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Research on financing decision-making practices in Croatian companies

Abstract

The aim of this paper is to identify the main practices of Croatian companies in financing decision-making. Following the best-known field study by Graham & Harvey (2001), this paper presents the main findings on capital structure decisions of Croatian companies. Primary data collected using a highly structured survey questionnaire through an extensive one-time cross-sectional survey conducted in 2018, was analysed primarily by descriptive analysis, after which a univariate analysis on the responses conditional on the selected companies' characteristics was performed. According to the survey responses, practitioners report the perception of creditworthiness, financial flexibility and financial independence as the most important factors when deciding on debt financing. However, the importance of these factors is not driven by the information asymmetry problem, as the pecking order theory assumes. Furthermore, there is also a moderate support for the trade-off theory in terms of medium high proportion of companies that target their debt ratios. Yet, it should be emphasized that in the process of debt financing practitioners are concerned about the arising risks, but not the benefits of debt financing, and thus show risk-averse behaviour. As the results of empirical research deviate from the theoretical assumptions, both in this study and in similar studies conducted in the USA and Europe, it raises the questions about applicability of the existing theories and the need for their revision.

Keywords: capital structure; trade-off theory; pecking order theory; survey

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1. INTRODUCTION

The field of capital structure is the one of most intriguing and extensively researched fields of corporate finance. Most of this research is conducted through large sample studies, however the results are mostly inconclusive and sometimes even contradictory, resulting in little consensus among the studies. In this paper, a survey instrument is applied to conduct a comprehensive study on the current practice of financing policies in order to question the viewpoints of practitioners and compare them with the existing theories.

The best-known field study in this area is Graham & Harvey's (2001) research on the selected areas of corporate finance, namely the cost of capital, capital budgeting, and capital structure. They surveyed 392 CFOs on more than 100 questions in the above-mentioned areas of corporate finance. With respect to capital structure, the authors conclude, based on the responses provided, that "firms are concerned about financial flexibility and credit ratings when issuing debt, and earnings per share dilution and recent stock price appreciation when issuing equity" (Graham & Harvey, 2001). Overall, they find moderate support for the trade-off and pecking order theories, but little evidence for other proposed theories such as agency, signalling, and other theories and their underlying factors. Their study serves as the basis for similar research and is still widely cited today. For that reason, their approach is used here to provide some survey evidence about financing choices among Croatian practitioners. Hopefully this will add valuable insight and contribute to the empirical literature on capital structure.

However, unlike the Graham & Harvey (2001) study, which analyses large publicly listed companies in the USA, this study includes both private and publicly listed Croatian companies. There are two important aspects to highlight. First, Croatia is a developed country with a bank-oriented financial system and an underdeveloped capital market. The central venue of the Croatian capital market is the Zagreb Stock Exchange (ZSE), which became the only venue for securities trading in Croatia after the merger with the Varaždin Stock Exchange in 2007. In 2018, a total of 787 shares were registered with the domestic Central Depository and Clearing Company Inc., although the number of shares listed on the ZSE is significantly lower (132) and even fewer are actively traded. Concurrently, only 67 bonds were registered, of which only 11 were corporate bonds and the rest were government and municipal bonds (Central Depository and Clearing Company Inc[1]., 2019; Croatian financial services supervisory agency[2], 2019). Consequently, in such a financial system, bank loans are the main source of debt financing, even for publicly listed companies, making the money supply narrower and more limited than in the case of the USA market. Second, this study covers a broader sample of firms in terms of their organisational form: both private and publicly listed companies. In contrast to the USA and other developed countries, where capital structure research is by far the most represented, there are neither a sufficient number nor a sufficient importance of public companies in Croatia to test capital structure theories. Therefore, extending the survey to (1) developing countries and (2) private as well as small and medium-sized companies will therefore potentially fill a gap in the literature on financing decisions for other companies (and countries) that are regularly neglected in the most literature.

This survey-based analysis also contributes to the existing literature by adding information about capital structure practices that is rarely achieved by the most common type of empirical research in this area – large sample studies. Despite the limitations of survey studies, such as the small sample, the risk that the firms in the sample are not representative of the population, the misunderstanding of survey questions, etc., this form of research allows to ask very specific and qualitative questions and provide unique information about how firms operate. In fact, the survey-based analysis makes it possible to ask direct questions about companies' financial behaviour that would not otherwise be possible. This study follows Graham and Harvey (2001) and analyses the responses conditional on firm characteristics: size, leverage, growth potential,

[1] Središnje klirinško depozitarno društvo – SKDD.

[2] Hrvatska agencija za nadzor financijskih usluga – HANFA.

industry, but also on the characteristics of the financial managers: age, tenure and education. In this way, it is possible to investigate whether the companies that are assumed to behave as suggested by a particular theory actually do so. In short, based on the above, the following research questions were set: What are the key factors that influence financing-decision makers in shaping the capital structure of companies in Croatia? Are these factors different depending on the firm´s and manager´s characteristics? Do the practices and underlying reasons for certain financial decisions correspond to those recognised in similar studies and/or existing theories of capital structure?

To the author's knowledge, this is the first study of this kind conducted on the sample of Croatian companies. The results corroborate those from similar studies: practitioners report perception of creditworthiness, financial flexibility and financial independence as the most important factors when deciding on debt financing. Again, the importance of these factors is not driven by the information asymmetry problem, as the pecking order theory assumes. Furthermore, there is moderate support for the trade-off theory, but it should be emphasized that the downsides of debt financing are more in focus among practitioners than its benefits. Although the trade-off theory assumes that firms choose their debt levels by equalling the benefits and shortcomings of debt financing, it seems that they are actually more concerned about the risks of using the financial leverage, while the benefits are almost neglected.

