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CREATION OF THE OPTIMAL TAX PART OF THE BUDGET BY USING THE TAX PRISM METHOD

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Abstract

The problem of taxation nowadays becoming more and more actual for governments, as well as an interest in this topic is rising on the international level. The tax prism method is developed for assessment of tax part of the budget, as well as for forecasting of tax optimization influence on it. There are certain trends in global practice. Developing and transition economies are characterized by low tax burden. Economically developed countries with a high level of social security of population are characterized by high tax burden. The analytical and graphic-analytical research for the purpose of determination of optimum size of the taxation using the tax prism has been conducted. In addition to the concept "tax prism" such concepts like static and dynamic tax prisms have been introduced allowing to consider changes of the part of the budget of interest in connection with a possibility of taxation subjects to reduce the size of a tax burden by various methods of tax optimization, and also to consider influence of other factors on it. The use of this approach helps effectively to enhance the tax legislation by modeling high-quality and quantitative consequences of one or another changes and innovations. For this topic, the calculations were carried out. They included the authors' method, as well as regression models, in order to show the relevance of the researched method.

Keywords: budget, taxation, tax optimization, tax burden, Laffer, regression models.

INTRODUCTION

Now in many states of the world the tax legislation is constructed so that it allows various subjects of entrepreneurship to search for optimal taxation variants to a varying degree. At the same time there are no official techniques which are unambiguously regulating activities of private persons and legal entities in the field of taxation process improvement. General restrictions are set only by a framework of the legal framework.

In 1935 the judge J. Sanderlend expressed fundamental point of the U.S. Supreme Court, having declared that "the right of taxpayers to avoid taxes … using all means permitted by laws cannot be challenged by anybody" (Russel 2012).

Determination of tax types, purpose of their amount, as well as planning of a tax filling part of the budget shall be carried out taking into account so-called "taxation optimization", i.e., the reduction of the amount of paid taxes that doesn't contradict the legislation and carried out by taxation subjects.

So far there is no methodology allowing to estimate qualitatively and quantitatively influence of taxation optimization on the tax part of the budget (Козинова, Ошарина 2010; Лагоша 2004; Ногин 2008; Чёрника 2010). Almost all currently made publications are related to analysis of various methods of taxations and addressed to the taxpayers (Mulhere et al. 2017; Astrinos 2017; Dlugosh, Vashchenko 2017; Lidiings 2016). All of them aimed into improvement of the financial conditions of enterprises and at the same time do not take into account the losses of the tax part of the budget as a result of the tax avoiding manipulations.

Effectual functioning of modern tax system is an overriding priority of any state. However, there is no unified solution for all states. The form of solution depends on many factors: the level of economic development of the country, adopted social policy, fiscal literacy and awareness of the population, the focus of national economy on short-term or long-term goals, etc.

There are certain trends in global practice. Developing and transition economies are characterized by low tax burden. Economically developed countries with a high level of social security of population are characterized by high tax burden. The state, which main purpose is current budget revenue, raises taxes at the expense of economic development. A low quality of tax legislation, insufficient fiscal responsibility and literacy of the population promote tax evasion and the development of shadow economy. The totality of these factors affects the value of the tax burden.

There are two kinds of tax burden: nominal and actual. The nominal tax burden is planned on the assumption that all tax payers will pay taxes that they have to pay according to the existing legislation. The actual tax burden may differ from the nominal one on the value of tax evasion and shadow economy.

In specialized economic literature and practical activity various methods of determining the value of tax burden are applied.

It is recommended to introduce the concept of tax prism for geometrical interpretation of forming of budget's tax part.
TAX PRISM DEFINITION
The tax prism – a geometrical figure which amount corresponds to the amount of the taxes received by the state in the current (reporting) period and the side corresponds to the cumulative amount of taxes.
Let's consider square prism (Fig. 1). It is also filled with rectangular prisms of the smaller sizes which volume corresponds to a contribution of each taxpayer.

On the one hand the task of the state is to receive a maximum of taxes, from the other – not to put out of business the taxpayer, keeping his interest in profit earning by means of this type of activity. Therefore, the state also shall be engaged in taxation optimization process.
The task of optimization consists in making of it a hollow prism which volume is equal to V (where V – tax part of the state budget). Whereby n – the general tax load established by the state for taxation subjects.
It is necessary to determine the size of the general tax burden n which will correspond to the maximum size V.
In order to use the graphic approach we will visualize function \( y = (12 - 2n)^2 \) (Leontyev, Verovska 2017) for n values within the range from 1 to 6 (Fig. 2).
If \( n = 1 \) fill rate of the budget will be \( y = 100 \); if \( n = 2 \) fill rate of the budget will make \( y = 128 \); if \( n = 3 \) fill rate of tax part of the budget will be \( y = 108 \). Value \( n = 2 \) looks promising, but in the range of values from 1 to 3, the other valid value can appear which will correspond to the criterion of optimization to a greater extent. It can be determined by analytical or graphic-analytical approaches. Let's consider them consistently.

Let's differentiate function \( y = (12 - 2n)^2 \). For this purpose we will use the rule of the derivative multiplication:

\[
\frac{d}{dx} (f(x)g(x)) = f(x) \frac{d}{dx} g(x) + g(x) \frac{d}{dx} f(x) \quad (1)
\]

\[
f(x) = (-2x + 12)^2. \quad (2)
\]

Then we will find \( \frac{d}{dx} f(x) \), for what we will execute replacement:

\[
u = -2x + 12 \quad (3)
\]

\[(u^2)' = 2u \quad (4)
\]

Then we will multiply by \( \frac{d}{dx} (-2x + 12) \) and, by differentiating \(-2x + 12\) term by term, we will get:

\[
4 \cdot 2x - 48 \quad (5).
\]

\[g(x) = x; \text{ will find } \frac{d}{dx} g(x).\]

As a result: \( x(4 \cdot 2x - 48) + (-2x + 12)^2 \).

After simplification we will finally get: \( 12x^2 - 96x + 144 \). \quad (6)

Let's calculate equation roots: \( y = 12x^2 - 96x + 144 \).

\[x_1 = 2; x_2 = 6. \quad (7)
\]

Therefore, value \( V = 128 \) at \( n = 2 \) really is a maximum of the researched function.

In some cases it is convenient to conduct the specified research using graphical-analytical approaches for descriptive reasons.

Let's carry out graphical differentiation of a function diagram \( y = (12 - 2n)^2 \) in order to determine an optimum combination of required size of the budget and the total tax load.

The method of graphical differentiation is based on geometrical interpretation of a derivative: the relation of an infinitesimal increment of function to an infinitesimal increment of an argument on a graphics represents the tangent slope ratio against this curve in the considered point (Головин 1931):

\[
tg \alpha = \frac{dy}{dx} \quad (8)
\]

Let's execute graphical differentiation by method of chords (Fig. 3). For this purpose we will divide the diagram of differentiable function \( y = (12 - 2n)^2 \) into identical areas with a step 0,5 (these areas are located between black points in Fig. 3) and draw chords by connecting the closest black points. The chord inclination angle with regard to abscissa axis matches a tangent inclination angle to our function diagram on the considered area. We place axes of coordinates under the function diagram in which we will build a function diagram \( \frac{dy}{dn} = f(n) \).

We set polar distance \( H_p \), taking into account the desirable vertical clearance of future diagram, and we designate a pole \( P \). We draw the straight line parallel to the chord from a pole that connects two points limiting the specific area on which differentiation is carried out at the moment before it crosses the ordinate axis \( \frac{dy}{dn} \). Let's draw a straight line parallel to abscissa axis from the obtained point before it crosses the straight line leveled down from the middle of a chord. The middle of chords are marked by lilac points in Fig. 3 which are designated by letters \( a, b, c, d, e, f, g, h, i, j, k, l \).

Intersection points of the specified straight lines in Fig. 3 are marked by blue points and letters \( a', b', c', d', e', f', g', h', i', j', k', l' \).
As a result of differentiation the parabola has been obtained which branches are directed to the up. Parabola intersection points \( \frac{dv}{dn} = f(n) \) with abscissa axis specify points of maximum and minimum of differentiable function. In the point corresponding to \( n = 2 \), the function derivative (the lower diagram in Fig. 3) moves from positive area to negative, and function changes from increase to decrease. Therefore, value of function when \( n = 2 \) is its maximum.

The horizontal tangent will pass through a point in which function \( y = (12 - 2n)^2 \) will reach the maximum value (it is shown in Fig. 2). To the left from a maximum function grows, to the right – decreases. On the left the value of its inclination is positive, on the right – negative. In the most upper point nothing occurs. Therefore it is possible to draw horizontal (i.e., with a zero inclination) tangent (Fig. 2). It will also be optimum value of the total tax load of \( n \) giving the maximum value of assignments \( V \) to the state budget in case of which interests of taxpayers are observed.

It is obvious that the studied function has two extrema since the parabola, received by differentiation, crosses abscissa axis in two points. Therefore when solving similar tasks it is necessary to stipulate that the positive maximum of function shall be found. In our case when tax value \( n = 6 \) production will become equal to zero that will lead to zero the size of a tax part of the state budget as it was stated above.

It should be noted that on the falling part of function \( V = f(n) \) located more to the right of maximum point occurs sharp reduction of business activity. It should be noted that withdrawal of over 50% of the income in the form of tax extremely negatively affects initiative of entrepreneurs and completely blocks production expansion. At the same time...
entrepreneurs begin to look for an opportunity to reduce the amount of the taxes withdrawn by the state by both legal and illegal methods. So far exact threshold value of an effective rate in case of which occurs destruction of business activity isn’t found. However, Laffer’s concept provides that already in case of a tax burden over 35-40% the entrepreneur gets to “a tax trap” and thinks of advantage of the business (Laffer, Seymour 1979).

As the tax prism (Fig. 1) is filled with prisms of the smaller size which volume corresponds to quantity of the taxes paid by each subject of the taxation, then optimization of the taxation leads to reduction of its sizes. It is offered to introduce the concept of a static and dynamic tax prism for accounting of decrease in amount of the collected taxes due to the use of legal tax optimization schemes by the taxpayers. Static tax prism – a prism which amount of \( V_{st} \) is interpreted as a tax part of the budget without possible tax optimization. Dynamic tax prism – a prism which amount of \( V_{dyn} \) is interpreted as a tax part of the budget taking into account possible tax optimization.

\[
V_{dyn} = k_{to} \cdot V_{st} \quad (9),
\]

where \( k_{to} \) – coefficient of tax optimization (\( k_{to} \leq 1 \)).

When \( k_{to} = 1 \) taxpayer didn’t take actions directed to tax reduction, using methods of tax optimization. When \( k_{to} < 1 \) such actions were taken.

Therefore, when taxpayers use tax optimization the dynamic volume of a tax prism will be less than static:

\[
V_{dyn} < V_{st} \quad (10)
\]

This model takes into consideration not only possible tax optimization, but also some other factors influencing the tax part size of the budget.

For this purpose it is necessary to enter the corresponding raising or decreasing coefficients into a formula (9).

GENERAL RESEARCH OF TAX SYSTEMS

The last several years were marked by considerable change of approaches from the countries of the European Union to a question of optimization of tax payments and especially evasion of taxes. Traditionally high level of the taxation in combination with an ascending scale of the income taxation was stimulated by significant growth and development of shadow economy, as well search of tax shelters by citizens and businessmen in other jurisdictions.

The reasons of shadow economy in the EU are based on two basic elements: existence of illegal jobs and understating of sales volumes and the gained revenue and the emergence of considerable volumes of unaccounted cash. The fields of financial and economic activity such as tourism, retail trade, construction, small and middle production, and transport services are mostly exposed by the shadow risks. It is caused by ample opportunities which are given by activity in these fields both for implementation of unaccounted sales and services, and spending the gained funds on compensation of illegal workers received.

Among the measures directed to decrease in indicators of shadow economy expansion of electronic payments actively is used (the statistics demonstrates that in the countries where electronic payments have higher extent of development and coverage, indicators of shadow economy are lower and, respectively, vice versa). Some European countries have introduced restrictive measures for cash turnover (so, the threshold in 1000 euros in Italy has raised tax payments by 9,5 billion euros), similar measures are introduced in Spain (2500 euros) and Greece (1500 euros) (Соловьев 2017).

A lot of people, including government experts, speak about the solution of the budgetary deficiencies of EU countries, about innovative, intellectual ways of elimination of shadow economy today, not just about tax increase or reduction of the benefits received by citizens and the organizations.

However the use of offshore jurisdictions and evasion of taxes can significantly reduce not only innovations. Old are the ideas that have been tested during decades and are based on introduction of the bans and restrictions but still implemented with big success. Besides, in some countries practice of carrying out granting of amnesty in the field of economy and the taxation has well proved.

In many countries evasion of taxes is characterized by mercenary motivation of taxpayers. Legal entities and individuals spend more and more efforts for search of ways of the optimization of a tax burden (which is quite often adjoining or turning into the evasion of taxes) as it is one of ways to increase profit, minimize losses and keep the competitive advantages in the market.

The size and distribution of evasion of taxes are the source of constant interest and disputes among the public. Some consider that the main part of evasion of taxes is carried out by the rich that is caused by recent increase of highly professional leaks from such financial institutions as “The Panama documents”. Others emphasize that poorer people can be more probable to evade from taxes, emphasizing fraud from self-employed or abuse of the returned tax credits. Who evades from taxes and how it is important both for economists and for politicians.

Any state, observing fiscal interests, develops the mechanisms aimed at increase in taxes collection. The interests of business in certain cases force several firms to use foreign jurisdictions.
In this regard, there is a need for harmonization of national tax systems of various states, their unification at the international level, and development of the interstate agreements concerning the taxation of residents of the different countries.

During development of the international tax agreements additional researches of taxation processes and formation of tax allowances in various countries are necessary.

There were so far two main approaches to the taxation of the international business subjects: upon the status of the taxpayer and upon source of income origin (so-called territorial principal).

Where the status of the taxpayer is defining, the tax is applied to any income of residents gained in all countries. If the territorial principle is defining, then only income gained in this country are subject to the taxation. And the status of the subject who has gained income doesn't matter. He can be both the resident and the non-resident of this country.

Thus, the situation when the international corporation having subsidiaries in the countries with various approaches to the taxation is subject to double tax on the same income is possible.

During unification of the taxation at the international level several states can lose a considerable share of the budget formed by taxes. Also, obviously transfer of this financial component to the countries with more favorable tax climate will be expected. Therefore, it is very important to carry out the careful forecast analysis regarding the internal and external taxation at the decision-making stage.

It is possible to use the approach described in work for assessment of tax part of the budget and for forecasting of influence of tax optimization and assessment of influence on it of various approaches of the taxation of the international business subjects. It provides the analytical and graphic-analytical research for determination of optimum volume of the taxation and the concepts of static and dynamic tax prisms allowing to consider changes of the considered part of the budget with the possibility of subjects of the taxation to reduce the tax burden by various methods of tax optimization and to consider influence on it of other factors.

Accuracy of determination of values of the general tax burden established by the state for subjects of the taxation considering various privileges significantly influences reliability of forecasts.

It is necessary to make previous analysis of the taxation structures in various countries, to estimate types and the sizes of tax allowances before carrying out the researches concerning optimization of the taxation at the interstate level.

Tax allowances – partial or full tax relief specified by the tax law and other tax mitigation for the taxpayer. The purpose of the tax allowance – reduction of the tax obligation of the taxpayer, rarer – a payment delay that, eventually, also leads to reduction of tax liabilities.

The law analysis is necessary for identification, classification and structuration of tax allowances that will allow developing models and concrete recommendations for tax policy.

Historically it has so developed that the most part of the works devoted to tax allowances come from the USA. Among early works the following works should be noted (McKenna 1963; Pechman 1967; Surrey 1973). In works of Surrey the concept of tax expenses is explained, as well methods of their identification and quantitative assessment are described and the list of tax allowances is provided in the tax system of the USA. In his research (Surrey 1985) definition of tax expenses is given, formal signs of the tax burden are described and criteria of tax allowances definition as so-called "tax expenses" is stated.

Besides, the method of profitability and the method of equivalent expenses for quantitative assessment of tax deductions are described. These procedures then are used for development of comparable lists of tax expenses, including their quantitative assessment for several countries (France, the Netherlands, Canada, Sweden, Great Britain, and USA). It is the first work in which the attempt to use single approach to the tax allowances applicable for more than one country has been made.

In his work (Hungerford 2006) the author concerns characteristics of the tax allowances, methods of their quantitative assessment and the reasons of their use and also makes attempts of the prolonged analysis of their development. He concludes that during the period from 1980 to 2005 the part of tax allowances from the general help provided by public sector of the USA has increased from 23% to 26%. However at the same time the author notes that these privileges strongly differ in certain sectors. The greatest part of tax allowances has been spent on trade and housing where it has increased by 8%. And health care was the only sector where this part was reduced from 14%.

Identification of tax allowances was also considered in work (Davie 1994) for federal excise tax. In total 244 tax allowances have been revealed, but the author hasn't given their quantitative assessment. The same way, Delucchi and M.J. Murphy (2006) have analysed he tax allowances with regard to vehicles and fuel.

There are also works which describe the negative aspects of tax allowances (James, Nobes 2006). If we generalize definition of risks, then shortly the concept lies in the possibility of financial losses. At the same time the specified losses are connected, as a rule, with losses of tax and duty payers. These risks according to the majority of dictionaries and reference books arise in connection with actions, on one hand, of the state, and on the other hand – taxpayers. In the first case we, in particular, speak about possible actions of the state to increase the tax burden of economy. Tax risks arise also in case of insufficient elaboration of the tax law, illegibility of it separate provisions.
In the second case tax risks of the taxpayer arise in connection with application of risky schemes of taxation minimization, attempts to exploit duality of provisions of tax laws and due to carrying out inefficient tax policy by the enterprise.

However tax risks are a concept which should be applied to all subjects of tax legal relationship. Really, imposing new taxes, enhancing tax burden, and often making, apparently, harmless changes to tax or other law or without having corrected current laws in due time, the state always risks to miss tax revenues.

Practically all states enhance risks of identification of the tax evasion facts so that taxpayers will be obliged to pay to the budget not only the due tax amounts, but also considerable penalties for violation of the tax law. At the same time criminal liability can be entailed due to evasion of taxes in especially large amounts.

Tax risks of both the states and taxpayers are defined by the same factors which can be subdivided on internal and external. Internal factors for taxpayers are their own activity in the field of tax planning, for the state – implemented tax policy. External factors for taxpayers are changes of the taxation conditions, for the state – development and functioning of the international offshore zones. One more external factor is world prices for the exported products.

The harmonization of interests of the state and taxpayers in these objective conditions including improvement of the national legislation is an important factor of tax risks minimization of all participants of tax legal relationship.

Thus, the tax risk is a possible occurrence of adverse material (first of all financial) and other consequences for the taxpayer or the state as a result of actions (inaction) of participants of tax legal relationship.

The tax risk is financial (monetary) assessment of the negative consequences of irrational actions (or inaction) of the particular person or a group of persons in the organization in the field of tax management of the taxpayer.

Tax planning– function of the state, not the taxpayer as it can't manage elements of the tax and tax calculation procedure.

Tax risks in increasing order can be presented as follows: risk of tax control; additional uncollected taxes and penalty fees; sanctions; increases in the tax burden; decrease and losses of liquidity; losses of investment attractiveness (business value decrease; losses of the credit; administrative prosecution (penalties and disqualification of managers and owners; arrest of assets; activity suspension; bankruptcies; criminal prosecution; liquidation of legal entity).

Sources of tax risks: illegibility and high dynamics of the legislation and jurisprudence; illegal acts or inaction of representatives of public authorities; strategic mistakes when planning business; a discrepancy of the declared actions of the owners with actual actions; human factor (competence errors, technical mistakes, deliberate mistakes (ignoring of legislative restrictions), wrong arrangement of responsibility priorities.

MODELS FOR QUANTITATIVE FORECAST

Assessment of tax part of the budget needs to be carried out taking into account all taxes provided in the legislation of the specific state. It is important to estimate their cumulative influence after carrying out researches by means of the tax prism on each tax.

For performance of this task we will add relative (specific) indicators for a specific tax:

\[ k_{opt} = \frac{v_{opt}}{v_{tr}} \]  

The value \( k_{opt} \) shows the ratio between the optimum volume of tax revenues and the greatest possible volume upon the current legislation. Theoretically \( k_{opt} \) will be less than 1. Practically there can be reverse situations due to various tax policies. If \( k_{opt} \) is more than 1, then it demonstrates that the state doesn’t receive a certain part of means in the budget.

\[ k_r = \frac{v_{dyn}}{v_{tr}} \]  

The value \( k_r \) shows the ratio of a real (dynamic) tax part of the budget and maximum. Values \( k_r \) will always be less than 1 as not all groups of taxpayers pay the identical maximum tax to the budget.

We will add cumulative coefficients.

\[ k_{2opt} = \frac{\Sigma v_{opt}}{\Sigma v_{tr}} \]  

\[ k_{2r} = \frac{\Sigma v_{dyn}}{\Sigma v_{tr}} \]  

Value \( S \) characterizes the relation of cumulative coefficients and can be expressed as follows:

\[ S = \frac{k_{2opt}}{k_{2r}} = \frac{\Sigma v_{opt}}{\Sigma v_{dyn}} \]  

If this coefficient \( S \) is equal 1, then we can state that the taxation system is optimum. If it is less than 1, so the tax system isn't optimum, however this option can be interpreted as more favourable to the state. If coefficient \( S \) is more
than 1 – it is favourable to the taxpayer. It should be noted that introduction to the formula (15) of the additional scales characterizing the importance or the share of the specific tax in the general tax system when calculating ratios will allow to interpret more precisely the result and to use it for comparison or forecasting of tax climate.

The formula (15) can be transformed as follows:

\[ \sum V_{opt} = S \sum V_{syn} \quad (16) \]

The research of this approach will give the chance to predict and interpret total value of optimum size of the taxation in real terms.

The amounts which are in the right part of equation (16) can be forecasted.

For an illustration of practical use of the method offered above the regression model has been developed (17).

As the coefficient \( S \) is calculated value, we can easy calculate its real values for the state for the previous period. We will assume that there were changes in the country during the period under question which are described by the observation No. 41 (tab. 1).

As a dependent variable \( Y \), coefficient \( S \) has been chosen. As predictors 7 indicators have been appointed:

- percent of the taxpayers receiving tax allowances;
- the part of taxes paid by non-residents;
- total number of taxpayers in the country;
- \( \Delta \) of volumes of the other received duties;
- oil cost;
- inflation rate in percent;
- GDP growth in percent.

<table>
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<th>No.</th>
<th>( Y - S )</th>
<th>( X1 ) - percent of the taxpayers receiving tax allowances</th>
<th>( X2 ) - the part of taxes paid by non-residents</th>
<th>( X3 ) - total number of taxpayers in the country</th>
<th>( X4 ) - ( \Delta ) of volumes of the other received duties</th>
<th>( X5 ) - oil cost</th>
<th>( X6 ) - inflation rate in percent</th>
<th>( X7 ) - GDP growth in percent</th>
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<td>2.8</td>
<td>46 512 000</td>
<td>70 000</td>
<td>62.36</td>
<td>3.4</td>
<td>-1.5</td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>0.98</td>
<td>15</td>
<td>6.5</td>
<td>48 253 000</td>
<td>6 000</td>
<td>66.34</td>
<td>6.19</td>
<td>0.32</td>
</tr>
<tr>
<td>40</td>
<td>1</td>
<td>15.1</td>
<td>6.4</td>
<td>48 332 000</td>
<td>2 000</td>
<td>63.52</td>
<td>4.03</td>
<td>1.78</td>
</tr>
<tr>
<td>41</td>
<td>1.01</td>
<td>15.7</td>
<td>6.2</td>
<td>48 512 000</td>
<td>26 000</td>
<td>67.54</td>
<td>3.23</td>
<td>4.85</td>
</tr>
</tbody>
</table>

As a result we receive the following regression model allowing to predict this coefficient \( S \):

\[ Y = -1.2762 + 0.0023x_1 + 0.0235x_2 + 0.0000000402x_3 + 0.000000012x_4 + 0.0022x_5 + 0.006x_6 + +0.0062x_7 \]

The constructed model (17) is statistically significant as \( F(7, 33) = 61.98, p <.001 \).

The chosen regressors describe 92.9% of change of coefficient \( S \).

At transfer of the equation (17) to the standardized data we receive the significance of regressors (tab. 2). For the specific country:

\[ Z(Y) = 0.06 \cdot Z(x_1) + 0.38 \cdot Z(x_2) + 0.48 \cdot Z(x_3) + 0.07 \cdot Z(x_4) + 0.08 \cdot Z(x_5) + 0.12 \cdot Z(x_6) + +0.19 \cdot Z(x_7) \] (18)
Table 2.

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of the taxpayers receiving tax allowances</td>
<td>0.06</td>
</tr>
<tr>
<td>The part of taxes paid by non-residents</td>
<td>0.38</td>
</tr>
<tr>
<td>Total number of taxpayers in the country</td>
<td>0.48</td>
</tr>
<tr>
<td>Δ of volumes of the other received duties</td>
<td>0.07</td>
</tr>
<tr>
<td>Oil cost</td>
<td>0.08</td>
</tr>
<tr>
<td>Inflation rate in percent</td>
<td>0.12</td>
</tr>
<tr>
<td>GDP growth in percent</td>
<td>0.19</td>
</tr>
</tbody>
</table>

According to expected data next year in the explored country there will be the following changes provided in the selection (tab. 3):

Table 3.

<table>
<thead>
<tr>
<th></th>
<th>( X1 ) - percent of the taxpayers receiving tax allowances</th>
<th>( X2 ) - the part of taxes paid by non-residents</th>
<th>( X3 ) - total number of taxpayers in the country</th>
<th>( X4 ) - Δ of volumes of the other received duties</th>
<th>( X5 ) - oil cost</th>
<th>( X6 ) - inflation rate in percent</th>
<th>( X7 ) - GDP growth in percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data of previous year</td>
<td>15.7</td>
<td>6.2</td>
<td>48 512 000</td>
<td>26 000</td>
<td>67.54</td>
<td>3.23</td>
<td>4.85</td>
</tr>
<tr>
<td>Forecast</td>
<td>14.8</td>
<td>5.7</td>
<td>47 212 000</td>
<td>-6 000</td>
<td>68.22</td>
<td>2.5</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Then \( S \) coefficient in accordance with the received regression model will be equal to 0.98.

The dynamic coefficient, proceeding from a tendency of previous years, will be 51 800 000 000 units in national currency. It is also possible to develop regression model for the forecast of dynamic coefficient based on retrospective data.

For these conditions optimum tax part of the budget will make 50 764 000 000 units in national currency. This value shows optimum amount of taxes in terms of money for the current economic situation. This volume also has to be equal to the volume of the tax prism. Obtaining relative amounts of this parameter is also possible, however at the moment their calculation has no practical value, both for planning, and for the comparative analysis.

It should be noted that this regression model is imitating. The additional analysis of specifics of economy and definition of other regressors or additional regressors influencing change of \( S \) is necessary for the specific states.

CONCLUSIONS

Use of the tax prism concept and its division on static and dynamic versions allows not only to visualize the taxation optimization process which is carried out by public authorities at defining the types and the amount of taxes both in short-term, and in long-term period, but also to receive quantitative reference points for this or that economic situation in the country.

Herein expanded theoretical concept and introduced practical concept of the tax prism.

The offered model allows assessing the tax situation in the state by means of the relation of cumulative coefficients. As it is obviously possible to calculate this relation for the previous periods, it is possible to forecast by means of regression models. Also with certain additives and further improvements, it should become possible to forecast both \( S \) and \( \sum V_{\text{opt}} \) for a not only country-scale level, but also for a separate economic entity.

Another possible use of this approach should effectively help to enhance the tax legislation by modelling high-quality and quantitative consequences of one or another changes and innovation. Practical researches can only be carried out on macroeconomics scale. At present, such researches are happening, but they require the widest amount of data processing. The concept of the tax prism can also be used to find illegal tax avoidance in the whole economy of the country as well as in different sectors of the economy. With future improvements, herein introduced method can also make able to find even separate economy units, who illegally avoid all or partly meant-to-pay taxes (here meant mainly all illegal avoidance, which cannot be easily found by government structures with currently existing methods).
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SERVQUAL MODEL: QUALITY IMPLICATION ON SATISFACTION AND RECOMMENDATION OF RESTAURANT CONSUMERS IN NORTH CYPRUS

Dervişe Dinçay
Cyprus International University

Abstract

This paper is aimed to identify and clarify the link between service quality, customer satisfaction and word-of-mouth in North Cyprus restaurant.

World technology is changing so rapidly and change means new things. New things create innovations which will affect the marketing sector as well. Some researchers claim that these changes can be used as an advantage and some researchers thought opposite. While these changes occur, customer expectations are also changed accordingly. Therefore, business sectors must follow and adopt these changes and the new technology to meet consumer expectations or instead of following new technology services, businesses can be innovative or leader as well. It is risky but if its succeed, satisfaction level will be the highest.

According to the interview with president of Turkish Restaurant Association (RESBIR), he said that he proud to have 11 restaurants who have ISO 22000 certificate in North Cyprus. Service sectors especially restaurant sectors are growing rapidly and demand is increasing as well. When we compare with past, restaurants are providing more opportunities and try to satisfy their customers as much as they can. In past, these are limited cause of some political and geographical issues in North Cyprus. Nowadays, more restaurant launch and trying to serve best quality based on new technology and consumer expectation.

In this research, DINERSERV technique is used to analyse the relationship between the quality of service and consumer satisfaction and how this affect the word-of-mouth with conducting questionnaire. First, pilot survey conducted to test the questionnaire format and re-design according to the criticize and feedback. Then, final questionnaire conduct with 11 restaurant consumers whose have ISO 22000 certificate.

According to the final findings, participants agreed on previous researchers that service quality will affect the customer satisfaction whether its positive or negative according to their experiences. The most affective concern factor is tangibility of services and the least one is assurance of service quality that consumer received with their experiences. Afterwards, satisfied consumers are more preferio recommending other consumers whether its positive or negative based on the participants response. The conceptual model of this research prove that there is a positive relationship between the service quality, customer satisfaction and word- of – mouth communication in North Cyprus according to the finds.

Introduction

Nowadays, service sectors have grown rapidky when we compared with the agricultural and manufacturing sectors in many countries (Kasper et al. 2006; Anderson et al., 1997). In Wikipedia, service is defined as ‘intangible goods’ but not necessarily soft intangibles. As Kasper et al. mentioned that service is mixed by intangible and tangible factors as it seen below:
The most issue that service provider face is how to evaluate service before or/and after purchase because of intangibilities. Therefore, it's difficult to control the service quality. Swanson et al. (2003), state that the one of the way which makes sense in our World is determining cause of the things that happened to us. Haider (1985) cited by Swanson et al. (2003), state that in service sector, the result of actions depend on the two aspects which are service encounter and service scape within the environment.

As mentioned before, intangibility means risk in service cause its problematic to understand and predict the quality before/after they consume (Bansal et al. 2000). From that point, personnel plays an important role. Swanson et al. (2003), Anderson et al. (1997) clarify that the personnel is important to balance the relationship among customer satisfaction and service successfully. There is an interrelationship which means its too risk.

Kivela et al. (1999) state that the majority of researcher which are Barsky (1992, 1995), Almanza et al. (1994), Bojanic et al. (1994), Dube et al. (1994), Lee et al. (1995), Stevens et al. (1995), Johns (1996), Johns et al. (1996), Oh et al. (1996), Pettijohn et al. (1997), Qu (1997) cites that customer satisfaction or dissatisfaction has a power on customer behaviours such as return to same organisation after purchase service. However, Wirtz et al. (2002) state that only customer satisfaction itself doesn't mean anything. Therefore, Bansan et al. (2000), cite Bristol (1990), who clearly state that word-of-mouth is required in addition to customer satisfaction. The quality, customer satisfaction and Word-of-mouth are related each other to constitute consumer behaviour whether for customers return, advice to others positively/negatively or switch according to their experience.

U.S. Office of Consumer Affairs informed that satisfied consumer are telling to five others (Walker, 2001). According to previous researches, mass media also has an affect on consumer awareness and word-of-mouth is used to choose the best alternatives in service sector. Therefore, word-of-mouth and personal source are more trustworthy in purchasing services. Murray (1991) state that in recent years, most of the researches concentrate on the affects of word-of-mouth on product-oriented and less on service-oriented. This is the gap identified here and is the focus of the next Rationale section.

**Word-of-Mouth in service sectors**

Hospitality industry in service sector is providing an international area. Hospitality means, human factors in service and face to face contact between receiver and provider. There are some criticisms that hospital means getting different cause of using less human factors and more vending machines or on-line sites to provide service (Godes et al., 2004).
According to Swanson et al. (2001), there is no perfect service when human factors substitute by machines. Therefore, managers must know how to be a successful to stay alive. Velazquez et al. (2006) state that word-of-mouth is the one way of sustain on market with maximum success.

Marketing communication is a management process where manager engage with its target audiences such as customers, intermediaries, and stakeholders (Fill, 2006). There are a numerous of marketing communication elements such as advertising, sales promotion, personal selling, direct marketing, public relation and word-of-mouth. These communications can give an opportunity to increase the attention, awareness of product/service and affect the reputation of organisations as well. Buttle (1998), cites Mangold (1987), that the most effective way on purchasing decisions is word-of-mouth on purchasing decision compared others. Buttle (1998) clearly mentioned that word-of-mouth is more personal interaction that why people feel more safe, confident and trustworthy than others.

Effectiveness and Influences word-of-mouth in service

Word-of-mouth is person to person informal communication through non-commercial communicator and receiver about ownership, usage or characteristics of goods/services, an organization or brands (Buttle, 1996; Anderson, 1998; Stokes et al., 2002; Gremblier et al., 2001; Cheng et al., 2006). It can be in two ways; firstly face to face or electronic and secondly will be independence third part advices. According to Taylor (2002), state that recommendations of family members, group leaders and colleagues are more effective than advertisement or personal selling.

Wilson (1991), mentioned how word-of-mouth affect organisations by stating that ‘talk factor’, is eating up thousand of organisations and it will be too late until people realize what is happening. Consumers prefer to talk about their experiences about product itself, usage, service that they received and the organisation itself as well. Others who has no experience before, always affected those talk factor especially, if those people close theirselves. Wilson (1991) gives a good example how word-of-mouth affect the service sectors. He had a bad experience in Hungar Heifer restaurant. The waiter asked him whether everything about food and service is good and he said yes even its no. Then he walked out of the restaruant and hold his friends that he will never come to here again. Next day, one of his friends asked whether he knows good restaurant for dinner. He told his freinds that never go to Hungar Heifer place. His friends said he glad to hear and aviod any waste of money by going there. Then third party later went barber shop where conversations turned back to restaurants and services. Third part said bad things about Hundar Heifer place to others. Later the place was bankrupt. However, there is no evidence or prove the reasons of thirs party opinion and never know why this story came to that person (Banerjee et al., 2004). According to Sparks et al. (2003), cities that one dissatisfied customers tell about nine and satisfied customer only tells five people about his/her past experience. Verbal communication which is word-of-mouth, is more trustworthy and personal informations such as from friends, families and collegues is significant than inpesonal ones suchas mass media (Ndubisi, 2004)

Ways of Managing Word-of-Mouth

Wirtz et al. (2002), cites Chung (2000) that there is not guarantee on satisifed customers or positive attitude toward product/service means they will recommend others positively. Therefore, organisations have to motivate or encourage their customers for positive word-of-mouth. People always prefer to advice or share their experience with the ones that are closer to them.

