

## **ENTERPRENEUR AND FINANCIAL PROFILE BIASES:**

### **A comparative analysis**

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#### **PERFIL EMPREENDEDOR E VIESES FINANCEIROS: uma análise comparada**

O objeto de investigação do presente trabalho é a análise do comportamento de gestores de empresas empreendedores e professores universitários e a identificação dos vieses financeiros dos três diferentes grupos. Os resultados obtidos foram baseados em questionários semiestruturados para 100 gestores de empresas multinacionais com cargos de supervisor, gerente ou diretor, situadas em São Paulo em diferentes áreas de atuação. Esses mesmos 100 questionários foram aplicados a empreendedores de pequenas e médias empresas e professores universitários.

#### **ENTREPRENEUR AND FINANCIAL PROFILE biases: a comparative analysis**

The object of this research work is to analyze the behavior of managers, entrepreneurs and companies in academics and identification of financial biases of the three different groups. The results were based on semi-structured questionnaires to 100 managers of multinational firms with positions of supervisor, manager or director, located in São Paulo in different areas. 100 questionnaires to these same entrepreneurs pequenas and medium firms and academics were applied.

#### **EMPRESARIO Y PERFIL FINANCIERO sesgos: un análisis comparativo**

El objeto de este trabajo de investigación es analizar el comportamiento de los directivos, emprendedores y empresas de los académicos y la identificación de sesgos financieros de los tres grupos diferentes. Los resultados se basaron en cuestionarios semiestruturados a 100 directivos de las empresas multinacionales con cargos de supervisor, gerente o director, que se encuentra en São Paulo, en las diferentes áreas. Se aplicaron 100 cuestionarios a estos mismos empresarios pequeñas y empresas medianas y académicos.

# **ENTREPRENEUR AND FINANCIAL PROFILE BIASES: A comparative analysis**

## **1 INTRODUCTION**

For Campelli et al. (2011) the entrepreneur takes risks inherent in the business and the behavioral profile is one of the key factors for the success of the enterprise.

Given the characteristics of professions, the hypothesis of the study is that, on a scale of loss aversion, academics are more conservative, followed by managers of businesses and entrepreneurs.

Modern finance according to Campelli et al. (2011) start from the rationality assumption of economic agents and decision makers, in addition to the unpredictability of market of considering, so that investors are perfectly rational and use all available market information for decision-making.

It is further assumed that markets are efficient and that prices reflect all available information, that is, that the homo economicus is an entirely rational that, in the decision making process, is able to analyze all the information available and consider all options for the solution of the problem (Silva et al., 2009).

## **2 THEORETICAL**

### **2.3 FINANCE AND OPTIMISM BEHAVIORAL MANAGEMENT**

Barber and Odean For (2000) many people are overconfident regarding their skills. According to behavioral classical literature on trust excess or managerial optimism, many investors believe that they can select the best investments consistently.

To (Barber, Odean, 2000) managerial optimism manifests itself in various ways and one example is the low diversification, because there is a tendency to invest much as it is familiar. In addition, (Barber, Odean, 2000) argue that optimistic people invest in local companies, without thinking that all they have is related to the performance of those companies, such as the house in which they live. Illusions caused by overconfidence leads investors to overestimate their capacity for analysis and selection and not pay attention to the time to market to sell or buy shares. One of the causes of this behavior can be excessive trading in the stock market (Barber, Odean, 2000).

Have Ben-David, Harvey and Graham (2007) highlighted that over-confidence is different from optimism. It is characterized by a lack of calibration in their beliefs, because people tend to overestimate their ability to make predictions.

Ben-David, Harvey and Graham (2007) one of the roles of managers is to estimate an uncertain future and they often overestimate their ability to predict the future or underestimate the volatility of random events.

According to Ben-David, Harvey and Graham (2007) managers over-confident use, for example, lower discount rates than unbiased managers usually do and still tend to underestimate the volatility of its business, such as cash flow. With respect to financial decisions, Baker et al. (2006) point out that there are two conflicting goals: maximizing value and minimizing the cost of capital.

For Thaler and Barberis (2003) traditional finance have their roots in the microeconomics- while the core thought has its basis in rationality of homo economicus, assuming that economic agents operating in the financial market have full rationality capacity upgrading their beliefs according to new information. On the other hand, Thaler and Barberis (2003) argue that when you want to understand in more detail the non rationality of economic agents, resorts to psychology and studies related to human behavior, and the related research can demonstrate the biases systematic observed when people build their beliefs and preferences.

