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Assessment of Corporate Behavioural Finance

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Abstract

Behavioural finance is important at the individual as well as corporate levels. A lot of researches analysing corporate behavioural finance have been made in recent decades. However all are related to solutions of capital or debt financing problems, finding the best possible source of capital increase or the cheapest debt possibility. This article aims to evaluate corporate financial investment decisions made via experts' survey, trying to assess the main players in financial markets between non-financial companies, taking into consideration portfolio formation, motivation of investments, risk-return relationship, etc. The results show that Lithuanian non-financial companies are not very active in the financial market; they choose less risky (less profitable) short-term investments, keep a considerable amount in cash or time deposits, and strive to accumulate funds from financial investments for implementation of various projects related to their main company activities. Generally service companies, operating for more than five years and with sales volume exceeding 1.45 million Euros per year, are the main players in the financial market among non-financial companies.

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1. Introduction

The dominating role of the Efficient Market Hypothesis as a theoretical framework of investing ended with the development of the theory of Behavioural Finance. Since then these two approaches have been in constant conflict with one another. Investment rationality and efficient market ideas clearly contradict with an investor's psychology and biased behavioural rules. Nevertheless, inefficient access to investment information and long-term market anomalies provide evidence regarding the priority of Behavioural Finance.

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Behavioural finance is important at the individual as well as corporate levels. Usually most researches of corporate behaviour are related to capital structure, budgeting or financing problems. Therefore, this paper aims to assess decision-making features of non-financial entities when they operate in financial markets. The experts' survey is used seeking to test the following hypotheses:

- Lithuanian non-financial companies are not active in financial markets.
- Short-term investments hold a priority against long-term investments.
- Liquid financial instruments such as deposits or governmental bonds are more popular than riskier securities such as stock or derivatives.
- The motivation for investing is associated with intentions to save financial resources necessary for implementation of projects related to main company activities.
- Big service companies are much more active in financial markets than others.

The first part of the present paper attempts to provide a comprehensive discussion of both Efficient Market Hypothesis and Behavioural Finance in the context of the corporate finance theory. The second part describes expert survey methodology, which allows testing the above-mentioned hypotheses. It also provides final results regarding financial corporate behaviour in Lithuania.

2. Studies on Behavioural Corporate Finance

The term "corporate finance" describes the interaction between company managers and investors and its impact on company value, i.e. the theory of corporate finance tries to explain financial contracts and investment behaviour arising from the interaction between managers and investors (according to this theory, managers should make unbiased forecasts of future events and use them in making decisions that best suit their own interests) (Baker & Wurgler, 2011). According to modern corporate finance business executives and investors act rationally when taking financial decisions. If the assumption of rational behaviour is correct, managers can expect that capital markets are efficient, implying that stocks and bonds are priced correctly at every given moment (stock prices correctly reflect the public information about their fundamental value). According to this theory the behaviour of managers in decision-making will be based on the principle of self-interest (Shah, 2013). Based on the fact that the primary role of the capital market is redistribution of property, which is effective when price helps a fair redistribution of resources, Fama (1970) pointed out that the market was called efficient when prices fully revealed available information.

In terms of the impact of the efficient market theory on corporate financial decisions it should be added that based on this theory it has been customary to assume that information about the securities and the market as a whole spreads very quickly and is reflected in prices of the securities without delay (Malkiel, 2003). Thus, since the end of the twentieth century finished the global domination of the efficient market hypothesis; a significant part of modern economists support the idea that the stock price is at least partially predictable, emphasizing the psychological and behavioural factors of the stock price and arguing that stock prices can be at least partially predictable based on their trends in the past and fundamental analysis (Malkiel, 2003).

Recent literature research has shown that a rational assumption of the behaviour of corporate executives and investors cannot be done in reality (Shah, 2013). Empirical studies have shown that investors taking financial decisions pay attention to peripheral information or "noise" (Black, 1986). In addition it was observed that deviations from rational behaviour are not random but systematic and depend on the approach to risk assessment and uncertainty of future problems of the impact of decision-making (Kahneman & Riepe, 1998).