Incentives will affect the effectiveness of managing word-of-mouth (Wirtz et al., 2002). If you increase incentives, purchase of recommendation and word-of-mouth will increase as well. Incentives is also decreasing the negative word-of-mouth generated by dissatisfaction customers.Wirtz et al. (2002), cites Webster (1965), states that consumers who high rate tendency of incentives are buying more brands and they switch brands more regularly. Those user are heavy coupon users and they like to talk about their experience more(Wirtz et al., 2002). Therefore, managers have to keep customer satisfied by giving some incentives effectively to have positive word-of-mouth.

Taylor (2002) mentioned that word-of-mouth can be planned and managed. Therefore, manager roles are important to understand opinion leader and target audiences thoughts. In addition, managers want to ensure that first user or one of the opinion leaders will have good view about their product or service to make sure that second people never say bad things about them.In this way word-of-mouth can be controllable factor for organisations.
According to Gremler et al. (2001), state that there are four factors to manage word-of-mouth by focusing on service design (service scape and environment that deliver service), support system (customer relationship management, give an extra time to employee to talk with customers), employees (trained and developed interpersonal bond efficiently) and customers (rewarding actions of customers). If organisation manage and performed well according to those four factors, positive word-of-mouth will occur.

Finally, service recovery is also affect word-of-mouth (Maxham, 2001). Post purchase is important for organisation, if your customer satisfied with your service recovery, positive word-of-mouth occur. If not, dissatisfaction engage with negative word-of-mouth. For organisation, attracting new customers is less efficient and not cost effective, therefore to keep customers are more profitability. At this time, word-of-mouth is getting more powerful communication to inform by service organisations.

**Word-of-Mouth and Service Quality**

Service quality has different meaning for different people in the world (Santos, 2002; Mack et al., 2000). Parasuraman et al. (1988) clearly define service quality as the evaluation of the sector by comparing how the industry is performing and how it should be performed. Nowadays, service quality has four dimensions which are tangible, reliability, responsiveness, assurance and empathy. These all dimensions are related to human interactions during service delivery. Mack et al. (2000) personnel need to balance the expectation of consumer and performance of themselves to achieve quality.

Lee at al. (2004), mentioned that customer demands and customer expectations are increasing cause of the competitive market environment. Therefore, industries should have to measure service quality to know where they are in the mind of customers by SERVQUAL model. SERVQUAL model is originated with the work of Parasuraman et al. (1985, 1988). Parasuraman et al. (1985, 1988) initially identify 10 dimensions; then it’s diminish to 5 dimensions which they named as; tangibility, reliability, responsiveness, assurance and empathy. In SERVQUAL model, 22-items are intended twice, once to measure what customer expectation is, and second time to measure what they perceived from the performed service. Service quality will be assessing after find out the gabs between the expectation and perception of service. Gap analysis will be the way of gathering necessary information about continuous improved service.

SERVQUAL technique is applied in two. First one is LODGSERV to measure quality of hotel and second one is DINESERV which is the one that measure restaurant quality model. Petrick (2004), state that quality has an impact on customer preferences and the willingness to recommend the service to other consumers.

According to Boulding et al., 1993 cited by Walker (2001) mentioned that service quality hasan positively affects on behavioural intentions and outcomes such as loyalty and positive word-of-mouth. Customer perception is the mirror of the differences between customer expectation and actual services they performed (Komppulla, 2006). Customer expectation can be defined as personal needs, previous experiences or word-of-mouth recommendation from others and other marketing communications as well.

There is also electronic word-of-mouth as well (Thurau et al., 2003). Some consumer prefer to use it to save time and make better decision making on purchasing. In on-line word-of-mouth, consumer can share their experiences about same product or service with other people who they don’t know them personally. The on-line site called as “consumer portal”. These platforms are found in the United States, South America, Europe, and China. Dellarocas (2003) shows that word-of-mouth getting more powerful and globally by using internet in hospitality such as consumers write their bad/good experiences by allowing every people all around to reach. Online conversations are more cost effective, easy to access and increasing awareness of service (Godes et al., 2004). In contrast, limitation of electronic word-of-mouth is loyalty because there is no face-to-face communication.

Service quality in restaurant sector is between customer, service personnel and service organisation itself (Gremler et al., 2001). High service quality leads the relationship between customer and organisation for longer term. BBC News mentioned that in August 2003, the guide state that the closure of restaurants more than in the recession of early 1990s. This increase of closure rate show that people don’t prefer to ate out in the “second best” restaurants, and prefer best place to ate out.
Customer Satisfaction With Word-Of-Mouth And Quality

Petrick (2002) mentioned that satisfaction is an excellent evaluation of repurchase behaviour and reflect the behaviour intentions. Satisfaction/Disatisfaction consist during the purchasing process. This can be an experience, information search or post-purchase evaluations (McKinney et al., 2002). In order to measure customer satisfaction, they have to consider perception about the value of quality espacially in restaurant sectors (Oh, 2000). The problem with this statement is to measure the perception of dining with single dimention is difficult, because it will be different for each person. According to this, Petrick (2004), state mutli-dimensional scale which will be more valide while measuring satisfaction about service quality. Customer satisfaction/dissatisfaction are the result of comparing pre-purchase expectation and post-purchace perception with 5 dimensions which are reliability, assurance, tangibles, empathy and responsiveness. This is called SERVQUAL technique. Majority of academic researcher (Parasuraman et al., 1985 &1988; Bowen, 1997; Kivela et al., 1999; Fu et al., 2001; Johns, 2001; Santos, 2002; Lee et al., 2004; Liao et al., 2004; Petrick, 2004; Komppula, 2006; Hensley et al., 2007), suggest that SERVQUAL technique is the best to measure the service quality in service sector. Technique is formed into two DINESERV and LODGSERV. In restaurant sector DINESERV technique is the way of measuring service quality. Of course some authors such as Dedeke (2003), critise that the SERVQUAL model is inadequate to measure service quality with 5 dimensions. Dissatisfied customer complain more than satisfied customer (Richins, 1983). Therefore, managers have to follow complains about service itself to improve their weaknesses. The big mistake is that managers beleive that less complain means perfect service. If the problem is not serious enough, consumers prefer neither complain nor negative word-of-mouth. However, if problem is serious enough, then consumer complain and negative word-of-mouth occur. According to Blodgett et al. (1993), customers demonstrate their dissatisfaction in three ways, switch brand, telling others about their bad experinces or making complaint to seller. Therefore, managers know how to encourage complaints to turn it to satisfaction and lead to customer repurchase. Higher the level of satisfaction is increasing the level of positive word-of-mouth (Ranaweera et al., 2003)

Aim of the Research

The aim of this research is to measure service quality and relation between customer satisfaction and word-of-mouth and analyse in-direct linkage between service quality and word-of-mouth. Previous researches conducted to examine the word-of-mouth by focuses on more product-oriented instead of service-oriented that’s why the research question is: “What is linkage among the service quality, customer satisfaction and word-of-mouth in service sector (restaurant industry in North Cyprus)?”. Hypotheses developed by focusing on this question and according to previous researches about service quality, satisfaction and word-of-mouth.

Based on the above literature revie; the following hypotheses are posited;

- Is service quality affecting the customer satisfaction?
  H1: excellent quality service will satisfy their customers
  H2: excellent quality service will not affect the satification of their customers

- Is customer satisfaction affecting the word-of-mouth?
  H1: satisfied customer tell others about their experience in restaurant
  H2: satisfied customer don’t prefer to tell others about their experience in restaurant

Method

Secondary data was gathered for to demonstrateby using academic journals, which will assist author how service quality, customer satisfaction and word-of-mouth linkage in communication and affects in service sector. Gathering of secondary data will be online database resources, which is available by using Athens student account from Cyprus Library.
Primary data was gathered by using multi-methods. Firstly, face-to-face interview was done with president of Turkish Restaurant Association who is Zihni Türksel as a qualitative research method. The speech was recorded to avoid any misunderstanding. After I received a valid information about restaurants in Cyprus, questionnaire and sample were prepared. According to Zihni Türksel advice, the questionnaire was only done in the restaurants which have ISO 22000 certificate. In North Cyprus, approximately 50-60 restaurants but only 12 of them have ISO 22000 / HACCP (The International Organization for Standardisation) which are:

1. Boghjalian
2. Californian
3. Biyer
4. Müze Dostlari Derneği
5. Laughing Buddha
6. Eziç
7. Cafe Dükkan
8. Kybela Restaurant
9. Niazi’s
10. Misina Restaurant
11. Pizzy Burger
12. Çatal (closed)

After data collection the below conceptual model is structured and searched.

![Conceptual Model](image)

Figure 2: CONCEPTUAL MODEL

Afterwards, questionnaire will be designed in Microsoft Word software in computer with limited amount (40 people) to do pilot questionnaire by testing if the respondents understand questions correctly. Questionnaire has four parts; first part is demographic questions, second part is measuring expectation and perception of quality of restaurant and third part is measuring satisfaction and fourth part is measuring word-of-mouth. According to Babin et al. (2005) which conduct similar survey with restaurants and word-of-mouth used 600 respondents as sampling size to gather accurate data. Therefore, 600 questionnaires are given to respondents and 543 questionnaires were collected. Then, SPSS v.13.0 will be used to analyse descriptive statistics, such as correlation, cross tabulations and frequency. Descriptive statistics, primarily frequencies, provided an understanding of the respondents’ gender, age, education level, monthly income level.
Research Data and Results

According to the interview with Zihni Türksel restaurants in North Cyprus is clearly defined and explored. The speech is recorded by recorder and analysed:

Zihni Türksel talked about the history of restaurant development in North Cyprus. In 1974, Cyprus was divided into two parts which is South and North. In these times, fewer restaurants appeared in North side. Before 1974 war, Niazi’s restaurant, which is the one of ISO 22000 restaurant, was appearing in Limasol (South Cyprus). After 1974, Cyprus was started developing. First restaurant in North Cyprus was Continental Restaurant. In 1980s, there was a big boom in increase of tourist number in whole around of Cyprus. Cypriot managers trying to satisfy tourists with serving limited services, because people trying to get used to a new life and developing after war. Tourist number and cash flow increase, hospitality industry start to grow and this continue till 2002 slightly. Then in 2002, the boundaries among the South and North were opened and this was also increase the tourist number and accordingly restaurant numbers in North was increased as automatically and reach 700-800 now. He finally said that “We are leaving the place that still developing, but we are serving a good quality to Cypriots or tourists. However, obviously we have still some weaknesses or problems to prevent or improve it. And we are working on these with cooperate all restaurant managers.” In ISO 22000 certificate, there is a check list that the restaurants must have it without any exceptions. In that check list, there are approximately 100-120 criteria. For instance, if the restaurants are historical and government will not give a permission to change the conditions of that restaurant to fit on these criteria’s, then ISO 22000 will be more aesthetic on these conditions and accept only these kinds of conditions as an exceptions. After having ISO 22000, restaurant managers and employees have training program to learn how to continue to improvement without losing that certificate, because if manager, name of company, place or etc. change, than that certificate will not be valid anymore.

Table 1: Descriptive statistics of the respondents of study:

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
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<tr>
<td></td>
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<tr>
<td>N</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Education Level</td>
</tr>
<tr>
<td>monthly income</td>
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<tr>
<td>Valid N (list wise)</td>
</tr>
</tbody>
</table>

According to above table; gender of respondence per cent; 46% are female and 54 % are male which demonstrate that the questionnaire was distributed almost equally among the respondents. The largest group of respondents was aged among 14 till 67 with similar per cent. As there was no limit on ages to go restaurant, there was a variety in ages. However, the mean of respondent ages was 32.67 as shown on the table 3. With respect to the education, the majority of respondents (40.6%) had a university education (defined as associate and bachelor’s degree). In terms of monthly income level, the largest group of respondents (30%) earned among 1,501 and 2,500 YTL.

As discussed previously, the aim of the research was to identify and clarify the link between the service quality, customer satisfaction and word-of-mouth in particular restaurants in North Cyprus. Therefore, in order to simplify the comprehension, presentation and discussion of the results, the factor structure of the expectations and perceptions (factor analysis) was examined to confirm the five dimensions of service quality. According to the Field (2005), “if you are using factor analysis to validate a questionnaire, it is useful to check the reliability of your scale. In this study, reliability tests were run to determine how strongly the attributes as well as the dimensions were related to each other. The results shown on the table 4 demonstrate that in this study overall Cronbach’s Alpha $\alpha$=0.928, which means its reliable.
Table 2: Overall reliability test from P1 to P29.

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.928</td>
<td>29</td>
</tr>
</tbody>
</table>

Afterwards, reliability of each dimensions are measured as shown on the table of reliability test of each five dimensions. In findings, from P1 to P10 which measure the perception of customers about tangibility of services, Cronbach’s Alpha is equal to 0.985 which means that convergent validity was met. Secondly, from P11 to P15 which measure reliability of service, result of Cronbach’s Alpha is equal to 0.960. Responsiveness of service, result of Cronbach’s Alpha is equal to 0.960 from P16 to P18. Finally, from P19 to P24 measure assurance of service, as a result Cronbach’s Alpha is equal to 0.967 and from P25 till P29 which measures empathy, Cronbach’s Alpha is equal to 0.957. According to these findings, the data was reliable and valid. Customer satisfaction data is reliable with five dimensions, which Cronbach’s Alpha is equal to 0.967. As final, word-of-mouth is reliable as well, which Cronbach’s Alpha is equal to 0.968 shown on table of word-of-mouth reliability test. As reliability coefficient is exceeded 0.70, the internal consistency reliability test is acceptable.

In this study, it has five (dimensions) segments in measuring quality of service as it’s mentioned above in methodology part. Therefore, 29 questions will be including in factor analysis to check if the respondents’ answers are in five segments. The author uses the same model to check if it’s applied in North Cyprus as well. Factor analysis is measured by KMA test which is called Kaiser-Meyer-Olkin, measure the sampling adequacy. The KMO measures the sampling adequacy which should be greater than 0.5 for a satisfactory factor analysis to proceed (Field, 2005), which is in this study KMO 0.944. It is concluded that the strength of the relationship among variables is strong. It is a good idea to proceed a factor analysis for the data as shown below:

Table 3: KMO and Bartlett’ Test

<table>
<thead>
<tr>
<th>KMO and Bartlett's Test</th>
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<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

In total variance explained if initial eigenvalue greater than 1 means one factor. As shown on table of total variance explained in factor analysis, five component is greater than one which are component 1 (10.179), component 2 (6.286), component 3 (3.715), component 4 (3.185), and component 5 (2.034). That means; in conceptual model service quality part fit in Cypriot people as well about the services.

In this study, standard multiple regression analysis was performed to investigate the relationships between the five dimensions (as independent variables) and customer satisfaction (as dependent variables). In addition, the study investigated if these relationships existed, how much each dimension contributed in defining the dependent variables.
1) Relationship among the service quality and satisfaction:

Before proceeding to the regression models, the intercorrelations among the dimensions should be examined. Therefore, one tail t-test is done by researcher to test hypothesis one which is:

- Is service quality affecting the customer satisfaction?
  H1: excellent quality service will satisfy their customers
  H2: excellent quality service will not affect the satisfaction of their customers

Table 4: Correlation of five dimensions:

<table>
<thead>
<tr>
<th>Correlations</th>
<th>satis</th>
<th>perctan</th>
<th>percrel</th>
<th>percresp</th>
<th>percass</th>
<th>percemp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.382</td>
<td>.326</td>
<td>.266</td>
<td>.208</td>
<td>.217</td>
</tr>
<tr>
<td>perctan</td>
<td>.382</td>
<td>1.000</td>
<td>.330</td>
<td>.175</td>
<td>.072</td>
<td>.059</td>
</tr>
<tr>
<td>percrel</td>
<td>.326</td>
<td>.330</td>
<td>1.000</td>
<td>.363</td>
<td>.212</td>
<td>.112</td>
</tr>
<tr>
<td>percresp</td>
<td>.266</td>
<td>.175</td>
<td>.363</td>
<td>1.000</td>
<td>.264</td>
<td>.102</td>
</tr>
<tr>
<td>percass</td>
<td>.208</td>
<td>.072</td>
<td>.212</td>
<td>.264</td>
<td>1.000</td>
<td>.279</td>
</tr>
<tr>
<td>percemp</td>
<td>.217</td>
<td>.059</td>
<td>.112</td>
<td>.102</td>
<td>.279</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>satis</td>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>perctan</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.064</td>
<td>.104</td>
<td></td>
</tr>
<tr>
<td>percrel</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.009</td>
</tr>
<tr>
<td>percresp</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.015</td>
</tr>
<tr>
<td>percass</td>
<td>.000</td>
<td>.064</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>percemp</td>
<td>.000</td>
<td>.104</td>
<td>.009</td>
<td>.015</td>
<td>.000</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td>450</td>
<td>450</td>
<td>450</td>
<td>450</td>
<td>450</td>
<td>450</td>
</tr>
</tbody>
</table>

Correlation of tangibility (perctan): $r = 0.382$, correlation of reliability (percrel): $r = 0.326$, correlation of responsiveness (percresp): $r = 0.266$, correlation of empathy (percemp): $r = 0.217$, correlation of assurance (percass): $r = 0.208$. As these are all greater than 0.1, it means that all the data is reliable and significant.

Table 5: Service quality and customer satisfaction correlation:

<table>
<thead>
<tr>
<th>Model Summary</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>R</td>
<td>R Square</td>
<td>Adjusted R Square</td>
<td>Std. Error of the Estimate</td>
</tr>
<tr>
<td>I</td>
<td>.494(a)</td>
<td>.244</td>
<td>.236</td>
<td>1.20070</td>
</tr>
</tbody>
</table>

Predictors: (Constant), percemp, perctan, percresp, percass, percrel.
Afterwards, researcher tests the relation among satisfaction and service quality by $R^2$. $R^2$ is measure of how much of the variability in outcome is accounted for by the predictor (Field, 2005). $R^2$ shows the value of 0.244 as shown table 7. This means that variation in this dimensions of service quality explained 24 per cent of the variation in the overall satisfaction. Therefore, $H_1$: excellent quality service will satisfy their customer is right. Tangibility was the most important dimension followed by Assurance, Empathy, Reliability and Responsiveness. In other words, if tangibility increases one degree in terms of Likert scale, the overall satisfaction of consumer about restaurants will increase 0.38 degree as well. If Reliability increases one degree, the overall satisfaction of consumer about restaurants will increase 0.32 degree. If Responsiveness increases one degree; the overall satisfaction of consumer about restaurants will increase 0.26 degree. If assurance increases one degree, the overall satisfaction of consumer about restaurants will increase 0.20 degree. Finally, If Empathy increases one degree; the overall satisfaction of consumer about restaurants will increase 0.21 degree.

In a conclusion, hypothesis one which is the relation among the service quality and satisfaction has a positive relation. Therefore, service quality affects the satisfaction of consumer about restaurants services.

2) Relationship among the satisfaction and word-of-mouth( use same technique)

- Is customer satisfaction affecting the word-of-mouth?
  $H_1$: satisfied customer tell others about their experience in restaurant
  $H_2$: satisfied customer don’t prefer to tell others about their experience in restaurant

Table 6: Word-of-mouth and customer satisfaction correlation:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.900(a)</td>
<td>.809</td>
<td>.809</td>
<td>.60056</td>
</tr>
</tbody>
</table>

$R^2$ shows the value of 0.809 as shown table 8. This means that variation in this dimensions of customer satisfaction explained 80 per cent of the variation in the word-of-mouth. Satisfaction was the most important dimension for word-of-mouth. In other words, if satisfaction increases one degree in terms of Likert scale, the word-of-mouth will increase 0.38 degree as well. That means, in hypothesis two $H_1$: satisfied customer tell other about their experience in restaurants is right. Therefore, they have positive relation among the satisfaction and word-of-mouth according to the findings.

$H_1$ is significant in both hypotheses, which is service quality has positive relation among the satisfaction of consumer and satisfaction has positive relation among word-of-mouth. However, the relation among satisfaction and word-of-mouth is greater than the relation among service quality and satisfaction.

**Conclusion**

From the literature reviewed, it is clear that there are few researches done about the relation of service quality and satisfaction and the link to word-of-mouth. Even though, the terminology will not fit in all services in all countries cause of cultural differences. As Luna et al. (2001) point out that consumer behaviour needs, and wants will be existence depending on individual culture which is capture from family, norms, beliefs of place that they live. Therefore, Zihni Türksel interview was a good guide to start how to gather and how to ask questionnaire to get valid information.
As Zihni Türksel clearly state that Cyprus both South and North is a tourist place, that’s why restaurant services divided into three segments in North Cyprus, such as fast-food, elite restaurant, and traditional restaurant to satisfied people in different cultures.

However, the most deficiency in North Cyprus about restaurant services is lack of access information even it’s a tourist place. Similarly, he agreed that restaurant association has no web site yet, but they are working on it.

Based on the interview, questionnaire conducted in restaurants which have ISO 22000 certificates in North Cyprus. These 11 restaurants are easy to find or reach, cause all of them in the Nicosia and Kyrenia, which are the most tourist and Cypriot people preferring to visit and live (Zihni Türksel, August 9, 2007).

Respondents are generally middle average incomes, undergraduate and have no limitation on age of respondents, which is among 14 till 67 years old. This is because of the restaurant places that people prefer to go with families, friends, or may be for business meeting and no age limit on eating or being restaurant consumers. There is no restriction in age or gender to go out to eat in restaurant in North Cyprus.

According to findings; quality and satisfaction has a direct relation. That means, whether its tangibility, assurance, responsiveness, reliability, or empathy affect the consumer behaviour and attitude toward restaurants. In literature review, most of the author (Zeithaml; 2000; Gremler et al., 2001; Santos; 2003; Edwards et al.; 2005) research found that quality has a direct relationship with consumer behaviour. The relation is positive such as if satisfy with cleanness of restaurants that makes consumer satisfy or vice versus. As tangibility dimension has the highest regression (0.382) has the most affection on consumer satisfaction in restaurant.

As Cyprus is a small country and people know each other or may have a family relation, people would like to recommend to others people based on his/her past experience whether it’s positive or negative by recommending to his/her friends or repeat purchasing by going to same restaurant.

In conclusion of the study and literature reviewed are similar. That means in Cyprus the conceptual model will be summaries as show next page:

CONCEPTUAL MODEL:

As it’s shown on the conceptual model; if the quality of restaurant is good according to the consumer point of view, then this will affect customer satisfaction. Then, customer satisfaction reflects the customer recommendation positively.
In conceptual model, respondents are more concerning on the tangibility based on quality of restaurants such as visually attractive parking and building exterior areas, dining areas, clean staff, readable menu, attractive menu reflecting restaurant images, comfort abilities, clean equipments, clean rest rooms, and seats. On the other hand, respondents were graded assurance as the lowest dimension. Assurance means making customers to feel confident and safe, having knowledge about details of each meal and well trained, and supported to do their jobs well based on respondents’ point of view. If managers knows the customer perception and expectation levels according to findings such as tangibility is the most important factor then reliability is the second one, responsiveness, empathy, and the last one is assurance will be satisfy customers more easily. Satisfying consumer means increasing recommending and increasing profit of the business as well (Zeithaml, 2000).

In this study, the conclusion will be positive relation among the quality of restaurant services and satisfaction. Satisfying consumers, increase the “talk factor”. Respondents are concerning the quality and satisfaction for recommendation. As result of this study, the literature reviewed and the outcome of the research was both match with the conceptual model. The linkage among the service quality and customer satisfaction is positive and satisfaction with word-of-mouth is in positive way as well.

References


ANALYSING THE IMPACT OF WORKPLACE FLEXIBILITY ON PRODUCTIVITY OF EMPLOYEES IN THE LIMASSOL BANK OF CYPRUS

Huseyin Karsili
Cyprus International University

Abstract

The main workplace flexibility concept has expanded with the benefits to the employers as it is to the employees. In order to increase job satisfaction and balancing work life balance with flexible environment is needed for Employees. This research clarified how employees and employers get motives for sustaining employee’s productivity with work culture and also impact of the workplace flexibility at Limassol Bank of Cyprus. For this determination, method of survey research was used to achieve finding out employees’ relation to the workplace flexibility in Limassol Bank. By finding out the reaction of employees’ for the flexible work-life balance because it directly affect the employee productivity as well as the affecting the company as well because banking sector is kind of service sector. Results were analysed critically and also discussed briefly with the help of wide literature reviewed. Findings of the article expose that workplace flexibility is positively connected with employees’ productivity. Following the implementation of the research process, the main operatives of maintaining workplace flexibility were observed as an increase of employee productivity level, reduced stress, and formation of a balanced system between their work and personal lives and an increased occupational satisfaction. Furthermore, the utmost workplace flexibility in Limassol Bank was on office design, followed by a restricted flexibility based on time and a moderate one on the hours.

1. Introduction

In order to improve the brand potential of employment, the employers have regarded workplace flexibility as the crowning jewel of opportunities to create a more suitable working environment in the modern business world. Since there is an immense amount of work volume in the banking industry, the flexibility for bank employees is of utmost importance (Diversity and inclusion in the workplace, 2016). The connotation of the word ‘flexibility’ could be received differently depending on the subject’s perspective since it could refer to a situation where the flexibility presented to one person can cause an extra encumbrance on another (Need, 2006). The research conducted by Moen and Kelly has revealed that when the employees are allowed a say in the workplace, they gained a more positive attitude towards their job. The research results confirmed increased efficiency and productivity by the employees (Moen and et. al., 2016).

By focusing on the HRM practices applied in the Cyprus banking sector, mainly focusing on Limassol Bank, this study aims to reveal the effects of workplace flexibility on the employee productivity and performance. Limassol has been in the service of its customers since 1969 thanks to its combined structure formed of commercial and cooperative banks. By forming successful associations with highly qualified institutions such as Wilbur Ross and EBRD, Limassol Bank has achieved a €1 billion increase in its share capital in September 2014. According to the executive board and management of Limassol bank, this successful development resulted from the implementation of the workplace flexibility practices and its positive impact on the bank’s employees’ dedication and performance (Banking Sector Dynamics, 2015).
1.1 Aims and objectives of the study
Main aim of this study is to analyse the effects of flexible workplace strategies on Limassol Bank employees’ productivity level. Moreover, the objectives of the study is to evaluate the inducing factors for employers and employees in maintaining a flexible work agreement culture in Cyprus’s banking industry. As well as to examine the types of flexibility utilised Cyprus’s banking sector in the current epoch, investigate the effects of workplace flexibility on Limassol Bank’s employee productivity level and also provide suggestions for plausible methods of increasing employee productivity through the utilisation of flexible work environment in the Limassol Bank of Cyprus.

2. Literature Review
Researchers state that an employee’s flexibility in demeanour, skills and HR practices reflect the critical sub-dimensions of the person’s flexibility in that workplace. Furthermore, examples of such flexible agreements have presented outstanding results of performance (Bhattacharya, Gibson and Doty, 2015).

The study conducted by Richman et. al. (2008) indicates the positive aspects of flexibility and encouraging work-life strategies on the employee’s enhanced engagement, along with their commitment to the organisation. The engaging of the employees has been fully interrelated with the expected commitment – perceived flexibility relationship; while being partially related to the expected commitment and encouraging work-life strategies. Additionally, the implementation of both intermittent and formal flexibility has positive impacts on employee engagement, the perception of flexibility and expected long lasting commitment (Richman and et. al., 2008). However, the Richman and et. al. (2008) study clarified that the flexible working strategies extend employee engagement while also reducing turn-over in the workplace. However, a debate among researchers has emerged concerning the possible negative impacts of flexible working strategies, in relation to organisational interests, on the employees’ health which may occur due to involuntary part-time employment or fixed-term contracts (Joyce, Pabayo, Critchley and Bambra, 2010; Richman and et. al., 2008).

According to Eldridge and Nisar (2011), the number of demanding and poorly controlled jobs has increased; resulting in a negatively influenced environment for the employees and their families. Nowadays, the organisations are required to accommodate the new flexible working strategies (Eldridge and Nisar, 2011). The flexible working environment provides the employees with an opportunity to manage their own workloads and a suitable work-life balance. Additionally, these flexible working strategies allow the employees to predispose their non-work related activities and commitments to their work and manage time more efficiently. Thus, the employees can decide when to start and finish their work and take a break to fulfil their other responsibilities. Therefore, several authors have considered the improvements on ethics and motivation derived from flexible working strategies (Gagné and Deci, 2005; Dex and Scheibl, 2001; Richman, Civian, Shannon, Jeffrey Hill and Brennan, 2008). This paves the way for reducing stress in the workplace along with increasing satisfaction at their homes; allowing an increase in performance and productivity at the workplace. Having discussed the positive effects of flexible working and part-time working on work-life conflict, some issues remain when concerning an employee working from home and facing considerable conflicts of managing both work-life and work pressure (Russell, O’Connell and McGinnity, 2009).

2.1 Types of workplace flexibility
As a result of continuous technological advancements, the nature of work becomes progressively more complex. As the scope of work continuously changes, it creates various problems for organisations in creating a contemporary flexible working strategy and choosing the type of strategy to be utilised (Goudswaard et. al, 2012). In accordance with their own internal structure, different organisations choose to utilise different types of flexibility strategies to fulfill their goals in their relative industrial practices. Currently, there are four main types of flexible working strategies utilised by contemporary business organisations. They are as follows: flexibility based on place, flexibility based on time, flexibility based on hours and flexibility based on office design (Romer, 2011; Hameed and Amjad, 2009). In their
study, Hameed and Amjad (2009) have stated that flexibility in office design has an effect on the employees’ manner of working and satisfaction in the workplace. Furthermore, they also stated that office design has a direct effect on the employees’ efficiency by preventing disturbances with the use of proper furniture etc. The experiential findings of their study revealed a formidable connection productivity and office design. However, simply focusing on office design is not the prominent solution for working flexibility, but a tool to facilitate the employees (Walters, 2016).

Shagvaliyeva and Yazdanifard (2014) exhibited the importance that flexible working time has progressively gained in the contemporary working places due to its beneficial nature affecting both employees and employers. While enabling higher productivity and productiveness, flexible timing also proved itself to be efficient in maintaining a work-life balance, reducing stress and increasing the well-being of employees. On the other hand, Wolf and Beblo (2004) indicated that while a moderate flexibility in work time can provide positive results, increasing the flexibility may cause negative results in the organisation of the work flow. It is essential to bear in mind that organisations, such as financial institutions or banks, should engage in preliminary preparations in their premises before and after engaging the public. Moreover, there are limitations on opening and closing hours in order to provide quality service to their customers. In such cases, maintaining the efficiency and productivity of the employees on an adequate level can be troublesome for the organisations while also retaining the flexible work-time schedules (Goudswaard et al., 2012). According to Goudswaard et al. (2012), similar to flexible hours, the employees also perceive the utilisation of flexible working hours for carrying out their work as an intermediation method for work-time flexibility and productiveness. Golden (2012) argued the negative effects of irregular working hours (working hours not controlled by the management or the deficiency of scheduling) on the employee’s hour-based flexibility. Be that is it may, the opportunity for an employee to take some time off and engage in their personal obligations enhances their level of productivity and concentration in the remaining time reserved for work (Kossek et al., 2014).

Aside from the aforementioned, another important feature of flexibility in the place based workplace flexibility in modern business environments. Within itself, it incorporates adapting different approaches of work rather than traditional methods in order to strengthen productivity and organisational performance. As such, according to NSW Industrial Relations (2013), a home-based set-up of work can provide the employee with an opportunity to focus on situations which may be essential to them and maintain a work-life balance. This report also focuses on the challenging situations for organisations which may come to pass due to maintaining confidentiality of their affairs and business related information, determining the suitability of the work in issue to be taken home, agreements of compensation etc. the literature review clarifies the beneficial effects of different workplace flexibility types for both employees and employers. Yet, each organisation faces different obstacles in choosing the most suitable types of flexible working arrangements when considering its agreeableness with its work and maximising productivity.

3. Methodology

The Limassol Bank has been founded in 1939 and there are 215 member staff. The bank trusts in the belief of going forward along with the development of the Bank’s employees and consequently, conducts several training programs to train member of staff for developments. The code objective of the human resource policy of the bank is to inspire staff at all levels and to keep the effectiveness and productivity at the top level. Workplace flexibility curriculums are likely to offer many benefits in the time of reorganization the general banking practices of Cyprus and in specific, the Limassol Bank. These curriculums can be based on to create a additional agile organization by building employee commitment and self-esteem to increase productivity (Limassol Bank, 2015).

3.1 Research philosophy and Hypothesis

Research philosophy is the author’s outlook on the research techniques and strategies in order to provide the reader with a sufficient amount of information on the flow of the process which leads to the research findings (Crossan, 2003). From the three types of philosophies; which are interpretive, realist and positivist approaches, the author of this research has chosen to use the positivist philosophy. The philosophy was used to gather data from the Limassol Bank of Cyprus and the hypothesis were developed around the scope of this current theory. Positivism philosophy accepts the
presumption of several universal laws governing social interactions. Thus, the researchers can discover the laws in
question depict, manage and forecast the social phenomena (Antwi and Hamza, 2015). The utilisation of this specific
philosophy has allowed the researcher to gain an insight about the employees’ perception concerning workplace
flexibility in the Limassol Bank and provide promoting evidence by experimental means. Furthermore, the quantitative
nature of the research acts as a justifying factor to the implementation of the positivist philosophy. For this particular
study, the use of the interpretive approach would not have been pertinent since it would require the researcher to
interfere with their own apprehension of the topic in concern from their own viewpoint which, in the process, can affect
the researches validity (Saunders, 2011).

**Hypothesis 1:** On workers ‘Office design’ become very important part in order to apply the workplace flexibility on
employees correctly and finding better alternatives for employees to keep flexibility increased.

**Hypothesis 2:** Time, has biggest role on work-life balancing on employees in order to apply flexibility better on them
to increase satisfaction and loyalty.

**Hypothesis 3:** Place, has an effect on employees to be more successful, especially on work-place to make them feel
better and have responsibility of doing jobs on time without having any dissatisfaction.

**Hypothesis 4:** Hours, set the difference between workers, make employees to focus more on the work by set time for
each task and complete them in a better way.

### 3.2 Research model

Based on the observation of existent literature, key topics and related theories on workplace flexibility, the positive
impacts of workplace flexibility on employees managing their work related responsibilities in an effective and efficient
manner is clear; along with enhancing the level of their occupational productivity. Thus, Figure 1 has been created to
present the aims of this article:

![Diagram](attachment:image.png)

**Figure 1: Research model**
As it can be seen above, in regard of achieving a balanced work-life order, there are several theories presented by various researchers for achieving this goal. Furthermore, citations from several authors’ theoretical approaches can be found in this study focusing on strategies for attracting and retaining employees and strategies that focus on aiding the employees maintain a balance between their work and families. Another aspect worth of note is that nowadays, many organisations have begun employing such flexible strategies to support their stuff in fulfilling their occupational and personal responsibilities. The workforce changing dynamic is a denotation for the requirement for continuous development of new constructs and theories to be implemented for both topics of work-life balance and flexible working in the banking sector. An option for maximising employee efficiency and productivity can be to employ the most suitable types of flexibility with encouraging attributes.

