Business Environment Assessment Using Accounting Regulatory Elements in Latvia

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Abstract: The article examines the interaction between the business environment and accounting regulatory framework. The rules included in the accounting regulatory framework actually stem from the company’s own need to arrange information flows within the company, rational use of products, cash flow and control over the funds of the company itself and their sources. The author examines the impact of the accounting regulatory framework on the business environment by dividing the regulatory framework into blocks according to the scope of their regulation, i.e. the rules determining the basic accounting principles, tax legislation and the regulation determining the information disclosure requirements. Each of the blocks identifies research issues that arise from accounting regulation and effect the business environment.

In conclusion, the author creates a multi-factor regression equation to determine the number of companies in Latvia’s business environment based on the indicators of accounting regulation. This multi-factor regression calculation can be applied in any country of the world where there is both accounting outsourcing and mandatory legal requirement for the annual report to be audited by a sworn auditor. In conclusion, the author concludes that the basic structure of the business environment of Latvia is formed from small companies and, at the same time, the structure of the business environment highlights the stability of medium and large enterprises. During certain periods when the business environment is affected either by targeted (2007) or by external circumstances (2014), the turnover of large companies is also suffering, which suggests that business environment in Latvia is vulnerable.

Key Words: business environment assessment, accounting framework standards, tax legislation, disclosure standards.

1. INTRODUCTION

The business environment is like a living organism with its inner world and outer space. Entrepreneurship is a system that supports the economy and forms the basis for the development of the national economy. Business is the sector that ensures the creation of added value and is one of factors forming the gross domestic product of the country, and thus the welfare and growth factors of the nation (Keišs, 1999). The role of the accounting regulation is to provide support for the full business cycle, accounting calculations and monitoring of a company full business cycle. The rules included in both the basic accounting principles and the rules governing disclosure requirements actually stem from the company’s own need to organize: information flows within the company, rational use of products, cash flow and control over the company’s own funds and their sources.

By analysing the accounting regulatory framework created by the legislator, the author two of the regulatory blocks – the regulatory frameworks for basic principles and the regulatory framework for information disclosure – evaluates as stimulating the company’s activities, because in the absence of legislative constraints, it would be possible to save funds on accounting, document storage, different control systems in the short term, but the work done on accounting results in the long term. At the time when a company needs to analyse its historical development and as a company grows, "memory" control is lost and documentaries control becomes necessary, the regulatory frameworks are like support for timely implementation into the company.

Taxes in accordance with the Law of the Republic of Latvia “On Taxes and Duties” are a mandatory periodic or one-off payment for ensuring the revenues of the State budget or local government budgets and the funding of the functions of the State and of local governments (Law “On Taxes and Duties”, 1995, s. 1). It follows from the Law that taxation, by definition, is not an incentive instrument for companies, it is an element of obligations and, at the same time, an increasing cost.

2. MATERIAL AND METHODS

The author uses several methods of quantitative analysis in this research. The dynamics of chain growth rates are used for the initial estimation of study indicators, then their results are described. In the next stage, the correlation between the studied values is calculated and their statistical significance, expressed by the value of p is evaluated. By summarizing all the obtained results for alternative use of accounting system elements, the author creates a regression equation. The program R Project is used for statistical calculation. It is an open source program that is constantly being supplemented and improved. The users of the
program have the opportunity to add additional functionality by defining new functions and R Project is well-developed, simple and efficient programming language that includes conditions, loops, user-defined recursive functions, and input and output options.

3. THE ROLE OF THE REGULATORY FRAMEWORK FOR BASIC PRINCIPLES OF ACCOUNTING IN THE ASSESSMENT OF THE BUSINESS ENVIRONMENT

Based on the regulatory framework for basic principles of accounting of the Law “On Accounting” in 2020 and on the current issue of solving the qualification issues of accountants in 2021, and at the same time setting up as priority accounting outsourcing in Latvia, the analysis uses data on the number of accounting outsourcing companies, changes in turnover dynamics and relationships with the number of all companies in Latvia and the dynamics of their turnover. Data selected for analysis, falling within the heading group of NACE 2.0 code M6920 “Calculation, Accounting, Audit and Auditing Services; Tax Consulting”, reduced by the number of audit companies and the turnover of audit companies.