Shefrin (2005) argues that issues such as overconfidence, optimism and perseverance are related to the behavior of the economic agent, and another determining factor for the agent's behavior is loss aversion. For Shefrin (2005), this type of behavior is based on the idea that mental fee is associated with the fact that the loss is greater than the award of a mental gain of the same size.

Shefrin (2005) points out that if the investor is averse to loss, he may be reluctant to perform and may even take more risks to escape a position that leads to injury.

According to Thaler and Barberis (2003), deviations in the rational behavior is part of man's natural a-prayer and should be incorporated into the economic analysis as extensively traditional mode them, as there is evidence to suggest that economic agents are subject to making mistakes Systematic which consequently can bring economic distortions.

For Kahneman (2003) individuals tend to fantasize too their skills and possibilities than really capable of doing.

Rabin (1998) points out that economics assumes that every individual has their individual pre-conferences and it rationally maximize these preferences, and argues that researches in the field of psychology suggest several changes to the design of choice for individuals.

## 2.4 LOSS AVERTION

For Bosma et al. (2012) decisions of individuals are somehow influenced by the behavior and opinions of others. This also applies to occupational choice of economic agents and, more specifically, to make the decision to undertake.

Bosma et al. (2012) argues that many entrepreneurs claim that the decision to in-understand and develop their business had influence of others, such as gran-des entrepreneurs, close friends or family members.

To Russian and Hooft (2011) individual identity is linked to the economic actions of the individual, which shares can be described by their characteristics such as gender, age, pro-fission, labor market and income. Russian and Hooft (2011) argue that the image of the individual consists of three groups of integrated elements such as values, personality trait, preferential and interpersonal relationships, and these elements are derived from a particular social group.

Rosenbloom et al. (2008) emphasize that the personal characteristics and personalized ity traits are strongly linked to career choice. On the other hand, occupational personality is not an inherent characteristic of the individual, but a complex product of environmental factors and social interaction, as well as family influences, educational background and social pressures that can contribute to personality characteristics and influence the choice professional activity.

## .3 PROBLEM AND RESEARCH EVENT

Is to examine the question: What is the difference in terms of financial behavior among entrepreneurs, academics and managers?

## 3.2 OBJECTIVES

### a) General

Analyze from semi-structured questionnaires applied to different groups (managers, entrepreneurs and academics) the relationship between financial biases and studied professions.

### b) Specific

To determine whether there influence the behavioral profile of the company managers in their financial behavior.

Identify from the behavioral profile of university professors its tendency to loss aversion.

Detect if there is influence of the profession in the behavioral profile of entrepreneurs and respectively their loss aversion.

## 3.3 ASSUMPTIONS

Among the group of business, loss aversion is lower in high management positions.

## 4 METHODOLOGY

### 4.1 RESEARCH METHODOLOGY

The methodology used will be of theoretical and empirical analysis. Semi-structured questionnaire will be applied to different groups in order to evaluate the propensity for loss and entrepreneurship. Qualitative research will be conducted.

For Sekaran (2000) panels, as well as the focus group, are another source of primary information proposed for research. As the focus group is a group for one time in a session, panels (members) are more than once, in cases where the effects of certain interventions or changes are studied over a period of time, studies panels are very helpful.

Another important point of the research are the interviews to Sekaran (2000), there are structured and unstructured interviews. Unstructured interviews are very classified and the interviewer will bring some preliminary issues to the surface, and then the researcher will determine which variables need further research.

Structured interviews, according to Sekaran (2000), are those that are conducted when it is known at the beginning what information is required, the interviewer has a list of questions predetermined to be asked of respondents, whether by phone or personal-mind or through the computer, the issues are susceptible to factors that have surfaced during the unstructured interviews and are considered relevant to the problem. So that respondents will express their views, the researcher must go note taking.

For Hair et al. (2009), the factor analysis is an interdependence technique, which is the main proposition-to define the structure inherent in the variables under analysis. The authors point out that obviously variables play a key role in any multivariate analysis.

Hair et al. (2009) also argue that the measure we use multivariate techniques, by its very nature, the number of variables increases, as univariate techniques according to the authors are limited to a single variable, but multivariate may have dozens.