3.3 Methods

In this section, a descriptive research design has been utilised in order to examine the effects of workplace flexibility practices after collecting the quantitative data on Limassol Bank employees’ statistical deductions. Additionally, the design has created an opportunity for the researcher to survey the work-life balancing obstacles based on the bank employees’ marital status, age, and gender and work experience. Through a questionnaire, an online survey was conducted based on the selected sample in order to standardise the data. With its time saving and less costly features, the survey has been used to record the Limassol Bank employees’ responses. The criteria for respondent selection include a minimum year of employment within the bank’s body. The reason behind the determination of this particular criteria was that the only organisation in this research is Limassol Bank of Cyprus. Furthermore, the minimum one year limit was drawn for ensuring the reliability and accuracy of the responses. The employees were preferred to be familiarised with the conditions of the banking sector and the necessity for work experience was deemed to be important.

4. Data analysis

4.1 Profile of respondents:

The frequency table and pie charts including the analysed data gathered from the employee responses have been presented in Table 1. Table 1 also explained more clearly with the pie charts below.

<table>
<thead>
<tr>
<th>Table 1: Frequency table for demographic characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>20-30</td>
</tr>
<tr>
<td>30-40</td>
</tr>
<tr>
<td>40-50</td>
</tr>
<tr>
<td>Above 50</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
From the pie chart above and table, it can be explained that half (48%) of respondents were age between 20-30, 24% bankers were age between 30-40, 16% were age between 40-50 and 12% of them were aged above 50 years.

<table>
<thead>
<tr>
<th>Social class</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower class</td>
<td>13</td>
<td>13.0</td>
<td>13.0</td>
</tr>
<tr>
<td>Middle class</td>
<td>81</td>
<td>81.0</td>
<td>94.0</td>
</tr>
<tr>
<td>Upper class</td>
<td>6</td>
<td>6.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor's degree</td>
<td>45</td>
<td>45.0</td>
<td>45.0</td>
</tr>
<tr>
<td>Master's degree</td>
<td>46</td>
<td>46.0</td>
<td>91.0</td>
</tr>
<tr>
<td>Professional degree</td>
<td>9</td>
<td>9.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2: Respondents’ Age

From the pie chart above and table, it can be explained that half (48%) of respondents were age between 20-30, 24% bankers were age between 30-40, 16% were age between 40-50 and 12% of them were aged above 50 years.
From the chart above, it can be understood that out of the entire respondents, 57% of them were male and 43% of them were female workers. It means there is no important difference in male and female ratio in the personnel of Limassol Bank.
From the pie chart above and frequency distribution table, it can take to mean that a most of respondents (81%) were part of middle class group. Also, 13% respondents were part of lower class and a lowest number of workers (6%) belonged to higher class of the society.

![Pie chart showing education levels](image)

Figure 5: Respondents’ Education level

From the above chart, it is clear that education background of all respondents was good and all respondents were at least graduated. 45% of the partakers were having bachelor’s degree, 46% were having master’s degree and rest 9% have some professional degree.

**4.2 Motives of employers for providing workplace flexibility**

The awareness concerning the employer motives for maintaining a culture of flexible work arrangement is analysed in Table 2.

<table>
<thead>
<tr>
<th>Reduction in employee turnover</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>20</td>
<td>20.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Agree</td>
<td>46</td>
<td>46.0</td>
<td>66.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>23</td>
<td>23.0</td>
<td>89.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>9</td>
<td>9.0</td>
<td>98.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>2</td>
<td>2.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 shows that the majority of the participants have stated that they agree with the fact that the employers’ motives for providing them with these workplace flexibilities include decreasing the number of employee turnovers and maintaining employee engagement. A majority for employee turnovers result from a search of better career opportunities or their personal obligations. On the other hand, 11% of the participants disagreed with this opinion and stated that the employer motives are to maintain a culture of flexibility.

Table 3: Employer motives (Increasing employee productivity)

<table>
<thead>
<tr>
<th>Increase in employees’ productivity/efficiency</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>18</td>
<td>18.0</td>
<td>18.0</td>
</tr>
<tr>
<td>Agree</td>
<td>49</td>
<td>49.0</td>
<td>67.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>25</td>
<td>25.0</td>
<td>92.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>8</td>
<td>8.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

As it can be observed in Table 3, a majority (67%) of the participants believe that the reason for flexible working arrangements are presented in order to increase employee productivity and efficiency. 25% of the participants did not express a significant opinion on the matter. Nevertheless, 8% of the participants plainly disagreed with the idea that these flexible working arrangements were aimed to increase productivity. Thus, it could be acceptable to state that the employers require a high level of performance and operational efficiency for maintaining workplace flexibility.

Table 4: Employer motives (Improved customer satisfaction)

<table>
<thead>
<tr>
<th>Improves customer satisfaction</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>9</td>
<td>9.0</td>
<td>9.0</td>
</tr>
<tr>
<td>Agree</td>
<td>51</td>
<td>51.0</td>
<td>60.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>25</td>
<td>25.0</td>
<td>85.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>11</td>
<td>11.0</td>
<td>96.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>4</td>
<td>4.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

As it can be observed in Table 4, a distinct majority (60%) of the respondents considers customer satisfaction as one of the primal employer motives for providing flexible work arrangements. This suggests that, by utilising flexibility in the workplace, the employers expect their employees to provide the best possible service to the customers. 15% of the participants refused the importance of this motive while 25% presented moderate views on the matter.
As indicated in Table 5, half of the participants stated that the reasoning for flexible working arrangement is to develop employee engagement in the workplace. On the contrary, 22% of the respondents refused the idea of this motive. Moreover, 27% of the employees remained unaware of the high engagement motive of employers since they deemed it being their obligation and responsibility to facilitate employee work. In summary, it is a necessity for the employers to emphasise their motive for increasing employee engagement via the use of a flexible working environment.

As presented in Table 6, a clear majority (91%) of the participants, including those with moderate opinions, believe the reason for flexibility to be mobilising and sustaining a skilful staff within the body of the organisation. This belief was only contradicted by 9% of the responders. According to a cost and benefit analysis, it would be appropriate to state that flexibility of provided to the most skilful employees to avoid extra expenses which could otherwise be spent on new employee training or recruitments.

### 4.3 Impact of workplace flexibility on employee productivity

This section focuses on the analysis of survey results concerning the effects of workplace flexibility of the bank employees’ productivity level. Additionally, the workplace flexibility – employee productivity relationship is examined via correlation analysis.
Table 7: Impact of workplace flexibility on work-life balance

<table>
<thead>
<tr>
<th>Workplace flexibility increase job satisfaction by providing work-life balance</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>23</td>
<td>23.0</td>
<td>23.0</td>
</tr>
<tr>
<td>Agree</td>
<td>48</td>
<td>48.0</td>
<td>71.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>20</td>
<td>20.0</td>
<td>91.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>9</td>
<td>9.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

As it can be observed in Table 7, a noteworthy number of participants (71%) agreed that the appliance of workplace flexibility is an efficient tool for both bringing occupational satisfaction and for sustaining a work-life balance. To put differently, workplace flexibility allows the employees to manage their occupational and personal obligations efficiently thus, increasing the level of their contentment with their job.

5. Discussion, conclusion and recommendations.

The findings of the survey clarified that preponderance of employees in Limassol Bank assume that, having workplace flexibility as an organization culture in the bank has beneficial effects on employees in decreasing the level of stress, as well as preventing the negative effects of work-life interfering with their personal one. Increasing the level of work-family and work-life balance, as well as affecting them positively in order to improve mental and physical well-being is also an attribute of the arrangement. In this study, with the data gathered from the secondary research, it is also identified that having flexibility in the workplace helps employees in being motivated, decreasing their level of stress and helping them in enhancing their satisfaction for both their personal life and workplace; which steers them to increase productivity (Russell, O’Connell and McGinnity, 2009). On the other hand, in primary research, it is identified that balancing work-life and work-family is the main motive of employees when concerning workplace flexibility. The supportive strategies for work-life are linked to better and long term engagement of employees with their company (Richman et al 2008).

Moreover, according to the spill-over theory, work-family and work-life influence each other in both positive and negative ways (Chen, Powell and Greenhaus, 2009). Furthermore, it was also discovered that, most of the responses had moderate views on flexible regulations at Limassol Bank which also suggest that employees are having low level of awareness about flexible culture. In this scope, Dex, McCulloch and Smith (2002) said that, employees who have awareness in flexible work culture are more likely to increase their productivity at the workplace. By analysing the responses from the survey, it was explained that most of the employers adapt workplace flexibility at Limassol Bank for decreasing possible turnovers of the employees, enhancing efficiency and productivity, providing a better quality of customer satisfaction and maintaining maximum proficiency.

Furthermore, it was also observed in the study that, half of the workforce are unaware of the fact that employee engagement is one of the motive increasing tools for employers. It suggests that, some of the employees’ engagement did not increase inspire of flexibility. In result of this outcome, secondary research concludes that employees who have an increased level of productivity and efficiency have believe the motive of employers to be maintaining flexibility as an organisation culture (Kossek et al, 2014). The motive is also recognised by the employees of Limassol Bank and they are inclined to work with more efficiency and they have better productivity if they are permitted with sufficient flexibility which is required to relieve their responsibilities. According to the survey’s positive responses on the employers’ motive, Limassol Bank is well-informed with how flexible work arrangements can be beneficial for both
employers and employees, who are knowledgeable on the subject. It is also very important for Limassol Bank to have a policy of growth in line with their employees’ growth and its HR principles are intended to increase productivity and efficiency to the top level (Limassol Bank, 2015).

As part of the aim of this regard, influence of flexibility in workplace on productivity of employees was clarified with the assist of survey. It was expose that workplace flexibility positive impact on productivity which provide employees but not to an ultimate point. Keeping the connection between the primary and secondary research in mind that, when there is flexible work arrangements, employees’ productivity and employees’ performance is increased (Russell, O’Connell and McGinnity, 2009; Ryan and Kossek, 2008).

Based on the literature review, four main types of flexibility in workplace were explained, flexibility based on design of office, place, hour and time which is connected with productivity of employees (Romer, 2011; Hameed and Amjad, 2009). These major types of workplace flexibility were directed at the participants to the employees at Limassol Bank in order to understand the culture of workplace flexibility.

References:


Appendix-A: Survey questionnaire

Part 1: Demographic section

1. Age:
   - □ Less than 20 years
   - □ 20-30 years
   - □ 30-40 years
   - □ 40-50 years
   - □ Above 50 years

2. Gender
   - □ Male
   - □ Female

3. Which social class do you belong to?
   - □ Lower class
   - □ Middle class
   - □ Upper class

4. Tick the highest level of education completed
   - □ High School
   - □ Bachelor’s degree
   - □ Master’s degree
   - □ Professional degree
   - □ Diploma/vocational course

5. Marital status
   - □ Married
   - □ Single
   - □ Widow/widower
   - □ Divorcee

Part 2: Main section

6. How many years’ of working experience you have with Limassol Bank?
   - □ 1 Year
   - □ 1-3 years
   - □ 3-5 years
   - □ More than 5 years

7. Rate following benefits/motives of workplace flexibility on a five point based Likert scale ranging from 1= strongly agree to 5= strongly disagree:
8. Rate the following benefits/motives of employers in providing workplace flexibility to employees on a five point
based Likert scale ranging from 1= strongly agree to 5= strongly disagree:

<table>
<thead>
<tr>
<th>Benefit/Motive</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduces stress by increasing satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduces negative spill over from work to life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improves work-family balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve work-life balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Better mental and physical well being</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Rate following statements that contribute to workplace flexibility at your banking job based on office design
on a five point based Likert scale ranging from 1= strongly agree to 5= strongly disagree:

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furniture is comfortable enough to work without getting tired</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I get noise-free and undisturbed environment at work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My work area is appropriately equipped for typical needs (storage,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>movements, keeping material etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Rate following statements that contribute to workplace flexibility at your banking job based on time on a five point
based Likert scale ranging from 1= strongly agree to 5= strongly disagree:

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can change start and quit time of work based on minimum hours criteria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I can sometimes compress workweek by working for longer hours on remaining days

11. Rate following statements that contribute to workplace flexibility at your banking job based on place on a five point based Likert scale ranging from 1= strongly agree to 5= strongly disagree:

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can work from home occasionally</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am provided with personal laptops to work at remote locations such as site for physical inspection for loan purpose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. Rate following statements that contribute to workplace flexibility at your banking job based on hours on a five point based Likert scale ranging from 1= strongly agree to 5= strongly disagree:

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can take some hour(s) away from work for job trainings and improving job skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can take some hour(s) away from work for personal work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rate following statements on a five point based Likert scale; ranging from strongly agree to strongly disagree: (questions 13-15)

13. Flexible work arrangements help in discharging daily work responsibilities.

- [ ] Strongly Agree
- [ ] Agree
- [ ] Neutral
- [ ] Disagree
- [ ] Strongly Disagree

14. Extended working hours and overtime can be avoided with proper workplace flexibility and work can be done within scheduled times.

- [ ] Strongly Agree
- [ ] Agree
- [ ] Neutral
- [ ] Disagree
- [ ] Strongly Disagree

15. Workplace flexibility increase job satisfaction by providing work-life balance.

- [ ] Strongly Agree
- [ ] Agree
☐ Neutral
☐ Disagree
☐ Strongly Disagree

16. Please rate the level to which your work arrangements are flexible:

☐ Very flexible
☐ Mostly flexible
☐ Less flexible
☐ Least flexible

17. Please rate your productivity level as an employee in Limassol Bank.

☐ Very productive
☐ Productive
☐ Less productive
☐ Least productive
"SMART FACTORY" IN THE INDUSTRY 4.0

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Yulia Kondratenko

Ural State University of Economics, Yekaterinburg, Russia

Abstract
Since 2011, Germany has taken a course to the development of "smart production" "Industry 4.0." Since that time, the scientific community began to discuss the concepts of "smart factory", "Internet of all things", indicators of the fourth industrial revolution in which cyberphysical systems and robots provide synthesis of computing and technological processes and computer programs control all production, making all material elements of production parts of a single information system.

Purpose: Until now there is no unambiguous understanding of the definition "smart factory" or "factory of the future" in the literature, which is largely due to the lack of practical examples of these enterprises in the world, because the most enterprises that set a goal of creating "smart production" are integrated only digital solutions and automation systems. This paper aims to analyze definitions of the concept "smart factory" existing in the modern literature, propose author's definition of "smart factory" and also to study a number of examples of "smart" productions in the world and to assess the prospects of creation of the such factories in the nearest future.

Methods: The following methods were used this study: case-study and qualitative research methods to determine specific features of the "smart factory" concept.

Results: The article provided classifications of "future enterprises" (virtual, digital and "smart" productions) and identified their characteristic features and differences. On the basis of the analysis, the definition of the concept of a "smart factory" in the industry is proposed, which makes it possible to distinguish the specifics of this enterprise at the present stage of its development.

Application: The results of this study can be used by researchers of such topics as Industry 4.0 and "smart factory" and by entrepreneurs aiming to create enterprises of the future.

Keywords: "Smart factory", Industry 4.0., Internet of all things (IoT), "smart" production, virtual enterprise, digital enterprise, the fourth industrial revolution, industrial Internet

1. INTRODUCTION

Now in world economy fast development was received by information and industrial technologies, and the flexibility and speed of promotion of new technologies became major factors of success of the industrial enterprises. The economy, informatics and industrial management unite on the basis of the network-centric concept, the new directions of business informatics are formed [Drogovoz, Ivanov, 2013] and there is a need of new methods and means of decision-making for real time in connection with increase of complexity of business management [Skobelev, 2011]. Intellectual production systems seriously change the existing industry, there is a high-quality transition to new industrial way in which production management is an integrated system, and all technological and organizational elements are connected among themselves and work in the mode of mutual synchronization with others, optimizing and arranging the activity taking into account changes of the external environment [Sadovsky, 2017].

Comparing the third and fourth industrial revolutions, it is also possible to note that according to the research of PWC the concept "Industry 3.0" is directed to automation of separate cars and processes while "Industry 4.0" provides digitalization of all physical assets and their integration into a digital ecosystem together with the partners participating in a chain of value creation [Pukha, 2016].
Processes of introduction of a digital information system and its integration into the general information system of industrial clusters become object of management [Roblek, Meško, Krapež]. At the same time the concept "Industries 4.0" can be considered and as an objective tendency of development of primary branches of the industry and the world economy in general and at the same time as subjective category of management in the industrial organizations [Kapustina, Drevalev, 2017, P.61].

Initiatives and programs for development of digital economy are implemented today in different states of the world, integration associations, in particular in the European Union and also in the large multinational corporations [EAEC Report]. So, already now the Japanese and German companies further all have progressed in digitalization of internal operations and consider digital transformation mainly from the point of view of increase in operational efficiency, reduction of expenses and quality control. The American enterprises plan to allocate more funds for development of revolutionary business models [Pukha, 2016]. The Chinese industrial enterprises are on the first place in many aspects of digitalization. Since 2013 the Chinese market of robots became the world's largest. At the same time by 2020 it is expected that in China there will be about 150 robots on 10000 industrial working places that is three times more, than in 2015 [Egorov, 2017].

By estimates of the World Bank, the General Electric company and World Economic Forum "Industry 4.0" can bring to world economy up to 30 trillion US dollars of income during the period till 2025. At the same time the greatest income is expected in the field of production of goods of consumption (10,3 trillion dollars), in automotive industry (3,8 trillion dollars), in logistics (3,9 trillion dollars), in the electrotechnical industry (3 trillion dollars) [World Economic Forum Report, 2017]. According to forecasts of the EU in case of industry digitalization the European producers by 2030 can reach increase in production from 15 to 20% [Strategic Policy Forum on Digital Entrepreneurship, 2016].

Within the concept "Industry 4.0" is planned creation of the "smart" enterprises, digital networks and ecosystems covering the whole world, but keeping unique regional specifics. The “smart factory” is a key definition of the concept of “Industry 4.0”. However in literature there are no universal definition and a exact understanding of this term. And at the moment problem of determination of the term "smart factory" is at an initial stage of the decision and demands further studying and a specification.

Considering variety of terms and definitions of "smart factory", the main purpose of the present research to analyze main signs of the Industry 4.0 and to determine the most significant features for reference of the enterprise to “smart factory” and also to study a number of examples of “smart” productions in the world and to assess the prospects of creation of the such factories in the nearest future.

2. «SMART FACTORY»: CONCEPT AND TENDENCIES OF DEVELOPMENT

The term "Industry 4.0" designating process of fundamental restructuring of global chains of value creation has been introduced in 2011 in Germany at the Hanover industrial exhibition. According to K. Schwab, "extending technology of "the smart factories", the fourth industrial revolution creates the world in which the virtual and physical systems of production flexibly interact among themselves at the global level. It provides full adaptation of products and creation of new operational models" [Schwab, 2016]. The main difference of the fourth industrial revolution from the previous revolutions is integration of different technologies and their interaction in physical, digital and biological domains, at the same time the latest technologies and universal innovations extend much quicker and widespread, than earlier. Communication between physical and digital reality provides "The Internet of Things" (IoT) - interaction between things (products, services, places and other) and people which is provided with the interconnected technologies and various platforms [Schwab, 2016].

It should be noted that the terms "Industries 4.0." and "IoT" are most known among German-speaking countries. According to the research conducted by the Germany Trade & Invest Organization the “smart” production or "Industry 4.0", is connected with technological evolution from the built-in systems to cyberphysical systems (CPS), that is the decentralized artificial intelligence is the basis [Vermes, Friess, 2016; Germany Trade & Invest Report, 2017].

In other countries the similar ideas move forward under other names. For example, the similar idea of digital revolution under the name of Industrial Internet moves ahead the General Electric company [Evans, Annunziata, 2012]. It is
defined as "integration of difficult physical mechanisms and devices into sensors and the software, united in network, for prediction, management and planning on the benefit of business and society" [Industrial Internet Consortium, Fact Sheet, 2013].

In the conditions of digital production in the integrated virtual information environment creation of a 3D model design of product, calculation of durability and physical and chemical characteristics, carrying out the engineering analysis, design of production processes, interaction with suppliers and collaborators, the service and operating companies is carried out [Sadovsky, 2017]. It results in need of formation of other production system which in literature has received different names — the "smart factory", "digital factory", "the virtual enterprise", "future enterprise" and etc.

For the purpose of specification of a conceptual framework and definition of the "smart factory" among similar terms authors carried out the analysis of the definitions and terms presented in literature which results are given in table 1.

<table>
<thead>
<tr>
<th>Type of enterprise</th>
<th>Specific features</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital factory</td>
<td>the integrated complex of digital models, methods and tools, 3D visualization, interconnected among themselves on the basis of the unified control systems of data. Purpose: the integrated planning, assessment and continuous improvement of all main structures, processes and resources of real industrial enterprise</td>
<td>Sadovsky</td>
</tr>
<tr>
<td></td>
<td>Goal: to &quot;see&quot; the product before it is produced</td>
<td>Filos</td>
</tr>
<tr>
<td></td>
<td>Means: Software for the digital representation and test of products and processes prior to their manufacture and use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The expected result: reduce design errors, better and efficient products, less waste + rework, faster time-to-market</td>
<td></td>
</tr>
<tr>
<td>Smart factory</td>
<td>Production system which, being informed on a context, helps employees and the equipment with performance of the tasks and acts in the form of the production environment capable to cope with variability of production in real time by means of use of the decentralized information and communication structure</td>
<td>Stuttgart University</td>
</tr>
<tr>
<td></td>
<td>The enterprise, in which machines and other processing equipment participate in improvement of technological process by self-optimization, the interconnected combinations of intellectual production technologies and the latest high-performance communication technologies are applied that provides emergence of integrated digital space and its horizontal integration through all production chain along with vertical integration of all levels of production</td>
<td>Lopukhov</td>
</tr>
<tr>
<td></td>
<td>Goal: more automation, better control and optimisation of factory processes</td>
<td>Filos</td>
</tr>
<tr>
<td></td>
<td>Means: software, lasers and intelligent devices embedded in machines and factory infrastructure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The expected result: less waste, less energy use, faster time-to-market, better quality</td>
<td></td>
</tr>
<tr>
<td>Smart production</td>
<td>Creation of such environment where all available information, from the factory machine to a chain of deliveries, is available in real time.</td>
<td>Tolkachev</td>
</tr>
<tr>
<td>Virtual factory</td>
<td>Goal: to manage supply chains; to create value by integrating products and services</td>
<td>Filos</td>
</tr>
<tr>
<td></td>
<td>Means: software to holistically interconnect and manage distributed</td>
<td></td>
</tr>
</tbody>
</table>
factory assets; new business models and value propositions

The expected result: high-value products, keep jobs in Europe, process transparency, IPR security, lower CO2 footprint

Association of virtual assets and virtual ways of management

<table>
<thead>
<tr>
<th>Factory of the future</th>
<th>Purpose: increase in productivity and promotion more products into the market, creation of the new working places of new generation demanding high skill level of experts, flexibility of thinking and creative approach to business. A creative component - the main source of innovations, and adaptability — ability to quickly change technological processes, reacting to market demand and wishes of customers — main characteristic of the factory of the future</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Warner, Witzel</td>
</tr>
</tbody>
</table>

In general enterprises of the Industry 4.0. unite in themselves three strategic elements of policy of economy transformation:
1) process and product innovations;
2) the directions of transformation depending on industry type (production, processing, the knowledge-intensive industry, raw materials processing);
3) approach, characteristic of system, at the level of a chain of value creation [Fund "Centre for Strategic research "Northwest", P. 13].

However, despite attempts to differentiate concepts of the digital, virtual and smart enterprises, marking out different accents in their activity, at this stage of development of the fourth industrial revolution the enterprise of the future and "smart" factories is better to consider as synonyms, at the same time they can have features of both the digital, and virtual enterprise. Only after real creation of examples of the similar enterprises, it will be possible to define precisely whether they will significantly differ on the purposes and means of their achievement or not. Therefore we understand as the “smart factory” the flexible system of production based on use of the automation equipment and advanced achievements of a computerization, operating depending on a context of production and giving the chance of forecasting and prevention of negative tendencies that allows to provide effective management of all systems of the enterprise in real time, to organize continuous process of training and improvement, to increase productivity and to accelerate processes of development of new products, without exerting negative impact on state of environment.

However besides positive consequences of creation and development of "smart factories", it is important to note, and possible negative consequences.

First, creation of such enterprises can lead to change of structure of employment and significant increase in unemployment. According to the report of experts of the World Economic Forum (WEF), by 2020 without work there can be 5 million people [World Economic Forum, 2017].

Secondly, there will be inequality strengthening, both within national economies, and at the global level [Schwab, 2016].

Thirdly, changes in educational system to prepare more specialists, having knowledge in the field of the software and robotics will be required.

3. EXAMPLES OF “SMART” PRODUCTION IN THE WORLD

The majority of "smart" productions are at the initial stage of the development now, and there are only separate examples of effective use of "smart" productions in the USA, the European Union, Japan.

For example, the Philips plant on production of razors in Holland which works in the dark room where there are 128 robots, the Harley-Davidson plant which has reduced the average time of production of motorcycles under the order from 28 days till 16 hours, the tools producer “Stanley” and “Black & Decker” which after introduction of IoT has reduced amount of defects and errors of marking by 16%, the Chrysler plant in Toledo, where more than 700 automobile bodies are issued every day (at the same time 259 German KUKA robots which "communicate" from 60
000 other devices and machines are involved), the plant of electronics Siemens in Amberg where industrial controllers are issued (the range of products contains more than 1000 names, the output – about 12 million industrial controllers a year. Production is most automated; more than 75% of works are performed by machines and computers. Daily at the plant over 50 million records of production and technological information are created that allows tracking life cycle of each product) [Digital Production. Expert opinion, 2017]. At the same time by means of the Internet at the enterprise communication between his 1000 production facilities, the majority of which can transfer each other information is organized and collect components without data input by the person though the area of the plant on which they are located exceeds 9000 sq.m., and 1150 employees generally work at the computers and monitor process [Alesy, Hammer, 2014].

The Bosch group of companies actively develops technologies and the software to create network production base for "Factory 4.0", creates the intelligent equipment for the smart factories in the pharmaceutical and food industry, and the set of the software developed by Bosch Software Innovations allows to optimize considerably all process of equipment maintenance [Digital Production. Expert opinion, 2017].

In Russia at the moment there are no real “smart” production, and the enterprises use only separate digital solutions and the systems of automation. First of all, it is typical for oil and gas branches and also mining and metallurgical industry. For example, Severstal actively uses mobile devices to provide transparency of works on service and repair of the equipment and also to automate processes of planning and arrangement of personnel [Digital Production. Expert opinion, 2017]. In automotive industry as an example of “smart” production can be pilotless commercial transport of the Volgobas company, in shipbuilding — the biggest atomic ice breaker in the world of the Arctic project 22220 [Russia 4.0].

4. CONCLUSION

The "smart factory" is the purpose of many countries to keep the competitiveness in the conditions of the coming Industry 4.0, but for many less-developed countries her achievement will demand considerable reorganization of all production, design processes and realization of a number of initiatives at the level of state regulation. In order to create real “smart factory” it will be necessary to do the following:

- creation of financial incentives for full modernization of productions,
- changes of educational system to prepare more qualified specialist in the sphere of software, information security and robotization,
- transition from model of performance of all production operations with use of own production capacities to hybrid model of the distributed automated production to increase automation of processes, to save time and resources, to improve quality, to reduce dependence on a human factor and also to gradually modernize the machine park.
- Introduction of cloud platforms for network interaction between the industrial companies and legal regulation of their work with foreign platforms for the purpose of providing requirements of economic security.

And it is important to note, that using elements of "smart" production in separate companies or projects won't lead to creation of the real “smart factory”. The development of Industry 4.0 should be under state control and in connection with above-state and supranational organizations to create universal rules and standards of new processes. For many countries can be useful experience of Germany where the Industries 4.0 project is the program uniting the private sector with state and the government doesn't choose the best, for granting subsidies, but allocates funds for technological researches that the companies together with research centers could develop the general standards.

Today in the world the market of “Industry 4.0” is at a stage of the formation and, therefore, many countries and the companies can get advantages, introducing the new principles of production. Work on advancing and an integrated approach becomes the main thing in this situation.
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PERCEPTION OF A UNIVERSITY BRAND IN THE CONTEXT OF THE BRAND WHEEL MODEL

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Abstract

Purpose

The article aims to combine existing brand models with the authors’ approach to higher education institution brand structure in order to provide an efficient and comprehensive means to analyze a particular brand and establish connections between brand attributes and its main idea through emotions and personal characteristics that are important for a customer.

Design/methodology/approach

The authors suggest methodical approach to adaptation of the brand wheel model that reveals the multi-component brand structure.

Findings

The literature review proves that the brand management theory offers various models that have different approaches to the concept and the content of brand structure.

The article presents a study of a university brand perception among the students and the employers. The results are structured in accordance with the five elements of the brand wheel: attributes, benefits from contact with the brand, values (emotions), individuality, the essence of the brand. The findings suggest that the model of a university brand for a particular higher education institution has many links to existing approaches to defining the brand elements for an educational organization.

The main functional characteristics of a university brand include the qualities of the staff, self-development opportunities, variety of research activities, and interesting events of the student life. These attributes are considered essential and associated with the role of a higher education institution in general. The authors note that the role of rational values becomes more important for the students. The reasons of this trend are studied, as well as the impact on the brand management policy of a higher education institution.

The study of the brand perception among the employers shows that students and graduates are associated with the university brand with its main elements including the professional qualities of the academic staff and variety of the personal development opportunities.
Research limitations/implications

The suggested methodology was tested for the Ural State University of Economics, Russia, on the basis of data gathered during the study of the brand perception among the students and employers. The methodology proves to be applicable and efficient for the analysis of a higher education institution brand.

Practical implications

The results of the study suggest that the brand management processes are becoming more complicated. They include thorough analysis and selection of additional brand attributes that can make a brand unique, as well as planning marketing activities to support external communication and brand promotion. The article concludes that the managers of an organization should create conditions in which these tasks are addressed not only by a marketing department but by all the staff in the process of communication with the students and stakeholders. Apart from that, various students’ activities create environment for positive word-of-mouth and emotions that build the brand aura or background.

Originality/value

The article adds to the literature by studying the emotional background that is created with the values and unique features of a university brand. The background can support the main idea of a brand, make it look and sound brighter and more attractive to customers.

Keywords: higher education institution brand, brand model, brand wheel model, brand attributes, brand benefits, brand identity.

Introduction

The Russian market of higher education has a large number of competitors and tough competition between them. As Degtyarev (2013) notes, the modern education system is characterized by the developing concept of personal professional growth, which involves an increase in demand for higher education. Studying becomes not only fashionable, but also necessary. The programs of higher education allow an individual to obtain the professional skills necessary to build a future career (Kapustina et al. 2017). At the same time, prospective students face the problem of choosing educational programs with the best opportunities. Universities use marketing tools to attract applicants and pay increasing attention to development of their brands. A large number of scientific publications of theoretical and applied nature prove this trend. The studies consider the issues of creating and promoting a brand of an educational organization. Higher education institutions introduce brand management technologies: refine the graphic elements of the brand, develop a brand platform, form brand communications, study the perception of the brand by consumers. In general, a brand is defined as a multi-component mental image, formed in the minds of consumers, which influences their choice and determines the activities of the organization. Creating and strengthening its brand will allow universities not only to promote their market offers, but also attract the most capable applicants (Bakasova 2016).

The brand management often involves brand models that reflect the brand structure and the relations between its elements. In our opinion, brand management can be implemented by a university in an efficient way with the help of universal models of the brand, presented in the scientific literature. The article suggests an assessment of brand perception through certain elements of the brand wheel model, reflecting the emotional essence of a brand. The study is a part of the ongoing research that involves statistical analysis of the brand of an educational organization in the regional market (Kapustina, Zhadko & Izakova 2016).

The study aims to identify a brand model that provides for the brand features of a higher education institution, and to assess students 'and employers' perception of the university brand using the brand wheel model.
Analysis of brand models applicable to a higher education organization

The different models proposed by Aaker, Gad, Kapferer, and de Cernatoni are well-known in the theory of branding. They reveal the essence of the brand and its identity. The practical experience of brand management resulted in new models introduced by other authors and teams. Thus, employees of the Bates Worldwide advertising agency developed the brand wheel model; the J. Walter Thompson branding agency proposed the Thompson Total Branding (TTB) model, and Unilever uses its own Unilever Brand Key model. Table 1 presents different approaches to understanding the brand structure.

Table 1. Brand Models

<table>
<thead>
<tr>
<th>Model Creator(s)</th>
<th>Brand Structure</th>
<th>Distinctive Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaker (2003)</td>
<td>A brand is approached in its four displays: brand as a good (country of origin, users, uses, product boundaries, quality/value, properties), brand as organization, brand as “personality” (individuality, relationship between the brand and a consumer), and brand as a symbol (visual images / metaphors, brand heritage)</td>
<td>The model considers the brand identity in the context of the characteristics of the product, organization and consumers, as well as the traditions and brand symbols</td>
</tr>
<tr>
<td>Kapferer (2007)</td>
<td>A brand is a prism, and its faces are the distinctive features of the brand: physical data (physical features and properties that determine the functional added value of the brand), individuality (personal human traits that can be applied to the brand), cultural boundaries (principles managing external marks of the brand – goods and communication), relationship (the type of behavior associated with the brand), the reflection (the representation of the target consumer of the brand), the self-image (the reflection of the buyers’ personalities, their feelings, perceptions about themselves)</td>
<td>All faces of the prism are interrelated and reflected in each other. Physical data, reflection, relationship are social, visible facets that define the external form of brand manifestation. Individuality, cultural boundaries, self-image are the inner faces that reveal the spirit of the brand</td>
</tr>
<tr>
<td>Gad (2005)</td>
<td>Brand mind space includes 4 dimensions: functional (perception of the benefits of the product or service by consumers), social (allows a consumer to be identified and accepted in the group), mental (serves to reconfigure the personality when it needs to change self-perception), spiritual (serves to show responsibility, ethical attitude to others, nature, all the living)</td>
<td>Brand dimensions are the basis for understanding its true nature and future potential. The model is a tool for dynamic modeling: it can be used to create new brands, as well as to analyze the opportunities for existing brands</td>
</tr>
<tr>
<td>De Cernatoni (as cited in Domnin 2009)</td>
<td>The brand elements are: brand attributes (its external manifestations that help consumers identify the brand), benefits (rational advantages provided to consumers), emotional reward (impression from contact with the brand), values (principles the brand shares with consumers), personalized qualities (brand personality)</td>
<td>The model reveals the brand elements through their perception by consumers at the rational, emotional and value-based levels. The brand personality is determined by its human traits</td>
</tr>
<tr>
<td>Bates Worldwide (as cited in Pankrukhin 2011)</td>
<td>The brand wheel consists of five “shells”: attributes (its physical and functional characteristics), benefits (the real result from the contact with the brand), values (emotions from the contact with the brand, what the others think about a brand user), personality (human traits associated with the brand), the essence (the main idea of the brand offered to consumers)</td>
<td>The model allows researcher to link the specific characteristics of a particular brand with its main idea through the benefits, emotions and human traits that consumers consider the most important</td>
</tr>
</tbody>
</table>

Source: authors' elaboration

The models reflect the complexity of the brand structure. Each element of the structure reflects the perception of a brand by consumers. A solid, complete brand is determined by the synergy of all its elements (faces, shells, spaces, etc.), which complement each other and form the main value of the brand.
The variety of existing models allows researchers to choose one that would best reveal the specifics of the brand of a higher education organization. That is why a lot of studies concern brand structure. However, at the same time scientific literature has no unified approach to understanding the brand model of a higher education organization.