When the traditional approach to corporate finance is based on the company's value-based management and the three conditions - rational behaviour, the fixed asset pricing model, and efficient markets, the proponents of behavioural corporate finance argue that psychological factors influence the traditional paradigm of the three components (Shefrin, 2001). It is believed that psychological phenomena do not allow decision-makers to act

completely rationally, and stock market prices do not reflect the fundamental value. In terms of investor irrationality it can be said that many scientific works on cognitive psychology have proved that investors, who are too confident in their knowledge and abilities, make systematic errors when thinking and making decisions, they give too much weight to their recent experience, etc.; distortions may also cause investors' preferences (Shah, 2013).

As the sub-discipline of financial behaviour, corporate financial behaviour integrates economic and psychological studies investigating financial decision-making by companies and deviations under conditions of uncertainty and criticizes the earlier discussed theory of corporate finance and compensatory strategies. When analysing scientific literature on the subject of behavioural corporate finance (Baker & Wurgler, 2011; Shah, 2013, et al.), we can distinguish two main approaches:

- The first approach is based on the impacts of irrational investor behaviour on rational corporate executives;
- The second approach refers to the examination how irrational executive decisions impact the value of a company.

Despite the theoretical separation of these two approaches it is necessary to bear in mind that in reality neither investors nor executives behave entirely rationally when making decisions, thus elements of both approaches should be assessed together. Several attempts have already been made in the latest financial economic literature (for example, Nguyen & Schussler, 2013) to provide advice that will help both investors and corporate executives to improve their decision-making process.

According to the first approach decisions made by investors are not fully rational and affect rational executive decisions. In other words, companies making financing and investment decisions are seen as a rational response to the incorrect pricing of the securities market (Baker, Ruback & Wurgler, 2004).

In terms of how a rational manager of a company is interested in increasing the value of the company, the active investment strategy could be mentioned - when the company's stock price is too high, a rational manager will issue more shares to take advantage of investor interest; when the stock price is too low, a rational manager will buy shares back (Baker & Wurgler, 2011). The market timing strategy, as indicated by Thaler (1993), is also the basis for the theory of capital structure.

According to the second approach to behavioural corporate finance corporate executives are not fully rational when making investment and financing decisions. This corporate financial behaviour model is designed to examine the impact of non-standard preferences and sentiments on management decisions in the context of efficient financial markets (Baker et al., 2004). In this case an assumption is made that management staff make investment and funding decisions independently and are not strictly controlled by corporate governance mechanisms.

According to the Modigliani-Miller theorem, which means that a company's asset value at the zero tax rate is independent from the financial structure, modern corporate finance deals with different ways in which taxes, information asymmetries and selfishness contractual relationship may change a company's optimal financing and investment decisions, economic forces that lead the company to the optimal ownership structure, thus highlighting the arbitrary nature of a company (De Bondt & Thaler, 1994).

Economic literature is rich with works that explore the issue of the practice of corporate finance. Perhaps the best-known study in this area is a corporate dividend policy analysis by Lintner (1956), where the author proposed a theoretical model of corporate dividends. Lintner said that in most cases the amount of dividends and other characteristics served as a primary and active factor in companies' financial decision-making. Numerous studies have been done that explore how companies evaluate potential investment projects (Graham & Harvey, 2001; Gitman & Forrester, 1977; Stanley & Block, 1984; Moore & Reichert, 1983; Trahan & Gitman, 1995; Bierman, 1993; Bruner, Eades, Harris & Higgins, 1998; etc.).

Cronqvist, Makhija and Yonker (2012) believe that corporate financial behaviour is coherent with the way their Chief Executive Officer (CEO) behaves in the context of leverage choices: analysis of CEO home shopping shows a positive, economically significant and reliable relation between business and personal financial leverage. In addition, improving a company's capital structure factors' system, the authors argue that the behaviour of the CEO may partly explain their supervised corporate financial behaviour (Cronqvist et al., 2012).