In periods where the number or turnover of companies is increasing, the number or turnover of accounting outsourcing companies is increasing too, or the turnover of outsourcing companies is increasing at a faster rate than the growth rate of the turnover of all companies, it can be concluded that companies are increasingly outsourcing their accounting to outsourced accountants.

However, it is important to take into account the peculiarities of the Latvian market that smaller companies are more interested in outsourcing, but the situation is not clear in practice, as large companies also outsource some of their accounting work, such as salary calculations, due to various considerations, including internal confidentiality.

There are a number of criteria for the hiring or outsourcing of the accounting officer, but the most important ones are the stable values of the market economy – quality and price. The analysis of statistical data from 2010 to 2018 shows that the popularity of accounting outsourcing is increasing, some points showing a reverse trend, but overall, only the last three periods show a drop in growth rates, although starting in 2021 outsourcing licensing is likely to change confidence and outsourcing providers could grow rapidly.

Turnover is an indicator of the size of the company, while assessing the dynamics of the turnover of the accounting outsourcing companies and comparing them to the overall growth rate of the companies, it can be concluded that the pace of growth rate in two years from nine is similar, and it would be possible to observe the correlation, but in the other seven periods the growth rate is different.

In order to determine whether there are statistically significant correlations between the indicators, a factor analysis is performed, correlation coefficients...
between all the values are calculated, creating a correlation matrix.

In order to confirm the thesis that companies choose to use accounting outsourcing services more and more, i.e. trust their quality and value their price as appropriate, both turnover correlations and turnover growth correlations are examined.

Table 1: Correlation matrix of factor analysis of accounting outsourcing companies and all Latvian companies with p values

<table>
<thead>
<tr>
<th>Study indicators</th>
<th>Acc. comp. amount</th>
<th>Acc. comp. amount increase</th>
<th>Acc. comp. turnover</th>
<th>Acc. comp. turnover increase</th>
<th>All comp. amount in Latvia</th>
<th>All comp. amount increase in Latvia</th>
<th>All comp. turnover</th>
<th>All comp. turnover increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc. comp. amount</td>
<td>* * *</td>
<td>-0.737</td>
<td>0.931</td>
<td>0.339</td>
<td>0.965</td>
<td>0.020</td>
<td>0.890</td>
<td>-0.593</td>
</tr>
<tr>
<td>Acc. comp. amount increase</td>
<td>0.023</td>
<td>* * *</td>
<td>-0.815</td>
<td>0.252</td>
<td>-0.797</td>
<td>0.586</td>
<td>-0.652</td>
<td>0.564</td>
</tr>
<tr>
<td>Acc. comp. turnover</td>
<td>&lt; 0.001</td>
<td>0.007</td>
<td>* * *</td>
<td>0.206</td>
<td>0.961</td>
<td>-0.192</td>
<td><strong>0.905</strong></td>
<td>-0.383</td>
</tr>
<tr>
<td>Acc. comp. turnover increase</td>
<td>0.372</td>
<td>0.513</td>
<td>0.594</td>
<td>* * *</td>
<td>0.198</td>
<td><strong>0.504</strong></td>
<td>0.327</td>
<td><strong>0.132</strong></td>
</tr>
<tr>
<td>All comp. amount in Latvia</td>
<td>&lt; 0.001</td>
<td>0.010</td>
<td>* 0.001</td>
<td>0.609</td>
<td>* * *</td>
<td>-0.039</td>
<td>0.826</td>
<td>-0.586</td>
</tr>
<tr>
<td>All comp. amount increase in Latvia</td>
<td>0.959</td>
<td>0.097</td>
<td>0.621</td>
<td><strong>0.166</strong></td>
<td>0.921</td>
<td>* * *</td>
<td>-0.084</td>
<td>-0.109</td>
</tr>
<tr>
<td>All comp. turnover</td>
<td>0.001</td>
<td>0.057</td>
<td><strong>0.001</strong></td>
<td>0.390</td>
<td>0.066</td>
<td>0.830</td>
<td>* * *</td>
<td>-0.265</td>
</tr>
<tr>
<td>All comp. turnover increase</td>
<td>0.093</td>
<td>0.114</td>
<td>0.309</td>
<td><strong>0.736</strong></td>
<td>0.097</td>
<td>0.781</td>
<td>0.490</td>
<td>* * *</td>
</tr>
</tbody>
</table>

