiences and emotions that lead to the so-called behavioural finance biases which in turn influences the way people or specifically prospective investors make investment decisions.

To conclude a known risk can easily be identified, measured and be accounted for on the other hand unknown risks can't be accounted for and causes uncertainty for investors (Coetzee, 2016). If the known risk is understood, investors can more easily accept results from the investment decision. Unknown risks for an individual investor can be defined as the risks that exists beyond or in addition to the perceived and believed to be already accounted for risk in the known risks arena. Investors seem not to understand nor accept the outlier risk (Bessis, 2010). A behavioural finance orientation to investment decision making and problems experienced, it seems have been identified and are related to the phenomenon of unknown risk.

### Behavioural finance

The general belief is that an investor only invests when the possibility of making a profit exists. With reference to investment decision making Kannadhasan (2009) is of the opinion that in the past investment decisions were mostly based on forecasting, market timing and investment performance. Many it is argued viewed the results achieved using these technique as ordinary. In addition it is indicated that often expected investment returns using the mentioned techniques have been disappointing. Naturally when differences exist between realised and actual returns received, it left some room for the question: WHY? In this context Marx et al. (2013) indicated that according to previous studies, it was found that the difference between the actual and expected returns occurred due to errors in the decision-making process. The latter Marx et al. (2013) attributed to irrational investment decisions. When this irrational investment decision concept came to light, then only did the impact of psychology in investment decisions receive attention. Past and present financial and investment theory views investors as rational and utility maximising. In contrast,

cognitive psychology view investors, subject towards cognitive illusions as irrational decision makers (Singh, 2012). In this context Mahapatra and Mehta, (2015) argued that the better investors understand their own heuristics and biases related to investment decisions, the better judgements may be and decisions can be made in event of uncertainty. This leaves the question whether there are specific identified emotional decision processes that investors follow and or whether investors experience certain emotions in cases where realised returns deviate from expected returns. In other words what behavioural finance experiences are specific investors subject towards?

Listed in Table 1 are significantly important behavioural finance concepts derived from research conducted in the past that are relevant to judgement and investment decisions in an irrational decision process.

**Table 1: Behavioural finance biases**

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| Theory | Description | Author |
|---|---|---|
| ***Representativeness*** | *Investors base investment decisions on stereotypes. In other words, investors assume that future returns will be the same as past returns without considering the reasons for good historical returns.* | *Jain et al. (2015)* |
| ***Overconfidence*** | *Investors believe they are smarter than other investors in terms of investment decisions. Overconfidence is the result when investors amplify their capabilities and ignore external factors which could result in outcome variability. Often overconfident investors overestimate their abilities and underestimate uncertainty.* | *Bhattacharya (2012); Jain et al. (2015)* |
| ***Anchoring*** | *Investors anchor themselves in a certain position. They fail to do enough market research, to cling to one specific piece of information and make the decision. These investors are also stagnant and refuse to adjust to a changing environment.* | *Kannadhasan (2009)* |
| ***Gamblers fallacy*** | *Incorrect estimations and predictions are made based on a set of events known as gambler's fallacy. In this case, investors' believe if something happened recently in the market, the probability of the same occurrence increases and probability of the opposite occurrence increases.* | *Jahanzeb et al. (2012)* |
| ***Availability bias***<br><br>*(cont…)* | *Investors overestimate the probability of an event occurrence based on the most available information while making decisions. The availability bias causes investors to overreact to market results/movements whether positive or negative.* | *Kliger & Kudryavtsev (2010)* |
| ***Loss aversion*** | *Loss aversion is based on prior gains and losses - the notion is that a loss experienced after a previous gain is less painful than usual because the previous gains function as a cover for the latest loss. People tend to be more sensitive to losses than gains specifically where losses occur after previous losses, as the situation evolves, as more painful than usual.* | *Barberis & Thaler (2003) Singh (2012)* |

| | | |
|---|---|---|
| ***Regret aversion*** | *Regret is an emotion experienced by investors when losses are realised due to erroneous choices. Investors attempt to avoid the regret emotion as it is an unfavourable emotion to experience.* | *Zeelenberg & Pieters (2007)* |
| ***Mental accounting*** | *Investors tend to assign different values to money obtained from various sources. It is considered more beneficial to pay off expensive loans than to receive a low rate of return on an investment. Also, money received in the form of gifts are regarded as cheap and is easily spent.* | *Bhattacharya (2012); Jagongo & Mutswenje (2014)* |
| ***Self-control*** | *Through exercising self-control, investments can be protected and losses minimised. Investors are open to temptations and should exercise self-control on a continuous basis.* | *Subrahmanyam (2007)* |

Source: Author compilation

**Gender differences**

The general notion is that males and females tend to react to financial market conditions and or changes in the investment environment differently. In addition the different sexes have very specific and distinct views of themselves. Bayyurt et al. (2013) indicates that females in the context of participation in financial markets, are perceived to in general have lower levels of confidence than males. Also the perceived situation is that pertaining to risk preferences differences exist, between males and females. From previous research it is derived that differences related to risk can be explained under the following in four main points.