Summarizing, we could state that corporate financial behaviour has been examined starting with investments reaching to fixed capital or business development solutions. This paper deals with a non-financial company's participation in the financial markets, i.e. investments for the purposes of assets' enlargement.

3. Expert Assessment of Behavioural Corporate Finance of Lithuanian Companies

The method of expert analysis was used in order to justify the correctness of the results and to ensure their representativeness. The expert evaluation method depends on the reliability of the experts, the expert composition (professionalism) and their features. A very important part of the expert evaluation method is the experts' competence in the field of the analysed problem. The determination of the number of experts was guided by methodological assumptions formulated in the classical test theory. In order to select the experts their eligibility criteria were determined:

- Work experience: Investment Banking (or) the financial field for at least 5 years; active management of corporate investment portfolio;
- Education / qualification: University, CFA (Chartered Financial Analysts) / CIAA (Certified International Investment Analyst);
- Capacity: Investment Portfolio Manager, head of Investment Management Department / Division.

The 5-point Likert scale was used in the study, where 1 point means that the criterion / aspect is not important or relevant, and 5 points mean that the criterion is very important / relevant, the event is significant or investment experience is high.

Expert evaluation is based on the assumption that the solution can only be obtained on compatibility of expert opinions. If there are more than two experts ($n > 2$) the concordance rate is used. The questionnaire consisted of 17 questions. The first group of questions was designed to determine the nature of a company, which mainly made investments. The main part of the questions was designed to find out the core corporate investment objectives and factors influencing investment decisions. It was also intended to identify the response of companies to fluctuations of the investment portfolio, risk tolerance level, global and domestic economic outlook, also to set a typical structure of the portfolio, etc.

One of the most commonly used criteria for assessing the compatibility of expert opinions is the Kendall concordance coefficient. The estimates of experts should be ranked when calculating the concordance coefficient (Podvezko, 2005). Hypotheses were formulated using the Kendall concordance coefficient to estimate experts' compatibility. If there were experts, who evaluated m alternatives, the hypothesis would be the following:

- H_0 : Expert assessments are controversial (the concordance coefficient W equals: $W=0$);
- H_A : Expert assessments are similar (the concordance coefficient W is unequal: $W \neq 0$);

$$W = \frac{12S}{r^2 \times m(m^2 - 1)} \quad (1)$$

Here r is the number of experts, and m is the number of assessed criteria.

Questionnaires for pre-selected experts were sent to their personal e-mail addresses. To summarize the results of the experts' examination it can be said that service sector companies that operate for more than 5 years and with sales volume exceeding 5 million Litas[†] per year mainly invest in the financial market.

When evaluating purposes, which determine companies' choices when making investment portfolios, the experts state that companies, which pursue investment goals, take a little risk but they do not invest all their available money. The expert study shows (the Kendal concordance coefficient equals 0.218) that companies used to invest in order to raise funds to carry out investment projects (4.4 points), for specific investment objectives (3.4 points), and to ensure a company's assets value (3 points), see Fig. 1.

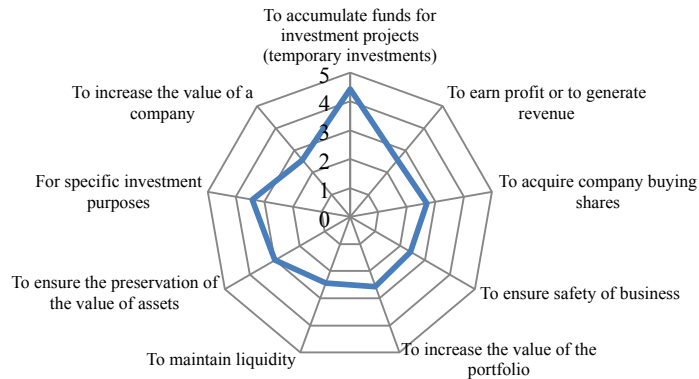


Fig. 1. The mean value of experts' answers to the question "The main objectives of companies' investments in the capital market"

The experts state (the Kendal concordance coefficient equals 0.161) that corporate investment decisions are influenced by potential returns (3.7 points) and potential losses (3.8 points). In addition they state that the national macroeconomic environment also has an impact (3.3 points), see Fig. 2.