Source: author created, based on data from the Central Statistical Bureau of Latvia, Lursoft IT Ltd, 2020

* The upper diagonal part of the table contains correlation values
* The lower diagonal part of the table contains corresponding p values
* According to the statistical theory, it is assumed that the relationship is statistically significant if p < 0.05

In absolute terms, the change in turnover of accounting companies compared to the change in turnover of all companies in Latvia shows a correlation of 0.905 (p = 0.001), the turnover relationship is considered to be close, but correlation of turnover growth rates is linked to 0.132 (p = 0.736), so there is no correlation between the growth rates. Figure 1 shows the dynamics of the relationship between growth rates, which, in the author’s view, is the most accurate indicator of the closeness of both variables.

From the analysis of both indicators, it can be concluded that the indicators to be studied are related to each other, but there is no reason to conclude that the demand for accounting outsourcing is also increasing in a linear way as the turnover of all company’s in Latvia increases. The author concludes from the above that, as the company’s turnover increases, or as the company becomes larger, it does not contribute demand of the accounting outsourcing services, this claim applies on the condition that the increase in turnover is made up of companies in the business environment but does not increase the number of companies.

Based on the conclusions reached above, and taking into account the peculiarities of Latvia that small companies choose to outsource accounting, the relationship between the increase in the number of all companies in Latvia and the turnover of accounting outsourcing companies is further explored. The study does not take advantage of the dynamics of the number of companies in both studied groups, because as the number of companies increases, it may choose to outsource from an existing outsourcing company that has already demonstrated itself on the market. The correlation of the absolute values of researched subjects is 0.961 (p < 0.001), so the relationship is close. While also investigating the chain growth rate of the number of companies and the chain growth rate of the turnover of accounting outsourcing companies, the correlation is 0.504 (p = 0.166), so the relationship is average, but the preferred p value for confirming the relationship is p < 0.05. The statement allows to confirm that there is a tendency in Latvia to outsource accounting services to young,
small businesses, but currently companies make decision to choose accounting outsource option in a slow way.

3. ASSESSMENT OF TAX REVENUE AND BUSINESS TURNOVER RELATIONSHIPS

For the quantitative analysis of the tax legislation block are identified such taxes related to the daily work of the accountant as:

1. VAT (value added tax) – turnover tax;
2. PIT (personal income tax), SC (social contributions), solidarity tax - collected in a single group based on a single feature, i.e. labour taxes;

Figure 2: Comparison of tax and social contribution revenues with the total changes in the turnover of enterprises in the dynamics from 2010 to 2018

Tax revenues have increased steadily in whole period until 2017 and will continue to 2018 for all taxes except CIT, because since the entry into force the new framework that CIT does not have to pay for the share of reinvestigating earnings, it has provided financial support to companies of the uncollected CIT of almost than EUR 120 million. The expected effects of these changes in the dynamics of CIT are: a possible increase in investment in fixed assets of companies, and therefore a higher rate of growth in turnover over the coming reporting periods could be expected.

In order to explain the closeness of the relationships between the changes of all the parameters to be studied, a factor analysis is carried out by drawing up a correlation matrix, structured in Table 2.