The paper is structured as follows. After the introduction, a theoretical and literature overview is exposed in the second section. The survey design and sampling methodology are presented in the third section. The fourth section displays the main results of the survey. Finally, the fifth section contains the concluding remarks of the study.

2. THEORY AND LITERATURE REVIEW

The capital structure reflects the use of debt and equity in corporate financing. The modern theory of capital structure began with the irrelevance model proposed by Modigliani & Miller (1958). They showed that under the perfect market propositions, capital structure does not affect the firm´s value. However, in the real world, the inclusion of debt in the financing mix provides certain advantages to the company such as tax shield (Modigliani & Miller, 1963), disciplining management (Jensen & Meckling, 1976; Stulz, 1990), signalling the good quality of the company to investors (Ross, 1977; Leland & Pyle, 1977), etc. Exploiting these benefits should reduce the company's cost of capital and consequently increase the economic value of the company. However, the larger the proportion of debt in the company's capital structure, the higher the interest burden, leading to greater financial risk of the company and an increasing probability of bankruptcy. This disadvantage of debt certainly has an inverse effect on the company's cost of capital, reducing the value of the company. This understanding of the impact of debt on the value of the company is described by the (static) trade-off theory. Namely, according to this theory, there is an optimal capital structure that is determined by balancing the advantages and disadvantages of debt (Miller, 1977). Introducing the time variable and the recapitalisation costs into the process of decision making, the dynamic trade-off theory was created (Fisher, Heinkel, & Zechner, 1989; Leland H. E., 1994). Thus, due to the existance of adjusting costs, the company will achieve different levels of capital structure over time. Therefore, instead of the optimal debt level, the company will define a range of financial leverage to which it will strive.

On the contrary, the pecking order theory does not question whether firms are trying to achieve an optimal capital structure, but assumes that the firm's financial debt reflects its need for financial resources. Namely, there is a hierarchy in managers' preference for financial sources (Donaldson, 1961). When internal funds are insufficient, the firm resorts to external resources, preferring debt over equity. This order of use of resources is a consequence of the information asymmetry between management and investors, which leads to different costs of adverse selection (Myers & Majluf, 1984; Myers S. C., 1984). Since financing with retained earnings does not incur costs or information asymmetry prob-

lems, it is the most preferred source of financing by managers. However, issuing debt and issuing equity provide different signals to investors about the company's quality and its future opportunities. Financing through new debt is perceived as positive because higher debt implies higher interest burden that will be covered by profitable future projects. At the same time, announcements of new share issues are a negative signal as they imply that the current shares are considered overvalued in the market and that any future losses will be shared with the new owners. This is known as the signalling theory introduced by Akerlof (1970) and was first applied in the field of capital structure by Ross (1977).

Aforementioned theories have different viewpoints on how companies choose their financing mix. These theories are considered as the classical capital structure theories and are the most commonly examined in empirical studies. Besides the most commonly used large sample studies that use various statistical models to test the theories and examine the interrelationship between debt and other capital structure determinants (Titman & Wessels, 1988; Rajan & Zingales, 1995; Shyam-Sunder & Myers, 1999; Booth, Aivazian, Demirgüç-Kunt, & Maksimovic, 2001; Lemmon & Zender, 2010; Arsov & Naumoski, 2016, Pecina, E., 2018), surveys have been conducted in a small number of studies. The reason for this lies in the disproportion between the resources required and the responses received. However, this method offers significant advantages, such as the ability to ask specific questions that would otherwise be difficult to observe when using only numerical (secondary) data. This major advantage was utilized in this study as the primary motivation to investigate the financing behaviour of Croatian companies and its underlying factors.

As noted earlier, the most frequently cited work of this type is the Graham and Harvey's (2001) study, which served as the basis for other similar research (Frank & Goyal, 2009). Using a sample of 392[3] CFOs of the USA private and publicly traded companies, they drew several important conclusions about capital structure management practices: (1) the most important factors in shaping financing policies are financial flexibility and credit rating of the company; (2) when issuing shares, they are mostly concerned about the dilution of the owner's wealth (EPS) and stock price appreciation; and (3) the problems of asset substitution, information asymmetry, transaction costs, free cash flow, and personal taxes are not important factors in capital structure decisions. Finally, they found moderate evidence that managers follow both capital structure theories, i.e. the pecking order and the trade-off theory; however, they do not find confirmation of the key factors assumed by these theories. The target capital structure is somewhat softened in the sense that there is no attempt to 'achieve' a strictly determined level of debt, but rather it is roughly given.

Drawing on the work of Graham & Harvey (2001), Bancel & Mittoo (2004) used a sample of public companies from 16 European countries to compare the managers' thoughts on the importance of selected capital structure determinants depending on the country in which they operated. The results showed moderate support for the trade-off theory and only weak support for the pecking order theory. Similarly to Graham & Harvey (2001), they found that managers emphasize financial flexibility and credit rating as the most important factors in the borrowing decision, and equity dilution (EPS) as the most important factor in equity issuance. Additionally, Brounen, de Jong & Koedijk (2005) surveyed a sample of 313 private and public companies from the UK, the Netherlands, France and Germany, also following the work of Graham & Harvey (2001). They found evidence that the capital structure of firms are structured according to the pecking order theory; however, this is not driven by the factors assumed by this theory. As in the previously mentioned studies, financial flexibility appears to be a key determinant of debt financing, while owner wealth dilution (EPS) is the most important determinant of share issues.