Some scientists modify the brand models known in the scientific literature. For instance, Suomi, Lemmetyinen & Go (2013) examine the model of the de Cernatoni and add the seventh element – the place where the university is located. They consider it peculiar to the higher education organization. It is noted that the university brand can gain additional benefits from its favorable location from the students’ point of view.

Many researchers suggest their own models of the university brand by emphasizing certain elements in its structure. Bekker (2012) treats human capital of a university as the main element of its brand structure. The human capital included qualified teaching staff, smart students, graduates getting well-paid jobs. All of these groups are “brand carriers” because they are associated with the university brand. Kaygorodova (2012) also focuses on human capital, but from another point of view. The study concerns brand authorship. The main author of a university brand is the university and its rector in person. Employees and teachers, students, as well as competitors and media – all the groups act as coauthors forming a university brand subculture. Selyukov & Shalygina (2012) contribute to the variety of brand elements by adding organization of the educational process, the emotional image of the brand, and the material and technical facilities. Each of these elements is considered through the prism of specific manifestations, which can be easily communicated to consumers.

Yuryev & Groshev (2010) consider that the main attributes of the university brand are as follows: history and its reputation, stability and opportunities for further development, the demand for graduates in the labor market, professionalism and quality of the teaching staff, geographical position, corporate style, openness of the university and its integration into the external environment. Prokhorov (2016) believes that the university brand includes elements that reflect its perspective image: mission, brand positioning ideas, values of target groups, rational and emotional benefits, brand promise, brand character.

Some authors adapt the models found in the classical brand theory. Table 2 presents two classical brand models, applied to an educational organization.

As the table suggests, the 4D branding and the brand wheel models are universal and can be adapted to the peculiarities of the higher education organization. Ivanova, Kofanov & Yelenev (2011) consider the university brand as a complex construct that consists of four interrelated dimensions. Vanyushkina (2011) sees the essence of the brand as the quintessence of its attributes, advantages, values and personality.

The analysis of brand models of a higher education organization allows the authors to identify some intersections with the basic principles of brand management:

- the brand model of a university can include various components – the specific characteristics of an educational organization (quality of the teaching staff, material and technical facilities, geographical position and many other elements), the benefits that consumers can potentially receive from the contact with the brand, values, emotions, associations;

- the model of the university brand combines rational and emotional characteristics. The rational basis is determined by attributes – the benefits consumers want from the contact with the brand. Emotional space includes values, emotions, affective benefits, associations created when contacting the brand.
Table 2. Brand models adapted to the peculiarities of a higher education organization

<table>
<thead>
<tr>
<th>Model</th>
<th>Brand Structure</th>
</tr>
</thead>
</table>
| 4D Branding (as cited in Ivanova, Kofanov & Yelenev 2011) | - the functional dimension characterizes the ability of the university brand to fulfill its main purpose – to provide education of high quality and conditions for socialization (preparatory courses, olympiads, insider connections, availability of a large number of state-funded places, the reputation of the university).
- the social dimension characterizes the brand's ability to represent the university community and strengthen its reputation (getting a well-paid job, guaranteed employment).
- the emotional dimension reflects the ability to address and cause emotional, value-based, associative reactions: "hygienic" factors (interior, university territory), emotions from communication and participation in student life.
- the imperative dimension represents the brand's ability to support and consolidate value-based orientations, goals and affirmations of an individual (studying at the university as an investment project) |
| Brand Wheel (as cited in Vanyushkina 2011) | - attributes (educational programs, research activities, entrance exams, tuition fees).
- benefits (self-actualization, value of the graduate in the labor market).
- values (unique courses, famous teachers, contacts with foreign educational organizations).
- brand personality (intellectual potential).
- brand essence (mission of the university) |

Source: authors' elaboration

At the same time a number of models created especially for educational organizations can hardly be taken as brand models. They rather express peculiar brand features of a particular higher education organization. Much attention is paid to the physical characteristics and benefits of the brand, while emotions, associations, and consumer values don’t receive the consideration they deserve. In this regard we think that the most appropriate approach is adapting classical brand models to higher education organizations. The multi-component structure of the brand is best reflected by circular models and the brand wheel model in particular (Masalsky 2010). This model visualizes the brand as a number of shells overlapping each other and reflecting the perception of the brand by consumers.

Assessment of the university brand perception on the basis of the brand wheel model

The brand wheel model suggests the optimal number of elements located in the sequence from rational to emotional ones. The model consists of five shells, with each shell adding to the contribution of the previous one.

- Attributes are functional characteristics of the brand. When applied to a higher education organization, this shell will include the following characteristics: qualification of the teaching staff; availability and quality of the lecture rooms, laboratories, etc.; available educational programs; scientific research fields; conditions for the development of extracurricular activities, etc.;
- Benefits are advantages that a consumer receives from contact with the brand. In case of a university brand structure, they can include the opportunities for discovering and developing personal abilities; turning into a well-trained specialist enjoying high demand in the labor market; obtaining the knowledge and skills necessary to build future career; making new acquaintances; interesting and diverse student life;
Values are emotions experienced by consumers when contacting the brand. Joy, interest, satisfaction, confidence in one’s future – are the major positive emotions mentioned by students associated with the contact with the university brand;

Personality, or personalization, is the brand perception as a person with human traits associated with the brand. The personality of a university brand is a symbiosis of personal traits that can be found in the students themselves, as well as the features that they attach to a successful graduate;

Brand essence is the key idea of the brand, which is communicated to a consumer. It is usually reflected in the mission of the educational organization.

The authors have conducted a case study to assess the perception of the brand of the Ural State University of Economics (USUE, Ekaterinburg, Russia). A total of 175 students have interviewed selected with random sampling. The respondents answered to the questions of the survey revealing their perception of the university brand in its particular elements. The elements have been chosen to form the context of the brand wheel model.

Table 3 presents the main attributes – the functional characteristics of the brand – mentioned by respondents.

Table 3. The main attributes of the USUE brand

<table>
<thead>
<tr>
<th>Brand attribute</th>
<th>Share of respondents mentioning the attribute, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>All classes are interesting and exciting</td>
<td>58,5</td>
</tr>
<tr>
<td>This is a university where you can get an economic education of high quality</td>
<td>64,4</td>
</tr>
<tr>
<td>The university has rich opportunities for scientific and research activities</td>
<td>65,6</td>
</tr>
<tr>
<td>Students are involved in international cooperation</td>
<td>68,4</td>
</tr>
<tr>
<td>The university has all the conditions needed to develop the abilities of students</td>
<td>75,2</td>
</tr>
<tr>
<td>Teachers have profound knowledge of the disciplines they teach</td>
<td>78,5</td>
</tr>
<tr>
<td>The university has diverse and interesting student life</td>
<td>84,6</td>
</tr>
</tbody>
</table>

Source: authors' elaboration

It should be noted that most of the mentioned attributes of the university brand concern education as the core activity of the university. Apart from that, the respondents consider teachers and their ability to give interesting classes to be significant attributes. The absolute majority of students define a diverse and interesting student life as the main attribute of the university. The survey has revealed the main benefits that students think they can receive from the contact with the university brand (Figure 1).
It is often said that the younger generation pays more attention to the pragmatic goals and references: achieving certain social status, material prosperity, etc. In this regard higher education is treated not as a tool but rather as a goal by itself which is equalized to a successful career (Vasenina & Peretolchin 2011). In modern conditions the tendency becomes clear that university applicants and students develop economic behavior and make rational decisions (Koksharov & Agarkov 2015). The pragmatism of the modern youth determines the primary importance of rational benefits from the contact with the brand of an educational organization, as shown by the study (Figure 1). The most significant benefits that students want to get from the contact with the brand are rational. They can be divided into two groups:

- long-term expectations related to future professional activities. More than a half of the respondents want to be highly educated professionals after graduation and 39% of the students want to get a well-paid position. These goals are linked to contacting the university brand;

- benefits of self-actualization: almost 77% of the respondents note their willingness to obtain new knowledge, skills and develop their own abilities.

The respondents also mention emotional benefits, namely the desire to make new friends and enjoy student life. However, these benefits were mentioned only by 18% and 7.5% of the respondents, respectively.

The main reasons for the predominance of pragmatic approach and rational perception of the university brand can be linked to the following social trends.

1. Transformation of the values of the Russian youth: self-actualization, personal achievements, self-development become the most important factors that form the basis of self-esteem (Postnikova & Chicherina 2016). Much emphasis is put on the material wealth: high income, material well-being, demonstrative consumption, and materialism. The achievement of these benefits is considered possible with obtaining a well-paid position.

2. Expansion and changes of the means of communication. Internet communications have provided the younger generation with the opportunity to communicate with seemingly unlimited number of people and find like-minded individuals around the world. In addition, thanks to various Internet communities, students have access to the entertainment, information, game resources of the global computer network. Internet communication can be the reason...
why the student life is losing its importance as a symbiosis of entertainment, exchange of everyday experience, basis for personal relationship, as it used to be for the past generations.

The prevalence of rational benefits that are important for modern students to a great extent determines the content of another shell of the university brand wheel – the attributes. Attributes should obviously contribute to the achievement of rational benefits. Thus, a higher education organization can focus on those attributes that contribute to the self-development and self-actualization of students, as well as their successful career in the future.

As shown by the survey data, students mostly experience positive emotions when interacting with the university brand (Fig. 2).

Given the general positive perception of the brand, a small number of students experience boredom and frustration when interacting with it. It was noted by 18% and 15% of the respondents respectively. The results obtained require additional studies to find out the expectations of students and the reasons for the lack of interest.

When describing the personality of the university brand, respondents subconsciously describe themselves and their friends, as well as the main characteristics of a student’s personality in general. The main personal traits associated with the university brand are shown in Figure 3.

![Chart showing emotions experienced by students](image)

**Figure 2** – Emotions experienced by students from the contact with the university brand. *Source: authors’ elaboration*
Analyzing the personality of the university brand as perceived by the students, it should be noted that it is associated with a large number of positive personal qualities. None of the respondents mentioned any professional characteristics. At the same time, the basic personal traits are consistent with the abovementioned attributes identified by the students. The personal traits can be actualized through the attributes.

The brand wheel model was developed and designed at the next stage of the study (Figure 4).

One of the key features of the higher education organization is its activities in two markets: the market of educational services and the labor market. In this regard, the consumers of a higher education organization are not only students, but also their future employers. The authors have conducted interviews with 22 top and middle-rank managers of the enterprises based in Ekaterinburg in order to assess the perception of the university brand by the representatives of the labor market. About 2/3 of the respondents representing employers are former USUE graduates themselves. The complexity of the study is defined by the fact that employers perceive the university brand as an abstract construct combining the characteristics of students and the university, as well as the benefits that students can receive from studying at the university and the employers themselves from contacting the graduates. All respondents had experience of contacting with the students by either giving lectures and workshops in universities of Ekaterinburg or managing students’ internship or taking part in the state examination commissions. The results of the assessment are shown in the Table 4.

Figure 3 – the USUE brand as a personality. *Source: authors’ elaboration*
Figure 4 – the brand wheel model for the USUE in the perception of students. Source: authors’ elaboration
Table 4 – Elements of the brand wheel model of the USUE as perceived by the employers

<table>
<thead>
<tr>
<th>University brand model elements characteristics</th>
<th>Share of respondents, %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attributes:</strong></td>
<td></td>
</tr>
<tr>
<td>- high quality of students' training</td>
<td>86</td>
</tr>
<tr>
<td>- highly qualified teaching staff</td>
<td>91</td>
</tr>
<tr>
<td>- available conditions for the development of students’ abilities</td>
<td>79</td>
</tr>
<tr>
<td>- university graduates enjoy demand as employees on the labor market</td>
<td>88</td>
</tr>
<tr>
<td><strong>Benefits:</strong></td>
<td></td>
</tr>
<tr>
<td>- graduates demonstrate high level of readiness for independent professional activities</td>
<td>87</td>
</tr>
<tr>
<td>- graduates are characterized by the required executive discipline</td>
<td>68</td>
</tr>
<tr>
<td><strong>Emotions:</strong></td>
<td></td>
</tr>
<tr>
<td>- satisfaction</td>
<td>84</td>
</tr>
<tr>
<td><strong>Brand personality characteristics:</strong></td>
<td></td>
</tr>
<tr>
<td>- educated</td>
<td>96</td>
</tr>
<tr>
<td>- active</td>
<td>86</td>
</tr>
<tr>
<td>- goal-oriented</td>
<td>64</td>
</tr>
</tbody>
</table>

Source: authors' elaboration

The results of the research have shown that respondents mostly share the opinions regarding the perception of attributes and benefits of the university brand. The majority treat the university as an organization offering economic education of high quality. Among the brand benefits, 5 out of 22 respondents (or 27%) mentioned the opportunity for university graduates to qualify for well-paid positions. Satisfaction is the major emotion from the contact with the brand noted by the participants of the survey. In addition, many respondents noted that they were proud for the high quality of student training and the quality of events hosted by the university. At the emotional level, the USUE brand is perceived by respondents, primarily as an educated person (96%). This peculiar trait of the students and graduates can be regarded as a projection of the impression about the university brand.

**Conclusion**

The literature review shows that the brand management theory presents a number of brand models that suggest different approaches to brand structure. The authors have chosen the brand wheel model for the study of the university brand, because it reveals the multi-component structure of the brand, linking its attributes and the main idea through the benefits, emotions and brand personality characteristics that are significant for consumers.

The results of the study show that the brand wheel model suggested for the brand of the Ural State University of Economics in many respects resonates with the approaches to the brand elements content for the educational organization that can be found in the literature. The main functional characteristics that form the first shell of the brand wheel of an educational institution include the qualities of the staff, opportunities for self-development, variety of research activities, and interesting events of the student life. These attributes are considered essential by consumers, they are associated with the higher education organization in general.

The benefits of students’ contact with the university brand, mentioned by the students, confirm that the interests of the modern youth mainly belong to the field of professional growth, material welfare, and self-actualization. On the one hand, the results obtained prove that the USUE brand is up-to-date corresponding to students’ expectations about the basic functional characteristics and benefits. On the other hand, the brand management of the university is becoming more complicated. It requires a thorough analysis and selection of additional attributes and advantages that determine the uniqueness of the brand.
The perception of the individual elements of the university brand by employers is uniform to a certain degree. The students are regarded as carriers of the USUE brand. They demonstrate high level of training, which determines demand for them as potential employees. Thus, they reflect the professional qualities of the university staff and the variety of self-development opportunities. In general, employees note high level of satisfaction with the contacts with the university brand.

The authors draw the conclusion that the values and the brand identity of a university brand contribute to the emotional background in which the main idea of the brand sounds bright, unique and attractive to consumers. Creating this emotional background is the task belonging not only of the marketing department of a university, but also of all staff of an educational organization. The external brand communications are usually supported not only by targeted marketing activities, but also by the general attitude of teachers and employees towards the students and their professional duties. It is also important to create conditions for diverse interaction of students with each other, because the unique student environment allows them to diversify the range of emotions they experience and create the needed aura for the brand.

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DEVELOPMENT OF GOVERNMENT ROLE TO STIMULATE AND CONTROL ENTREPRENEURSHIP (TAX REVENUE, LATVIAN EXAMPLE)

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Latvia University of Life Sciences and Technologies

Abstract
This paper examines the entities registration and removal dynamic and correlation with the number of taxpayers in the period from 2006-2017 in Latvia and how it affects the tax revenues and amendments in enactments. Analyse the government role to stimulate and to control the entrepreneurship environment. During the crisis, several taxes were amended to slightly mitigate the effects of the crisis, and in 2010 the Micro-enterprise Tax Law was developed and adopted. Due to low tax morale after financial crises in and taxpayer’s reluctance to pay taxes in 2011 in the structure of the State Revenue Service was created of a new unit - the Tax Accounts Administration. To mitigate the burden of tax debt arisen as a result of economic crisis, in accordance with the law on Tax Support Activity the taxpayers – both legal and natural persons who by 1 September 2011 had tax debt unpaid until 1 October 2012, were offered the opportunity to apply for the participation in tax support activity. And in the same time - from 2012 State Revenue Service can suspend taxpayer’s economic activities and taxpayers may not engage in transactions with such taxpayer the economic activity of which has been suspended by State Revenue Service.

JEL code: available on: G38, H26, H71, H83, M48

Introduction
In Latvia, the registration and exclusion of companies from Register of Enterprises are very dynamic during 2006-2017. One reason is entities insolvency after economic crises in 2007, but from 2012 the State Revenue Service has an essential role in excluding entities from Register of Enterprises. The author analyzes how the government arranges the business environment by using the regulatory framework and grants the State Revenue Service (hereinafter - SRS) the right to suspend the taxpayer's economic activities and to decide not to reinstate taxpayer's activities as a result of which the company should be liquidated.

The research aim is to analyze the SRS right to suspend and restore the taxpayer's economic activities in Latvia. Based on the aim, the following research tasks were set: to analyse the registration and exclusion dynamics of companies and to determine the relationship between actual number of companies and number of tax payers and the influence on tax revenues; to analyse the development of enactments and amendments in them due to taxpayers activities an how work the special instrument for SRS – terminate the company’s activities due not to cooperate with SRS.

Materials and methods.The principal materials used for the studies are as follows: various enactments, amendments, various sources of institution reports and statistics. The following qualitative and quantitative methods were employed: the monographic method, logical analysis and synthesis, statistical methods, i.e. statistical observation, compilation and grouping of information, calculation of statistical data etc.

Research results and discussion
Tax revenues are the key source of finance for the government’s budget. The State budget is mainly comprised of taxes – a mandatory periodic or one-off payment prescribed by law for ensuring the revenues of the State budget or local government budgets (general budget or special budget) and the funding of the functions of the state and local governments (On Taxes and Duties, 1995). Budgetary revenues are allocated for executing the functions of the government, the funding of which is stipulated by legal acts (On Budget and Financial Management, 1994), i.e. various social projects are implemented for residents, regional economic development etc. are ensured.

John Maynard Keynes considered that the governments had a major responsibility for regulating the economic climate in ways that would permit the market system to achieve its full potential. He noted that an unregulated market system was likely to be chronically unstable and incapable of assuring the full utilization of productive resources (Barber, 2009).
So, governments, by passing various regulatory enactments, increase the control of the entrepreneurship environment and, by means of available instruments, can foster the development of the market or hinder it. For instance, during the crisis, the government may make amendments in enactments or develop special tax for to cope with a crisis or promote to start a new business.

According to the statistical data of the Register of Enterprises of the Republic of Latvia, the registration and exclusion of companies are very dynamic (Figure 1).

The Register of Enterprises of the Republic of Latvia registers companies, traders, their branches and representative offices, mass media, associations and foundations, political parties, arbitration bodies, trade unions, religious organizations and religious institutions (Register of Enterprises …, 2018). The most registered business form in Latvia is limited liability company (hereinafter - LLS). In 2006 and 2007 LLC was 59% of registered entities, in 2008 – 60%, in 2009 – 61%, in 2010 – 62%, in 2011 – 65%, in 2012 – 68%, in 2013 – 70%, in 2014 – 72% and during last three years (2015-2017) LLC was 74% of registered entities in the Register of Enterprises.

![Graph showing registration and removal dynamics](source: author’s calculations based on statistical data of the Register of Enterprises of the Republic of Latvia)

Fig. 1. Registration and removal dynamics per month by Latvia’s Register of Enterprises in the period from 2006-2017

The number of registered entities significantly decreased in 2008 (-20% in comparison with 2007) and in 2009 (-19% in comparison with 2008) because of effects of the global financial crisis, but rapidly started increased from September 2010 (+45% in comparison with 2009) (Figure 1 and Table 1). This increase was stimulated by the government – significant changes were made to the tax policy to ensure the revenue of the state budget in times of crisis, as well as to improve various tax regimes.

During the crisis, several taxes were amended to slightly mitigate the effects of the crisis, but most importantly - the Micro-enterprise Tax Law was developed and adopted, which takes effect on 1 September 2010. The status of a micro-enterprise could be obtained voluntarily by an individual merchant, an individual undertaking, a farm or fishing enterprise, as well as a natural person registered with the State Revenue Service as a performer of economic activity or a limited liability company which meets the following criteria:
a) the participants (if any) are natural persons, members of the board of directors of a limited liability company may only be employees of the micro-enterprise,

b) the turnover does not exceed 99,601 euros (70,000 LVL) in a calendar year,

c) the number of employees does not exceed five at any time and the remuneration for work at a micro-enterprise does not exceed 711.44 euros (500 LVL) per month (Micro-enterprise Tax Law, 2010).

The micro-enterprise tax rate was set at 9% of the calendar year's turnover. The microenterprise tax is paid quarterly. Started form 2012 the Micro-enterprise Tax Law has been amended, for example, the tax rate has increased up to 15% in 2018, but author’s purpose is not to analyse the micro-enterprise tax, the author’s aim is to show how government influence on the business environment by using tax instruments.

Micro-enterprise tax is a tax, which includes:

a) State social insurance mandatory contributions, personal income tax and State fee of the business risk for micro-enterprise employees,

b) enterprise income tax, if the micro-enterprise conforms to the features of the enterprise income taxpayer,

c) personal income tax of the micro-enterprise owner for the part of the micro-enterprise revenue from the economic activity (Micro-enterprise Tax Law, 2010).

To foster the economy’s recovery and to motivate individuals to engage in entrepreneurship in Latvia, essential amendments were made in the Commercial Law too. Until 30 April 2010 in Latvia, there were legal provisions in force which provided that, if founding an LLC, an equity capital of 2845.74 euros (2000 LVL) had to be paid in before applying to the Register of Enterprises (The Commercial Law, 2000). However, since 1 May 2010 in Latvia, the initial registered and paid-in equity capital for an LLC could be 1.42 EUR (1 LVL), and such enterprises are called micro-capital enterprises. The micro-capital enterprises may be only LLC, and the mentioned reliefs do not apply to stock companies.

By creating micro-enterprise tax and reducing the registered and paid-up share capital for LLC government achieved its goal – activating entrepreneurship and increasing the number of entrepreneurs.

Table 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of registered entities</th>
<th>Chain increase, %</th>
<th>Number of excluded entities</th>
<th>Chain increase, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>13404</td>
<td>–</td>
<td>3274</td>
<td>–</td>
</tr>
<tr>
<td>2007</td>
<td>14208</td>
<td>6</td>
<td>11185</td>
<td>242</td>
</tr>
<tr>
<td>2008</td>
<td>11347</td>
<td>-20</td>
<td>4765</td>
<td>-57</td>
</tr>
<tr>
<td>2009</td>
<td>9228</td>
<td>-19</td>
<td>5715</td>
<td>20</td>
</tr>
<tr>
<td>2010</td>
<td>13422</td>
<td>45</td>
<td>8834</td>
<td>55</td>
</tr>
<tr>
<td>2011</td>
<td>18044</td>
<td>34</td>
<td>3920</td>
<td>-56</td>
</tr>
<tr>
<td>2012</td>
<td>16891</td>
<td>-6</td>
<td>4308</td>
<td>10</td>
</tr>
<tr>
<td>2013</td>
<td>16365</td>
<td>-3</td>
<td>4156</td>
<td>-4</td>
</tr>
<tr>
<td>2014</td>
<td>14965</td>
<td>-9</td>
<td>6402</td>
<td>54</td>
</tr>
<tr>
<td>2015</td>
<td>13484</td>
<td>-10</td>
<td>10070</td>
<td>57</td>
</tr>
<tr>
<td>2016</td>
<td>11206</td>
<td>-17</td>
<td>12229</td>
<td>21</td>
</tr>
<tr>
<td>2017</td>
<td>10210</td>
<td>-9</td>
<td>16480</td>
<td>35</td>
</tr>
</tbody>
</table>

Source: author’s calculations based on statistical data of the Register of Enterprises of the Republic of Latvia

During the economic crisis in Latvia from 2007 to 2010, companies had low liquidity indicators, enterprises lacked finances to settle accounts with cooperation partners, including employees, unemployment rose. During this period, legal person insolvency proceedings became a way of liquidating an enterprise.
During the period from 2008 till 2017, on average, 2171 persons (both legal persons and natural persons) were declared insolvent per year.

In 2017 within the framework of the tax reform, the Parliament of the Republic of Latvia approved several enactments and amendments in existing enactments and starting from 1 January 2018 both entrepreneurs and natural persons are affected by significant changes in the tax area. Due to the forthcoming tax reform, many entities stopped their economic activities and liquidated, which is also evident in Figure 1 and Table 1.

The author further seeks to find out whether there is a direct link between the number of companies registered in the Register of Enterprises and the number of taxpayers (legal entities) registered by the State Revenue Service in Latvia.

Table 2

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of companies</th>
<th>Chain increase, %</th>
<th>Number of taxpayers (legal entities)</th>
<th>Chain increase, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>152634</td>
<td>–</td>
<td>141180</td>
<td>–</td>
</tr>
<tr>
<td>2007</td>
<td>155657</td>
<td>2</td>
<td>145453</td>
<td>3</td>
</tr>
<tr>
<td>2008</td>
<td>162239</td>
<td>4</td>
<td>151476</td>
<td>4</td>
</tr>
<tr>
<td>2009</td>
<td>165752</td>
<td>2</td>
<td>155430</td>
<td>3</td>
</tr>
<tr>
<td>2010</td>
<td>170340</td>
<td>3</td>
<td>161895</td>
<td>4</td>
</tr>
<tr>
<td>2011</td>
<td>184464</td>
<td>8</td>
<td>177663</td>
<td>10</td>
</tr>
<tr>
<td>2012</td>
<td>197047</td>
<td>7</td>
<td>191935</td>
<td>8</td>
</tr>
<tr>
<td>2013</td>
<td>209256</td>
<td>6</td>
<td>205808</td>
<td>7</td>
</tr>
<tr>
<td>2014</td>
<td>217819</td>
<td>4</td>
<td>216131</td>
<td>5</td>
</tr>
<tr>
<td>2015</td>
<td>221233</td>
<td>2</td>
<td>221727</td>
<td>3</td>
</tr>
<tr>
<td>2016</td>
<td>220210</td>
<td>0</td>
<td>222643</td>
<td>0</td>
</tr>
<tr>
<td>2017</td>
<td>213940</td>
<td>-3</td>
<td>217772</td>
<td>-2</td>
</tr>
</tbody>
</table>

Source: author’s calculations based on statistical data of the Register of Enterprises of the Republic of Latvia and statistical data of the State Revenue Service of the Republic of Latvia

According to the statistical data (Table 2) author concludes that there is no direct correlation between the number of registered companies in the Register of Enterprises of the Republic of Latvia and the number of registered taxpayers (legal entities) in the SRS. In some years, the relationship could be observed, but without detailed analysis of the data, it can not be determined by simple methods.

Further on, the author has collected data on budget revenues for the period from 2006 to 2017 (Figure 2).
In Latvia, the principle of cash flow is used in tax revenue accounting. Although the increase in the number of registered companies and taxpayers has also resulted in an increase in tax revenues over the period from 2010 (Figure 2), however, while analyzing tax collection information, the author concludes that the crisis has had a significant impact on to collect taxes according to declared information by entities (tax declarations).

In 2011, following the recommendation of the International Monetary Fund on improving the work of the SRS in the field of tax debt recovery, in the structure of the SRS was created of a new unit - the Tax Accounts Administration with 272 posts (State Revenue Service, 2012).

In order to mitigate the burden of tax debt arisen as a result of economic crisis, in accordance with the law on Tax Support Activity the taxpayers – both legal and natural persons who by 1 September 2011 had tax debt unpaid until 1 October 2012, were offered the opportunity to apply for the participation in tax support activity. The activity provided for the cancellation of late payment penalty and 90% of fine on the condition that the taxpayer makes the payment of basic tax debt and related fine in the amount of 10% by a certain date (State Revenue Service, 2013).

The author considers that tax support activity comes into force too late. Financial crises started in 2007. In this year 11185 entities were excluded from the Register of Enterprises (Table 1).

In 2008, 1289 legal entities-initiated insolvency cases, while in 2009 when the negative effects of the economic crisis strengthened, 2149 legal entities initiated their insolvency cases, which was 67% more than in 2008 (Kelmere L., Jakusonoka I., 2014).

Before implementing the support measure, the SRS set up a separate unit to collect tax debts and author considers that it affected the taxpayer's attitude to the government.

Torgler analyzed tax morale in 10 Eastern European countries that joined the European Union in 2004 or 2007 (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia, Bulgaria and Romania). Torgler finds out that tax morale between 2000 and 2008 has decreased in 7 out of 10 countries (Czech Republic, Estonia, Latvia, Lithuania, Poland, Romania, and Slovakia) and is consistent with the tax morale values in the 1990s. (Torgler, 2012).
Palidauskaite, Pevkur, and Reinholde believe that most of the population in the three Baltic States expresses rather low trust in civil service. In other words, citizens notice when the activities of civil servants differ from the standards set by the legislation and codes of ethics (Palidauskaite et al., 2010).

Author agrees that tax morale which is reflected in the tax culture – to pay or not to pay tax – was low in Latvia during crises and after that. This is evidenced by the fact that in the law On Taxes and Duties were strengthened norms by whom SRS has the right to suspend the economic activity of the taxpayer (or its structural unit in which infringement has occurred):

1) in 2008 established the duty of the tax administration to inform the Register of Enterprises about the suspension and renewal of the economic activities of the taxpayer (On Taxes and Duties, 1995) – this means that the partners can follow up and not engage with such partners, but it was voluntary and did not produce tax consequences. And if during the tax audit (audit) it is found that the violator of the normative acts does not actually carry out economic activities, is not achievable or avoids conducting a tax audit (audit), the SRS shall not take a decision regarding the restoration of the violator of the regulatory enactments (On Taxes and Duties, 1995) – this is a way of eliminating a business without doing anything (simplified liquidation),

2) in 2012 established that taxpayers may not engage in transactions with such taxpayer the economic activity of which has been suspended by SRS, from the day following the date on which the entry of the record in the Commercial Register of the Enterprise Register regarding the suspension of the economic activity of the taxpayer is made, or the taxpayer registered with the SRS as a performer of economic activity, from the date following the date when the relevant information is published in the website of the SRS. If the taxpayer carries out a transaction with such taxpayer the economic activity of which has been suspended by the SRS, and the transaction or the total value of the transactions exceeds 1500 euro, the expenses incurred by the taxpayer as a result of such activities shall not be considered expenses related to economic activity (On Taxes and Duties, 1995) – and this produce tax consequences.

The author compiled statistics about suspension and reinstatement economic activities of taxpayers per year by SRS (Table 3).

Table 3
Suspension and reinstatement economic activity of taxpayers per year by the State Revenue Service of the Republic of Latvia in the period from 2012-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Suspend economic activity</th>
<th>Chain increase, %</th>
<th>Reinstate economic activity</th>
<th>Chain increase, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>637</td>
<td>–</td>
<td>14</td>
<td>–</td>
</tr>
<tr>
<td>2013</td>
<td>10351</td>
<td>1525</td>
<td>231</td>
<td>1550</td>
</tr>
<tr>
<td>2014</td>
<td>10897</td>
<td>5</td>
<td>508</td>
<td>120</td>
</tr>
<tr>
<td>2015</td>
<td>12533</td>
<td>15</td>
<td>686</td>
<td>35</td>
</tr>
<tr>
<td>2016</td>
<td>10480</td>
<td>-16</td>
<td>715</td>
<td>4</td>
</tr>
<tr>
<td>2017</td>
<td>5457</td>
<td>-48</td>
<td>328</td>
<td>-54</td>
</tr>
<tr>
<td>Total:</td>
<td>50355</td>
<td></td>
<td>2482</td>
<td></td>
</tr>
</tbody>
</table>

Source: author’s calculations based on statistical data of the State Revenue Service of the Republic of Latvia
According to the statistical data (Table 3) author concludes that SRS is very active to put the business environment in order and it affects on the number of excluded entities from Latvia’s Registers of Enterprises too (Table 1). During 2012-2017 SRS suspend 50335 taxpayers economic activities, but reinstate the economic activities only 4.93% of them.

According to SRS actually recoverable debts, to which the recovery of outstanding tax payments on a no contestation basis may be directed, as of 31 December 2014 amounted to 136.02 million euro or 14.0% of total amount of current debts and 9.7% of the total amount of debts. As compared to 1 January 2014, the amount of actually recoverable debts decreased by 17.68 million euro or 11.5% (State Revenue Service, 2015). On 31 December 2015 actually recoverable debts, to which the recovery of outstanding tax payments on a no contestation basis may be directed, amounted to 116.37 million euro or 11.6% of the total amount of current debts and 8.2% of the total amount of debts (State Revenue Service, 2016), but on 31 December 2016 – 152.60 million euro or 15.7% of the total amount of current debts and 11.2% of the total amount of debts (State Revenue Service, 2017).

Therefore on average, about 80% of accounted debts administered by SRS are non-recoverable. If the SRS knows total amount of debts, then it would be possible to conclude that the accountants do their work well - reports are submitted, but those who have the right to handle the company's cash money for some reason do not transfer cash to state budget or maybe the company do not have cash to pay taxes per other reasons, for example, debtors do not pay.

Regardless of the reason why the company does not pay taxes, if the government does not receive them, they use instruments to recover the debt, using amendments to regulatory enactments, even stop the economic activity of the taxpayer. The author agrees that the business environment must be cleaned up from empty companies created to avoid taxes, but unfortunately it also negatively affects the work of those entrepreneurs who are determined to work honestly, as the entrepreneur needs to invest resources in keeping track of their partners cooperation with SRS.

From January 1, 2016, SRS can suspend taxpayer’s economic activity without warning of deliberate and repeated significant taxpayer violations.

According to statistical data author conclude that in most cases SRS was right in stopping the taxpayer’s economic activity as SRS reinstate economic activity only for 2482 taxpayers or in 4.93% cases from all suspended economic activities during 2012-2017 (Table 3), but if on average 5% of taxpayers want to reinstate their economic activity, SRS should develop criteria and an assessment system for working with them differently and it probably would not be necessary to decide on the suspension of the taxpayer's economic activity, as such record affects the reputation of the company negatively, as well as the entrepreneur's desire to build and develop a business in Latvia.

Conclusions, proposals, recommendations

1) The registration and exclusion of companies are very dynamic during 2006-2017 in Latvia. During last three years LLC was 74% of registered entities in the Register of Enterprises.

2) The number of registered entities significantly decreased in 2008 (-20% in comparison with 2007) and in 2009 (-19% in comparison with 2008) because of effects of the global financial crisis, but rapidly started increased from September 2010 (+45% in comparison with 2009). This increase was stimulated by the government – significant changes were made to the tax policy to ensure the revenue of the state budget in times of crisis, as well as to improve various tax regimes (e.g. developed the Micro-enterprise Tax Law, amendments in the Commercial Law).

3) There is no direct correlation between the number of registered companies in the Register of Enterprises of the Republic of Latvia and the number of registered taxpayers (legal entities) in the SRS.

4) Although the increase in the number of registered companies and taxpayers has also resulted in an increase in tax revenues over the period from 2010 (was adopted the Micro-enterprise Tax Law), however, the crisis has had a significant impact on the ability of the SRS to collect taxes according to declared information by entities (tax declarations).

5) To mitigate the burden of tax debt arisen because of economic crises, the government offered the opportunity to apply for the participation in tax support activity from 2012.

6) The author considers that tax support activity comes into force too late. Before implementing the support measure, the SRS set up a separate unit to collect tax debts and author considers that it affected the taxpayer's attitude to the government.