Table 2: Correlation matrix with p values of tax revenues and corporate turnover

<table>
<thead>
<tr>
<th>Study indicators</th>
<th>VAT</th>
<th>Labour taxes</th>
<th>CIT</th>
<th>Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAT</td>
<td>***</td>
<td></td>
<td>0.607</td>
<td>0.938</td>
</tr>
<tr>
<td>Labour taxes</td>
<td>&lt;0.001</td>
<td>***</td>
<td>0.552</td>
<td>0.931</td>
</tr>
<tr>
<td>CIT</td>
<td>0.083</td>
<td>0.124</td>
<td>***</td>
<td>0.663</td>
</tr>
<tr>
<td>Turnover</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>0.051</td>
<td>***</td>
</tr>
</tbody>
</table>

Source: author created, based on data from the Central Statistical Bureau of Latvia, 2020

* The upper diagonal part of the table contains correlation values
For taxes directly related to the company’s turnover, i.e. VAT (correlation 0.938 and p<0.001) and labour taxes (correlation 0.931 and p<0.001), the matrix shows close relationships between the factors, but CIT does not establish close links with any of the subjects. In the analysis of the correlation matrix, the author concludes that the increase in turnover, although theoretically it should also contribute to the increase in profit, which appears in the CIT increase, respectively, in practice is average close, i.e. correlation is 0.663 un p=0.051.

For example, in 2014, when VAT and labour tax revenues continue to grow, CIT revenues show a drop of around EUR 6 million (Figure 2). Similarly, the decline is seen in the turnover figures for 2014, with continued increases in labour taxes and VAT. Although, according to the results of the factor analysis, VAT and labour taxes are closely linked to turnover rates, in certain periods the correlation in absolute terms is not expressed or the indicators are in reverse trend.

Figure 3: Comparison of the chain growth rates of the Latvian business turnover, taxes and social contributions revenue in dynamics from 2010 to 2018

By exploring the chain growth rates shown in Figure 3, the relationship between tax revenue dynamics can be determined more precisely than by studying absolute figures. The dynamics of growth rates shows that turnover rates already declining in 2012, while the trend of labour tax increases is maintaining a rise, but the rate of VAT growth is not maintaining so much but keeping pace unchanged. Although in absolute terms 2013 shows a positive trend, i.e. the volume of all taxes collected is increasing, the growth rate clearly marks a sharp downturn.

A somewhat uncharacteristic situation on the market appears in 2014, when turnover rates continue to fall sharply, reaching negative value, the same situations is with VAT trend, but the growth rates of labour tax revenues are increasing again. Such a situation on the market may occur at the time when entrepreneurs, despite rapidly falling turnover rates and possibly lost internal or external markets, are forced to raise wages for specialists (if they were reduced before), who form the company's professional basis but do not want to accept reduced wages and are starting to migrate into the labour market, thereby creating a threat to the company's stability. The 2015 and 2016 growth rates represent market attempts to regain stability, which in 2017 can be considered recovered. In the last two years of the rapid and non-turnover changes of the VAT curve the author explains with the extension of the VAT reverse order base, which may result in a situation that, immediately after a change in the first reporting periods the amount of VAT to be refunded from the State treasury is increasing, but as shown by the curve, it is rapidly recovering what has been missed in the subsequent reporting periods and even overtakes the amount lost in the fall.

The growth rates of the collected CIT differ significantly comparing with the dynamics of the other indicators, therefore it is represented differently and postponed to the right of Figure 3. In the dynamics of CIT, the first and last reporting period is very different, when the effects of the previous economic crisis in 2007-2009 were still felt in 2010, and the new CIT arrangements already entered into force in 2018, excluding the share of reinvested profit from the taxable base. Therefore,
CIT after 1st of January 2018 partially loses its statistical significance in the analysis of the selected factors, but the question remains whether investments were made at a higher level during that period.

Figure 4: Business turnover, gross investment and CIT chain growth rate dynamics from 2010 to 2018 (profit dynamics from 2012 to 2018)

Source: author created, based on data from the Central Statistical Bureau of Latvia, 2020

By investigating the growth rates of gross investment compared to the growth rates of company turnover, collected CIT volume and profit growth rates, the author comes to the conclusion: the assumption will not be confirmed, that the CIT reduction could be compensated with an increase in gross investment and gross investment volume even decrease in 2018, following CIT declining rates, although turnover rates remain a constant growth trend. The fact, that companies do not make investments in 2018 has likely been affected by the decline in the chain growth rate of profit, although in absolute terms it keeps a rise of 1136 million.