First, there is a difference in the underlying attitude towards risk, males seems to be willing to bear more risk than females (Eckel & Grossman, 2008). The reason males tend to bear more risk are due to cultural, social and psychological factors.
Secondly, previous studies highlighted that the differences in risk aptitude between males and females might be due to economic status (Bayyurt et al., 2013).
Thirdly, it is pointed out that females have a longer life expectancy than males. Therefore the probability of outliving a spouse exist, the latter it seems cause a hesitance to accept financial risk.

Finally it is indicated that financial knowledge may be a contributing factor that causes the willingness to assume risk to differ between males and females. Males tend to be more confident and have greater knowledge regarding investments compared to females (Bayyurt et al., 2013). The “less” knowledgeable situation it is argued, results in females being more conservative when considering investing. In addition and in line with being more conservative indications are that female tend to invest smaller amounts compared to males at a time.

## Methodology

Data was collected from the clientele of a South African investment company. While the choice of company was based on convenience, the sample was selected in a random manner to obtain an unbiased sample. The total size of the sample was 1 171 (N=1 171). Participants included 546 males and 625 females. From the questionnaires distributed 1 171 was received back of which 46.6% was from females and 53.4% from males. The participants of the study received a questionnaire from the investment company requesting them to out of own will complete the questionnaire. The questionnaire comprised of a demographic information, ranking of behavioural finance biases and satisfaction with life (SWL) sections. The behavioural finance biases section focused on ranking biases as per questionnaire from most to least relevant. From the information it could be concluded which biases are mostly relevant to which gender group. The SWL questions focused on getting an idea of the satisfaction of life of participants.

The aim of the behavioural finance biases and the satisfaction with life questions was to firstly determine which group males or females are the most satisfied with their lives and secondly to determine which biases each group are more or less subject towards.
Participants were asked to rate the satisfaction with life (SWL) questions on a seven point Likert scale which ranged from (1) strongly disagree to (7) strongly agree. The five items included in the SWL section focused on combined emotional and judgemental components. In line with the suggestions of Pavot and Diener (1993) the intent with SWL section based on the seven point scale was to measure firstly the degree of satisfaction of the individual investors with his/her overall life and secondly to get an indication of the level of stability in the individuals' life. In terms of reliability, the SWL measurement obtained a Cronbach Alpha value of 0.887 indicating a high level of reliability as indicated by Table 2.

**Table 2: Descriptive statistics for SWL**

| *Construct* | *No of questions* | *Average inter-term correlation* | *Std Dev* | *Skewness* | *Kurtosis* | *Cronbach's Alpha* |
|---|---|---|---|---|---|---|
| *SWL* | *5* | *0.611* | *1.427* | *-0.373* | *-0.683* | *0.887* |

A null-hypothesis had to be stated to determine the statistical difference between the two categorical variables, gender and satisfaction with life.

Null hypothesis $(H_0)$: mean of males $=$ mean of females (1)

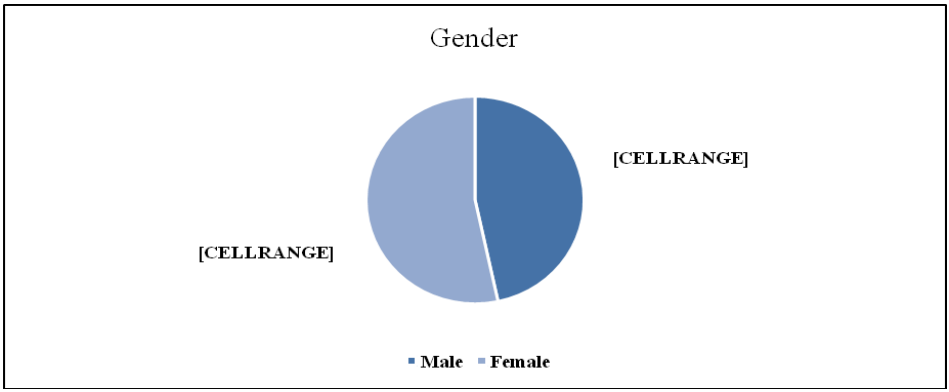
Alternative hypothesis $(H_1)$: mean of males $\neq$ mean of males (2)

The null hypothesis stated that there are no statistically significant difference between the subjective well-being between males and females. The study made use of a one way analysis of variance test (ANOVA) (Pallant, 2007).