7) In 2008 established the duty of the tax administration to inform the Register of Enterprises about the suspension and renewal of the economic activities of the taxpayer and in 2012 established that taxpayers may not engage in transactions with such taxpayer the economic activity of which has been suspended by SRS. From 2016 SRS can suspend taxpayer’s economic activity without warning of deliberate and repeated significant taxpayer violations.
8) During 2012-2017 SRS suspend 50335 taxpayers economic activities but reinstate the economic activities only 4.93% of them.

9) In most cases SRS was right in stopping the taxpayer’s economic activity as SRS reinstate economic activity only for 2482 taxpayers during 2012-2017, but if on average 5% of taxpayers want to reinstate their economic activity, SRS should develop criteria and an assessment system for working with them differently and it probably would not be necessary to decide on the suspension of the taxpayer's economic activity.

References


About the Importance of Tourism Promotion Policy (Georgian Case)

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Abstract

Today tourism is one of the main directions of development of national economy in Georgia. With the development of this sector, the country can receive significant revenues and reduce the level of unemployment. The tourism promotion policy, which the state is implementing, is expressed to carry out a number of activities and support by the state. Georgia has a great tourist potential. Georgian resorts and tourist destinations have gained wide recognition. Our country is becoming more attractive for foreign travelers and tourists. Tourism development is not only the result of the industry activity. But it needs united effort of state and private sectors. The growth of interest towards Georgia on the international tourism market is largely conditioned by the state’s policy of tourism promotion. In this work are given analysis of the current situation in Georgia and a number of conclusions. According to the authors, the positive results were brought the use of marketing approaches and the work to demonstrate the advantages of tourism destinations of the country. In this case a big role played the use of world leading news channels that have a large audience in different countries of the world. Also, it is necessary to master marketing approaches to every enterprise and organization involved in the tourism and hospitality industry, because they make great contribution to the satisfaction of tourists.

Keywords:
Marketing, Tourism industry, Tourism promotion, Tourist satisfaction, Service

Introduction

Tourism is a complex system, because its efficient functioning is related to the activities of enterprises of different field. The main difficulty of Travel and tourism, as an understanding of the essence of the industry, is the variety of private and public sector enterprises, which are involved in tourism services. The main sectors in travel and tourism are:

- Hospitality sector,
- Attractions and events sector,
- Transport sector,
- Travel organizers’ and intermediaries’ sector,

The spread of information has a positive effect on the growth of interest towards the country and its tourist destinations. Obviously, positive results bring continuous work to show the advantages of your country to the world, show your country's capabilities and those advantages, which will make travel in this country unique and full of pleasant impressions. Therefore, on the news channels, which have a large audience of millions of viewers in different countries around the world, dissemination of information about your country is effective. Promoting advertisements and films on television channels worldwide can significantly increase awareness of the country and its tourist destinations and promote their popularity.

Literature Review

The use of marketing tools plays a major role in attracting tourists. It should be noted that in the 21st century marketing are becoming increasingly important in financial success of companies. Cities, countries and regions compete with each other for attracting tourists [Kotler, Keller, 2015, p.7]. Marketers should define what functions are needed in the process
of creating new services, what kind of price to put, how much money they spend in advertising, sales, and Internet activities [Kotler, Keller, 2015, p.4].

It’s important to determine the buyers’ satisfaction index. If this index gets worse, it’s necessary to determine its reasons, which is not a simple process. The reasons may vary in: reducing the product’s quality, the increase in buyers’ expectation level and etc. [M. Seturi, E. Urotadze, 2017, p.170].

The National Tourism Administration has a major role in promoting tourism destinations, which has developed the National Tourism Strategy, and then its appropriate action plan. Positive outcomes can make use of different methods of public relations, such as Press tours and Info tours. For example, representatives of media and tourism companies from different countries of the world visited Georgia by invitation of Georgian National Tourism Administration. After the visit, the positive articles and good stories were written, programs and documentary films were prepared about Georgia. In 2016 Georgia hosted 600 journalists and 280 tour operators. More than 680 programs, stories, articles and blog posts have been prepared about Georgia [Ministry of Economy ..., Projects, Tourism, 2017]. In 2017, in order to increase Georgia’s awareness, 99 international press tours were held, within which Georgia visited 683 foreign media representatives, also 14 info tours - Georgia visited 239 tour operators [Ministry of Economy ..., More than ... 2018].

„Georgia took an important step towards the development of tourism in Georgia, using a wide variety of social media marketing. GNTA signed a joint advertising agreement with Travel Website Trip Advisor. The campaign will include posts and detailed information about the country, which will increase the number of international tourists in Georgia“ [N. Todua, 2017, p. 168].

Participation in international conferences helps to creation and development of brand in tourism, the use of digital resources, to increase of sales through the Internet. Among them participation in digital marketing conferences is important. Such events are frequently attended by representatives of various influential organizations. International Conferences are a great opportunity for tourism and hotel business entities, advertising agencies, social media managers and marketers. In order to enable the participants to be able to use new technologies such as social media, internet platforms, applications, news channels, etc. In 2017 the following campaigns were implemented in order to increase Georgia's awareness:

- Online marketing campaign in 19 countries.
- Advertising campaigns: BBC, Euro news, Discovery, Trip advisor, Expedia.
- The articles about Georgia were prepared by the following media outlets: BBC, National Geographic, National Geographic Traveler India, Forbes, Le Monde, The Independent, The Guardian, Elle, Observer, Bird watching Magazine UK; Daily Mail, Vogue; Huffington Post, etc. [Ministry of Economy ..., More than, 2018].

Conducting international events in the given country helps stimulating tourism. For example, in September 2016 the first global conference of UN World Tourism Organization Wine Tourism was held in Georgia. The conference participants shared each other with their successful experience [Georgian National Tourism Administration, UNWTO - The first global..., 2016].

It is important to develop stimulating measures for the development of domestic tourism, so that more people start traveling within the country. For example, the Georgian National Tourism Administration is implementing a stimulus campaign “Discover Georgia”. Within the framework of this project, media tours are taking place in different parts of the country (region) [News Agency..., The Project, 2015].

Participation in international exhibitions and fairs is especially important for the country’s tourism products. Tourist exhibition-fairs are a highly effective way, since the goal is achieved with the smallest expenses, positive information extends to the masses and geographical spaces quickly and efficiently. Tourist exhibition-fairs are presented with new products, access to new markets. Representatives of business circles of different countries participate in the exhibition-fairs, which directly connect with each other. These measures can be influenced on the official and business circles, public opinion. In 2017 The Georgian National Tourism Administration together with private sector participated in the
21 International Tourism Exhibition. Such activities promotes popularization our country’s tourism potential [Ministry of Economy…, More than, 2018].

In the formation of a positive image, a particular country can be of great help with close cooperation with the World Tourism Organization, visits and meetings with officials of this organization and high ranking officials. During the meetings a positive role has been given to discuss the issues related to the country's tourism potential. It is also useful for the country when the heads of the National Tourism Administration are attending World Tourism Organization Conferences. For example, Georgian National Tourism Administration participated in the 21st General Assembly of the World Tourism Organization (UNWTO), which was held in Colombia, In Medellin. The high-ranking delegation of 120 countries attended the event [News Agency "GHN", National Tourism Administration..., 2015].

Results of research

The results of tourism promotion policies are clearly visible from statistical data. In recent years, the economic importance of tourism has increased in Georgia. In the particular country, the economic importance of tourism can be judged based on statistical data, such as:

- Number of employees in tourism sector,
- Export-import of tourist services,
- Share of tourism in gross domestic product,
- Direct foreign investments in hotels and restaurants,
- Airports Bandwidth and Railway Bandwidth, etc.

From 2009 to 2015, the number of visitors in Georgia was one of the highest in the world: the total number of international travelers increased by 293% [Georgian National Tourism..., Georgian Tourism Strategy, p. 5].

Figure 1. Number of visitors in Georgia (2009-2015)

Source: http://gnta.ge/wp-content/uploads/2015/01/
5,059,106 international travelers arrived in Georgia, according to the data of January-August 2017, growth compared to the same rate of previous year + 18.9%. 1,080,449 international travelers arrived in Georgia only in August of 2017. The growth rate is + 27.4% compared with the same period last year [Georgian National Tourism…, Statistics, 2017]. Also, statistical data of direct foreign investments in hotels and restaurants indicates the growth of economic importance of tourism in Georgia [Ministry of Economy…, Direct Foreign…, 2015, p. 1].

Table 1.

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>17.7</td>
<td>-13.4</td>
<td>124.9</td>
<td>138.8</td>
<td>52.4</td>
</tr>
</tbody>
</table>


Thus, the statistical data presented indicate positive results of tourism promotion policy. However, for the assessment of the success of the tourism country, we should take into consideration not only the number of tourists, but also earned revenues. In 2016, revenues in Georgia reached $ 2 billion from international tourism, and by the end of 2017 the country received 2.7 billion US dollars. According to the forecast data, in 2018 Georgia will have 8 million international travelers, while revenues from international tourism exceed $ 3 billion [Ministry of Economy…, More than… 2018].

7,554,936 international travelers arrived in Georgia, according to the data of January – December 2017. Growth compared to the same period last year was + 18.8%. The number of tourists from the total number, who followed 24 hours and more, were 3,478,932 in Georgia (growth + 27.9%). Most of the visits were from Armenia (+ 14.8%), Azerbaijan (+ 11.2%), Russia (+ 34.1%), Turkey (-0.8%) and Iran (+ 118.3%). The positive trend is from the EU countries. In January – December the following countries are distinguished by the number of arrivals from the EU in Georgia: United Kingdom + 39.9%, Netherlands + 31.1%, Spain + 29.9%, France + 29.6% and Germany + 25.7%. [Georgian National Tourism …, Statistics 2017].
Conclusions

Thus, the country’s tourism promotion by the country’s government has increased the demand for tourism services in Georgia and positively affected tourism development, which were revealed in specific events and activities. However, in our opinion, it is not enough. For further development of tourism we have the following recommendations:

➢ Taking into account the natural conditions and other attractive factors for a country’s tourism destination within the country, the correct adjustment of marketing aspects is necessary for further success. For further development of tourism, Georgia has potential opportunities in terms of natural environment. However, for the full use of these capabilities it is necessary to update the existing infrastructure within the country, arrange new ones that require significant financial resources. The main focus of the tourism service should be the international standards of service. It is necessary to add new facilities and arrange facilities.

➢ During the development of tourist products, advantages and wishes of potential tourists should be determined in advance. Then traveling products with the highest value for customers should include in tour package and information about it should provided to potential customers at the place available to them. The tourist should have the opportunity to easily receive full information about the travel route and all the services that are interesting to him, which should be given during the trip. This affects the decision of his purchase.

➢ Georgia will have a positive impact on the growth of international tourists' satisfaction if dishes prepared on the basis of Georgia’s agricultural products, when Georgian cuisine dishes are made from local produce products. This will make Georgian cuisine more interesting for international tourists.

➢ For a positive impression on international tourists we have a desirable proposal: further improvement of the living standards of the Georgian population, overcoming poverty in the country will help the population to be happier. The citizens of our country will be self-confident, happy. Positive attitudes toward tourists will increase, which will make a good impression on international tourists.
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Spatial Planning as A Good Governance Practice for Regional Policy in Transition Countries

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Abstract

The most important theoretical argument concerning decentralization is that it can improve governance by making both, local and central governments more efficient and increase the quality of relationship between them. However, the literature has mostly focused on policy-relevant outcomes, such as education and health services, public investment, and fiscal deficits. With the aim of enriching the existing literature, this paper examines how decentralization affects governance and inter-budgetary relations. It analysis the economic and legal basis of inter-budgetary relations, the mechanisms of delegation of state governance and the concepts of budgetary systems. The principals of decentralization are examined in respect of their role in state’s budgetary system and local self-governance’s financial ensuring. The economic factors of rational spatial planning are examined in respect of its impact to the principals of ranking the government’s functions and country’s territorial organisation. The article proposes a conceptual framework for the analysis of effective financial support of local self-governances in transition economies.

Keywords: governance decentralization, local government, spatial planning, inter-budgetary relations, financial decentralization mechanisms, fiscal policy.

Introduction

The issue of verticalisation of country’s administrative and territorial organisation and management system is still very important, as demonstrated in academic researches and public reports. This issue is directly linked with the decentralization and the mechanism of inter-dependency between the local and central governments. The relation between the local and central governments or the state structure, is directly linked with the regional policy which ranks the state’s territorial organisation and government’s functions. The ranking often guarantees the unity of internal structures of the central governance and, on the other hand, guarantees the independence of local government.

Regionalism, as a concept of country’s territorial regulation, equips local governments with the power to make local decisions independently from the central government. According to this concept, the degree of independence of municipalities is an essential element of socio-economic development of a region. However, the degree of decentralization also needs to be balanced, as the absolute independence of local budgets is often the basis of unequal development and disproportion of social-economic conditions between different regions (Territorial Agenda of the European Union, 2007). Moreover, this is against the EU standards, according to which the equality among regions is the key to country’s democratic development (Williams, 1996).

One of the central issues of regionalism, is the harmonization of region’s economic-legal bases with its institutional systems. When it comes to system transformation, state regulators play major role. It is particularly true with the mechanism of inter-budgetary relations (Williams, 1996). The most important step for this process is the definition of
the relation mechanism, which should be based on principle that the income structure of local municipalities should be directly linked with the central government’s financial support.

One of the important indicators of state’s fiscal policy is the optimization of territorial development and the leverage of the development levels of regions. It defines the interdependence system between the different levels of governance between the state and other administrative-territorial units (Tabatadze, 2016b). That is why, definition of effective fiscal policy is particularly sensitive for poor under developed regions. In this case existing resources are to be concentrated to only few but strategic projects. A territorial cohesion can only be achieved through an intensive and continuous dialogue between all stakeholders of territorial development. This process of cooperation should include the private sector (especially locally and regionally based entrepreneurship), the scientific community, the public sector (especially local and regional authorities), non-governmental organisations and different sectors. They need to act together in order to make better use of crucial investments in country’s overall economic development.

The European charter is particularly attentive to the subsidizing of poor regions from the central governments. In this regards, the Territorial Agenda of the European Union (2007) states that “An important aspect is the territorial integration of places where people live. In this way we will contribute to a Europe which is culturally, socially, environmentally and economically sustainable. It is particularly important to better integrate our newer Member States into this policy of polycentric settlement development. Through the Territorial Agenda we will help – in terms of territorial solidarity – to secure better living conditions and quality of life with equal opportunities, oriented towards regional and local potentials, irrespective of where people live – whether in the European core area or in the periphery” (Territorial Agenda of the European Union, 2007. P.1).

The budgetary relation between central and local governments is defined in fiscal decentralization policy which, in its turn, it defined based on democratic principles of state/municipality relations (Faguet, 2012). Decentralization in developed societies is considered as the main components of democratic governance on one hand, and as a main principal of budget federalism, on the other hand. This leads to the issue of spatial planning of state strategy and inter-budgetary relations between central and local governments (Tabatadze, 2016a). In order to cover the whole spectrum of decentralisation process in regards with the transition countries, and fill in the gap in scientific literature, this article will study the decentralisation in terms of governance and inter-budgetary relations and the mechanisms of delegation of state governance and the concepts of budgetary systems in transition countries. To do so, the paper will be presented in two main parts. First, we will analyse the concept of decentralization and more specifically, the fiscal decentralisation. Then, we will present the concept of rational spatial planning and its role in decentralization strategy.

Decentralization as a part of successful regional economic policy
Decentralization is one of the most important reforms of the past few decades all over the world. This is true both, in terms of the number of countries affected and the potentially deep implications for the nature and quality of governance. In 1999, Manor estimated that the number of decentralization experiments would move up from 80 percent of the world’s countries to effectively all of them (Manor 1999). Since then, further reforms have been announced in countries as diverse as France, UK, Georgia, Bolivia, Cambodia, Ethiopia, Indonesia, Japan, Peru, South Africa, South Korea, Uganda and many others (Tabatadze, 2017b). The trend encompasses all of the world’s regions, and includes rich and poor, large and small nations (Faguet, 2011). As explained by Faguet, decentralization in many cases aim to reconstitute government from a hierarchical, bureaucratic mechanism of top-down management, to a system of nested self-governments characterized by participation and cooperation, where transparency is high and accountability to the governed acts as a binding constraint on public servants’ behavior (Faguet, 2011, p.1).

The review of scientific literature and policy reports from major international organisations (the World Bank and UNDP), allows us to group the benefits of decentralization into four main areas:

- Decentralization improves the accountability and responsiveness of government by altering its structure so as to increase citizen voice and change the deep incentives that public officials face;
- Decentralization reduces power abuse by transferring certain central government functions and resources to lower levels;
• Decentralization *improves political stability* by giving aggrieved minorities control over subnational governments with limited power over issues that affect them directly;
• Decentralization *increases political competition* by creating many smaller arenas that politicians vie to control;
• Decentralization *relieves political tensions and reduces the risk of violence or secession* by devolving power and resources to lower levels of government;
• Decentralization *has positive effects on budgets and service provision* especially in regards of the inter-budgetary relations;

When it comes to the issues linked with the decentralization, there are number of problems mentioned in the literature. However, one of the major issues seems to be the connection failure between decentralization and fiscal sustainability (Prud'homme, 1995). In most of decentralized countries, researchers identify so called soft budget constraints because local politicians have strong incentives to overspend and reap the benefits themselves, while nationalizing the cost of their behavior through central bailouts (Faguet 2012). This kind of behavior is reinforced by the knowledge that at least some of the blame for a local government error, like reductions in public services, investment, and employment, can be associated with the central government as well. We can identify three reasons for this:

• many such services are jointly financed and voters may not clearly distinguish amongst responsible parties;
• the center government could have averted a default by *bailing out the insolvent municipality*;
• there is a *gap between the decentralization announcement and the real degree of autonomy* that is decentralized to local governments. This concept is sometimes called a “decision space”. This leads to the questions of how a country decentralizes may be more important than whether it decentralizes.

As for the central governments, they generally face the commitment issues: any promise not to bail out in future are not credible precisely because voters will punish it. All local governments know this, and hence all have incentives to overspend today in the hope of being bailed out (Prud’homme 1995, Rodden 2006, Rodden et al. 2003, and Tanzi 1995). In the aggregate, such behavior can lead to large national deficits, and hence macroeconomic instability.

While selected the mechanisms for decentralization, it is important to take into consideration few characteristics of the self-governing bodies: the problems of the rational structure of local government, its scales, budget structure and income and spending mechanisms… According to the EU charter on local self-governments, the adaptation process of EU standards in the member countries should take into account local specificities and harmonize the legal bases of different relationships (EU, 2008). This idea implies inexistence of unified standards in the process of vertical structuring of a country and, accordingly, the need of individual approach per country. This increases the responsibility of central government during the elaboration of the decentralization strategy.

As the financial decentralization is the prerequisite for elaboration of a rational mechanism of country’s economic growth, it should be based on fair sharing of financial instrument between central and local governments and on effective financial support from central to local governments. Once again, the strategy of decentralization should take into account specific potential and risks linked with each region.

**Fiscal decentralization** is one of the central aspects of governance decentralization. Key topics of fiscal decentralisation matters across the countries include the design of fiscal systems and the design of intergovernmental fiscal relations, the profiles of revenues and different institutional arrangements (OECD, 2001). The OECD identifies six main topics in this regards:

• The design of fiscal systems: which functions of expenditure and revenue sources are devolved or decentralised.
• The match between locally-managed expenditures and the corresponding revenues; the level of vertical imbalance in the context of local accountability and the fulfillment of national financial policies.
• The institutional arrangements for ensuring fiscal discipline and budgetary constraints.
• The design of intergovernmental fiscal relations - the need for stable, transparent and formula-based procedures and relations.
The profile of subnational revenues - the composition of the revenue base.

The profile of subnational expenditures - local vs. national public services. National standard setting vs. subnational discretion in the provision of public services (OECD, 2001, p.6).

The OECD survey across Europe showed that fiscal decentralisation often results in a number of allocative efficiency gains. Allowing for local decision-making on the amount and standard of the services, and the local mobilisation of the relevant revenue sources guarantees the best results on achieving local priorities and preferences regarding local public services. But when it comes to transition countries, political considerations on allocative efficiency should be taken in close connection with overall targets on stabilisation policies for the state. This also includes political decisions on structural reforms, like labour market and privatisation reforms. Such structural reforms may require a strong central lead of the reform processes, which may, at the same time, imply a halt to furthering the fiscal decentralisation processes.

Underdevelopment of inter-budgetary relations in transition countries can be reviled in the fact that the increase of taxation at local level, also increases the income at the central governance level. This of course, limits the autonomous development of local governments. Transition countries often use exclusive regulations during the implementation of regional policy. One of the most efficient instrument for this, is the financial policy (Tabatadze, 2017b). The later can be based on different instruments: legislative documents, transfers, dotation, social security taxes, foreign-economic investments, income regulations, monetary and fiscal instruments1. Federal states use financial policy based on particular relation between central and local governments. In this case, local governments have real decision making power, while the central government acts as legislator and does not participate in decision making process (Manor, 1999).

One type of financial policies toward municipalities is so called selective policy. This implies implementation of favorable strategies for depressed regions, while proposing restraining strategies to highly developed regions (Baratashvili et al, 2010, p.60). On its turn, selective policy can be polarized or balanced. The former implies supporting one or few regions with relatively high economic and investment potential while neglecting other regions. The later suggests equalizing the level of regions’ economic development and their potential. This policy is used in general for problematic regions.

The management processes of region vary across countries per their specificity and historic trends. Similarly, the inter-budgetary relations vary significantly in different models of territorial organisation. For example, in Anglo-Saxon countries (USA, Great Britain, Canada), Sweden, the fiscal autonomy of regions is very high. Their budget income is mainly constituted with local taxes. In continental Europe (Germany, France, Italy, Spain, Belgium) regions’ fiscal autonomies are more restrained and financial balances are more frequent (dotation and subventions).

As far as there is no standardized methodology for elaboration of regional economic policy, every state takes into account its economic strategy and regions resources. However, the methodology structure itself is the same for every country. It consists of budget-taxation policies, planning and forecasting of regional development, elaboration and implementation of mission programs, effective use of region’s natural resources, rational use of entrepreneurial power. The aim behind all this, is the increase of public welfare on regional and country levels.

The role of spatial planning in effective decentralisation policy
Originated from the European Regional/Spatial Planning Charter, so called “Torremolinos Charter”2, the spatial planning is sued in this paper as a methods used by the public sector to influence the distribution of people and activities

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1 The Georgian context of regionalization is defined under the regulating project of the strategy of socio-economic development of the country “Georgia 2020”. According to this document a strategic point of country’s sustainable development is deconcentrated government system and in general, innovative approaches (“Georgia 2020”, 2013).

2 The Charte was adopted in 1983 by the European Conference of Ministers responsible for Regional Planning (CEMAT).
in spaces of various scales in order to improve economic and social environments within the local governments. Thus, spatial planning takes place on local, regional, national and inter-national levels. In this paper, it is referred to as a part of the national policy in regards of local governments.

In EU the spatial planning is a central concept that all member states have to share and respect. A political document called the "Territorial Agenda" was signed in May 2007 in Leipzig at the minister's conference to continue the process of defining the term. The document was revised in May 2011 in Godollo (EU, 2008). More complex than simple land-use regulation, it addresses the tensions and contradictions among sectoral policies, for example for conflicts between economic development, environmental and social cohesion policies (Williams, 1996).

A spatial planning is largely a public sector function which aims to influence the future spatial distribution of activities at different levels, by creating more rational territorial organization of land uses and the linkages between them, to balance demands for development with the need to protect the environment, and to achieve social and economic objectives (Williams, 1996). Rational spatial planning coordinates and improves the impacts of other sectoral policies on land use, in order to achieve a more even distribution of economic development within a given territory than would otherwise be created by market forces (Van Assche, et al, 2013).

The benefits of the rational spatial planning have been demonstrated in scientific literature. We can list, for example, some general benefits, like better identification of growth areas and enhancement of quality and value. At the same time, researchers refer to more detailed findings, such as increased certainty and risk reduction, encouraging market actors to see benefit in meeting wider policy objectives, ensuring individual developments as part of a broader picture, encouraging provision of collective goods (Van Assche, et al, 2013, Harris, 2015). The EU report on Spatial planning identified three areas where the spatial planning could benefit. Economic benefits of the RSP lay on the area of economic development, while the social benefits consider the advantages cumulated for the society and the environmental benefits ensure that the two first areas, develop with the respect of environmental sustainability. The table 1 lists the benefits of the spatial planning.

Table 1: Benefits of Spatial Planning

<table>
<thead>
<tr>
<th>Economic benefits</th>
<th>Social benefits</th>
<th>Environmental benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing more stability and confidence for investment;</td>
<td>Considering the needs of the local communities in policy development;</td>
<td>Promoting regeneration and the appropriate use of land, buildings and infrastructure;</td>
</tr>
<tr>
<td>Identifying land in appropriate locations to meet the need for economic development;</td>
<td>Improving accessibility when considering the location of new development;</td>
<td>Promoting the use of previously developed (&quot;brownfield&quot;) land and minimizing development on &quot;greenfield&quot; land;</td>
</tr>
<tr>
<td>Ensuring that land for development is well placed in relation to the transport network and the labour force;</td>
<td>Supporting the provision of local facilities where they are lacking;</td>
<td>Conserving important environmental, historic and cultural assets;</td>
</tr>
<tr>
<td>Promoting environmental quality in both urban and rural areas, which can then create more favourable conditions for investment and development;</td>
<td>Promoting the re-use of vacant and derelict land, particularly where it has a negative impact on quality of life and economic development potential; and</td>
<td>Addressing potential environmental risks (e.g. flooding, air quality);</td>
</tr>
<tr>
<td>Identifying development that meets the needs of local communities;</td>
<td>Aiding the creation and maintenance of pleasant, healthy and safe environments.</td>
<td>Protecting and enhancing areas for recreation and natural heritage;</td>
</tr>
<tr>
<td>Promoting regeneration and renewal;</td>
<td></td>
<td>Promoting access to developments by all modes of transport (e.g. walking, cycling and public transport), not just by car;</td>
</tr>
<tr>
<td>Making decisions in a more efficient and consistent way.</td>
<td></td>
<td>Encouraging energy efficiency in the layout and design of development.</td>
</tr>
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</table>

Source: EU, 2008, p.2
Effective spatial planning is particularly important in developing countries. Due to rapid growth in the development of residential areas and industrial areas, the demands upon infrastructure in many UNECE countries in transition have been too great. Georgia is part of these countries with the rate of urbanization increasing rapidly and is expected to continue to increase for the foreseeable future. This trend is typical not only to Georgia but to most of countries in transition. For example, in 2000, 73 per cent of the population of UNECE countries in Europe were living in urban areas; by 2020, it is forecast that 77 per cent of the population in these countries will be living in urban areas (UNECE, 2005).

The Territorial Agenda of the European Union builds upon the three main aims of the European Spatial Development Perspective (ESDP):

- Development of a balanced and polycentric urban system and a new urban-rural partnership;
- Securing parity of access to infrastructure and knowledge;
- Sustainable development, prudent management and protection of nature and cultural heritage.

In this regards, the European policy for territorial cohesion identifies six priorities for territorial development in the EU (The Territorial Agenda of the European Union, 2007, p.4).

- Strengthening of Polycentric Development and Innovation through Networking of City Regions and Cities
- Creation of new Forms of Partnership and Territorial Governance between Rural and Urban Areas
- Promotion of Regional Clusters of Competition and Innovation in Europe
- Strengthening and Extension of Trans-European Networks
- Promotion of Trans-European Risk Management including the Impacts of Climate Change
- Strengthening of Ecological Structures and Cultural Resources as the Added Value for Development

Spatial planning can have an integrating role in the ways it can bring together places and people by envisioning their future and helping to manage the decentralisation process of country’s regional policy. Spatial Planning is integrated into the delivery processes for a reformed public sector that is more unified in its purposes and outcomes than has been seen before 2017b). It requires a repertoire of interventions that are used appropriately to achieve community generated outcomes. Given that there are several tiers of authorities included in spatial planning for the same territorial unit (education, public transportation, health, environment), the power of local governments is quit ambiguous and often no authority can claim to represent the whole spectrum of the same unit.

**Conclusion**

The review of scientific literature showed that good governance principals are critical as the special planning has a permanent and continuous process of dealing with local governments. In this process public authorities have been assuming more and more responsibilities in countries impacted by decentralisation reforms. However, more steps need to be taken in order to propose ways for spatial planning actions at local government levels.

The article argues that spatial economic relations are necessarily impacted by historic, geographic, political and ethnic factors. That is why, it is necessary to take into consideration the issues facing the rational structures of each local governments while selecting the decentralisation mechanisms.

Democratic society includes the governance decentralisation and the creation of local self-governing institutions by default. That is why, the decentralisation of governance is a key indicator of the quality of country’s democratization (Faguet, 2012, Tabatadze, 2016b). It implies power and responsibility delegation, accessibility to public services, informing the society, including society in decision making process, etc. A clear separation of responsibilities between governing levels is necessary for an effective management of the decentralisation. Moreover, the process should be followed by liberalisation and empowerment of local governments.

Developed society requires educated, highly professional responsible government. It expects agility and quick decision making from the decision makers. To ensure following the modern trend of democratic evolution, it is vital to ensure a largescale, multichannel collaboration among government institutions, different levels of governance, between society
and government... This process needs to fulfill few components, such as: improving competences of local institutions, openness of the decentralisation process, informing the society of their constitutional rights, allowing local governments to locally elaborate their strategies while optimizing their economic activities. These processes will allow implementation of democratic values among the society and by this way, formation of civil societies.

Key challenge for strengthening local self-governments is the perfection of its economic structure. Local income of territorial units is relatively low and the central government fills in the gap between the income and their expenses using transfer policy. Another mechanism is allowing property rights at local level. The mechanism of balancing the transfer among municipalities needs to be refined. However, it is important to balance the income and not the state’s resources and this point should be agreed upon at the legislative level. The legislation should define the mechanism of issuing programed and special transfers. The formula of transfer should include all services, which is a prerogative of local self-governments.

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INTERNAL CONTROL AND INTERNAL AUDIT UNIVERSE,
CONCEPTUAL FRAMEWORK AND GENERAL REVIEW

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Abstract
Nowadays, due to the increase and diversification of business densities and risks, the concepts of internal control and internal audit covering all the business policies and procedures have gained importance in order to help realize corporate missions. Although internal control and internal audit are two different concepts, there is a close and strong relationship with each other. In particular, when we look at regulations related to commercial and financial legislation, the concept of control is confused with auditing, and as a consequence, the functions of internal control and internal auditing in enterprises and their responsibilities to undertake these functions are not well understood. Due to the inability to understand the concepts correctly, it weakens the possibilities of building correct structures based on those concepts. Therefore, after analyzing the concepts of control and audit, the relationship and the key factor differences between the concepts of internal control and internal audit should be revealed.

This study examines the concepts of internal control and internal audit in the context of this aim and focuses issues such as risk management, risk-based internal audit, risk management based audit, and three lines of defense which are settled in the literature. In addition, it is given general information in the context of the authority institutions and their study’s results that draw the general framework of these concepts. The study aims to assist in the proper understanding of internal control and internal audit, shed light on how they should be structured within the business organization, and contribute to the planners of executive activities which are strong, effective and in compliance with standards.

Keywords: Control, Audit, Internal Control, Internal Audit, Risk Management, Risk-Based Internal Audit, Risk Management Based Audit, Three Lines of Defense Model.

1. INTRODUCTION

In addition to the positive aspects of the information economy, difficulties such as increased work intensity, increased risks and diversification make it difficult for corporate missions to be realized. In line with corporate missions, the concepts of internal control and internal audit covering all the policies and procedures of the institution have gained importance.

Although internal control and internal audit are two different concepts, there is a close and strong relationship with each other. In particular, when we look at regulations related to commercial and financial legislation, the concept of control is confused with auditing, and as a consequence, the functions of internal control and internal auditing in enterprises and their responsibilities to undertake these functions are not well understood. Due to the inability to understand the concepts correctly, it weakens the possibilities of building correct structures based on those concepts. Therefore, after analyzing the concepts of control and audit, the relationship and key factor differences between the concepts of internal control and internal audit should be revealed.

On the other hand, the necessity of managing the risks associated with global developments and crises has made the institutional risk management more mature and focused on the control of risky activities as a requirement of risk management, risk-based internal audit, risk management based audit, and three lines of defense have been established in the literature.
In this study, firstly concepts of control and internal control, auditing and internal audit concepts are analyzed and reveal the relations and differences between them, and then the concepts of risk management from the point of view are also clarified.

In addition, it is given general information in the context of the authority institutions and their study’s results that draw the general framework of these concepts. The study aims to assist in the proper understanding of internal control and internal audit, shed light on how they should be structured within the business organization, and contribute to the planners of executive activities which are strong, effective and in compliance with standards.

2. THE CONCEPTS OF CONTROL AND INTERNAL CONTROL

2.1. Control

The control word, derived from the word counter-roll, which means contradictory Latin, meets the meaning of "studying", "administering", "directing", "restraining power and authority". By accepting control as part of the managerial task, H. Fayol asserted that the concept came to mean "everything must be in accordance with given orders and existing rules" (Sengul, 2007). According to Fayol, the control function is to prevent the repetition and elimination by revealing the errors and deficiencies in the functioning of the target organization (Cömert, 2016: 3). Fayol has taken this concept as an important step in five basic principles expressed as planning, organizing, executing, coordinating and controlling the classical management approach.

According to Hugo Diemer (1924), control is a management principle that requires management to know what to do and what to do in all units of the business. If there is a difference between what has to be done and what has been done, then the control is to know what caused this difference. The control means knowing how to overcome mistakes, deficiencies or overheads, and to fulfill that requirement (Cömert, 2016: 4).

Webster R. Robinson (1925) identified the control as the sixth of the eight foundations of the organization and advised the general manager and senior executives of the efficiency of business operations, the way in which the business was able to provide continuous, rapid, and accurate information about what the past and the present.

Davis (1940) defined control, management’s guidelines and guidelines as the management and organization of its activities (Cömert, 2016: 4).

It is tried to define concept of control in a "Internal Control-Integrated General Framework" report of Committee of Sponsoring Organisations of the Treadway Commission-COSO, which is a private sector initiative established in 1985 to support the National Commission on Fraudulent Financial Reporting for the first time in the United States, has also established a determination as to how difficult it is to make such a common definition. The control according to the research result of the study; power or authority for the use, restriction or control, guidance or management of power, the organization of the work done, the management and coordination, the mechanism that regulates or directs the functioning of a system. (Cömert, 2016: 6).

The International Institute of Internal Auditors (IIA) defines control within the International Professional Practices Framework-IPPF as follows: “Control is any action taken by management, the board of directors and other interested parties to manage risks, increase the likelihood of achieving specified goals and objectives”.

The European Confederation of Internal Auditors' Institutions (ECIIA), which makes parallel arrangements with the IIA, describes the control as "planning, organizing and conducting adequate activities to provide reasonable assurance of management reaching its objectives and objectives" (Cömert, 2016: 6).

2.2. Internal Control

Internal control is a concept accepted and adopted by both public and private sectors in today’s management approach. Management systems consist of rules, methods, and structures designed to provide assurance that the control case management system placed within the system achieves its objectives (Sabuncu, 2017: 166).
Internal control, organization plan and measures taken to protect assets, to ensure accuracy and reliability of information, to increase the efficiency of activities and to ensure compliance with personnel management policies is the whole of the determined methods (Çömlekçi, 2001, 8).