The profit figures are included in the figure only from 2012, because previous periods highlight the effects of the previous crisis (2007-2009), that prevents a qualitative comparison of data, because up to 2011 shows a dramatic decrease in the growth rate of profits, i.e. -19645 percent, the absolute figures for 2010 and 2009 profits were critical low compared to the rest of the data during the studied period.

In summarizing the relationship between tax revenues and business turnover, the author concludes that the dynamics of labour taxation are relatively inflexible, because the rapid changes in the business environment, which affect turnover, are not always able to make equally dynamic changes to labour costs and therefore the amount of taxes collected. In order to maintain a high-quality workforce, in a situation where turnover is falling, entrepreneurs cannot reduce labour costs proportionally, in practice this compensation of labour expenses is covered by lost profit. On the other hand, regarding the changes to the CIT framework in 2018, entrepreneurs have initially responded cautiously and to recover their share of profits after the crisis a short-term strategy has primarily been implemented, but without rushing to reinvest it. In the short term the expected outcome from entrepreneurs in the reinvestment of profits is slow, that confirmed by the fall in gross investment in 2018. The impact of the long-term changes in regulation framework of CIT could be concluded at the end of 2022.

4. EMPIRICAL ANALYSIS OF STATISTICAL INDICATORS OF DISCLOSURE

The regulatory framework of disclosure requirements as the central regulatory enactment on the quantity and quality of information provided by companies is identified in the LR “Law on the Annual Financial Statements and Consolidated Financial Statements”. The veracity of the information provided by the final statement of the annual report specified by the Law and the conformity of the company’s data, as well as the quantitative and qualitative content of the information included in the annual report and compliance of the annual report with the law shall be attested by a sworn auditor. It should be noted that for small companies, the statutory audit of a
Sworn auditor is not mandatory, but in practice medium-sized companies often invite an auditor to give assurance to both capital holders and external users about the completeness of the company's financial data.

The purpose of the analysis is to determine the importance of the presentation of the audited annual report in Latvia. For data analysis in dynamics quantitative indicators such as the number of commercial companies of sworn auditors and the dynamics of their turnover relationship with all Latvian turnover are selected. In order to find out whether the recruitment of sworn auditors in Latvia is increasing in order to get audit report of annual report, the turnover data of the auditors' companies are being studied in dynamics from 2010 to 2018 and their relationship with the turnover rates of all companies in Latvia.

The dynamics of the chain growth rate of the turnover of the auditors' companies, compared to the dynamics of the turnover of all Latvian companies, are more gradual, which makes it possible to conclude that the dynamics of the auditors' business indicators are only partly related to rapid changes in the business environment in Latvia (Figure 5). In view of the fact that the statutory audit examination of the annual accounts of the sworn auditor is mandatory under specific criteria determined by LR "Law on the Annual Financial Statements and Consolidated Financial Statements", the author concludes that the most rapid changes in the business environment in Latvia are bringing small business activities. According to the author, based on the mandatory nature of the Law, the turnover curve of the audit companies describes the overall stability of medium and large companies in Latvia.

By examining in detail the sharpest drop in turnover of auditors companies in 2015, compared to 2012 when turnover rate was nearly 20 times higher, 41 companies out of 105 experienced a decrease in turnover, based on that fact the author concludes the decrease in turnover cannot be explained by the narrowing of one or more large companies, but by the total market swings that have affected nearly half of the audit companies and probably also nearly half of the audited entities.

Figure 5: The dynamics of chain growth rates of the audit company’s turnover and all companies’ turnover in Latvia between 2010 and 2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Audit Company’s Turnover</th>
<th>All Companies’ Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>9.6%</td>
<td>-7.4%</td>
</tr>
<tr>
<td>2010</td>
<td>15.2%</td>
<td>3.2%</td>
</tr>
<tr>
<td>2011</td>
<td>13.7%</td>
<td>4.5%</td>
</tr>
<tr>
<td>2012</td>
<td>7.7%</td>
<td>4.6%</td>
</tr>
<tr>
<td>2013</td>
<td>7.2%</td>
<td>1.9%</td>
</tr>
<tr>
<td>2014</td>
<td>6.0%</td>
<td>0.4%</td>
</tr>
<tr>
<td>2015</td>
<td>8.6%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>2016</td>
<td>9.8%</td>
<td>7.1%</td>
</tr>
<tr>
<td>2017</td>
<td>8.9%</td>
<td>2.1%</td>
</tr>
<tr>
<td>2018</td>
<td>7.1%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>2019</td>
<td>8.9%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