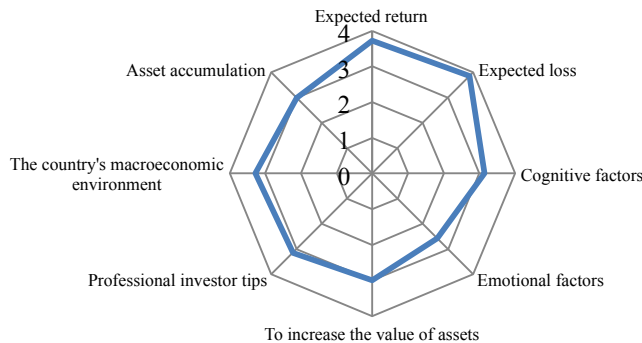


Fig. 2. The mean value of experts' answers to the question "Factors affecting corporate investment decisions"

[†] 1Euro equals 3.4528 Litas (Lithuanian currency).

When evaluating the impact of market fluctuations on companies’ investment decisions the experts think that (the Kendal concordance coefficient equals 0.048) it would cause concern, but most companies would prefer not to take any radical actions (3.0 points). When assessing the impact of market fluctuations they state that short term variation of investment portfolios would not change a company’s decisions or a company would wait for market recovery (3.3 points), see Fig.3.

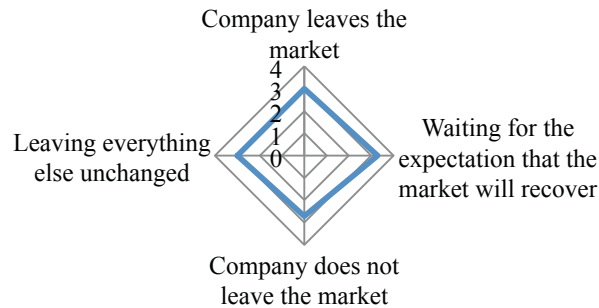


Fig. 3. The mean value of experts’ answers to the question “Company’s response to short-term fluctuations of investment portfolios”

In order to determine the behaviour of firms in terms of risk the experts were asked how companies would act if it were possible to achieve the objectives but there should be more risk-taking. The experts state that companies would take more risk in order to achieve their investment goals but they would never invest all their available funds.

Concerning the period a company is willing to wait in order to restore the value of the portfolio the experts indicate that companies are willing to wait up to one year. But there are some opinions that companies’ patience can last for more than 12 months.

In order to determine a company's investment behaviour five hypothetical portfolios formed according to the risk-return relationship were presented (see Fig.4).

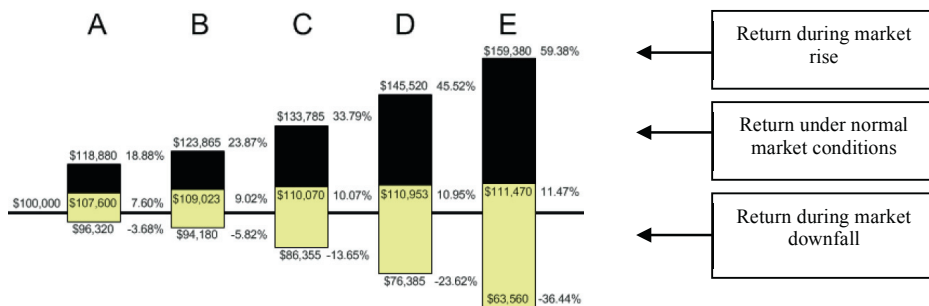


Fig. 4. Suggested investment portfolios indicating possible return or loss from investments

The experts mainly chose portfolio A; they identified portfolios B and C in the second place.