Beattie, Goodacre & Thomson (2006) surveyed 198 CFOs of listed companies in the UK to analyse their financing behaviour and conclude that managers' financing behaviour is not consistent with any of the proposed theories; namely, they

[3] Out of initial sample of 4,440 companies.

find elements of both trade-off and pecking order theory. They concluded that the firms' financial behaviour is heterogeneous: (1) half of the respondents declare that they strive to maintain the target financial leverage ratio (and yet regularly deviate from it), (2) over 60% of the respondents declare that they follow a hierarchy of financial sources according to the pecking order theory, (3) 32% claim following both theories simultaneously, (4) 22% state that they do not follow any of them. Moreover, the main factor in determining the target capital structure is an internal factor, particularly the manager's attitude. When financing investment opportunities, companies with a set target debt ratio are reluctant to deviate from it to finance new investments compared to companies that do not have a specified target capital structure. Finally, many determinants of capital structure decisions are found to be important: the most important is enabling the long-term survival of the company (the authors interpret this as an approximation of reducing the likelihood of financial distress), followed by agency costs, interest rate levels, bankruptcy costs, etc. On the other hand, the prevention of hostile takeovers, the disciplining role of debt, and investors' personal taxes are not recognized as important determinants. According to the results of a survey conducted by Hernádi & Ormos (2012) on a random sample of 498 companies in CEE countries, managers are mainly guided by the pecking order theory. The majority of them do not have a target capital structure (especially managers who are also business owners), and the most important factor in the use of debt is the projection of the cash flow of assets to be financed by borrowing. As far as the author is aware, there are no other studies of capital structure conducted through surveys.

Overall, most of the research conducted using questionnaires show that managers place the most importance on financial flexibility when choosing their financing mix. Because financial flexibility is generally consistent with pecking order theory, but also important for other reasons that are not grounded in that theory, it cannot be taken as conclusive evidence that managers behave as that theory predicts. Nevertheless, certain assumptions of the two prevailing theories have been supported: managers tend to be guided by target levels of financial leverage, but these are neither strictly defined nor strictly adhered to, and the processes of adjusting actual levels to target capital structures are slow. Tax shield and the probability of financial distress (bankruptcy), which are the starting points of the trade-off theory, are not in the narrowest focus of managers when they decide on financing. Furthermore, managers generally first try to use internal funds to finance operations and investments, and then they finance the financial deficit mainly by borrowing. However, such a hierarchy of financing is not the result of overcoming the problem of information asymmetry that underlies the pecking order theory. Therefore, the authors of the aforementioned studies generally conclude that although the existing capital structures of companies are explained to some extent by the traditional theories, the financing decisions are not guided by the key determinants underlying these theories.

3. METHODOLOGICAL FRAMEWORK

Based on the work of Graham & Harvey (2001), this study is developed to investigate the financial behaviour of Croatian companies. Taking into account the specifics of the Croatian economy and financial system, on the one hand, and the specifics of the companies in the sample, on the other hand, questions are formulated to be suitable for the desired analysis. Namely, accounting for the fact that Croatian companies primarily use bank loans as instruments of debt financing and most of them do not issue market securities, the questions were focused on the basic forms of capital that they actually use.

This survey was part of a doctoral dissertation[4], but the results presented in this paper were not used in any of the previous papers (either the doctoral dissertation or any other analysis). The research sample included Croatian companies that cumulatively met the following conditions[5]:

[4] Pecina, E. (2018). Oblikovanje strukture kapitala i identifikacija ograničenja financiranja hrvatskih poduzeća. Ekonomski fakultet Sveučilišta u Zagrebu.

[5] Financial data on the companies in the sample are collected from annual financial reports through the Financial Agency (FINA) database.

1. The company is active in the period from 2004 to 2017;
2. The company has positive values of total assets, equity and revenues in all years;
3. The company has reported all relevant data to calculate the variables used in the study;
4. The number of employees is greater than 10;
5. According to the National Classification of Economic Activities (NKD 2007), companies are classified in all economic activities except Financial sector (K), Public administration and defence (O), Household activity (T), and Organisations and institutions outside the territory (U).

These criteria ensured that the companies in the sample were companies that had continuous operations and were not expected to go bankrupt in the near future. According to Ang, Cole & Lawson (2010), companies in financial difficulties are not able to choose their desired capital structure and should therefore be excluded from the sample. Furthermore, a positive value of the aforementioned items is required for the same reasons, i.e. higher probability of ongoing business activity, but also for practical reasons – meaningful interpretation of the capital structure variables. Similarly, the employee criterion is an attempt to consider those companies that have sufficient human capital for expedient financial behaviour. Consistent with most of the literature, the companies in the above activities were excluded from the sample because they are subject to different business models and atypical capital structures. The application of all the above conditions resulted in a final sample of 2,889 companies. From this number, a random, proportionally stratified sample of 1,000 companies was selected, using the size[6] of the company in 2016 as a stratification variable.

The survey questionnaire was published in the form of an online questionnaire on the Google Forms Internet service, while the survey questionnaire was distributed to the final respondents by e-mail. The questionnaires, along with the enclosed letter, were addressed to employees who play significant roles in shaping the companies' financing policies. Invitations to participate in the survey and reminders to complete the questionnaires were sent out in five iterations in September and November 2017.