According to the International Federation of Accounting Experts (IFAC), the definition of internal control includes, in addition to the above, the prevention and detection of errors and corruption, and the provision of timely accounting information (Kepekçi, 1996, 56).

COSO need to define even the inner word, which was very meticulous when describing the concept of internal control. COSO has stated that it regards the word "internal" as "something within the bounds or the scope", which is what the term “something” in this definition refers to as "personality" or "institution". Therefore, internal control refers to controls within the boundaries of an operator, a university, a public agency or charitable fund, or pension funds, and the actions of regulatory authorities and external auditors outside the enterprise are excluded. In the COSO approach, internal control is used in the same sense as internal control. However, what is important here is that the internal control is related to the aims of the establishment.

In the COSO report, internal control is defined as a process carried out by an operator's board of directors, managers, and other personnel, designed to provide acceptable trust in achieving the objectives of ensuring compliance with the laws and regulations required to ensure the effectiveness and efficiency of business operations and the reliability of financial reporting (Sabuncu, 2017: 166).

Before the definition of COSO being universally accepted today, many definitions of internal control that are accepted in the world have been made and internal control models have been proposed in this framework. However, it was done by the most comprehensive AICPA (American Institute of Certified Public Accountants). AICPA's internal control approaches have been influential in the implementation especially in audit applications until COSO issued the Internal Control Integrated Framework in 1992. According to AICPA’s definition in 1949, internal control consists of the organization plan with all the coordination methods and measures adopted to protect assets in the business, to ensure the correctness and reliability of accounting data, to promote the effective implementation of activities, and to promote incentives and administrative policies.

In 1995, instead of the 55 Communiqué on Auditing Standards published in 1988, the SAS 78- Consideration of Internal Control in a Financial Statement- Auditing Standard was adopted. The SAS 55 had three elements that made up the internal control structure. These are; Control Circle, Accounting System, and Control Procedures. SAS 78 It is stated that the elements forming internal control are composed of the following five related elements in accordance with the COSO report (Erdoğan, 2001, 53):

1. Control Environment
2. Risk Assessment
3. Control Activities
4. Information and Communication
5. Monitoring

We can list the principles of these elements according to their definition and the framework in which COSO drew in 2013.

Control Environment: The control environment that expresses the working environment of the organization and forms the basis of the internal control system is the mechanism that protects employees against damage caused by lack of knowledge of the employees and reduces possible errors and irregularities (Bozkurt, 2000:121). COSO principles within the context of The Control Environment (COSO 2013: 5);

1. The organization demonstrates a commitment to integrity and ethical values.
2. The board of directors demonstrates independence from management and exercises oversight of the development and performance of internal control.
3. Management establishes, with board oversight, structures, reporting lines, and appropriate authorities and responsibilities in the pursuit of objectives.

4. The organization demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives.

5. The organization holds individuals accountable for their internal control responsibilities in the pursuit of objectives.

Risk Assessment: The methods of determining, analyzing and managing income are crucial for an effective internal control system. Risk assessment is the process of identifying and analyzing the risks that may be encountered during the realization of the objectives and determining the appropriate responses (Akyel, 2010: 87). COSO principles within the context of Risk Assessment (COSO 2013: 5);

6. The organization specifies objectives with sufficient clarity to enable the identification and assessment of risks relating to objectives.

7. The organization identifies risks to the achievement of its objectives across the entity and analyzes risks as a basis for determining how the risks should be managed.

8. The organization considers the potential for fraud in assessing risks to the achievement of objectives.

9. The organization identifies and assesses changes that could significantly impact the system of internal control.

Control Activities: It is the instruments, policies, and procedures that help to determine, prevent and mitigate the risks that prevent the organization from achieving its objectives (DiNapoli, 2007: 19). Policy from elements of control activity; what is to be done, and the procedure is defined as the fulfillment of policies (Demirbaş, 2005: 170). Control activities are applied at every level of the operator; authorization, authorization, verification, observation, operational safety and separation of tasks (Sabuncu, 2017: 169). COSO principles within the context of Control Activities (COSO 2013: 6);

10. The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.

11. The organization selects and develops general control activities over technology to support the achievement of objectives.

12. The organization deploys control activities through policies that establish what is expected and in procedures that put policies into action.

Information and Communication: Information and communication internal control is vital to the realization of the overall objectives. Information and communication are intensely needed at all levels of an organization to achieve effective internal control and institutional goals (INTOSAI GOV 9100, 2004: 33). Establishment of an information system suitable for financial reporting is the realization and transmission of all kinds of information in an appropriate manner, recording, analyzing, reporting and carrying out internal audits and responsibilities within the relevant units (Doyrangöl, 2002: 2). COSO principles within the context of Information and Communication (COSO, 2013: 6);

13. The organization obtains or generates and uses relevant, quality information to support the functioning of internal control.

14. The organization internally communicates information, including objectives and responsibilities for internal control, necessary to support the functioning of internal control.

15. The organization communicates with external parties about matters affecting the functioning of internal control.

Monitoring: Internal control systems require monitoring to evaluate system performance during the period (Akyel, 2010: 88). Monitoring depends on whether the internal controls are maintained in accordance with predetermined policies and procedures and whether these assessments have introduced the business into new risks, depending on institutional and organizational changes. Monitoring based on a time base is the process of evaluating the quality of internal control, the design and operation of controls, and the attitudes (countermeasures) to be taken (Demirbaş, 2005: 172). COSO principles within the context of Monitoring (COSO 2013: 6);

16. The organization selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning.
17. The organization evaluates and communicates internal control deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors, as appropriate.

The internal control system is a system that exists within the enterprise's organization and penetrates all the operations of the enterprise, rather than being a unit added to the after-operation. The activities carried out by the units concerned with the operation are governed by the basic management processes. The internal control system has also been integrated into these processes and has become a part of the activities (Sabuncu, 2017: 166).

3. THE CONCEPTS OF AUDIT AND INTERNAL AUDIT

3.1. Audit

The word “audit” originating from the Latin word “audire”, which means hearing, is meant to be examined verbally by reading the accounts, but nowadays it meets the meaning of examining the accounts (Cömert, 2016: 9). The words of audit are expressions such as inspection, accounting audit and impartial control. Auditing is an important tool for eliminating insoluble deficiencies in businesses, improving customer relationships and, in parallel, increasing profitability, which is the most important goal in businesses (Sabuncu, 2017: 163).

Traditionally, the definition of audit is expressed as the examination and control of whether any activity has been carried out in accordance with previously established rules and management strategies. It is a tool that determines whether we reach the goals efficiently and on time.

According to this definition, there are three main elements of audit creation (Köksal, 1974: 52); First, it is necessary to find the aims to be achieved. These aims are the main objectives of the organization. Profitability, growth, capacity etc. The second item of inspection is efficiency. It is important to achieve the stated goals efficiently, without spending extra money, labor, materials and time. The emphasis here is actually on the indirect cost of doing the job. It is, of course important to achieve the objectives, but what they are accomplished with the optimum cost, and what they are sacrificed to achieve, and their cost is also important. The third item is the time. The stated purpose and results need to be achieved within the specified time. It is necessary to emphasize that unit cost is increased and productivity is affected when the unit is done 2-3 times longer time.

Auditing consists of verifying and certifying financial surveys by an independent expert in order to deliver an opinion on the comprised data materiality and accuracy. The role of auditing is to ensure data users of the compliance with accounting principles and practice as well as of a precise, clear and complete image of the company’s financial status and performance, in the accounts and financial surveys (Giurgiu A, at all, 2009: 28.). From the analysis of the audit definition, following features stand out (Petrascu and Tamaș, 2013: 695):

a) audit is a process, a set of operations; of data collection (audit evidence), analysis and evaluation, in order to obtain reasonable assurance on compliance or not compliance of this information and statements with the established criteria. Essentially auditing consists of;
   - collecting just and sufficient audit evidence (the evidences just character refers to the quality and effectiveness of the kind of evidence collected, whereas sufficiency refers to the amount of collected evidence) necessary to express an opinion or enunciate a recommendation.
   - evaluating consistencies or inconsistencies between the different types of evidence collected;
   - determining deviations from the established criteria. (Petrascu D, 2012: 8.).

b) Auditing collates accounting policies and work procedures used in the entity with a set of established criteria, such as International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), national accounting regulations, internal procedure manuals, tax regulations, and so on. In order to be using these collations should be based on justifiable and verifiable information.

c) Auditors are competent professionals who have obtained qualifications based on exams. Data examination is not made randomly, following to authors’ intuition; it is made by following of Professional Standards (codes of ethical professional conduct and the 1984 Directive VII of the CCE, professional standards and technical work standards).
In the broadest sense, the definition of the concept of audit has been made by the American Accounting Association (AAA) as follows: “is a systematic process of collecting and evaluating evidence objectively in order to determine the extent to which declarations / statements about economic actions and events comply with pre-determined criteria for these declarations and convey their conclusions to relevant use” (Committee on Basic Auditing Concepts, 1973: 2). The concept of “declaration” in this definition has a special meaning in the audit. For example, the information presented in the financial statement items and the disclosures in the records or in the system are statements and claims submitted to the shareholders and shareholders (social stakeholders) by the management (Cömert, 2016: 9). In the first declaration or claim; the auditor investigates whether the financial statements have been prepared in accordance with generally accepted accounting principles and rules. In the second declaration; the auditor investigates whether the accounting system meets the criteria of efficiency and reliability (Cömert, 2016: 10).

If we need to classify the audit depending on the organizational reason, we can separate the company:

1. Financial statement audit
2. Conformity audit
3. Activity audit

**Financial Statement Audit:** An audit involves auditing financial statements to determine whether an entity has prepared its financial statements in accordance with pre-determined criteria. These criteria are basically generally accepted accounting principles or standards. This audit is usually done by independent accounting specialists, who have no hierarchical relationship with the organization. For this reason, this service is called independent audit.

**Conformity Audit:** An audit conducted to determine whether a person or business unit remains legally bound and regulated. For example, the audit of the compliance of the income tax declaration with the tax laws by the taxpayers' experts is a compliance audit.

**Activity Audit:** The observation of the implementation of the procedures and methods related to these activities in order to assess the effectiveness and efficiency of an organization's activities. The whole entity is a business unit, a production activity, a marketing activity, etc. control of the function falls within the scope of the activity audit. This audit is performed by the internal auditors, and the public auditors also conduct activity audits in public institutions.

### 3.2. Internal Audit

Internal audit is an independent evaluation function that is introduced into the enterprise in order to examine and evaluate the operations of the enterprise to provide services to the enterprise (Özkardes, 2017: 192; Sabuncu, 2017: 164).

Internal audit is an independent and impartial assurance and consulting activity designed to improve and add value to an organization's activities (Cömert, 2016: 12), as defined by IIA (2013) in its present understanding. It is an important fact that the organization is approaching its goals by introducing a disciplined and systematic approach to assessing management and control processes and risk management effectiveness.

Through internal audit which is formal and documented process, management and employees analyze their own activities and assess the effectiveness of internal control processes (Dumitrescu, 2004).

The US Internal Audit Institute defines internal audit as adding new dimensions in order to be able to understand the future of the profession and to provide a higher quality audit service. "Internal audit is an independent, impartial assurance and consulting activity designed to enhance the activities of an organization and to contribute to its activities (www.theiia.org/File://A\The IIAGuadiance ethic.hm).

The concepts of “assurance” and “consultation” in the definitions reflect the expanding applications of today's internal audit. The definitions do not exclude the “valuation” function, but rather broadens it. It is accepted that internal auditors may make additional value through activities such as consultation and advice without compromising the traditional values. The definitions also include controls within the scope of internal audit and includes the concepts of “risk management” and “management communication” which are important to renewing. Thus, the work and reports of the internal audit unit are considered to be an important data source of the supervisory board and senior management, and it is seen that responsibilities related to these issues are shared (Demirbaş, 2005: 173).
Internal audit activities are systematic and disciplined applications and must be carried out within a specific plan and program framework. Internal audit planning is a systematic process that takes the form of following up and evaluating the obtained information, reporting the findings obtained as a result of the audit, and follow-up (Ulutaş, 2007). Internal audit is an independent evaluation element within the business and serves as the governor by measuring the effectiveness of the internal control system (Özkardeş, 2017: 192). Thus, it prepares an internal control system and prepares an audit program, identifies and evaluates the controls so that the targets can be reached economically and efficiently, reports the findings and results, and if necessary, reviews them, and provides opinion on the reliability of the inspections in the examined system (Yörüker, 2014).

The main purpose of the internal audit is to examine the effectiveness and adequacy of the controls established by the top management in line with the objectives and objectives of the business and to investigate whether the business assets are protected against any kind of harm and whether the activities are carried out in compliance with the business policies and the accuracy and reliability of the accounting information that forms the basis of the financial statements (Ceyhan, 2010: 37).

The main features of internal audit can be listed as follows (Sabuncu, 2017: 165);

1. Autonomy
2. Operation limit
3. Structure of knowledge
4. Determination of risks
5. Compliance with legislation, in-house procedures, and rules
6. The use of resources
7. Reaching business goals

The scope and objectives of the internal audit vary depending on the size and nature of the business and the business management requirements. In general, internal audit covers the following activities (Cömert, 2016: 15);

a) Appraisal of accounting and internal control systems; establishment of adequate accounting and internal control systems is an activity that is under the responsibility of the management and requires constant care and attention. This framework also includes the task of reviewing and improving the functionality of the systems concerned, as well as the task definition of the internal audit.

b) Review of financial and operational information; this process involves reviewing the methods used to specifically investigate individual items, including detailed tests of procedures and procedures used to identify, measure, classify and report financial information, and records and procedures.

c) Monitoring the effectiveness and adequacy of the activities, including non-financial controls of the operator;

d) Adherence to laws, other statutory requirements and regulations and business management policies, rules and other internal requirements.

4. INTERNAL CONTROL AND INTERNAL AUDIT RELATIONSHIP, DIFFERENCES AND RISK-ORIENTED OVERVIEW

4.1. Comparative Analysis of Internal Control and Internal Audit Concepts

Internal control and internal audit are inseparable dualities that interact. However, it is not possible to say that they are similar or even identical. Internal control is a management control operation that is created within the operational framework to assist managers in driving and managing operations, and in this context helping them achieve their objectives on a continuum basis; internal audit, measurement of internal control effectiveness and management assurance functions (Özkardeş, 2017: 193).

It is also the duty of internal control to conduct control activities at the business, to continuously monitor and evaluate the internal control system. Internal audit investigates the efficiency and success level of the internal control system and investigates whether the system works as intended and to what extent the objectives and objectives of the enterprise are
Internal control is a process driven by an organization's board of directors, managers and other personnel and designed to ensure reliable financial reporting, efficient operations and legality. The internal control system is a system designed to provide reasonable assurance that the operations and transactions are carried out effectively and that the laws and regulations are complied with in reaching the objectives of the operator.

The main differences between internal control and internal audit can be summarized as follows (www.keydifferences.com).

1. The methods and procedures implemented by the management to control the operations, so as to help the organization in achieving the desired ends, is called as an internal control. The auditing program adopted by the firm, to review its financial and operating activities by the expert, is called internal audit.
2. While internal control is a system designed, implemented and maintained in an organization. Internal Audit is an audit function designed by those charged with governance, to keep a check on the activities of the firm.
3. In internal control, work of one person is verified by another, whereas in the case of an internal audit, every single component of work is verified.
4. In the internal control system, checking is performed simultaneously, while carrying out work. On the contrary, in internal audit system work is checked after it is performed.
5. The basic objective of the internal control system is to ensure compliance with management policies. In contrast, internal audit aims at detection of fraud.

The differences are further clarified by the Table 1-Context of Key Factors.

<table>
<thead>
<tr>
<th>Basis For Comparison</th>
<th>Internal Control</th>
<th>Internal Audit</th>
</tr>
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<tbody>
<tr>
<td>Meaning</td>
<td>Internal Control Refers To The Methods And Procedures Implemented By The Management To Control The Operations, So As To Assist In Achieving The Business Objective.</td>
<td>Internal Audit Alludes To The Auditing Program Adopted By The Firm, To Review Its Financial And Operating Activities By The Professional.</td>
</tr>
<tr>
<td>What Is It?</td>
<td>System</td>
<td>Activity</td>
</tr>
<tr>
<td>Verification</td>
<td>One Person's Work Is Verified By Another.</td>
<td>Each And Every Component of Work Is Verified.</td>
</tr>
<tr>
<td>Time Of Checking</td>
<td>As Soon As The Transaction Is Recorded Checking Is Performed.</td>
<td>Checking Is Done After The Work Is Performed.</td>
</tr>
<tr>
<td>Objective</td>
<td>To Ensure Compliance With Management Policies.</td>
<td>To Detect Fraud And Error.</td>
</tr>
</tbody>
</table>

In this context; the internal control system does not provide complete assurance in the interest of preventing the occurrence of faults or the occurrence of errors in the processes of the enterprise even though they are well and detailedly organized. In this context, it is ensured that the internal control structure is monitored by the managers and the effectiveness is controlled, evaluated and directed to be more effective through internal auditing. Therefore, not only financial control is included in the scope of internal audit but all operations of internal control applied in the enterprise are entered. As a result, it is the responsibility of the management of the entity to regulate, monitor and operate the internal control system in the best way (Korkmaz, 2007).

4.2. Internal Control and Internal Audit on the Risk Management Framework

As a result of the work of COSO, which has played a leading role in the development of the Corporate Risk Management phenomenon, it has been recognized that traditional internal audit activities, such as financial audit, efficiency and efficiency audit, system audit, internal controls effectiveness and efficiency audit, control of the effectiveness and efficiency of management practices has also begun to be carried out. Hence, internal audit have also been able to carry out audit activities aimed at increasing efficiency and efficiency by evaluating the risks existing in the business and contributing value to the business (Türedi, at all, 2015: 6). Over time, the importance given to risk
management and risk-focused internal audit activities within the scope of internal audit has increased and it is aimed to increase the effectiveness of auditing by foreseeing possible problems (Özkardeş, 2017: 194).

The main function of internal audit under Corporate Risk Management is to provide assurance services related to the effectiveness of Enterprise Risk Management activities to the management of the enterprise in order to help manage the risks that are deemed to be appropriate and to ensure that the internal control system works effectively (Reding et al., 2007).

As a result of the investigations, it has been revealed that the internal audit has focused on a risk-focused approach involving critical risk management functions in business, which is largely behind the reasons of financial risk hedging and more effective internal audit. However, it has been observed that internal audit plays an important role in risk management practices and that most companies conduct risk management activities jointly with the internal audit unit or risk management unit while they are still in the process of traditional internal audit (Özkardeş, 2017: 194).

The role of internal audit in Corporate Risk Management may change the organization from the organization. In general, the task of internal audit can be summarized as follows (Moeller, 2004).
- To focus on the significant risks identified by the management and to monitor the organization-wide risk management process,
- To confirm that risk management is done,
- To participate actively in the risk management process and to support this process,
- To coordinate the risk reports given to the board and audit committee,

Relating the concept of risk to internal audit has removed the concept of the risk-focused internal audit. $Risk-focused$ $internal$ $audit;$ can be defined as the type of audit based on the assumption that audit resources are not unlimited, that the unit activities to be audited face different risks and that the unit activities to be audited have relatively different significance levels. In the light of these assumptions, the internal audit manager makes and implements risk-based plans that prioritize internal audit activities in accordance with the objectives of the organization (Sharma, 2004).

On the other hand, the institutional structure requires a functional internal control system infrastructure to be supported by the management and systematically and periodically audited at different angles. This is defined as three lines of defense of institutions in the literature.

The first phase of the Three Lines of Defense consists of operational management, that is, process owners and the internal control activities they are expected to perform. The basic indicator of the first line of defense is based on accountability. In the second phase, the policies and regulations prepared by the management, as well as the risk management activities aimed at identifying, directing and responding to the risks that the institution has against the strategic goals and targets. The basic indicator of the second phase is expressed as consistency. What is important here is the necessity to ensure consistency within policies, regulations and risk management strategies. The third stage is carried out on the basis of independence in accordance with internal and external audit activities. From this point of view, it is important to realize the internal control activities, which are the first stage of the three lines of defense and which are supposed to be intertwined with the operations, in accordance with the effective, efficient and economic approach and ethical values of the institutions (Kahyaoğlu, 2017:28).

If the value of the 3-point Defense Line to the COSO-based internal control system is summarized, it is possible to get a clearer view of the bases of the leverage effect.

If the value of the three lines of defense to the COSO-based internal control system is summarized, it is possible to get a clearer view of the bases of the leverage effect (Uzel, at all., 2016: 210-211):
- The Three Lines of Defense is an integrated system, but it provides compliance and integrity with COSO. It ensures that the lines and the components of the internal control system are synchronized.
5. CONCLUSION

The scope of internal control focuses on ensuring the sustainability and successful implementation of the organizations and control activities they have. On the other hand, the assurance and consultation expressions included in the definition of internal audit extend the valuation function of internal audit and cause the concepts of communication with risk management and management to be included.

By and large, both internal control and internal audit are important for every organization, to assess the overall working. The scope of internal control is wider than that of internal audit, as the former includes the latter.

Developments in risk management have inevitably affected internal control and internal audit. The main point of interaction is the need to control the risks in the management of the risks and to monitor the risk management system and evaluate the effectiveness. From the traditional internal audit to the internal audit based on risk management; undoubtedly influenced by the changing needs of businesses, the effects of the globalization process on businesses, the technology-driven changes that are experienced, and the consequences of changing internal and external environment.

Today, activities in the field of internal control and internal audit are countered by examples of developments in the context of such developments. It is important to emphasize here that internal control and internal audit activities and the risk management they focus on must be conceptually well explained in order to achieve success in the applications. Misunderstanding of concepts will lead to chaos and failures in the organization. As a result, it may cause time, labor and financial loss in the field of internal control and internal audit.

In this study, the concepts of internal control and internal audit, which are the indispensable formation of the enterprises, are explained in a clear way, and it is mentioned about the relationship and differences of concepts and explanations of the concepts of the risk management. The study aims to be a guide for practitioners and theoreticians to contribute to the literature through qualitative evaluations.

REFERENCES
THE USE OF INFORMATION TECHNOLOGY IN ACCOUNTING EDUCATION AND OBSERVATION OF CONCEPTUAL CHANGE THROUGH WORD ASSOCIATION TEST

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Abstract

This study aims to investigate the effect of using information technology in accounting education on cognitive structures of students. In order to achieve this aim, students were given one-month accounting education together with information technology tools and students were applied a word association test before and after the training. For the test, students were given ten key concepts about accounting. After the test, concept maps drawn from the answers given to the selected frequency table prepared and concepts. According to the concept maps, it was determined that there were significant changes in the cognitive structure of the students. The research findings demonstrate that word association testing can be used to measure students’ conceptual framework regarding accounting.

Keywords: Accounting Education, Information Technology, Word Association Test, Concept Map

1. INTRODUCTION

Developments in information and communication technologies, especially development and becoming widespread on the internet, modified many things such as business structures, and marketing approaches (Fidan et al. 2015, p.35). This rapidly changing business environment revealed that accountants have to update their knowledge and skills (Tanaka & Sithole 2015, p.47). As a result of developments in information and communication technologies and their reflections to the profession, that the staff of the accounting profession can effectively and efficiently use these technologies has become obligatory (Hatunoglu 2006, p.192). The need for new information technologies means that new changes occur in accounting education. It will be necessary to evaluate them in terms of skills of accountant using information technology, changing the organizational environment, changing the role of accounting, and effect of the change on information technology itself. (Mgaya & Kitindi 2008, p.369). The skills to use the instruments of information technology must absolutely be taught to the students. Technological developments also affected the equipment of course used in accounting education. In accounting programs, it is necessary for equipment of interest to be compatible with technology (Elmaci & Sevim 2013, p.261).

Compliance of education with technology will prepare better the applicants of the accounting profession to the conditions of today. Because information and communication technology can enhance teaching and learning through its dynamic, interactive, and engaging content; and it can provide real opportunities for individualized instruction. Using information communication technologies in education, in addition (Yusuf 2005, p.316);

- contributes to accelerating, enriching, and deepening skills;
- motivates the students;
- provides his/her to engage in learning;
- helps to relate school experiences to work practices),
helps to create economic viability for tomorrow’s workers.
- contributes to radical changes in the school.
- strengthens teaching and provides opportunities for connection between the school and the world.

Besides the benefits above, many professional institutes reflect that it is necessary for accounting instructors should use technology in accounting education (Öztürk & Kutlu 2017, p.785).

Accounting is a profession and it is necessary to bring the information, skills, and application adequacies the profession requires for the education of the people that will prefer this profession. Accounting is an information system, which is directly affected by the changes in the environment where business is in, and which continuously updates itself. Only accounting information is not enough in this integrity, and accountants have to be equipped with information such as the economics, finance, law, and business management. Therefore, the main aim in accounting education is to utilize the other disciplines that will help this information used in recording, classifying, interpreting, analyzing, and making decisions beside bringing accounting information (Zaif & Ayanoğlu 2007, p.117).

A professional accounting is responsible for evaluating the importance of accounting information, not only recording procedures. The quality of accounting information depends on the reliability of hardware and software and, in addition, staff adequacy in accounting software. An employee who is only familiar with accounting and economic laws may not meet the demand of information age. Nowadays, accountants, who know accounting theory, have mastership in practice, are familiar to economic laws, and can use information technologies in the best way, are any longer better met in the business world (Liyan 2013, p.750).

From developed countries to developing countries, accounting instructors all over the world are under the pressure of industries and professions to raise graduates responding to the changing needs (Chaker & Abdullah, 2011, p.193). In order to be able to remove this pressure, educational institutes are expected to serve the needs of society and especially business life. The institutes giving accounting education, not only bringing accounting information but also analytic, technical, communication, and interpersonal skills, must raise high-quality students having the potential to be accounting professional (Eskola 2011, p.10).

In accounting education, raising high-quality students who will meet the needs of business life is not easy. This case is a result of the differences between accounting applications and accounting education. In this context, for developing solutions to the problems that reveal, the components of the problem should be defined. Realizing this makes the contribution to more qualified and target-based accounting education, using the resource in the suitable way (Ay 2011, p.1571).

Accounting, with its idiosyncratic content and logic, emerges as a difficult domain in understanding and comprehending of students. While, on the one hand, it is necessary to select very well lecturing techniques for the courses to be better lectured related to accounting, on the other hand, it is necessary to utilize a number of alternative methods for making measurement and assessment. (Kutlu & Öztürk 2015, p.19). Alternative methods of measurement and assessment are methods, in which there is student on its focus point, compared to traditional methods, which include methods enabling participants to be kept in educational process at high level, and which helps to obtain efficiency at the top level as possible as from the education presented (Duban & Küçükylmaz 2008, p.771). Researchers have went towards techniques, which measure not only information students have but also their relationships between different information and concepts, their cognitive structures, whether or not they provide meaningful learning, relating the existing information with new information, and to what extent they understand the similarities between the run of the events in the real and natural world through the information they learn. Besides these, the techniques, which reveal the cognitive structure of students and relations between concepts in this structure and, in addition, which serve that we are able to identify whether or not the relationships between concepts are adequate, have gained importance (Ercan et al. 2010, p.138). World Association Test is one of the alternative measuring techniques, which can display the cognitive structure of student and relations between the concepts in this structure i.e. information network and which serves that we are able to identify whether or not the relationships between long-term concepts are sufficient and meaningful (Bahar et al. 1999, p.134). Word association is a technique developed to reveal the relationships people make between concepts.
Since the concepts can be units taking place in the subjects, word association technique can be used to measure how not only concepts but also a discipline, cases, and even people are understood (Polat 2013, p.101).

In this study, in order to show the effects of using information technologies in accounting education, the method of Word Association Test (WAT) was applied to study the cognitive structure of voluntary students of business management about the concepts used in accounting and reveal their conceptual mistakes related to accounting.

2. LITERATURE

In related to the use of information technologies in accounting education and its effects, there are many national and international studies. Some of these studies are put in order as follows (Fidan 2012, p.4284-4285; Fidan et al. 2015, p.36-38; Öztürk & Kutlu 2017, p.786-787):

In the study by Sayın et al. (2005), whether or not there is a significant relationship between the level of utilization technological instruments and level of achievement in the courses was tested, and it was identified that there was a significant difference in only one course. In related to lecturing instruments, the relationship between the fact that the technological lecturing instruments in courses make easier to understand courses and increasing the interest in the course was studied, and it turned out that there was a positive significant relationship.

In the study, carried out by Ömürbek and Bekçi (2006), a survey study was conducted to evaluate the viewpoints of the course “Computerized Accounting” of the students and reveal the useful aspects of accounting package software. In the study carried out on the students receiving the course “computerized accounting”, the role of information technologies on accounting education was examined and it was concluded that the computer-aided applications were necessary for accounting courses.

Although Coşkun (2008) emphasized that the importance of using traditional methods has continued in his study, he also suggested that there was a need for a change in teaching techniques and new methods such as the use of technology. They pointed out the importance of the subjects such as commonly using overhead projector or slide, computer and package software in the courses accounting, and transferring course equipment and methods to digital media. In addition, in accounting education, in order to help the courses given in formal education, it was expressed that preparing webpage of the course was an element contributing to learning.

Çankaya and Dinç (2009), in their study, they identified that in terms of academic performance, the students taking the course through the presentation of PowerPoint Software were more successful compared to the students, who were instructed with traditional methods. When an examination is made in terms of perceptions of students related to accounting courses, it emerged that the students, who were instructed with the PowerPoint presentation, considered that the course became more interesting, more entertaining, more relaxing, and more useful. The students taking the course in traditional method found the course more monotonous, more boring, and more tiring compared to the other group. It was identified that this difference identified between these two groups was statistically significant. When an analysis is made in term of general judgments of the students related to accounting education, the judgments of the students instructed with PowerPoint presentation were identified to be more positive compared to the students traditionally instructed.

Convery and Swaney (2012), in their study, developed and used an active learning program, which also included the students and analyzed work problems with the principles of management accounting through the Excel program. As a result of this study, the researchers found that the students believed that the homework the students performed by using Excel helped their e-table adequacy degrees develop related to the analysis of work problems.
According to the study carried out by Chrismastuti and Purnamasari (2015), they studied the effect of using information technologies on student’s achievement and at the end, they concluded that the use of technology increased perception in courses. In addition, they introduced a model accepting technology in accounting education.

Öztürk and Kutlu (2017), in their studies, they tried to identify the thoughts and perceptions of students about how the use of the technological hardware and software tools affected the courses. According to this, most of the students stated that accounting courses had to be lectured by using the computer, the projection device, and a smart board. In addition, feedbacks were obtained from the students in the form of that accounting lecturer used technological products in accounting courses made the courses more enjoyable, more understandable, more pursuable, and easier and facilitated participation in the course and making communication with the instructor. On the other hand, it emerged that in the scope of evaluations made by the students, teaching a lesson with technological products provided to like the course and was catcher because it facilitated to keep note by imped ing absent-mindedness

Word association tests were used for many different results in the literature. Some of the studies carried out with WAT method are (Işıklı et al. 2011, p.52; Polat 2013, p.101-102):

Bahar et al (1999) applied WAT on the freshmen of the biology department after lecturing on the subject in the genetic area. In this study, the values of answer frequencies and association coefficients of the students were used in order to map the relationship between given 10 key concepts and other relevant concepts. The results introduced that although students produced many answers to the key concepts given, they could not see these concepts as an intertwined relational network structure

Cardellini and Bahar (2000) conducted a study on the freshmen of the Chemical Engineering Department. In their studies, they used word association test to map the cognitive structure of these students about the concepts related to general chemistry. WAT results applied before and after lecturing the subject showed that the answers the students gave to the key concepts identified after lecturing the subject and the number of answer word they associated with increased. However, when mapping results are examined, the case reveals that the large majority of the students cannot see the key concepts and answer words in the form of a network.

Işıklı et al. (2011), in their study, applied WAT to reveal the cognitive structures of class teacher candidates about Atatürk principles. As a result of the test made by giving 6 key concepts containing Atatürk principles to the preservice teacher, the data obtained were recorded in a frequency table consisting of key concepts and answer words. In the light of data in this frequency table, conceptual networks introducing the cognitive structure of preservice teachers were drawn. As a result of the study, it was identified that preservice teachers very often used some concepts and that they were conceptual mistakes related to some concepts. In addition, as a result of the study, it emerged that WAT could be used as an alternative measuring instrument.

Keskin and Örgün (2015), in their study they carried out, used WAT method to introduce the cognitive structures of the employees working in hotels related to sustainable tourism and identify their conceptual mistakes. At the end of the study, it was seen that there were some mistakes in the concept tourism; that the concept is not well known by tourism employees; and that statement groups only expressing feeling were intensively used, while the statements containing scientific information remained at the low level

Although there are the studies carried out by using the different analysis methods in the literature related to the effect of using information technology, any study carried out by using WAT method, an alternative measurement-assessment technique, was not met. However, a study using WAT method to measure the effect on the students’ learning concepts of traditional education method was met. Ay (2011), in this study, applied WAT to 119 university students, who took accounting education.

In the study, the cognitive structure of the students about 10 key concepts given to the students related to accounting, was attempted to be revealed. Using the answers of the students, frequency tables were formed, and concept maps were drawn according to the values in these tables. In concept maps, it is seen that there are mostly correlations between the
concepts of accounting and accounts in concept maps. In addition, it was found that there was a curved relationship between accounting concepts in the form of a network. In addition, it was found that the students had some conceptual mistakes related to accounting. Study findings show that word association test could be used to measure the conceptual network of the students related to accounting.

3. AIM AND METHOD

In this study, as a result of giving accounting education to the students, who took traditional accounting education, using information technologies, it was aimed

- to introduce the cognitive structure of the students
- to introduce their conceptual change process, and
- to identify their conceptual mistakes about the concepts related to accounting.

In the study, for forming a test group, general accounting course of 4 weeks (8 days, 32 hours) in accompany with information technologies was opened. Course actualized with the 7 voluntary participation from the department of business management license, Selcuk University. Education actualized in the framework of curriculum, prepared by 1 academics and 1 professional accountant. It was paid attention that the students forming test group earlier took the education of general accounting. In a small survey, made before education, the information of the students about general accounting was identified to be at the middle level (Mean = 3.29). In education, all of the subjects were given through computer built in Accounting Software and Office Software. The students participated in educations with personal laptop computers and software used in education was also loaded to their computers. In addition, with WhatsApp group formed in non-education hours, the various actual information was sent to the students for them to read.

3.1 Data Collecting Instrument and Analysis

In this study, WAT was used to introduce the pre-education and post-education cognitive structures of the students, observe the change in conceptual structure, and identify conceptual mistakes.

In order to use in word association test, considering the education the students earlier have, 10 key concepts (accounting information system, value-added tax, current debt, reports, receipt, profit-loss, account, integration) were selected These key concepts were determined by interviewing with a professional accountant and lecturer who is specialist in the area of accounting education A page order was formed like in the following example in such a way that each concept determined will be in a page.