Source: author created, based on data from Lursoft IT, Ltd, 2020

The author welcomes the relatively rapid increase in turnover growth rate of auditors' companies last year, because it is a clear indicator that the situation in business environment of Latvia is improving with one or two positive factors:

1. The number of companies requiring audit under the Law, or at the same time the number of companies that voluntarily choose to present their choice of confirming the completeness of the data contained in the annual report, is increasing. In addition, the criteria for recruiting a sworn auditor to examine an annual report have been increased several times in the dynamics.
For the first time, the criteria were increased in 2007, second time was on 1st January 2014, when the changeover to the euro took place. Last time criteria for recruiting a sworn auditor to examine an annual report was on 1st January 2016, when the new, current LR “Law on the Annual Financial Statements and Consolidated Financial Statements” entered into force.

2. The turnover of companies already receiving audit services is increasing, because in practice the audit price depends on the company’s turnover.

In order to make sure about the business relationship between the audit companies and all Latvian companies, a correlation matrix including all study indicators is drawn up.

Although there is no linear correlation between the turnover rates of both groups of companies in Figure 5, the correlation (Table 3) between the absolute values of the turnover of auditor companies and all companies in Latvia is 0.941 and p < 0.001, so the relationship between the absolute indicators is close. Studying the correlation of turnover growth rates, the author concludes that the relationship between turnover growth rates does not exist, the correlation is 0.131 and p = 0.738. This is confirmed by the irregularity of the growth rates observed in Figure 5, that has consequently affected the correlation factors of the relationships. Since turnover growth rates do not constitute a relationship, it leads to make conclusion about the structure of the business environment, that there is a significant amount of small companies which consequently results in a change in the overall company turnover, but these changes are not related with audit companies.

Table 3: Correlations matrix with p values of quantifiable sizes of audit companies and all companies in Latvia

<table>
<thead>
<tr>
<th>Study indicators</th>
<th>Audit comp. amount</th>
<th>Audit comp. turnover</th>
<th>Audit comp. turnover increase</th>
<th>All comp. amount in Latvia</th>
<th>All comp. turnover in Latvia</th>
<th>All comp. turnover increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit comp. amount</td>
<td>***</td>
<td>0.969</td>
<td>0.551</td>
<td>0.946</td>
<td>0.909</td>
<td>-0.489</td>
</tr>
<tr>
<td>Audit comp. turnover</td>
<td>&lt;0.001</td>
<td>***</td>
<td>0.611</td>
<td>0.892</td>
<td>0.941</td>
<td>-0.366</td>
</tr>
<tr>
<td>Audit comp. turnover increase</td>
<td>0.124</td>
<td>0.081</td>
<td>***</td>
<td>0.399</td>
<td>0.812</td>
<td>0.131</td>
</tr>
<tr>
<td>All comp. amount in Latvia</td>
<td>&lt;0.001</td>
<td>0.001</td>
<td>0.288</td>
<td>***</td>
<td>0.826</td>
<td>-0.586</td>
</tr>
<tr>
<td>All comp. turnover in Latvia</td>
<td>0.001</td>
<td>**</td>
<td>0.008</td>
<td>0.006</td>
<td>***</td>
<td>-0.265</td>
</tr>
<tr>
<td>All comp. turnover increase</td>
<td>0.182</td>
<td>0.332</td>
<td>**</td>
<td>0.097</td>
<td>0.490</td>
<td>***</td>
</tr>
</tbody>
</table>

Source: author created, based on data from the Central Statistical Bureau of Latvia, Lursoft IT Ltd, 2020

* The upper diagonal part of the table contains correlation values
* The lower diagonal part of the table contains corresponding p values
* According to the statistical theory, it is assumed that the relationship is statistically significant if p < 0.05

Based on the explored correlation of indicators, the author concludes the business environment in Latvia mostly consist of small businesses, because based on correlation matrix (Table 1) as the turnover of accounting outsourcing companies changes, this takes place at a similar rate (correlation 0.961, p < 0.001) as changes in the number of all companies in business environment in Latvia.