The goal, according to Hair et al. (2009), is the starting point of the factor analysis, as well as in other studies statistical techniques, for the general purpose of factor analysis techniques is to find a way to condense the information contained in several original variables into a smaller set of new dimensions composed or statistical variables with minimal loss of information.

Another highlight, according to Hair et al. (2009), is the drive specification of Analí up, and if the objective of the research is to summarize the characteristics, factor analysis would be applied to a correlation matrix of variables, and this is the most common type of factor analysis and factor analysis is called R, which analyzes a set of variables to identify the latent dimensions, which are not easy to observe.

According to Hair et al. (2009), factor analysis can also be applied to a correlation matrix of individual respondents, based on the characteristics of the same, called the Q factor analysis, this method combines and condenses large systems in different individuals of a larger population groups.

Hair et al. (2009) argue that the factor analysis for providing a very direct view of the inter-relationships between variables and the underlying structure of the data, is an excellent starting point for many other multivariate techniques.

From the perspective of summary data, factor analysis provides the researcher a clear understanding of which variables can act together and how many variables can really be considered to impact on the analysis.

In relation to the planning of a factor analysis from the perspective of Hair et al. (2009) involve three basic decisions:

- i) Calculation of input data;
- ii) study design in terms of the number of variables, measurement properties of the variables and types of permissible variables;
- iii) the size required for the sample in absolute terms and as a function of the number of analysis variables.

Hair et al. (2009) emphasize that the critical assumptions in the factor analysis are more conceptualizations than statistics, and the researcher is always concerned to meet Exigence to any statistical multivariate technique, but in factor analysis concerns that require focus more on character and composition of the variables included in the analysis than in their statistics qualities.

Additionally, Hair et al. (2009) point out that in practice most researchers rarely use a single criterion to determine how many factors should be extracted, for initial-mind they use a criterion such as the latent root as a guide to the first interpretation, after the factors were interpreted, its feasibility is evaluated.

Another important point of the factor analysis process, according to Hair et al. (2009), is the interpretation of the factors, because although there are no processes or inequí-VOCAs guidelines to determine the interpretation of factors, the researcher with strong conceptualizations than reasons for early structure and its justification has the highest chance of success, the authors emphasize that it can not establish a sufficiently striking manner the importance of a strong conceptual basis, whether directly from the previous survey, Teoricos paradigms or commonly accepted principles.

After the phase of data interpretation, an important stage, according to Hair et al. (2009), is the validation of the factor analysis because it involves assessing the degree of generality of the results to the population and the potential influence of individual cases or respondents on the overall results.

Hair et al. (2009) emphasize that the issue of generality is critical for all Multi-tivariado method, but it is especially relevant in interdependence methods because they describe a data structure that should also be representative of the population, according to the authors in the process of validation, the researcher must address several issues in the deli-ning area of research and data characteristics.

Hair et al. (2009) argue that any set of measures has a total variance to obtain a set of numbers in a series of measures, we can calculate the mean, standard deviation and variance.

In general, the obtained variance is the total variance, since encompass true variance, consists-matic and random error, from a mathematical point of view, represented as follows:  $V_t = V_v + V_e$

With the indexes referring respectively to the total variance, true and error (systematic and random).

For Kerlinger (1986), the total variance of a test,  $V_t$  can be decomposed according to the following equation:

$$V_t = V_{co} + V_{sp} + V_e \quad (AII.2)$$

Where  $V_{co}$  is the variance of a common factor, i.e., the variance measures two or more share in common. The relationship  $V_{co} / V_t$  is known as the validity of a measure.  $V_{sp}$  is the specific variance as inherent to her and only her. Finally,  $V_e$  is the variance due to error in this measure.

Kerlinger (1986) also points out that the mathematical model of factor analysis postulates that manifest variables,  $x$ , are linear functions of the latent variables,  $y$ , plus a residual term:

$$x_1 = a_{11}y_1 + a_{12}y_2 + \dots + a_{1p}y_p + e_1$$

$$x_2 = a_{21}y_1 + a_{22}y_2 + \dots + a_{2p}y_p + e_2$$

For Kerlinger (1986) the  $m$  variables  $x_1, x_2, x_m, \dots$  would be associated with testing of  $n$  individuals. For example, they could represent the marks obtained by a person in  $m$  disciplines. The  $p$  vectors  $y_1, y_2, y_3, \dots, y_p$  are called factors and are seen as explanatory vectors of scores.