Accounting Information System ...........................
Accounting Information System ...........................
Accounting Information System ...........................
Accounting Information System ...........................
Accounting Information System ...........................
Accounting Information System ...........................
Accounting Information System ...........................
Accounting Information System ...........................
Accounting Information System ...........................
Accounting Information System ...........................
During the application of the test, the students were asked to write the relevant key concepts bring into their mind in thirty seconds. Since time slice of 30 seconds was determined as optimum (the most convenient) with these tests made in the previous studies, it was taken as a convenient time (Polat 2013, p.104). The reasons for writing one under the other for 10 times is to prevent the risk of chain response. Because if the student turns to the key concept during writing each concept, he/she will write the words the concept that he/she writes as an answer instead of key concept brings into his mind. This also injures the result of the test (Bahar & Özatlı 2003, p.77). At the expiration of duration reserved for each key concept, the students were asked to proceed to the other concept, and the process was continued in this way until all key concepts expire (Polat 2013, p.104-105). In terms of what the students are prepared for the test, the preliminary remark related to the logic of test was made and the various tests were realized.

For analysis of the data obtained from WAT, the results obtained from pretest and posttest applications were examined in detail and a frequency table showing that which words or concepts are repeated for how many times and, depending on this, conceptual network was formed for pretest and posttest (Bahar & Özatlı 2003, p.77; Ercan et al. 2010, p.140). In addition, whether or not the difference between pretest and posttest made is significant was tested by “two dependent sample t-test” by means of the SPSS program.

In order to reveal the cognitive structure and conceptual change in pretest and posttest, informing the concept network, the technique of cut-off point (COP) was used. In the technique of cut-off point, 3-5 numbers less than maximum answer word given to any key concept are used as the cut-off point and answers above this answer word are written onto the section in the first part of the map. Later, cut-off points are drawn down at certain intervals and this continues until all key concepts appear in the conceptual network (Bahar et al. 1999, p.136). In this study, due to the fact that the number of students in the sample is less, the cut-off point was selected as 2 points less based on the maximum answered concept. The words, whose frequencies are 1, were not included in the interval (Demircioğlu et al. 2012, p.116-117), because those single-frequency words are included in the concept network will show network very messy and cause irrelevant words having concept mistakes to also take place in the network.

In addition, the statements the students wrote related to key concepts were examined in the scope of analysis. But since they are in few numbers, due to the fact that they did not form a significant difference between pre-education and post-education statements forms, they were not included in the evaluation.

4. FINDINGS

In a word association test administered to the students, the number of answer words produced in pretest and posttest for each word is shown in the following table.

<table>
<thead>
<tr>
<th>Number of Answer Words Given to Key Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KEY CONCEPTS</strong></td>
</tr>
<tr>
<td>Account</td>
</tr>
</tbody>
</table>
In the analysis made, the total number of answer words in pretest before education were identified as 209 and the total number of answer words in posttest after education, as 356. As seen in Table, there is an increase in the number of all answer words associated with all keywords other than the concept payable after education. These results show that there is a development in the understanding of key concepts. This is an expected result because after teaching the subject, an increase in the answers given is expected to be. Understanding and learning increase in parallel with the increase of association between the concepts (Bahar & Özatlı 2003, p.78).

4.1 Findings of Significance Test

In order to test whether or not the difference between the two tests is significant, it was regarded as whether or not the differences are significant by means of SPSS software. According to this, the following hypotheses were formed:

H₀: [For] the differences between the words obtained in pretest and posttest, data are in normal distribution with 95% confidence interval.

H₁: [For] the differences between the words obtained in pretest and posttest, data are not in a normal distribution with 95% confidence interval.

Normal distribution hypotheses, differently from the other hypotheses, are reversely established (Özdamar, 2015, p.249). The result of the test made is as seen in Table 2.

Table 2

<table>
<thead>
<tr>
<th>Tests of Normality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kolmogorov-Smirnov</td>
</tr>
<tr>
<td>Shapiro-Wilk</td>
</tr>
<tr>
<td>Statistic</td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
</tbody>
</table>

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As will be understood from Table 2, according to the result of the significance test made, since significance levels are \(p > 0.05\), the \(H_0\) hypothesis was accepted. Namely, the differences between the words obtained in the pretest and posttest, the data show a normal distribution with 95% confidence.

After the normal distribution of data is obtained, in order to test whether or not the differences are in normal distribution, the result of “two independent sample t-test” was regarded to. According to this, the following hypotheses were formed:

\[ H_0 \]: The differences between the words obtained in the pretest and posttest are not significant with a 95% confidence interval.

\[ H_1 \]: The differences between the words obtained in the pretest and posttest are significant with a 95% confidence interval.

The result of the test made is as seen in Table 3.

**Table 3**

<table>
<thead>
<tr>
<th>Differences</th>
<th>(1,69)</th>
<th>(10)</th>
<th>(200)</th>
<th>(943)</th>
<th>(10)</th>
<th>(589)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*. This is a lower bound of the true significance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Lilliefors Significance Correction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In Table 3, according to the result of “two dependent sample t-test”, since significance levels are \(p < 0.05\), the \(H_0\) hypothesis was rejected, and the alternative hypothesis was accepted. In this case, it was concluded that the differences between the words obtained in the pretest and posttest are significant with 95% confidence.

### 4.2 Findings of Concept Map Obtained from Wats before and after Education

Since the highest frequency obtained in WAT before and after education is 8, taking 8-9 interval as the cut-off point of the concepts and descending with equal intervals, concept maps of the students were reached.
The results seen in conceptual networks obtained from pretest can be explained as follows:

- The education the students had earlier remained insufficient about associating with the first two points. That the number of key concepts are less compared to the other studies in the literature and therefore, that the intervals of cut-off point are less may be the cause of that these words do appear in this section (Demircioglu et al. 2012, p.119-120).

- For the 4-5 interval of cut-off point, it is seen that key concepts and relevant concepts begin to appear; however, that this is not much more and only 4 of key concepts (VAT, Integration, Account, and Current Account) form. The students, among these concepts, made a relationship between the words of “account” and “current account”. In addition, the students did not use insufficient number of associated word for the other two concepts.

- In pretest made, the students revealed 8 of key concepts in the 2-3 interval that is the 4th cut-off point but could not make any concept relationship related to the concepts of “receipt” and “profit and “loss”. In this cut-off point, it is observed that there is an increase in the number of words associated with key concepts. However, it is understood that this increase is insufficient and that the information related to the concepts is in disconnected and irrelevant structure.

- It is seen that the pretest made revealed some meaningful learnings (e.g, VAT - Ratios, Account - Plan (Chart of Accounts), Stock - Cost, Stock - Store, Reports - Statement, Accounting Information System - Account Codes) as well as conceptual mistakes, which are not scientifically correct (e.g. Debt - Rent, VAT - Injustice, Receipt-Cable) and not included in concept map (e.g. Receipt - Account Summary, Report - Document, Stock - Sale, Debt – Inlet to Case), because its frequency is 1, but the students make significant in an idiosyncratic way, in accounting education the students previously took. It is considered that concept mistakes here result from that the students made similar the education they took to its relations with their own lives.
The results seen in conceptual networks obtained from the last test can be explained as follows:

- In the test made after education, the students revealed one of the key concepts (Accounting Information System) at 8-9 that is the 1st cut-off point. But, a single word (Process) was associated with this concept. This case can be explained as a result of using information technologies in accounting education given.

- For 6-7, the second cut-off point, any change did not occur in terms of key concepts. Beside this, a few words emerged. But, that the frequencies of the words are 1 led such a result to occur.

- At 4-5, 3rd cut-off points in the last test, 6 concepts (Account, Current Account, Stock, Payable, Integration and Receipt) more were added to the key concept that first turned out. Together with these 6 concepts, an increase was seen in the number of words, the relationships between concepts could not be made. That the students...
cannot make relationships between the concepts can be explained with their considering independently from each other.
- At 2-3, the last cut-off point, all key concepts and words related with them emerged more remarkably. However, the relationship between concepts remained under the expectation. this, it is understood that there is a serious increase in the words related to the concepts and that these words were more explanatory for the words compared to pretest. When regarded to concept network in the last test, that key concepts emerged very earlier shows that conceptual change and development is better compared to pre-education. In addition, those alternative concepts are more explainable and that there are more relations between alternative concepts can mean that the education given is effective and efficient.

5. CONCLUSION

At the beginning, accounting profession, which can manually realize simple processes such as recording, summarizing, and reporting economic activities in terms of businesses, while in terms of government, which is used as an instrument of supervision and tax calculation, nowadays, together with the development of information and communication technologies, needed alternating and diversifying its functions. Information technology provided important benefits to the accounting profession. The instruments of information and communication technology such as computers, servers, internet, wireless and digital devices shortened the priority accounting requirements for preparing and presenting information to management and stakeholders. Information technology not only shortened the required time for presenting financial information but also it improved the general effectiveness and accuracy of information.

Today, those executing accounting profession will be required for them to participate in the activities of an organization that concern information system and, based on software applications, to resent various services, because the developments in accounting technologies together with information technologies led the qualities of profession to also change and traditional qualities of accounting replaced with technology-affected accounting qualities.

The new qualities emerging in the profession show that in the programs giving accounting education, a change in this direction is required to enter. From now on, these educations have to be structured in such a way that they will meet the needs of age and, thanks to this, bringing new skills in the candidates of this profession should be provided. As stated in this study, in the methods of education given for gaining new qualities, the fact that it is necessary to also utilize technological products are of the results that many scientific studies revealed.

In this study, set out to identify how an effect using technological products in accounting education forms on the students, word association test was used as an alternative measurement instrument. Considering the accounting education, the students earlier took and education that will be given in the test stage for using in WAT, 10 key concepts were selected. The findings obtained in the study were identified by means of the pretest and posttest carried out through key concepts. The difference between the two tests gave an opinion to us about the conceptual change of the students. In addition, regarding the quality of the concepts and words associated by the students, concept networks were formed. With conceptual network formed, the findings such as how connections were made between concepts, what like wrong associations led to concept mistakes, and which common concepts were given as the most frequent answer word were obtained According to this,

- In the pretest made, it was observed that any concept was not explained in 1st and 2nd cut-off points; and that 4 of key concepts were reached in 3rd cut-off point and 4, in 4th cut-off points. The remaining two key concepts (Receipt, Profit and Loss) were not reached, because sufficient frequencies did not form. Since the number of students is less (7 students), that word frequencies remain low, the emergence of key concepts may have impeded.
- In their findings of word frequencies obtained in the pretest, it was seen that the students associated with the words of “tax rates”, “account” and “integration”, “plan”, “balance sheet”, and “interest” associated with key concepts the most. These words show that in accounting education the students took earlier in university, conceptual formation in their cognitive structure forms through frequently repeated subjects such as accounting records and post-record reporting, purchase and sale records, and payable and receivable payments, because in
the second list of the most repeated words, the concepts such as “payable”, “reports”, “tax”, and “cost” similar to the first list above took place.

- The pretest, a total of frequencies of the words contributing to the formation of the conceptual network (52) forms only 24.88% of all words written. This rate led associations and relations in the pretest to be less. In addition, this rate shows that the relationship between the other remaining words with concepts is very weak.

- As a result of the pretest, it can be said that accounting education took earlier focused on certain subjects and that education remained inadequate in explaining the other concepts forming in the actual applications of accounting related to the students.

- In the last test made after education, the words the students associated with the concepts naturally showed the increase. But, the increase in word frequency does not mean that the result of education given by means of information technologies is successful. Therefore, the relations and associations in concepts should be carefully examined.

- In the posttest, differently from the pretest, at 1st cut-off point, 1 key concept (AIS) was reached; at the 3rd cut-off point, 6 key concepts; and, at 4th cut-off point, all of the key concepts. When examined from this point of view, it can be said that education was successful.

- The words with the highest frequency in the posttest was “process”, “code”, “compliance”, “product”, “input”, “payment voucher (receipt)”, “collection” “process integration”, “receiver”, “seller”, and “promissory note”. The words in this list is a natural result of the education of 1 month the students took by using information technologies because all processes related to accounting in education were shown through software. Thus, the words such as “process”, “input”, “collection”, “process integration” were associated with key concepts. In addition, the second words with the highest frequency following this list (e.g. record, card, output) also show that the education carried out with software helped in the association of concepts.

- In the posttest, total frequency (168) of the words contributing to the formation of the conceptual network consists of 47.19 of all words written. This rate shows that the education given made contribution to providing conceptual relationships and connections to key concepts. In addition, this rate shows that the relationships of the other remaining words with the concepts strengthened a little more and that concept mistake decreases.

- In a time of 1 month, it emerged that after accounting education given by means of information technologies, the conceptual development of the students became better; that actual subjects were given in conceptual associations; and that the concepts were reported more cognitively. But in spite of this, in the posttest, a word rate of 52.81% is high and, in such conditions, identifying the deficiencies of the students in associating the concept with VATs, it will be suitable to continue education.

Based on the findings obtained from the results of the pretests and posttests, it was proved that word association test could be used in controlling conceptual change. The significant increase in the number of the words used in the pretest and posttest shows that there is a development in understanding and structuring key concepts.

The results of this study, in parallel with the results of the study carried out by Ay (2011), show that WAT was an effective measurement- assessment technique in identifying the cognitive structure of the students, to whom accounting education is given, related to these concepts. However, using this technique as a diagnostic instrument is more appropriate, not only as a measuring instrument. Thanks to this, accounting academics and educationalists can identify whether or not accounting concepts are comprehended by the students and, for identifying this, can help in planning educational strategies.

Another one of the results obtained from the study is that using the instruments of information and communication technology in accounting education enables the students to be able to regard to the cognitive structures in the concepts concerning accounting. from a broader viewpoint. In addition, it was seen that the narrowness of lecturing in the methods of traditional accounting education had difficulties in including in actual applications; despite this, in the education given by means of information and communication technologies, due to the fact that it is obligatory to follow the agenda, it was seen that it enabled the information given to be more actual. This case can facilitate that the accountant candidates reach to the qualities they have to have today and enable teaching method the educationalists are going to use to be strengthened as well.
ACKNOWLEDGMENT

This study is supported by the Scientific Research Projects Unit of Selcuk University.

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ARCHITECTURE AND HERITAGE BUILDINGS
AS A KEY TO IMPROVE TOURISM

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Abstract

Heritage tourism is defined as a visit to a historical place and buildings by tourists. Tourists are always eager and fond of knowing the history associated with new destinations where they spend a lot of time. They spend more money compared to those tourists who go to new destinations for other motives other than visiting heritage sites. Heritage tourism creates an opportunity for tourists to have a unique experience outside the modern landscape that they are accustomed to while being able to imagine how the ancestral people lived in the past in their traditional settings. As such people who protect and preserve their heritage architecture are empowering their economy through investment in those sites (Wisconsin Historical Society).

The UN World Tourism Organization abbreviated as UNWTO reported the growth of global tourism in the last 5 years from 1999 at an average of 7% up to 2004.

Reconstruction of a project such as an old commercial site in a historic downtown can help to maintain the unique character and also promote economic development. It can be a pull factor that draws local and international tourists hence rejuvenating the town. Such a site if well preserved in a historic town that has an enhanced quality of life can attract tourists searching for a unique experience that they can rarely find elsewhere. Wisconsin, for instance, preserves and restores its heritage commercial districts by establishing tourism offices that protect and renovate old buildings, a move meant to increase the number of heritage tourists in the state (Wisconsin Historical Society).

The objective of our article is to show that architecture and reconstruction of buildings, could help to maintain the memory of the place and the local culture.

Tourists will look for thus places because they can feel the culture and at the same time improve them one culture too.

CULTURE AND HERITAGE

Culture and heritage tourism has been a major component accounting for virtually 40% of international destinations (Pinto et al, 2015). In 2009, there were 882 million tourists and in the following year, this number increased by 58 million visitors. This reveals that heritage tourism will be one of the most crucial industries in the world. It also shows that buildings help in releasing impulses that assist people to assess both regional identity and lifestyle. The culture offers opportunities for self-identification, spiritual, emotional, and intellectual paradigm of a country (Pinto et al, 2015).
Reconstructed buildings can form a city street that attracts visitors. Supermarkets are then located inside those buildings and tourists end up buying obsessively in the name of entertainment.

For instance, the Disneyland located in California, an example of Main street USA, is a toy city that has toy houses whose interior has supermarkets stocked with goods and visitors buy impulsively while still receiving entertainment. The sites create a heritage memory and visitors feel nostalgic about these heritage sites. It is true that the visitors never experienced the original heritage sites when they existed but the reconstructed sites producing a longing for them. The sites can also offer a great insight into the world without necessarily going to other nations in search of the replicated or reconstructed sites (Barry, 2017).

**IMPROVE TOURISM**

Construction of heritage sites in a single setting can promote tourism. An architectural heritage site should be capable of attracting a famous entertainment culture for its continuity hence creating memories or experiences that the tourists are searching for. Tourists are often looking for a replication of historical life. A contemporary population whose main objective is seeking an entertainment experience may not be interested in authenticity or how genuine the reconstructed site is compared to a population that seeks to study and learns the heritage sites. A collection that offers a wide variety of either regional or cultural building artifacts acts as an attraction that enables wide cultural experience to be realized in a single location. The sanctuaries folk museums found in Greece and Scandinavia respectively are examples of collections that provide a wide cultural experience in a single setting. The tourists are able to view various heritage buildings in a single location. As a result, these sites have become very famous for tourists interested in a one-stop adventure. Heritage sites found in a single area help to boost entertainment hence leading to a continuous flow of tourists leading to increased returns for such tourism investment projects (Barry, 2017).

Introduction of laws that promote reconstruction and preservation of old buildings can help to enhance tourism in a heritage site. Reconstructed buildings play a vital role in knowledge accumulation in regards to historic sites. This is because they possess heritage value and provide a vivid picture of pioneer conservation practices in North America especially Canada. In 1934, Canada implemented Public Works Construction Act by emulate the New Deal which was introduced by President Roosevelt of the United States. The Act helped to provide financial assistance which was crucial in initiating reconstruction of buildings at the provincial and national level. This helped to promote tourism in the country more so in areas were economically depressed. Reconstruction projects such as Fort Ticonderoga and Colonial Williamsburg were reopened in 1907 and 1933 respectively. The success of these projects helped to encourage more projects to be reconstructed since they showed that enough data could be found in order to facilitate accurate construction of heritage sites. Another building that was reconstructed was the British Officer’s Quarters between 1934 and 1935 and its aged wooden barracks were modified into an attractive museum (Canada’s Historic Places).

Each country should develop strong bonding with its cultural and heritage legacy in order to preserve and sustain good relationships with other nations and the surrounding environment while avoiding the adverse effects of globalization. This will help promote a nation’s heritage tourism. In addition, the importance associated with heritage tourism such as revenue generation and job creation has motivated nations to introduce methodologies associated with urban planning as well preservation of historical sites. Also, there is the use of strategic approach in order to brand a place so as to allow it to be globally competitive. This can be done through such activities such as improving the accommodation capacity of an area for tourists who stay overnight hence boosting the revenue of a local area. Repairing and reconstruction of old buildings preserve the culture and create a sense of identity of the locals (Pinto et al, 2015).

Coming up with sustainable practices and policies will ensure the protection of the heritage sites, zones, and cities. In 2012, RIO +20 recognized the need to include tourism in its outcome document and also inclusion as part of G20 nations’ agenda due to its increased importance in the economic development of nations (Pinto et al, 2015). In the same year, there were over a billion tourists who traveled to different international destinations. The number of tourists is estimated to grow to 1.8 billion by 2030. The money generated from tourism should be used to reconstruct heritage
cities and old buildings destroyed during war or natural events. These cities and buildings should be reconstructed using the traditional layouts because that is what attracts tourists. Traditional layouts ensure that the authentic nature of old buildings is maintained after reconstruction takes place hence preservation of diversity in the world is maintained while providing an opportunity for tourists to learn the cultures and heritage of other people (Pinto et al, 2015).

Protection of intrinsic value in an old building can help promote heritage tourism. The old buildings that were constructed before the world war were built with high-quality materials such as heart pine, a hardwood that is rare to find today (Rocchi, 2015). Similarly, old buildings such as Daylight Building located in Knoxville were found to have intrinsic value despite being seen as an eyesore. The architecture was found to have hidden gems, ceilings made of heart pine hardwood, a façade with copper lining, a huge clerestory, and a front with opalescent glass tinting. The old buildings attract tourists due to many reasons such as architecture’s sense of permanency; and the aesthetic, heritage, and cultural value that such buildings possess (Rocchi, 2015).

The heritage and culture play a huge role in attracting tourists. In a recent study, at least 50% of the people interviewed, there was a consensus that both culture and history strongly determine their holiday destination choice. In addition, statistics have also revealed that the heritage tourism is expanding very quickly more so in APEC and OECD areas. Heritage tourism is expected to grow and generate over $100 billion globally while the Asia Pacific nations (APEC) it is estimated that it will be able to yield $327 million (Childs, 2018). This type of tourism draws tourists are high yielding from nations such as United Kingdom, Australia, New Zealand, and India, among other nations. These tourists tend to overstay in their destined areas. A study has shown that tourists visiting an area for the purposes of culture and heritage spend at least 38% of their day and 22% longer in general compared to other tourists who visit for other reasons other than heritage tourism (Childs, 2018).

CONCLUSION

Heritage and culture tourists are also attracted to historic architecture, museums, and other historic attractions. They describe such attractions memorable and educational compared to conventional holidays. Most of the tourists enjoy spending their nights in their area of destinations where they stay in motels; campgrounds; hotels; and bed and breakfasts where they spend a lot of money. Heritage tourism also benefits the economy of an area indirectly. These benefits can be divided into 3 categories: economic, social, and environmental benefits (Childs, 2018). The economic benefits of culture and heritage tourism include: injection of money to an economy hence generating more tax revenues, business expansion, and job creation, diversification of the economy, infrastructural expansion and maintenance for the local community. The social benefits are: building social capital; encourage positive behavior; community beautification, and enhancement of the image and pride of communities; promotion of research, work placement and educational opportunities for learners; and facilitate preservation of buildings with heritage value by the community and UNESCO. Finally, there are environmental benefits such as promoting a culture that preserves heritage sites and increasing awareness by encouraging people to be mindful on their effects that may cause harm to the heritage sites such as Taj Mahal and Sistine Chapel (Childs, 2018).

The preservation of architectural sites with heritage value ensures that the posterity will value the heritage buildings. Architecture can be described in three dimensions: cultural authenticity; temporal context, for instance, reconstructed urban environments; and personal experience. In an open-air museum, the buildings are disguised as objects inside an exterior boundary in the same way a constructed museum (Barry, 2017).

Urban centers and rural areas have many old buildings and can be highly valuable in promoting economic development through heritage tourism. These buildings have immense heritage and intrinsic value that attracts tourists from different nations. As such maintenance and preservation of historical sites not only promote historical significance but also act as a source of revenue generation while enhancing competitiveness and region livability.
References


UNEMPLOYMENT AND THE EFFECTIVE EMPLOYMENT PROBLEMS IN GEORGIA UNDER THE MODERN GLOBALIZATION TERMS

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“How it is possible that in such country as Georgia persons be unemployed”
Ilia the II, Catholicos Patriarch of the Whole Georgia

Abstract

At the current stage of the labor market development in Georgia, the main task of the state macroeconomic policy is to overcome the mass chronic unemployment and the effective employment of the population. The mentioned is conditioned by the fact, that the unemployment in the country is the most acute, global problem and the actual challenge. It is high in the cities as well as in the villages. Among the unemployed there are young persons, having higher and professional education, there are also persons having no work very for long period of time. In the country it is the main factor causing the poverty. Proceeding from this, in the modern globalization terms, the great importance has the deep research of the unemployment as the most acute social-economic phenomena. The actuality of the issue is strengthened also by the fact that during the last period of time, the business environment reforms and the investments growth in the country have not changed seriously the level of the employment.

The work analyses modern situation concerning the unemployment, researches the causing reasons and factors affecting it. In the conclusive part we have shown the negative social and economic results assessment, taking into the account the general situation in the country and the specific of the national labor market functioning.

Key words: unemployment, labor market, poverty, effective employment, active employment policy.

Today, when in the country the economic development is actively reformed in many fields, the effective employment of the population stays the main task for the state macroeconomic policy. Unemployment not only in Georgia, but also all over the world, is reckoned the hardest social-economic problem and phenomenon, whithout overcoming of which it is impossible to get the effective economy. However, in Georgia the unemployment problem has large scale and is characterized by special acuteness. “In Georgia the unemployment is the most hard social-economic problem and actual challenge. It is one of the main poverty causing factors in the country. Unemployment is high in cities and in villages. This enhances the social risks and creates the country’s future because the youth is unemployed” [9-p.2]. Moreover, the labor market infrastructure is not developed, high level of unemployment and poverty have seriously impeded the country’s advanced moves, there are many other social-economic problems, among which we should underline the informal employment and illegal labor migration.

During the last period the foreign-economic relations development, the eurointegration process active inclusion, the international institutions serious support, the country has possibility to enhance the economy and develop serious positive moves. However, no significant changes were made in the population’s living standards. Proceeding from this, the research on the unemployment problems and causes concerning the decrease of the unemployment problems are very actual today. The issues is actual due to the following circumstances, namely:

✓ business-environment reform and investments growth have not affected seriously the employment level;
✓ unemployment level is high among young people aged 15–19 and 20–24 (on average 27.0% and 35.0% accordingly), this is higher than the similar indexes of the east Europe and central Asia regions;
✓ young people have no possibility to integrate to the economically active population layers;
✓ long-durated unemployemnt (1 year and more) has great share (67.0%–68.0%), decreases the prospective of their employment;
✓ among the unemployed there are people having higher and professional education, telling us the modern system of the education is oriented on the labor market requirements. Compared to he European countries, where unemployed are mostly people having no higher education, 50 percent have finished secondary school, the 40 percent has higher education” [13-p.12]. The international institute of the educational policy, planning and management research show, that in Georgia only 24.0% of highly educated people are employed and work by the profession [18, p.1].
✓ there is sharp disbalance between the labor market requirements and the supply. There are many people having specialty, but the labor market has no demand for them. At the same time, there is not properly qualified staff [8-p.21].

High level and scale of unemployment in the country, chronic unemployment affect the population’s living standards and the poverty scale, influences also the economic development of the country. In order to find the factors and causes of unemployment in the country, we have held the the research and detailly analysed the issues, this confirms the problem existing in the country.

By the Georgian statistics national service data of 2000-2016, the unemployment level in the country was 10.3% (2000) to 11.8% (2016), and its maximal level was-16.9% in 2009 (see Table 1).

Table 1

<table>
<thead>
<tr>
<th>years</th>
<th>total economically active population</th>
<th>the employed</th>
<th>unemployed</th>
<th>population out of workforce</th>
<th>unemployment level (%)</th>
<th>level of economic activity (%)</th>
<th>employment level (%)</th>
</tr>
</thead>
</table>
|      | total economically active population (workforce) | hired | self-employed | undefined | total | total | total | number | level |%
| 2000 | 1837.2 | 683.9 | 1041.2 | 112.1 | 212.0 | 2049.2 | 1092.3 | 10.3 | 65.2 | 58.5 |

From the year 1996 the assessment of the employed and economically active population is equaled to the international labor standards, in particular, according to its criteria, according to which:

**economically active** – a person aged 15 and above, who works or offers his work to produce products or services of the UNO national reports system framework of the national product defining indexes.

**employed** - (hired or self-employed) – a person aged 15 and above, who for the moment of inquiry worked during 7 days (minimum one hour) in order to get profit (salary, natural things, income, etc.) helped other people for free, or was not at work for any reason, but formally is registered there.

**unemployed** – a person aged 15 and above, who did not work (not even one hour) for the moment of inquiry during 7 days and was seeking for job 4 weeks and was ready to begin working the next 2 weeks.
Apart from the official data, the experts assess, that the unemployment level in Georgia is 32.0-36.0%. For example, prof. I. Archvadze thinks, that: “If we say in other words, on the Georgian territory the real working resources (potential, resources, level) were only 60.3%, the unemployment level was 39.7%”, the unemployment level was not 0.3 mln, but 0.8 mln persons (as we have assessed, 766 thous. persons). It makes 39.1% of the Georgian population [I. Archvadze 2013, p. 111, 115]. The level of unemployment is now 39.0-40.0%. In the regional scale, the unemployment level analyses have shown us, that it was [2,p.18]. This is favored by several objective reasons:

✓ according to the labor international organization methodology, the status of unemployed person is defined and their registration is made based on periodic researches on workforce, and this often is imperfect because of unclear data, general condition of the employed persons and lack of information on them;
✓ using the mentioned methodology, based on the optional research the level of unemployment is artificially lowered. This is conditioned by self-employed person’s number. In particular, the self-employed category show, they are in the inner economy (family enterprise, land plot) and sometimes working not for salary - as helpers;
✓ using the status of the employed and the unemployed it is impossible because “non-formal employment” level determination, the issue requires to conduct the additional special research and the expert assessments.

In the regional standpoint, the analyses of the unemployment (see Table–2) show us that the unemployment level is increased in Kvemo Kartli, Samegrelo-Zemo Svaneti and Imereti regions, by 0.2%, 3.6% and 1.1% accordingly. As for the city of Tbilisi and the Ajara autonomous republic, the unemployment level here was high in 2006 and was 30.2% and 18.9% accordingly. In 2016 its level in both regions was decreased and in Tbilisi in 2016 was 22.0%, in Ajara 13.0%.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Active Population</th>
<th>Kakheti</th>
<th>Tbilisi</th>
<th>Shida Kartli</th>
<th>Kvemo Kartli</th>
<th>Ajara AR</th>
<th>Samegrelo-Zemo Svaneti</th>
<th>Imereti</th>
<th>Other Regions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>1656.1</td>
<td>596.0</td>
<td>1059.0</td>
<td>1.2</td>
<td>335.6</td>
<td>1991.8</td>
<td>1139.3</td>
<td>63.6</td>
<td>52.9</td>
</tr>
<tr>
<td>2010</td>
<td>1628.1</td>
<td>618.9</td>
<td>1007.1</td>
<td>2.4</td>
<td>316.9</td>
<td>1944.9</td>
<td>1083.3</td>
<td>64.2</td>
<td>53.8</td>
</tr>
<tr>
<td>2011</td>
<td>1664.2</td>
<td>632.0</td>
<td>1025.4</td>
<td>6.8</td>
<td>295.1</td>
<td>1959.3</td>
<td>1045.9</td>
<td>65.2</td>
<td>55.4</td>
</tr>
<tr>
<td>2012</td>
<td>1724.0</td>
<td>662.6</td>
<td>1054.0</td>
<td>7.4</td>
<td>305.1</td>
<td>2029.1</td>
<td>1005.2</td>
<td>66.9</td>
<td>56.8</td>
</tr>
<tr>
<td>2013</td>
<td>1712.1</td>
<td>658.2</td>
<td>1043.8</td>
<td>10.0</td>
<td>291.8</td>
<td>2003.9</td>
<td>1022.3</td>
<td>66.2</td>
<td>56.6</td>
</tr>
<tr>
<td>2014</td>
<td>1745.2</td>
<td>692.3</td>
<td>1046.1</td>
<td>6.8</td>
<td>246.0</td>
<td>1991.1</td>
<td>1004.4</td>
<td>12.4</td>
<td>66.5</td>
</tr>
<tr>
<td>2015</td>
<td>1779.9</td>
<td>753.4</td>
<td>1018.1</td>
<td>8.4</td>
<td>241.6</td>
<td>2021.5</td>
<td>958.3</td>
<td>12.0</td>
<td>67.8</td>
</tr>
<tr>
<td>2016</td>
<td>1763.3</td>
<td>745.4</td>
<td>1010.9</td>
<td>7.0</td>
<td>235.1</td>
<td>1998.3</td>
<td>963.2</td>
<td>11.8</td>
<td>67.5</td>
</tr>
</tbody>
</table>

Table 2

Distribution of the 15-year and above -aged population according to the economic activities in Georgia in year 2016 [17]
Especially seen is the population differentiation according to the gender and age. Based on the 2016 data, the unemployment level in men is 5.4% more than in women (see Table-3). Compared to the year 2015 the level of unemployment in women is decreased by 1.4%, among men the index is increased by 0.7%. Compared to the women the unemployed men category is defined by the economically inactive persons, in particular, among the economically inactive people women have 2.2 times higher index than the inactive men number, accordingly the general economic level for women is 20.2% lower than in men. In 2016 compared to 2015 the economic activity of women is decreased by 0.9%, in men – increased by 0.1%. As for the employed women in the mentioned period, the index is not changed and consists 52.9%. In men the index is decreased from 67.6% to 67.1%, or by 0.5%.

As for the age groups, in 2016 the higher unemployment level (31.9%) was 15-19 y/o age group. Compared to the previous year it is increased by 5.7%. In the 20-24 y/o age group the unemployment level is 32.0% (2015). By 30.0% decreased (in 2016). The lower level of the unemployment is the age group of 65 y/o and higher, because most of them are the economically non-active category. For example, in 2016 in the employed category were 265.3 thousand persons, those having the unemployment status – 4.1 thousand persons, and the economically non-active category has 328.0 thousand persons.

The problems existing in the unemployment affect the level of employment and living standards of the population, their scale. Accordingly, it is interesting to see the employed status. In particular, the most part of the population living in villages, able to work, are employed in their own farms (peasantries). They have land plots, cattle, they produce production out of it and use it by themselves or sell it. Of course, they are not counted the employed ones, because they have no labor contracts concluded with any private or legal persons, but despite this they are counted the employed ones, as the self-employed persons.