In order to confirm or deny the statement regarding the heterogeneity of the business environment structure, the relationship between the chain growth rates of the number of companies in Latvia and their turnover is investigated. The data are summarised in Figure 6.
Figure 6: The chain growth rates of the number of companies in Latvia and the turnover between 2010 and 2018, as a percentage

Source: author created, based on data from the Central Statistical Bureau of Latvia, 2020

In order to confirm the assumption that business environment in Latvia is based on small businesses, the growth rate of the number of companies should exceed the turnover rate of companies, but in order to confirm the opposite, the turnover growth rate should exceed the growth rate of number of companies.

During the period between 2011 and 2016, the trend of both growth rates is similar, which means that changes in the turnover rate of companies also lead to a change in the number of companies and this situation are typical in a business environment dominated by small businesses. Figure 6 charts at both ends represents the situation, that between 2010 and 2011 and between 2016 and 2018 the opposite trend appears, i.e. despite the reduction in the number of companies, the overall growth of companies’ turnover continues, this situation leads to the conclusion that medium and large companies are forming during these periods of time, pushing small businesses out of the market. Studying the correlation matrix in Table 1, the correlation between the absolute values of the number of companies and their turnover is 0.826, p = 0.006, so the relationship is close, while the correlation between their chain growth rates is -0.109, p = 0.781, so there is no direct linear relationship. This leads to the conclusion that the business environment in Latvia is based on small businesses with individual episodes where competition or any external situation leads to the exclude small companies from the market. According to the author, the correlation factor of absolute values 0.826 (between number of companies un their turnover) does not represents an increase in the number of large companies on the market, since each newly created company (which increases the number of companies) is not able to produce an increase in turnover in business as can be achieved by medium and large companies.

5. CONCLUSION

Summarizing the results obtained using quantitative analysis methods and compiling their assessment and conclusions about specific features of the business environment, which is due to the impact of the regulatory framework for accounting, the author constitutes a multi-factor regression equation which would explain the number of companies in the business environment based on factors deriving from the accounting regulatory framework.

As it was concluded above, the figures for outsourcing companies’ turnover could serve as an indicator of the number of small businesses, because the peculiarity of the Latvian business environment is that accounting outsourcing currently mostly use small companies, that has also been demonstrated by factor analysis. And at the same time the health of the life cycle of large companies is characterized by turnover rates of auditors’ companies. A certain proportion of companies consists of other companies, such as small companies, which do not outsource accounting services, as well as medium-sized enterprises that do not fall under the statutory audit criteria mandatory by law.

Based on the above, and using the turnover rates of accounting outsourcing providers and audit companies in dynamics from 2010 to 2018, a regression equation is established to calculate the total number of companies in Latvian business environment:
\[ Z = 60633.33 + 0.5195X - 0.7094Y \]  
(1)

Where:

- \( Z \) – The number of all Latvian companies,
- \( X \) — Turnover of accounting outsourcing companies,
- \( Y \) – Turnover of audit companies.

For the calculation of the regression equation performed, the reference error or adjusted R-squared is 0.9067, which is considered to be a statistically high probable indicator, because the maximum possible value is 1. The \( p \) value is 0.0003424, this indicator also confirms the statistically high-probable value of the resulting regression equation coefficients, because the desired level is \( p < 0.05 \).

By concluding the assessment of the quantitative performance of the business environment, using the elements of the accounting regulatory framework, the author concludes that the structure of participants in the business environment is not homogeneous. The obtained regression equation confirms the previously obtained conclusions. In certain periods when the business environment is affected either by targeted conditions (2007) or by external circumstances (2014), the large company turnover is also suffering, which suggests that Latvia’s business environment is vulnerable.

REFERENCES