## Emperical results

As represented by Figure 1 the sample was composed out of more females than males. From the 1 171 respondents, 46.6% were males and 53.4% were females.

**Figure 1: Gender profile of sample**




Source: Author compilation

**Table 3: Analysis of behavioural finance biases**

| *Bias* | *Male* | *Female* |
|---|---|---|
| *Representativeness* | *46.00%**** | *44.00%**** |
| *Overconfidence* | *3.00%* | *2.00%* |
| *Anchoring* | *1.00%* | *1.00%* |
| *Gamblers fallacy* | *1.00%* | *0.00%* |
| *Availability bias* | *7.00%** | *6.00%* |
| *Loss aversion* | *3.00%* | *4.00%* |
| *Regret aversion* | *6.00%* | *7.00%** |
| *Mental accounting* | *3.00%* | *6.00%* |
| *Self-control* | *30.00%*** | *29.00%*** |

***, **, * indicate the ranking of the biases in first, second and third place, respectively, according to males and females.
Source: Author compilation

Table 3 gives a clear indication of which behavioural finance bias is most relevant to males and females respectively. Looking at the male category, it can be seen that male investors are more subject towards representativeness bias (46.0%), self-control (30.0%) and the availability bias (7.0%). Therefore males base their decisions on stereotypes and will follow their own opinion when making financial decisions. Male investors also stated that they exercise self-control when making financial decisions in order to minimise excessive

losses (Subrahmanyam, 2007). Males are also subject to the availability bias causing them to overreact to market trends whether positive or negative (Kliger & Kudryavtsev, 2010).

The results for females for the first two biases are similar to males. Female investors are also more subject towards the representativeness bias (44.0%), self-control (29.0%) and then regret aversion (7.0%). The representativeness bias will lead female investors to believe that past return patterns will be repeated in the future whereby investors will ignore the causation of the current return patterns (Jain et al., 2015). Female investors also stated that they exercise self-control. This result agrees with previous studies such as those of Mahaptra and Mehta (2015) that found that females are more cautious in decision making. Bayyurt et al. (2013) also found females to be less confident and more hesitant to accept additional financial risk than males. The hesitant and self-conscious nature of females concurs with the result found that females are also subject towards regret aversion. Therefore, female investors will divert from their original investment choice due to regrets about previous financial decisions (Zeelenberg & Pieters, 2007).

**Table 4: Significant differences between gender for SWL**

| *SWL* | *Sum of squares* | *Df* | *Mean Square* | *F* | *Sig.* |
|---|---|---|---|---|---|
| *Between Groups* | *848.070* | *3* | *282.690* | *5.612* | *.001** |
| *Within Groups* | *58 787.739* | *1 167* | *50.375* | | |
| *Total* | *59 635.809* | *1 170* | | | |

*Significant at $p < 0.05$ level

When comparing whether there was a statistically significant difference between how satisfied male investors and female investors are with their lives a one-way ANOVA indicated that the (F- value = 5.612, p = .001) was smaller 0.05 (Table 4). This result indicated that there was undeniably a statistically significant difference between the satisfaction with life of male and female investors. Therefore, the null hypotheses was rejected and the alternative hypothesis concluded. The satisfaction with life between males and females are significantly different. As a result male (**μ =** 22.520) investors are more satisfied with their lives than female (**μ =** 21.220) investors.

## Conclusion

Different emotions experienced in making investment decisions are labelled as behavioural finance biases which may lead to or cause subjective investment decision-making. From this study, it can be concluded that investors, males or females, are influenced by behavioural finance biases when making investment decisions.

Behavioural finance biases were prevailing for male and female investors. Females were found to be mostly subject towards the representativeness, self-control and regret aversion bias. It is evident as with females, males also regard their perception/opinion as important

to make investment decisions which is indicated by the representativeness bias that was ranked as most relevant. Moreover, males ranked self-control and availability bias as second and third in terms of relevance.

Taking the biases into account, it can be concluded that a significant difference exist between gender and SWL. As a result, male investors are more satisfied with their lives than female investors.

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