The highly structured questionnaire contained mostly closed questions with response options, predominantly using a Likert scale with five degrees of intensity, from 1 – "completely disagree", to 5 – "completely agree", i.e. 1 – "very low" to 5 – "very high", depending on the category of the question asked. The questionnaire was divided into four conceptual units[7]. In the first part, the respondents were asked to answer the questions that provided information about the respondents' selected demographic characteristics and information about their education and work experience. The second part asked about the respondents' attitudes toward business management and business financing, capturing the variables such as aversion to loss of control over business management, propensity to take risks in business, focus on business growth and development, and the importance of established business relationships with other companies and institutions in financing. The third part included questions describing the financial behaviour of the company, i.e., its managers. In particular, the selected attitudes and financing behaviour patterns were examined, e.g., which forms of financing they mostly used, which factors they mainly considered when choosing the financing mix, etc. In the final, fourth part, the respondents were asked to rate the listed constraints on debt or equity financing. The final version of the questionnaire comprised a total

[6] According to the provisions of the Accounting Act (2015), companies are classified into small, medium and large depending on the value of total assets, income and average number of employees. Small businesses are those that do not exceed two of the following conditions: total assets HRK 30,000,000, income HRK 60,000,000, average number of employees 50; medium-sized companies are those that exceed two of the previously listed conditions (for small companies), but do not exceed all of the following conditions: total assets HRK 150,000,000, income HRK 300,000,000, average number of employees 250; large companies are those that exceed two conditions from the previously defined conditions (for medium-sized companies) (Accounting Act, 2015, NN 78/2015).

[7] For the purpose of this study, only answers gathered through parts 1 and 3 have been used.

of 31 questions, many of which contained a larger number of statements or items on which the respondents were asked to express their levels of (dis)agreement or rank them in terms of importance.

Of the 1,000 companies to which the questionnaire was sent, 126 agreed to participate in the survey. Upon review of the responses, six (6) companies were excluded due to incomplete questionnaires. The final sample consisted of 120 companies, leading to the overall response rate of 12%, which does not deviate significantly from response rates obtained in other relevant surveys in the field of capital structure[8].

In the analysis of the respondents´ answers, descriptive statistics were primarily used, after which a univariate analysis on the responses conditional on the selected companies' and managers´ characteristics was performed. The Welch´s T-test was used to determine whether there was a statistically significant difference between the mean rates of factors that influence capital structure decisions conditional on previously mentioned groups of samples.

4. RESULTS AND DISCUSSION

Summary information about the companies in sample is presented in Figure 1. According to the company size, there are 53 (44%) small, 32 (27%) medium and 35 (29%) large companies, while 17 firms (14.17%) are joint stock companies and the other 103 (85.83%) are limited liability companies. In 2018 66 (55%) companies had sales under 10 mil euros, 29 (24.17%) between 10 and 50 mil euros, and the rest (25 companies or 20.83%) had over 50 mil euros. Most of the companies (37 or 30.83%) in sample are manufacturers (C according to NKD 2007), followed by retail and wholesale – G (25 or 20.83%), while other companies are spread more or less evenly across other industries. As around 65% of the companies surveyed had the growth rate of less than 5%, all the companies above that value are referred to as growth companies. Most of the companies in the sample had long term debt ratio lower than 20% (81 or 67.5%) out of which 29 companies are zero-(long-term)leveraged companies. Further, 24 or 20% of the companies had long-term debt ratio between 20 and 40%, while 15 or 12.5% had above 40%. Regarding the total debt ratio, more companies can be considered as more leveraged. Namely, 40 or 33.33% of them had the debt rate of over 40%, 25 or (20.8%) between 20 and 40%, and in 55 companies the total debt rate was under 20% (out of which only 16 are zero-leveraged).

As for the respondents´ characteristics, over 73% were older than 40 years and most of them (32%) were in the age range from 40-50 years. Sixty percent (60%) of the respondents were female. Around 23% had undergraduate degrees as their highest formal education, while 59% had graduate, 16% MS, and only 2% PhD degrees. Most of the respondents (around 40%) were in the current positions within the same company for less than 5 years, while 15% held the same positions for more than 20 years. Half of the respondents (62 or 51.67) declared that their companies did not have target capital structure, another 12 (or 10%) have flexible, i.e., they do have target capital structure but often deviate from it. Strict and somewhat tight capital structure was reported in 23% and 15% of the surveyed companies, respectively. When observed conditional on different company´s or respondent´s characteristics[9], there are no significant differences: targets (strict or somewhat tight) are slightly more important for the listed (41.18%) than the limited liability companies (37.86%); small and medium (39%) over large (37%) companies; lower long-term leveraged[10] (40%) over highly long-term leveraged[11] companies (36%); female (39%) over male re-