## 4.2 RESEARCH LIMITATIONS

It is necessary to state the limitations of the survey. A priori, the samples surveyed both managers of businesses and entrepreneurs could have had a much broader representation, but obviously, time issues could not be a more detailed and more representative sample study, not to mention financial aspects that prevented wider field of research.

## 5 DISCUSSION OF RESULTS

The survey was conducted through the site survey monkey and answered by 30 managers of companies, 30 university professors and 30 entrepreneurs.

Regarding question 1: the group of company managers 80% replied whose preference Earn R \$ 3000 for sure, followed by 100% of the group of university professors and 40% of entrepreneurs.

For Question 2: Of the group of company managers 65% expressed intention to invest in more conservative option, 80% of R \$ 6,000.00 in fixed income and 20% in shares. Followed by 80% of the group of teachers and 60% of the group of entrepreneurs.

In relation to Question 3, the group of company managers represented 90% in Option A, with 80% likely to lose R \$ 4,000.00. Followed by 100% of university professors and entrepreneurs.

For question 5, the group of academics accounted for 60% of the respondents in question B, followed by 40% of business managers and 20% of entrepreneurs.

In question 6, 100% of all groups responded in option, with 80% probability of winning R \$ 4,000.00.

Already in question 7, 80% of teachers group expressed a preference for the question, followed by 100% of the group of entrepreneurs and managers.

With regard to question 8, the group of university professors showed preference for alternative B, right gain of R \$ 2,400, with 100% of respondents in this alternative, followed by 80% in the group of managers and 70% of empreendedores.

In the question 9, 80% of the group of managers responded to alternative A 80% chance to win R \$ 4,000.00, followed by 90% of the group of entrepreneurs and 50% of university professors.

Question 10 followed the same trend of the previous answers, where 80% of the group of managers preferred a 50% probability of winning R \$ 1,000.00, followed by 80% of empreendedores group and 30% of university professors.

## **6 FINAL CONSIDERATIONS**

It was the research that the Teachers group demonstrated greater aversion to loss than the groups of companies or entrepreneurs managers.

There has been a greater aversion to losses compared the responses of managers of front companies to entrepreneurs.

The relationship between the profession and behavioral finance is a topic that can be further explored in later works.

To analyze the influence of behavioral profile of company managers in their financial behavior found more likely to risk.

We can also identify that from the behavioral profile, the professors were more averse to losses.

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## APPENDIX

## Appendix A

### Investor Profile Questionnaire

**Occupation:**  Entrepreneur  University Professor  Manager

**Question 1 - choose from:**

- A lottery ticket with 80% probability of winning R \$ 4,000.00
- Make sure R \$ 3,000.00

**Question 2 - choose from:**

- Invest 90% of R \$ 3,000.00 in stocks and 10% in fixed income
- Invest 80% of R \$ 6,000.00 in fixed income and 20% in shares

**Question 3 - choose from:**

- 80% probability of losing R \$ 4,000.00
- Lose R \$ 3,000.00 for sure

**Question 4 - choose from:**

- Invest 100% in shares
- Invest 100% in savings

**Choose only one option for the proposed questions:**

**Question 5A:** Do you prefer: 33% probability of winning £ 2,500 66% probability of winning £ 2,400 1% probability of winning £ 0; or

**Question 5B:** Do you prefer: A: 33% chance to win £ 2,500 67% chance of earning R \$ 0.

**6A question:** Would you rather: A: 80% chance to win £ 4,000 or

**6B question:** Would you rather: A: 20% chance to win £ 4,000.

**7A question:** Would you rather: A: 50% chance to win three trips to England, France and Italy; or

**Question 7B:** Do you prefer: A: 5% chance to win three trips to England, France and Italy.

**Question 8:** Do you prefer: A: 45% chance to win £ 6,000 right gain of R \$ 2,400.

**Question 9:** Consider the following game consists of two phases. In the first phase there is a probability of 75% of the game end without that win anything, and a 25% probability of moving to the second phase. If you reach the second stage there will be two possible alternatives: ▪ Your choice must be made before you start the game before you know the result of the first phase. ▪ A: 80% chance to win £ 4,000 or B: right gain of R \$ 3,000.

**Question 10:** In addition to you own, was given £ 1,000. You will now have to choose between: A: 50% chance of earning R \$ 1,000; or B: right gain of R \$ 500.