The experts evaluate the economic situation in the country (Lithuania) and the world in the coming five years in a more positive light; the experts see the 10-year perspective as neutral.

The experts were asked what level of the annual return would encourage companies to invest in financial markets. The experts point out that companies generally agree to invest (to form an investment portfolio), when they can get not less than 3-5 per cent of annual returns. In addition, the experts point out that most companies choose investment periods of up to 1 year, sometimes they continue up to 5 years.

When assessing tax impact on portfolio formation the experts pointed out that companies' investment portfolios should be managed so that taxes were minimized (the Kendal concordance coefficient equals 0.054), see Fig. 5. The experts point out that taxes are important, but their minimization is of secondary importance; first companies try to defer taxes, i.e. they use tax policy exemptions provided on made investments, and then to pay taxes after successful investments. Such approach of the experts is explained by the importance for companies to manage their cash flow.

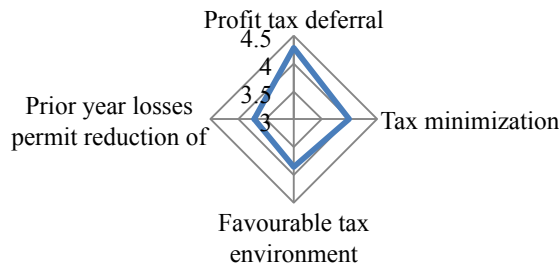


Fig. 5. The mean value of experts' answers to the question "Company's attitude to tax impact on portfolio return"

When asked to determine, whether it is important for companies to keep a part of the portfolio in cash to ensure liquidity, the experts say (the Kendal concordance coefficient equals 0.679) that a larger part of their portfolio consists of cash and deposits. Riskier investment assets represent a small part of it (the experts point out that stocks and mutual funds are not the main components of the portfolio (estimate 1.5-2 points)), see Fig. 6. This means that companies tend to minimize the risk as the majority hold cash or deposits. It should be noted that companies do not diversify portfolios. Such choice is based on the fact that they seek to provide liquidity, minimize risk, and form an investment portfolio carefully.

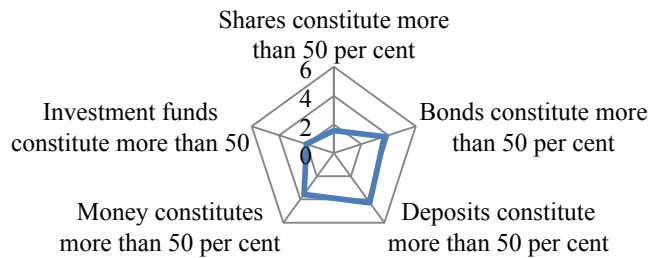


Fig. 6. The mean value of experts' answers to the question "Company's investment portfolio structure"

Companies usually review their investment policies once a year. It is also true that companies tend to consult investment professionals, and the majority of them do it every quarter or half a year.

4. Conclusions

The research of studies on behavioural corporate finance demonstrates that they are associated to capital or debt financing problems. Enquiries reveal that executives making solutions in financial / investment decision are influenced by their individual preferences, mostly when management of the corporation is weak. Moreover, individual actions sometimes describe financial activities of corporations, in which the decision makers are employed.

The research shows that mainly service sector companies that operate for more than 5 years and with sales volume exceeding 5 million Litas per year invest in the financial market. The experts estimate corporate financial investment capabilities to be relatively weak. The main motivation of companies' investments is to generate income and to accumulate funds for implementation of projects directly related to company activities. In addition, the experts give prominence to tax impact. Companies are relatively conservative when making investment decisions. The experts confirm that short-term fluctuations of investment portfolios would not change corporate decisions, and companies tend to minimize the risk as the majority hold cash or deposits. In addition, the experts point out that most companies choose investment periods of up to 1 year, sometimes extended up to 5 years. When determining companies' investment behaviour the majority of the experts state that companies would choose the lower risk-lower returns portfolio.

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