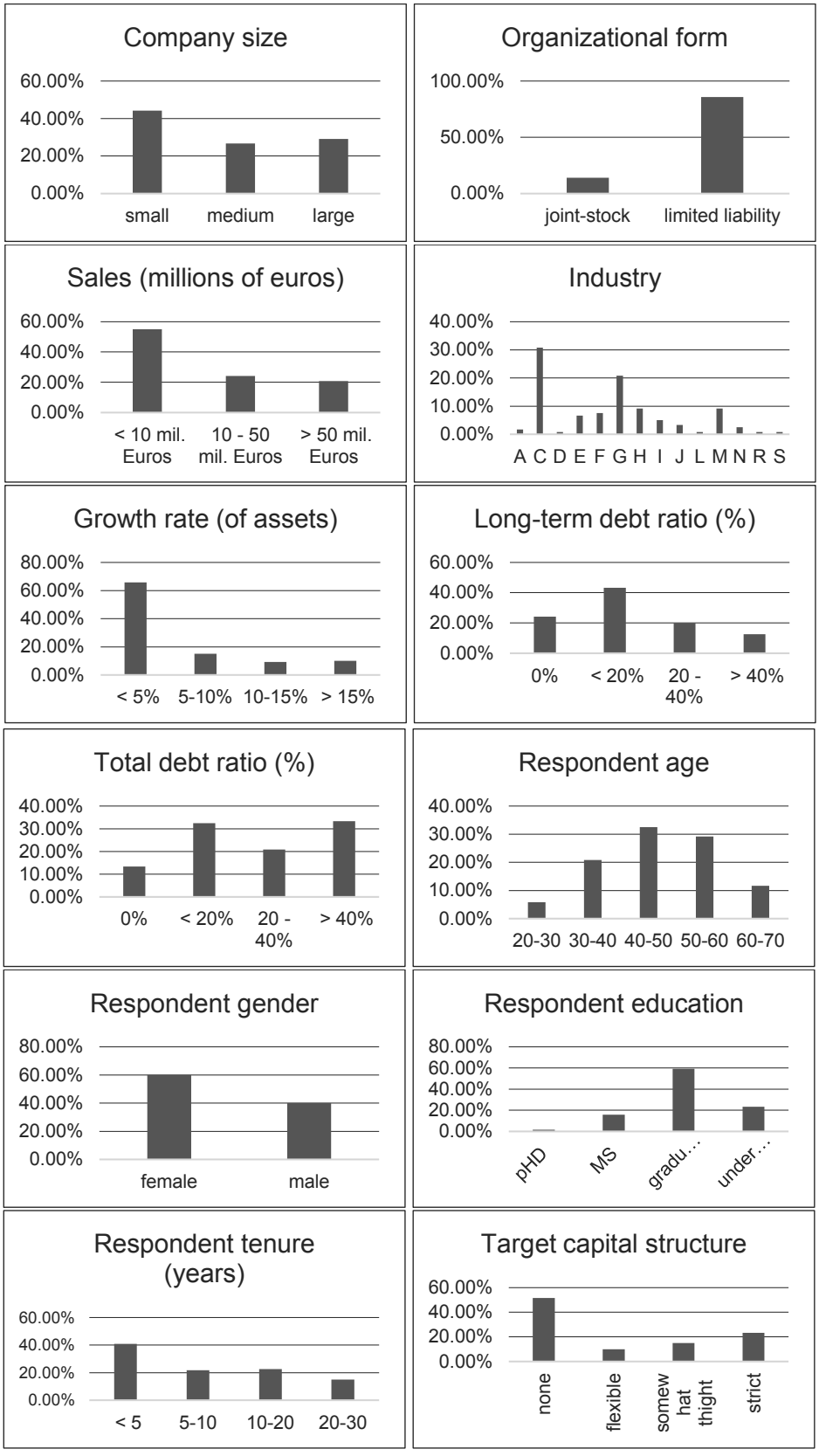
[8] For example, rate of response is 9% in Graham & Harvey (2001), 12% in Bancel & Mittoo (2004), 5% in Brounen, de Jong, & Koedijk (2005).

[9] This data is not presented in the paper, but available on request.

[10] Low-leveraged are companies with long-term debt ratio up to 20%.

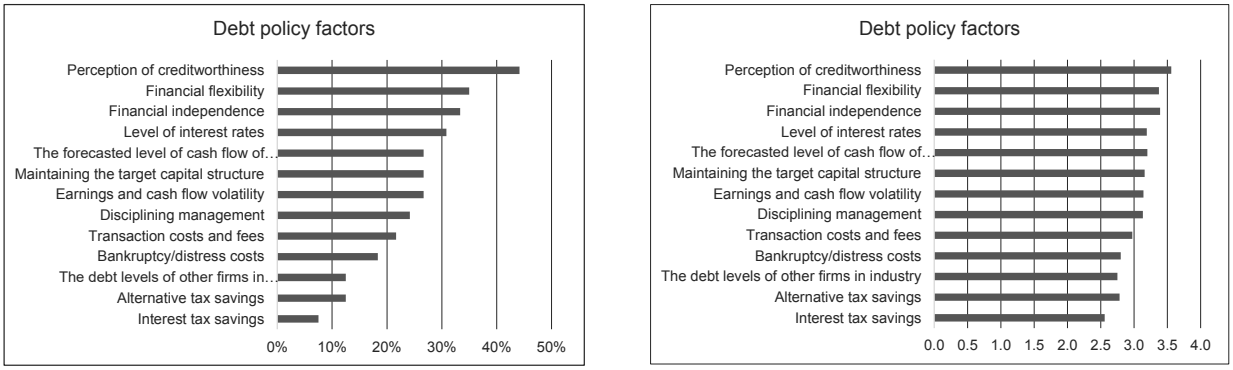
[11] When total debt is taken into account, the difference between high and low-leveraged companies is more pronounced: targets are more important for companies with less than 50% total debt ratio (44.44%) than companies over 50% debt ratio (20%).

Figure 1. Characteristics of companies (and respondents) in sample



Source: author´s calculations according to the survey responses and annual financial reports (for 2017) provided by FINA

Figure 2. Factors that affect decisions to issue debt, recognized by respondents: a) percentage of respondents identifying factor as important or very important; b) mean rate assigned to the factor (1-the least and 5-the most important factor)



Source: author´s calculations according to the survey responses

spondents (37.5%); older (40%) than younger[12] respondents (34%); shorter tenure (39%) over longer tenure[13] respondents (37.78%). These company's and respondent´s characteristics will allow examining whether there are significant differences in their financing behaviour.

Figure 2 presents the factors with the highest influence on the debt levels of the firm, as these factors are recognized by respondents as the most important factors when issuing debt. Part a of the Figure 2 gives percentage of respondents who identify each factor as important or very important, while part b of the Figure 2 presents the mean rates given to each factor with 1 being the least and 5 the most important factor. As can be seen in this Figure, the perception of creditworthiness is recognized by most respondents, around 45% of them, and accordingly they gave this factor the highest rate (mean of 3.56). The next two factors recognized as highly important are financial flexibility (35% respondents find it important and very important, with mean rate of 3.38) and financial independence (33.33% respondents find it important and very important, with mean rate of 3.39).

At first glance, these results may seem confusing. Namely, the importance of perception of creditworthiness can be viewed as an indication of concern about financial difficulties and potential of distress, even though the respondents did not find bankruptcy/distress costs very important (rating of 2.8; important or very important for only 18.33% of respondents). These results somewhat correspond to the findings in Graham & Harvey (2001) who concluded similarly when they compared concern about credit rating and costs of distress. If the perception of creditworthiness is taken as a proxy for credit rating, or costs of distress, such high importance of this factor can go in line with the trade-off theory. However, the importance of creditworthiness could be viewed complementary with the financial flexibility and financial independence. Specifically, in most studies of this type (as mentioned in the literature review), financial flexibility is recognized as the most important factor, that is generally consistent with the assumptions of the pecking order theory. Yet, if the tendency to keep financial flexibility and independence derives from management´s desire to minimize interest obligations so that the firm preserves debt capacity to execute future growth opportunities or does not have to reduce business activity in case of economic downturn, then it cannot be a direct confirmation of the pecking order theory as the true explainer of financial behaviour.

Further factors evaluated as important or very important are in favour of the trade-off theory. Namely, factors such as level of interest rates, the forecasted cash flows, target capital structure, volatility of earnings etc., can be recognized as the drivers of financing behaviour under the trade-off theory. It should be empha-

[12] The threshold for age subsamples is 40 years.
[13] The threshold for tenure subsamples is 10 years.

sized that all these factors imply the concern about the shortcomings of the use of financial leverage, as it seems that managers worry about the potential costs of financial distress. On the other hand, the benefits of using debt are rated as not very important, since the tax shield is the least recognized factor when issuing debt, with the lowest rate of 2.56.

The results are further analysed conditional on different firm characteristics (shown in Table 1). In this way it is possible to explore the relations between the responses and firm size, leverage, industry, CEO age, tenure and education etc. By testing the differences in the responses regarding these characteristics, it is possible to run a deeper investigation of capital structure theories. Namely, the aim is, without asking direct question if they follow a specific theory in forming their capital structure policy, to investigate the patterns that could indicate a strong support for one of the theories.

As can be seen from Table 1 (Panel A), the importance of some of the aforementioned factors is different with regard to the specifics of the company or the respondents. Firstly, as opposed to the theoretical predictions of the pecking order theory, financial flexibility is statistically more important for large firms. This indicates that financial flexibility is not related to the information asymmetry as suggested by the pecking order theory, according to which this problem is more emphasized for smaller firms. Consequently, smaller firms should be more inclined to act as the pecking order theory predicts, but here the results indicate the opposite.

On the other side, earnings volatility is statistically less important for non-growth (or mature) firms when they issue debt. This is in line with the trade-off theory, as these firms are usually larger, mature firms with stable cash flows and lower possibility of financial distress. Furthermore, alternative tax-savings and interest tax savings are statistically more important for this group of companies, that is, again, in line with the trade-off theory predictions. As these companies, in general, have stable and high cash flows, they are interested to utilize tax shield without risking financial disruptions. However, it should be emphasized that interest tax shield (interest deductibility) even among these companies is recognized as the least important factor.

When conditioned on the respondents' characteristics, financial flexibility is statistically more important for mature respondents with higher education and longer tenures. It can be assumed that experience and higher formal knowledge contribute to the knowledge about the importance and benefits of keeping financial flexibility in the long run.

In Panel B of the Table 1, survey responses to the question when they issue or delay issuing debt are presented. The most important factor when deciding about debt issue is having insufficient funds recognized by almost 60% of the respondents with the mean rate of 3.76. This is the direct confirmation of the pecking order theory described behaviour. As expected, it is statistically more important for those who claim they do not have target capital structure. Namely, these companies are focused on securing sufficient financial resources and are not limited by a set target level of indebtedness.

However, most respondents (41.67%) claimed that they delay issuing debt when it increases the likelihood of financial difficulties, and this was recognized as an important factor with the mean rate of 3.45. This is consistent with the trade-off theory, which states that companies .will refrain from debt financing to avoid the risks of financial problems. However, interest tax shield, which is the main benefit of using debt as this theory emphasizes, is not recognized as that important. On contrary, it is recognized by only 5% of the respondents (with the mean rate of 2.28).

Further, the respondents seem to be concerned about the costs of debt financing. They are more willing to issue debt when the interest rates are particularly low, but also they will delay debt financing when the transaction costs and fees are high. This is more important for firms that have set target capital structures, although the difference is not statistically significant. ' In spite of being statistically insignificant, the results can be assumed to indicate that even when firms have set target debt levels this may vary over time because of transaction costs, which is in line with the dynamic trade-off theory set by Fisher, Heinkel, & Zechner (1989) .

Table 1. Survey responses to the question: Rate the importance of the following factors that affect how you choose the level of debt for your company

				size		leverage		growth in assets		industry		CEO age		gender		CEO tenure		CEO education		target debt	
		% important or very important	mean	SME	large	low (<30% long-term debt)	high (>30% long-term debt)	growth (>5%)	non-growth (>5%)	manu.	other	younger (<50)	mature (>50)	male	female	short (<10years)	long (>10years)	lower	higher (MS and PhD)	no	yes
Panel A	Perception of creditworthiness (we want to improve/maintain the perception of our creditworthiness)	44,17%	3,56	3,54	3,60	3,56	3,57	3,60	3,56	3,59	3,54	3,52	3,59	3,63	3,51	3,65	3,40	3,46	4**	3,50	3,65
	Financial independence (we want to minimize the use of debt and interest obligations)	33,33%	3,39	3,41	3,34	3,37	3,47	3,33	3,41	3,43	3,37	3,36	3,41	3,47	3,34	3,49	3,22	3,35	3,57	3,36	3,43
	Financial flexibility (we want to preserve our debt capacity)	35,00%	3,38	3,28	3,6**	3,37	3,40	3,31	3,43	3,46	3,34	3,06	3,6***	3,49	3,30	3,56	3,07***	3,27	3,86***	3,35	3,41
	The forecasted level of cash flow of assets that are intended to be financed by borrowing	26,67%	3,20	3,12	3,4*	3,26	3,03	3,26	3,15	3,19	3,20	3,02	3,33*	3,35	3,10	3,43	2,82***	3,10	3,67**	3,20	3,20
	Level of interest rates	30,83%	3,19	3,12	3,37	3,14	3,33	3,02	3,28	3,35	3,12	2,94	3,37**	3,55	2,94***	3,35	2,93**	3,17	3,29	3,19	3,20
	Maintaining the target capital structure	26,67%	3,16	3,12	3,26	3,17	3,13	3,19	3,14	3,16	3,16	3,28	3,07	3,29	3,07	3,21	3,07	3,16	3,14	2,85	3,65***
	Earnings and cash flow volatility	26,67%	3,14	3,12	3,20	3,10	3,27	2,86	3,28**	3,22	3,11	3,18	3,11	3,12	3,15	3,19	3,07	3,17	3,00	3,16	3,11
	Disciplining management (to ensure they work hard and efficiently)	24,17%	3,13	3,12	3,17	3,12	3,17	3,05	3,16	3,22	3,10	3,18	3,10	3,14	3,13	3,23	2,98*	3,13	3,14	3,01	3,33**
	Transaction costs and fees	21,67%	2,98	2,95	3,03	2,98	2,97	2,79	3,08	3,03	2,95	2,96	2,99	3,18	2,83**	3,03	2,89	2,93	3,19	2,95	3,02
	Bankruptcy/distress costs	18,33%	2,80	2,89	2,57	2,83	2,70	2,69	2,85	2,84	2,78	2,64	2,91	2,82	2,79	2,84	2,73	2,77	2,95	2,89	2,65
	Alternative tax savings	12,50%	2,78	2,86	2,60	2,81	2,70	2,55	2,92**	2,62	2,86	2,62	2,9*	2,96	2,66*	2,85	2,67	2,67	3,33***	2,81	2,74
	The debt levels of other firms in industry	12,50%	2,75	2,79	2,66	2,78	2,67	2,52	2,86*	2,81	2,72	2,76	2,74	2,71	2,77	2,75	2,76	2,79	2,57	2,86	2,57*
	Interest tax savings	7,50%	2,56	2,56	2,54	2,64	2,3*	2,26	2,73***	2,38	2,64	2,34	2,71**	2,69	2,46	2,60	2,49	2,43	3,14***	2,68	2,37*
Panel B	We issue debt when our recent profits (internal funds) are not sufficient to fund our activities	59,17%	3,76	3,71	3,89	3,70	3,93	3,74	3,78	3,81	3,73	3,62	3,86	3,90	3,66	3,85	3,6*	3,67	4,19**	3,89	3,54**
	We delay issuing debt when it increases the likelihood of financial difficulties.	41,67%	3,45	3,44	3,49	3,38	3,67	3,38	3,48	3,35	3,49	3,34	3,53	3,59	3,35	3,53	3,31	3,39	3,71	3,47	3,41
	We issue debt when interest rates are particularly low.	27,50%	3,17	3,12	3,29	3,13	3,27	3,26	3,14	3,27	3,12	3,06	3,24	3,22	3,13	3,27	3*	3,14	3,29	3,08	3,30
	We delay issuing debt because of high transactions costs and fees.	33,33%	3,15	3,19	3,06	3,06	3,43**	3,19	3,13	3,16	3,14	3,02	3,24	3,16	3,14	3,24	3,00	3,17	3,05	3,08	3,26
	We issue debt to signal to investors our good quality and prospective future opportunities.	24,17%	2,94	3,02	2,74	2,84	3,23*	3,02	2,90	3,03	2,90	2,84	3,01	2,76	3,07*	2,91	3,00	3,02	2,57	2,93	2,96
	We issue debt when we have accumulated substantial profits	8,33%	2,61	2,73	2,31**	2,63	2,53	2,67	2,58	2,65	2,59	2,58	2,63	2,45	2,72*	2,55	2,71	2,63	2,52	2,55	2,70
	We issue debt to take advantage of the interest tax shield.	5,00%	2,28	2,41	1,97**	2,32	2,17	2,21	2,35	2,19	2,33	2,26	2,30	2,18	2,35	2,21	2,40	2,32	2,10	2,27	2,30
	We issue debt to maintain good business relations with banks.	4,17%	2,22	2,28	2,06	2,23	2,17	2,17	2,24	2,22	2,22	2,26	2,19	2,02	2,35*	2,17	2,29	2,26	2,00	2,16	2,30

Source: author´s calculations according to the survey responses. ***, **, * denotes a significant difference at the 1%, 5% and 10% levels, respectively.

Survey participants were also asked direct questions about their firms' financial behaviour that could be explained by the pecking order theory. Firstly, they were asked if they issued securities when internal funds were not sufficient to finance their activities, and then about the types of securities they issued first. For those who responded they did not use external financing, the question was why.

Of 42.5% of the respondents who stated that their companies sometimes, often or very often faced lack of financial resources, 84% decided to use external financing. Overall, around 36% of the analysed companies, in the absence of financial resources, sometimes, often or very often use external financing. Most of these companies used short-term bank loans (72.5%), followed by long-term bank loans (45%), while only one company was financed by bonds (1.96%). Of 120 companies, 53 (or 44%) claimed the sufficiency and preferred internally generated funds as the most important reason for less reliance on external financing.

The firms that stated they did not use external financing were asked why, and the most common response was: ″we have enough internally generated funds″ (70.59% of those who do not use external financing or 40 % of the total sample). Other answers can be complementary as the respondents only stated that they ″have no need for external financing″. This can be considered as a clear indicator that the pecking order prepositions are valid for a high proportion of the firms in the sample. Only a smaller number of firms expressed concerns about the potential financial distress and high costs (3 out of 68 that did not use external financing).

5. CONCLUSION

The goal of this research was to analyse the financing behaviour of Croatian companies, using a rarely used approach of collecting data in the field of capital structure: survey analysis. As aforementioned, the survey-based analyses contribute to the observational (longitudinal and cross-section) studies, since they enable a more detailed analysis of the reasons behind some actions. This advantage of the survey-based analysis proved to be useful in this study as well. Namely, this study revealed the factors that shape the financing policy of Croatian companies, and as such, contributed to the existing knowledge of capital structure field, not only in Croatia, but in general as there are only several studies of this type conducted in the field of capital structure (presented in the literature review). All of them, to a greater or lesser extent, highlight both encouraging and puzzling findings.

The same applies to this study as well. The results speak in favour of moderate support for both prevailing theories of capital structure: the trade-off and the pecking order theory. Namely, the respondents reported perception of creditworthiness, financial flexibility and financial independence as the most important factors when deciding on debt financing, which is in line with the pecking order theory. However, financial flexibility is statistically more important for large firms, which is contrary to the informational asymmetry-causing pecking order behaviour. On the other hand, around 38% of the companies reported strict and somewhat tight capital structure, which should indicate that these companies follow the trade-off theory. However, most of the companies, including those with set target capital structure, indicated only the factors that correlate to the shortcomings of debt financing as the relevant and important ones, while those factors that represent the benefits of debt financing were recognized as the least important among all proposed factors. These results indicate that the target capital structure is not a result of equalling the benefits and potential costs of debt usage in financing, but in fact, it is the result of the respondents' risk-averseness. It seems that they do not recognise interest tax savings as a motivation to use debt in financing, which consequently partially refutes the trade-off theory as a reflection of their financing behaviour. Despite such confusing findings, slight preference is given to the pecking order theory. Namely, out of 42.5% of respondents who stated they sometimes, often or very often faces a lack of financial resources, 84% decided to use external financing to cover that shortage: most of them use short-term (72.5%) and/or long-term (45%) loans. Furthermore, out of the total of 120 companies, 53 companies (or 44%) stated that

sufficiency and preference of internally generated funds was the most important reason for less reliance on external financing. At the same time, those who refrained from using external financing claim that the main reason was having enough internally generated funds. These findings can be seen as direct confirmation of the pecking order theory behaviour of the analysed companies; however, their behaviour does not seem to be driven by the factors behind this theory.

These results raise the question of the sufficiency and efficiency of theoretical assumptions and underlying factors in explaining the financial behaviour of the analysed companies. The fact that these results confirm the results of similar studies conducted in the USA and Europe raises the question if the prevailing theories are based on correct assumptions and whether they should be revaluated. Thus, such findings pave the way for new research in the field of capital structure.

The main limitation of the research is the fact that the data was collected using the survey instrument, and therefore, the quality of the answers is dependent on the level of the participants' objectivity, expertise and understanding of survey questions. However, as the respondents were individuals with key roles in the financing decision-making processes, this limitation is not considered to diminish the quality of the research.

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Istraživanje prakse hrvatskih poduzeća u donošenju odluka o financiranju

Sažetak

Cilj rada je identificirati glavne prakse hrvatskih poduzeća u donošenju odluka o financiranju. Po uzoru na najpoznatije istraživanje ovog tipa koje su proveli Graham & Harvey (2001), u ovom radu prezentiraju se glavni nalazi o procesu oblikovanja strukture kapitala hrvatskih poduzeća. Primarni podaci prikupljeni pomoću visoko strukturiranog anketnog upitnika kroz opsežno jednokratno kros-sekcijsko istraživanje provedeno u 2018. godini, analizirani su ponajprije deskriptivnom analizom, nakon čega se dodatno provela univarijatna analiza odgovora ovisno o odabranim karakteristikama poduzeća. Sukladno odgovorima iz anketa, kao najvažnije faktore prilikom odlučivanja o financiranju dugovima, ispitanici navode percepciju kreditne sposobnosti, financijsku fleksibilnost i financijsku neovisnost. Međutim, važnost ovih čimbenika nije utemeljena na problemu asimetričnosti informacija, kao što to pretpostavlja teorija hijerarhije financijskih izbora. Nadalje, rezultati ukazuju i na umjerenu podršku teoriji kompromisa u oblikovanju strukture kapitala analiziranih poduzeća što se potkrepljuje srednje visokim postotkom poduzeća koja uspostavljaju i održavaju ciljanu razinu duga u financiranju. No važno je naglasiti da su ispitanici, prilikom uspostavljanja ciljane razine duga, primarno fokusirani na rizike zaduživanja, dok istovremeno koristi korištenja financijske poluge zanemaruju, što ukazuje na njihovu averziju prema rizicima. Budući da rezultati empirijskih istraživanja odstupaju od teorijskih pretpostavki, kako u ovom istraživanju tako i u sličnim istraživanjima provedenim u SAD-u i Europi, postavlja se pitanje primjenjivosti postojećih teorija i potrebe za njihovom revizijom.

Ključne riječi: struktura kapitala; teorija kompromisa; teorija hijerarhije financijskih izbora; anketa