As for the hired persons, the profit cannot be defined when establishing their status. For example, if a person works for a company based on the labor contract, but is not entirely loaded because of some reasons, the administration cannot regulate his labor terms, or a company has financial difficulties, despite the misère salary such person is counted the employed one, so we can conclude that according to the international labor organization, the employed is any person who conducts the economic activities to get profit (money or nature), despite the incomes level, type and duration of the work. Those employed in the agriculture, repetitors, private taxis owners, physical persons selling separately, retailers, etc. if 7 days before they worked at least one hour, the income (salaries, natural incomes, profit, etc.) according the international organization and the Sakstat methodology, are counted the employed ones [19-p. 1].
Table 3

Allotment of the 15-year and above -aged men and women according to the economic activities in Georgia in years 2000-2016 [17]

<table>
<thead>
<tr>
<th>Years</th>
<th>Total economically active population workforce</th>
<th>Unemployed</th>
<th>Population apart from workforce</th>
<th>Economic activity level (%)</th>
<th>Employment level (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>total</td>
<td>hired</td>
<td>self-employed</td>
<td>not defined</td>
<td>total</td>
</tr>
<tr>
<td>2000</td>
<td>woman</td>
<td>891,7</td>
<td>329,5</td>
<td>505,2</td>
<td>56,9</td>
</tr>
<tr>
<td></td>
<td>man</td>
<td>945,5</td>
<td>354,4</td>
<td>536,0</td>
<td>55,1</td>
</tr>
<tr>
<td>2010</td>
<td>woman</td>
<td>776,7</td>
<td>300,2</td>
<td>475,6</td>
<td>0,8</td>
</tr>
<tr>
<td></td>
<td>man</td>
<td>851,4</td>
<td>318,3</td>
<td>531,5</td>
<td>1,6</td>
</tr>
<tr>
<td>2014</td>
<td>woman</td>
<td>823,6</td>
<td>321,9</td>
<td>498,0</td>
<td>3,7</td>
</tr>
<tr>
<td></td>
<td>man</td>
<td>921,6</td>
<td>370,4</td>
<td>548,1</td>
<td>3,1</td>
</tr>
<tr>
<td>2015</td>
<td>woman</td>
<td>841,0</td>
<td>351,8</td>
<td>484,5</td>
<td>4,9</td>
</tr>
<tr>
<td></td>
<td>man</td>
<td>938,9</td>
<td>401,8</td>
<td>533,6</td>
<td>3,5</td>
</tr>
<tr>
<td>2016</td>
<td>woman</td>
<td>833,6</td>
<td>362,3</td>
<td>466,8</td>
<td>4,5</td>
</tr>
<tr>
<td></td>
<td>man</td>
<td>929,7</td>
<td>383,1</td>
<td>544,1</td>
<td>2,5</td>
</tr>
</tbody>
</table>

In 2016 57.3% of the employed in the economy were the self-employed ones, 77.0% employed in the agriculture. If we will analyse the employed staff and structure, their 41.6% are employed in the family enterprises plot and 0.2% work for free for the relatives [5-p.65]. It is clear, that this part of the population is not really employed and the status of the employed given for them artificially decreases the index. The main challenges in Georgia are the unemployment and the high indexes of self-employment in men as well as in women. [16-p.2]. The mentioned confirms once again the necessity of perfection of the economically active population registration methodology.
The dynamic of employment level among the Georgian population in villages and the GDP indexes in 1990-2016 [17]

<table>
<thead>
<tr>
<th>Years</th>
<th>population employed in the agriculture</th>
<th>production and its share in GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>thousand persons</td>
<td>percentage</td>
</tr>
<tr>
<td>1990</td>
<td>695.0</td>
<td>25.2%</td>
</tr>
<tr>
<td>2000</td>
<td>910.0</td>
<td>52.1%</td>
</tr>
<tr>
<td>2002</td>
<td>989.0</td>
<td>53.8%</td>
</tr>
<tr>
<td>2004</td>
<td>962.0</td>
<td>53.9%</td>
</tr>
<tr>
<td>2006</td>
<td>1132.2</td>
<td>64.8%</td>
</tr>
<tr>
<td>2007</td>
<td>1065.8</td>
<td>62.5%</td>
</tr>
<tr>
<td>2008</td>
<td>1012.7</td>
<td>63.2%</td>
</tr>
<tr>
<td>2010</td>
<td>1010.9</td>
<td>62.1%</td>
</tr>
<tr>
<td>2013</td>
<td>1080.8</td>
<td>63.1%</td>
</tr>
<tr>
<td>2014</td>
<td>1100.8</td>
<td>63.1%</td>
</tr>
<tr>
<td>2015</td>
<td>1100.7</td>
<td>61.8%</td>
</tr>
<tr>
<td>2016</td>
<td>1106.2</td>
<td>62.73%</td>
</tr>
</tbody>
</table>

Artificial decrease of the unemployment level because of the self-employed numbed increase is shown directly in the employment level and significantly decreases its effectiveness, which is especially seen in the agricultural field. For example, including the year 1990, in the Georgian agriculture employed were 695.0 thous. persons (25.2% of all the employees). The field produced GDP of 29.8%, which consisted of 4454.0 mln. rub. In 2016 out of 1763.3 thous. persons employed in the economy, employed were 1106.2 thous. persons, or 62.73, and they produces the GDP of 9.3% [6-p.184]. Thus, if from 1990 to 2016 the number of employees in the agriculture has increased from 25.2% to 62.73%, the whole GDP volume in the filed has dropped from 29.8% to 9.3% (see Table 4).

High level of unemployment and non-effective employment scale in Georgia is conditioned by other reasons, especially the following ones:

✓ at current stage the labor market cannot provide the social justice protection, create safe and equal conditions for the employees, realize the working rights correctly. Moreover, the population has no possibility to get the proper products and services;
✓ in the country we practically have no the mechanism for social protection of the employees. No social partnership system exists in the labor field;
✓ low temps of the economic development are conditioned by decrease of demand for workforce, and this accordingly limits the possibilities and decreased the perspectives;
✓ low level of development and low quality in the field of professional education system, it is not oriented on the labor market requirements; no adequate system for higher and professional training and retraining, which in its turn causes the lack of working places and in certain professions creates serious difficulties finding the properly trained staff;
✓ significant problems are concerning the salaries organization, the workforce is valued very low, so there are many “poor employees”, the situation is complicated by the fact, that the labor conditions are not organized, there is low working stimulation and motivation level;
✓ the labor market is not developed and the unified information system does not exist, and this impedes seriously the attraction of the proper staff and their hiring process;
✓ low level of workforce’s professional mobility;
✓ no state target programs exist concerning the employees re-training. According to certain research data, the annual expenses of the employees for professional training per person are miser, containing on average 4-5 GEL;
✓ no scientifically documented management practice and legal basis for regulation of the employment and the social-economic relations.

Proceeding from the mentioned situation, it is difficult not to agree with the conclusion, saying that: “Speeding up the economic development in the country, creation of the new working places and overcoming the poverty significantly depends on the active state policy, which means the development of labor market infrastructure, balanced demand-supply for the workforce, support for the professional training of the unemployed persons [6-p.3]. Thus, the Georgian government during the last period, based on the adopted laws, strategies and other normative acts [8, 9, 10, 11, 12, 13, 14, 15] has already documented the creation of the active labor market active policy and its practical realization necessity”.

Proceeding from the research and analyses shown in the work, in order to overcome the unemployment in the country and favor the employment, they have made the following decisions:
1. to perfect and improve the legal basis for the labor and employment filed, it is vitally important to keep within the rules of the ratified by the Georgian government convention (convention #88 “on the employment service” ratified in 2003; convention #122 “on the employment policy” ratified in 2001; convention #181 “on private agencies” ratified in 1997);
2. realisation of the labor righ according to the constitution, keeping within the working conditions and labor rights framework;
3. reform of the Georgian educational, especially the professional education system according to the modern, knowledge-based principles, which provides the labor market requirements-oriented workforce training, the mentioned task needs to be achieved successfully:
- academic and professional educational programs should correspond to the modern requirements;
- perfect the proper legislative basis for the professional education system;
- enhancement of the professional systems status and prestige, its development within the united secondary, higher and scientific system;
- qualification recognition for the professional training alumnies, at the local as well as at the international level;
- civil sector interest and informativeness enhancement in connection with the professional education system changes and reforms;
- use of the modern programs of professional education, study materials, manuals, the proper study infrastructure, workshops, study bases and the new methods, according to the modern standards. In this direction important is the use of modern methods in the professional education;
- enhancement of the professional education systems management effectiveness and quality;
- development of material-technical base for the professional education system, etc.
4. Human capital development[^4]. In the modern globalization period the human capital is the main factor for competence keeping in the world market economy; it is the inclusive economy growth, development factor. For the

[^4]: In Georgian the Human Development Index (HDI) and its rating is low compared to the world developed countries (75-th place among 187 countries), which is conditioned by low investments level in the field-oriented branches development level (education, science, healthcare, culture).
development of human capital we need to create equal quality services, social justice and social protection systems, providing quality education and healthcare systems availability. We need to increase the system’s investments level, targeted use of the means and develop the scientific base and develop the entrepreneurship activities.

5. The Labour Market Information (LMI) and the Labour Market Information System (LMIS) should be formed entirely, this is necessary for the active employment policy to be realized successfully. Accordingly, we should implement the labor market information systems formatin and draw up the normative acts for its functioning. To collect the data and analyse them we need to create special analytical structural unit. Periodically we need to implement the assessment of the information systems, define the new sources and the additional research necessities. the results of the labor market data analyses should be available for all the interested persons.

6. To employee all those seeking the job we need to improve the service quality, and this in its turn needs strengthening the employment service and effectiveness. We should plan the registered job seekers and young men career professional consultation services, conduct the professional consultations in the educational institutions;

7. With purpose of successful realization of the employment policy, implementation of the results monitoring effective systems should be done.

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THE POSITION AND ROLE OF GEORGIA AND RUSSIA IN THE MODERN WORLD ECONOMY AND PERSPECTIVE OF THEIR COOPERATION

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Abstract
The article is a report of the global competitiveness and business environment analysis of Georgia and Russia, considering the challenges that affect to economic development of both countries. In terms of the global competitiveness issues of economy, the position of Georgia and Russia in the world economic structure includes modern developmental issues of the institute, policy and the natural factors. Analysis of business environment of Georgia and Russia draws the wide picture of the problems and perspectives of their cooperation.

Due to the modern world economic issues, that states western sanctions on Russia, enhancing cooperation in different economic spheres between Georgia and Russia can be perspective. Western sanctions induce Russia to seek out new partners, which also considers normalization its relationship with Georgia.

Basis of the thesis is presented by researches conducted by international organizations, international and national normative legal acts, negotiations and agreements between Georgia and Russia. For the purpose of the research, to compare the dynamics of economic growth, the particular importance has quantitative data collection and analysis of the World Economic Forum’s the global competitiveness index and the world bank rating “Doing Business”.

Abstract-logical, analytical and statistical methods are used while working on this material. As a conclusion, the position and role of Georgia and Russia in the world economy is analyzed and evaluated considering with their economic development and contemporary tendency of their cooperation, the global competitiveness and business environment. As a result of the research, Expectancy of economic cooperation between mentioned countries is justified.

Keywords: Georgia, Russia, Economic relations, Global Competitiveness Index, business environment analysis.

INTRODUCTION

In contemporary world the settlement of political disagreement depends on the creation of mutually beneficial conditions of economic cooperation. Despite the durable difficult period of economic partnership between Georgia and Russia, there is a probability to establish new systems for opportunities, which should be performed in regard of economic cooperation. The spheres of interest for economic cooperation for the both states are: trade, energy sector, investments, tourism, etc.

Prospects of economic partnership between Russia and Georgia primarily depends on their economic development, international competitiveness and business environment.

The purpose of the research is to determine the expediency of Georgia-Russia economic cooperation. To accomplish the objective, it is necessary to realize the following goals:

- Analysis of Georgia-Russia economic development and modern trends of their cooperation;
- Presenting Georgia and Russia in the global economic structure, taking into consideration the global competitiveness of their economy, which nowadays is reflected in the development of institutions, politics and natural factors;
- Analysis and assessment of Georgia and Russian business environment in order to identify the problems and perspectives of their cooperation.
Theoretical-Methodological Base of the Research. The Paper is based on the researches conducted by the international organizations, international and national normative legal acts and agreements concluded by Georgia and Russia. The research focuses on the Global Competitiveness Index of the World Economic Forum and World Bank’s ranking "Doing Business" - gathering and analyzing comprehensive quantitative data to compare their economic development in dynamics. Abstract-logical, analytical, monographic and statistical methods are used while working on this material.

ECONOMIC COOPERATION

Economic cooperation between Georgia and Russia has a long history, but in recent years, it has been contradictory.

The main obstacles to economic cooperation between Georgia and Russia are political risks. Moreover, the existence of frozen conflicts sustain retaining and deepening those risks. Despite this difficult political conjunction, trade relations between Georgia and Russia still exist and over the years Russia has been included in the list of the largest trade partner countries of Georgia. According to the data compiled by the 2003-2013 years (taking into consideration the Russian embargo of 2006) Russia held the 6th position among major trading partner countries of Georgia in the foreign trade. Since 2013, after removing barriers hindering bilateral trade between the countries, Russia is the third out of the top ten trading partner countries of Georgia. According to preliminary data of 2017, 14.5% of Georgian exports and 9.9% of imports is accounted to Russia. The trade turnover between Georgia and Russia is 11.1% of Georgia's foreign trade. Consequently, Russia is Georgia's second leading partner country, after Turkey [1].

Georgia's attempt to form pragmatic relations with Russia, which was expressed in the abstinence to impose sanctions against Russia on Ukraine's crisis carried out by the World Leading States in 2014, contributed to the deepening of trade relations and the increase in trade rate.

Cooperation between Georgia and Russia is interesting in terms of investments: despite the political instability, in the time of Georgian-Russian August war and after it, investment relations between the two countries were not suspended. Throughout the last years, the largest flow of Russian investment in Georgia came in 2007 and was equal to 88.9 million US dollars, but these days the size of Russian direct investment in Georgia is small. Before 2012, based on the data of the Eurasian Development Bank, Georgia held the last place among the other countries in Eurasia were Russia made its investments. Moreover in 2016, Russian investments in Georgia exceeded only Moldova's [2]. Russia’s capital investment in Georgia had always been perceived negatively in the society and is thought to be unwelcome up today, which derives from the nature of its structure: Russian capital is mainly presented in strategic facilities, especially the energy sector is notable in this regard.

It is reasonable to mention that Russian companies are more operative in Georgia than on the contrary: by the end of 2014, oil company «НК „Роснефть”» announced, that it had signed documents with Russian businessman of Georgian origin Davit Iakobashvili to buy 49% of his shares of Petrocas Energy Limited and establish a joint venture for the development of Georgia and the entire Caucasus energy sector. According to the Russian side, a joint venture with „Роснефть” will facilitate diversification of clearance of transit goods, stimulating competitiveness of oil products in the retail market, improving service quality.

Russia's interest is to increase the export of machine-building systems in Georgia. This is live issue for Georgia because many infrastructure facilities are already amortized. Georgia also has the potential for hydropower development, which awakes Russia's interest a lot. Moreover, Georgia can become a good consumer market of food and light industry for Russia.5

Cooperation in tourism with Russia is important for Georgia, as it is characterized by the growing dynamic in the last years. 7% of Georgia’s GDP is produced by tourism sector. The tourism sector employs approximately 190 thousand people, which is 10% of Georgia's labor pool. Since 2012 after Georgia has unilaterally abolished visa regime for Russia, Russian tourists are among the top ten arriving tourists of the country. In 2017, based on the data of the National Tourism Administration of Georgia, the total number of tourists arriving from Russia during the 9 months increased by 33.6 percent in comparison with the same period indicator last year. Russian tourists take 3rd place in Georgia, according to the number of visitors after Armenia and Azerbaijan (Chart 1).

As a conclusion, development of economic cooperation between Georgia and Russia should be mutually beneficial. Although this cooperation is limited in the current context and the role of Russia in the Caucasus region is being reduced\(^6\), it can be said that there is still great potential. However, further development of trade-economic relations for Russia is considered "less predictable".

In terms of maintaining stability and security, Georgia and Russia do not have any alternative for improving the climate of economic cooperation than this, as economic projects and economic partnership will strengthen the trust and create opportunities to change relations in favor of both countries.

**ANALYSIS OF GLOBAL COMPETITIVENESS AND BUSINESS ENVIRONMENT**

Lately, the economic performance and perspectives for development are determined by the competitiveness of the economy, without which it is impossible to achieve success in the process of globalization.

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\(^6\) As a result, Turkey's role has increased
Competitiveness of the national economy is one of the most important indicators for economic development and policy, because besides economic factors, it includes such non-economic spheres that have a huge impact on it.

Global Competitiveness Index is considered as a useful instrument for working with key macroeconomic and institutional elements, which have an influence on economic growth. According to the World Economic Forum Global Competitiveness Index of 2017-18, Georgia holds the 67-th place among other 137 countries and Russia is on the 38-th place (table 1).

Of the 12 thematic groups concerning Georgia, it holds the best position in the stability of the macroeconomic environment and stands on the 48-th place. As for Russia, it holds the 53-nd position considering this indicator. Georgia has the lowest position in innovation and it is the 118th in the ranking. Russia's position in the development of innovations is the 49th. Among the 12 indicators in the Global Competitiveness Index Russia has the best position for the market size and is on the 6th position, while the lowest is the 107th place for the development of financial market (table 1).

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Rank/137</th>
<th>Score (1-7)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GCI 2017-2018</strong></td>
<td>67/38</td>
<td>4.3/4.6</td>
</tr>
<tr>
<td><strong>Subindex A: Basic requirements</strong></td>
<td>54/48</td>
<td>4.8/4.9</td>
</tr>
<tr>
<td>1st pillar: Institutions</td>
<td>50/83</td>
<td>4.2/3.7</td>
</tr>
<tr>
<td>2nd pillar: Infrastructure</td>
<td>69/35</td>
<td>4.2/4.9</td>
</tr>
<tr>
<td>3rd pillar: Macroeconomic environment</td>
<td>48/53</td>
<td>5.1/5.0</td>
</tr>
<tr>
<td>4th pillar: Health and primary education</td>
<td>69/54</td>
<td>5.8/6.0</td>
</tr>
<tr>
<td><strong>Subindex B: Efficiency enhancers</strong></td>
<td>75/38</td>
<td>4.1/4.6</td>
</tr>
<tr>
<td>5th pillar: Higher education and training 8</td>
<td>87/32</td>
<td>4/5.1</td>
</tr>
<tr>
<td>6th pillar: Goods market efficiency</td>
<td>50/80</td>
<td>4.5/4.2</td>
</tr>
<tr>
<td>7th pillar: Labor market efficiency</td>
<td>53/60</td>
<td>4.4/4.3</td>
</tr>
<tr>
<td>8th pillar: Financial market development</td>
<td>63/107</td>
<td>4.1/3.4</td>
</tr>
<tr>
<td>9th pillar: Technological readiness</td>
<td>70/57</td>
<td>4.3/4.5</td>
</tr>
<tr>
<td>10th pillar: Market size</td>
<td>100/6</td>
<td>3.1/5.9</td>
</tr>
<tr>
<td><strong>Subindex C: Innovation and sophistication factors</strong></td>
<td>112/57</td>
<td>3.2/3.8</td>
</tr>
<tr>
<td>11th pillar: Business sophistication</td>
<td>99/71</td>
<td>3.7/4.0</td>
</tr>
<tr>
<td>12th pillar: Innovation</td>
<td>118/49</td>
<td>2.8/3.5</td>
</tr>
</tbody>
</table>

Graphic of Georgia and Russia’s Global Competitiveness Index looks as follows (Chart 2):

Chart 2. Georgia and Russia’s Global Competitiveness Index 2017-18

Source: https://www.weforum.org/reports/the-global-competitiveness-report-2017-2018

Georgia is in the top ten rankings based on the following specific criteria: the 9th place for the burden of government regulations and the 7th place for strength of investor protection (from the pillar of institutes), first place for inflation (from the macroeconomic environment pillar), the 8-th place for total tax rate, the 7-th place for the necessary procedures to start a business, the 6-th place for the time needed to start a business, the 4-th place for the trade barriers (market efficiency) [3 p.125].

Russia is in the top ten rankings considering the following criteria: the 6th place for the government debt percentage indicator in the GDP (macroeconomic stability), the 6-th place for the domestic market size index, the 5th place for the foreign market size index, the 6th in GDP (PPP) and 9th in mobile-cellular telephone subscriptions [3 p.249].

Georgia has the worst positions by the following criteria: 131st place in local availability of specialized training services, 125th extend of staff training (pillar of Higher education and training). Besides, for financial market development Georgia holds the lowest position, the 131st place - in financing through local equity market. In the business sophistication Georgia has the last position for local supplier quantity – 129th and 127th for a state of cluster development. In regard of innovation Georgia has the lowest index in the following components: 127th for quality of scientific research institutions, 125th place for availability of scientists and engineers, 122th place for company spending on R&D and 116th for university-industry collaboration in R&D [3 p.125].

Russian federation has the worst position for protecting property rights - the 116th (Institutions), quality of roads – 114th place (Infrastructure), 112th place for annual % change rate in inflation in Macroeconomic environment. Furthermore, Russia has low positions in goods market efficiency sub-index:112th place for prevalence of foreign ownership, business impact of rules on FDI - 123rd place, for import % in GDP - 122nd position, 121st - for soundness of banks, ease of access to loans - 110th, etc. [3 p. 249]

The report shows that Russia’s economy is gradually coming out of the 2015-2016 recession and showing trends in growth. However, in the previous years, shocking price on resources had negative impact on Russia's economy, which was expressed in sharply reduced state revenues and high inflation levels. As a result, the macroeconomic environment
worsened: according to the previous year's report, Russia ranked 91st in the macroeconomic environment. In the report of 2017-18, it has improved for 38 positions. However, in this year's report it is also noted that the Russian economy is sharply dependent on the income received from the export of resources and consequently its perspectives are still unclear [3 p. 25]

In the report of World Economy Forum doing business is assessed by 16 criteria and according to the calculation of answers of respondents' problems in each country are presented. According to the report of 2017-18 in Georgia, business has problems in the following areas: unskilled work force 17.3%, access to finances 12,0% and inflation 11.0% etc. As for Russia, 13.1% of respondents name corruption in the first place as an obstacle for business, second and third place in the rating hold tax rates and access to finances, accordingly, 13.1% and 10.2%, and 4th place is the inflation rate (10,0%).

If we summarize the advantages and disadvantages of Georgia, the following picture appears: Georgia is comparatively competitive with the developed Institutions, Infrastructure, Labor Market efficiency, Low taxes and Regulations, absence of Monetary Control, Low Criminal rate, Lack of Bureaucratic procedures for starting and doing businesses. Problems exist in the following areas: Protection of Property Rights, Innovations, Primary and Higher Education, Science and Researches, Competitiveness on the Domestic Market, Availability of Financial Recources, Professional Labor Force, the public trust in politicians and the Uncertainty of Politics.

Summarizing advantages and disadvantages of Russia give the following result: large domestic market, the degree of stability of higher education, efficiency of the labor market and innovative potential are considered as Russia's advantages. The weaknesses of Russia are: luality of development of institutions, protection of property rights, protection of intellectual rights, judicial independence, burden of government regulations and financial market development potential. High inflation is considered as the main challenge for business, in top five rankings there is also - taxes, corruption, access to finances, inefficient (unnecessary) regulation.

In terms of global competitiveness, we must say that it reflects the role of the country in international trade with goods and services, namely, the ability to export goods and services to the world markets. Export gives the opportunity to increase the country's foreign exchange revenues and therefore stimulation of export is the subject of constant care of any state. International Trade Center (http://tradecompetitivenessmap.intracen.org/TPIC.aspx) defines trading efficiency indexes by 14 sectors: fresh food, processed food, wood products, textiles, chemicals, leather products, basic manufactures, non-electronic machinery, IT & consumer electronics, electronic components, transport equipment, clothing, miscellaneous manufacturing and minerals.

The largest share of Georgian national export and import is represented by minerals - 20 and 18%, while the world market has an important share in fresh and processed food - 0.05% and 0.04%, however, in terms of the diversification rate processed food is only on the 97th position out of 169 countries, while the fresh food is on the 146th between the 177 countries. The low rate of diversification is also characterized for the basic manufactures (133rd out of 152 countries), chemicals (105th out of 157 countries) etc. The most diversified goods of Georgian export are: miscellaneous manufacturing (46th out of 160 countries) and electronic components (26th out of 134 countries). In terms of competitiveness effect, except for wood products and transport equipment, 12 types of goods are characterized positively [4].

The largest share of Russian national export is presented in minerals - 50% and the largest share of national import is the non-electronic machinery - 17%. Minerals have a high value on the world market 7.64% (2nd place), however in terms of diversification rate it is on the 78th place out of 165 countries and on the 5th place concerning market diversification rate.

The most diversified goods of Russian export are electronic components (15th place out of 134 countries), chemicals (17th place out of 157 countries) and miscellaneous manufacturing (12th out of 160 countries). However, their share on the world market is significantly low: electronic components - 0.18%; chemicals - 0.97% and miscellaneous
manufacturing - 0.26%. In terms of competitiveness effect, except for chemicals, basic manufactures and miscellaneous manufacturing, all types of goods are characterized positively [4].

Adaptation effect is an important indicator of export competitiveness. In case of a positive effect, the share of the country on the market increases and in the event of - negative, on the contrary, decreases. Georgia has a positive adaptation effect on the following products: fresh food, wood products, chemicals, basic manufactures, transport equipment, minerals and clothes. As for the adaptation effect of Russia, chemicals, basic manufactures, miscellaneous manufacturing and minerals are identified positively, while the rest of the categories have a negative indication.

Based on the above stated, it should be noted that export diversification is directly related to diversification of the national economy. Therefore, firstly, the progressive diversification of the latter is necessary: the main emphasis should be made on the development of fields and productions with the largest share of high added value. In addition, the export of goods of high added value should not only be limited to export of material goods, also special attention should be paid to the trade with services and technologies.

Consequently, in order to increase the level of export diversification and its competitiveness in Georgia and Russia, several measures need to be implemented that will ensure the efficiency of their economy sectors and increase their diversification rate on the world market.

The following research, the quantitative data is used of, is the work by the World Bank - "Ease of Doing Business". This research provides an opportunity to make the objective evaluation of the normative legal acts, which regulate doing business on the national level, as well as ensure the implementation of the laws in the countries and cities were researches are done on subnational and regional level. The authors of the research think that regulating business in the system of transparent and effective norms makes business opportunity accessible, which makes business less depended on personal networks or special privileges. As a result, most of the economic activity is performed in the formal sector of the economy, where business has the potential to develop.

In the survey of the World Bank “Doing Business 2018”, Georgia is on 9th position out of 190 countries and among Eastern Europe and Central Asia countries Georgia holds the 1st place. Russia is on 35th position in ranking and is the 4th after Georgia, Macedonia and Lithuania. Georgia is in top ten ranks by the following indicators: starting a business – 4th place, registering property – 4th, enforcing contracts 7th place, protecting minority investors – 2nd place. Georgia has problems with trading across borders and holds the 62nd position, resolving insolvency - 57th [5].

Russia is in top ten of the rating with the indicator of getting electricity (10th place). Russia holds the 28th position in terms of starting a business, trading across the borders – 100th place, and dealing with consumer permits 115th. Problems also exist in protecting minority investors (51st place) and paying taxes (52nd), resolving insolvency (54th place) [6].

The assessment of Georgia and Russia by 12 indicators of ease of doing business has the following chart (Chart 3):
Chart 3. Ease of doing business 2018 in Russia and Georgia

source: http://www.doingbusiness.org/

It is also interesting to review separately one of the most important sectors, which is - trading across borders. According to its indicators Georgia needs 48 hours for export and border compliance, while Russia requires 72 hours. Consequently, both countries drop behind the countries of Europe, Central Asia and the OECD, which require 28 da 12.7 hours for the same procedure. Georgia needs 14 hours for import border compliance, Russia 11 hours, while Europe, Central Asia and OECD countries require 25.9 and 8.7 hours. Georgia has the advantage of 2 hours of time spent on providing export and import documents. In Russia documentary compliance for import and export requires 26 and 43 hours. Cost of import and export is also problematic for Georgia as well as for Russia. In Georgia export cost for border compliance is 383 USD and import 396 USD, for Russia 665 USD and 400 USD (table 2).

Table 2. Indicators for trade across the border of Georgia and Russia

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Georgia</th>
<th>Russian</th>
<th>Europe &amp; Central Asia</th>
<th>OECD high income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to export: Border compliance (hours)</td>
<td>48</td>
<td>72</td>
<td>28</td>
<td>12.7</td>
</tr>
<tr>
<td>Cost to export: Border compliance (USD)</td>
<td>383</td>
<td>665</td>
<td>191.4</td>
<td>149.9</td>
</tr>
<tr>
<td>Time to export: Documentary compliance (hours)</td>
<td>2</td>
<td>26</td>
<td>27.9</td>
<td>2.4</td>
</tr>
<tr>
<td>Cost to export: Documentary compliance (USD)</td>
<td>35</td>
<td>80</td>
<td>113</td>
<td>35.4</td>
</tr>
</tbody>
</table>
It should be noted that the most challenging part for Russia during the years is trading across borders. According to the ranking it held 138th position in 2016 and in 2017 it worsened over 2 points and was on the 140th place. The tax payment indicator, which is the leading indicator has improved by just over 2 points in the ranking of 2016 comparing previous years and worsened by 5 points in 2017. Experts believe that in order to raise positions in international ratings reforms are crucial for Russia, as institutional reforms make one third of indicators of the rating. Therefore, without implementing reforms and radical changes, Russia’s progress in international ratings is impossible.

As a conclusion, we can say that the global competitiveness report, as well as the “Ease of Doing Business” report done by the World Bank gives us the most complex picture of success and failures of the country and analyzing it helps understand what the country perceives as a problem and how severe is that problem in relation to the situation in other countries.

**CONCLUSIONS:**

The research concluded in the work gave an opportunity to present the following conclusions:

In relation to Georgia and Russia, under the conditions of modern world economy, it can be said that promotion of economic cooperation in different directions with Georgia has good perspectives. The normalization of economic relations with Russia would contribute to more intense development of Georgia, including the inflow of Russian investments.

Georgian export to Russia is under preferential treatment (less complicated technological standard considering market size compared to the EU, consumer’s habits, etc.). Except trade relations with Georgia, for Russia it is also important, that Georgia serves transit between Russia and Armenia.

In the medium-term perspective, the development of Georgia’s economy is mainly determined by external factors and the quality of ongoing reforms in the country. On the basis thereof, the development of the economy will be highly increased by policy aimed on attracting foreign investments and using the geographical location of Georgia as a transit “bridge” between Europe and Asia.

In modern conditions Russia has been cut off from a strong source of development and modernization. As a result of the sanctions, Russia has lost access to the financial capitals of the western market, as well as to many critically important technologies. Therefore, it is vital for Russia to find new sources to grow and establish new models of development, that will allow it to advance despite the isolation from the Western countries. Russia has an advantage of its economy size, which is an attractive consumer market and it provides a significant contribution to economic and infrastructural
projects at the regional level. Although Russia's economy is less diversified and depends on the supply of raw materials for external markets, even the minority contribution to common projects makes Russia an important participant in terms of economy size and provision of resources. Despite the current crisis, accurate technological policy and financial capitalization, will give an opportunity to increase and develop Russian economy in the long run.

REFERENCES

THE STOCK MARKET CONVERGENCE AMONG
THE BALTIC AND CIS COUNTRIES

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Abstract

This study analyzes the convergence among seven developing stock markets from period 2008 to 2015. It applies three varieties of Johansen cointegration test to daily stock price indexes for 3 CIS members (Russia, Ukraine, Kazakhstan) and Baltic countries (Latvia, Lithuania, Estonia) as well as Poland for the comparison. In the first step, we examine the presence of a unit root in the series using ADF and KPSS tests, then apply cointegration tests to each country combination to bring out a clear picture of the possible linkages between the stock markets. The results of Johansen cointegration indicate the evidence of comovements of the certain subgroups, whereas, the rolling cointegration and recursive cointegration analyses reveal the most conflicting and the most diverging periods. Among the subgroups Russia, Lithuania, Latvia and Poland show the most significant degree of convergence comparing other groups.

Keywords: stock market convergence, Johansen cointegration test, rolling-window cointegration, recursive window cointegration

1. INTRODUCTION

In last decades, the phenomenon of convergence is being studied intensely by researchers in both economic and financial world. In economic world, convergence refers to the process of rapprochement in time levels of growth between countries or regions. As a part of finance the stock market convergence can be defined as countries stock prices long-run and short-run relationships. Narayan, 2014 argues stock markets convergence facilitate markets to integration. Obviously, the integrated markets are more efficient than diverging ones. For investors, integrated markets gives the opportunity of efficient capital apportion (Chen et al., 2002), for national emerging markets can increase the ability of borrowing abroad. Eventually the degree of stock market convergence can encourage closer cooperation among national economies and increase trading volume among them.

Also, stock markets may converge to reflect the level of arbitrage activity (Narayan, 2014). If a market converges to another market, then this indicates there is a common force, such as arbitrage activity, that brings markets together. Consequently, the degree of stock market integration among countries is imperative for both investors and policymakers.

The stock exchanges in the Baltic and CIS countries were established after the collapse of socialist regime in 1990s. The CIS stock markets are in an initial phase of their development, however the governments are doing the first steps to attain economic and financial integration (OECD, 2012). As we know, the previous studies are explored integration among the Baltic and CIS are not plentiful. Some of them examine only Russia along with the Baltic countries (Soultanaeva, 2008; Brannas et al., 2012). Unfortunately, most of the CIS stock markets movements are not observable due to the lack of stock price data. This study examines stock market of seven convergence emerging markets in one unite, including three CIS markets. The purpose of this study is to examine three the CIS countries and four Baltic (including Poland) emerging markets exhibit the evidence of convergence in stock market by utilizing Johansen integration, as well as rolling and recursive cointegration analysis to identify its dynamics.

2. LITERATURE REVIEW ON STOCK MARKET CONVERGENCE

In the past two decades the stock market convergence is being examined using a variety of econometric methodologies. A number of studies use the panel data approach which presented by Phillips and Sul (2007) in
order to determine the convergence among the various markets. Apergis et al. (2014) applies panel convergence method for 42 global stock markets and finds 37 of them form unified convergence clubs in certain industries. However, Nitoi and Pochea (2016) by using the same methodology reveal that Central and Eastern European capital markets do not have a uniform convergence club and mention about divergence among them. This method is helpful in determining convergence clusters around certain points of the panel.

Another scholars use GARCH model and concentrate on volatility slipovers of stock markets, since such volatility can reduce productivity of such markets and also can dilute the performance of the entire economy (Fratzscher, 2002; Kim et al., 2005; Bartram et al., 2007; Morana and Beltratti, 2002; Arestis et al., 2001). Fratzscher (2002) finds a stronger correlation of stock. Most of these studies examine that European stock markets integration and uniformly agree post-1990 period the integration has generally strengthened. Brannas and Soultanaeva (2011) studied the impact of news from Russia and the US on the Baltic stock market returns and volatilities. The results show that news from the US has stronger effects on returns in Tallinn while Vilnius is more affected by shocks from Russia.

A different strand of research investigates convergence patterns in financial markets. They examine the income convergence hypothesis (Kim et al., 2006; Brada et al., 2005; Fung, 2009; Narayan et al., 2011) by employing the panel data technique. Boako and Alagidede (2015) investigate emerging Africa equity markets by using ICH among global and regional markets and find partial deterministic convergence.

Next widely applied approach to examine stock market convergence is cointegration technique, which is being used in order to assess the level of long-run co-movements between global stock markets. The earliest use of this method is applied by Kasa (1992). He examines price indices of the equity markets (US, Japan, England, Germany and Canada) and finds the presence of a single common trend which implies that the returns in all of these markets are highly integrated. Aggarwal and Kyaw (2005) also using the same framework determine the existence of cointegration vectors in international stock markets. Although some studies have examined the dynamics by deploying static cointegration methods on sub-periods. Some authors assume that linkages between stock markets may be time-varying and periodic. Chien et al. (2015) investigate the dynamic convergence trends of China and ASEAN-5 economies using both cointegration with structural breaks and recursive cointegration methods. Authors find financial integration of China and ASEAN-5 regions has been increasing, besides China and Indonesia during most of the period. Earlier, Rangvid (2001), utilizing the same tests, by using data from 1960-1999 confirmed that degree of European stock market convergence has been raised. Voronkova (2004) along with cointegration test for Russia both some emerging market and developed markets show some evidence of cointegration within emerging markets.

As cointegration is seldom defined as static relationship, dynamic cointegration techniques applications become more popular among scholars (Mylonidis et al., 2010; Chien et al., 2015). Aggarwal et al. (2010) starts to use dynamic cointegration technique, so called Kalman filter. Kalman filter is an efficient framework, by rolling or moving data over time results can be more accurate. Serletis and King (1997), Rangvid (2001), Pascual (2003) and Gilmore et al. (2008). Garcia-Pascual (2003) conduct a rolling cointegration test to analyze short and long-term co-movements between three central European and two western European countries, but he find a low level of long-run co-movement where the dynamic methods show periods of higher level of cointegration. They state that the EU accession process may have played some small role in the increase of correlations. Mylonidis and Kollias (2010) investigate dynamic process of convergence using rolling cointegration analysis of European most developed stock markets and find convergence in higher degree only two equity markets. Yu et al. (2010) apply rolling cointegration to investigate the dynamic convergence of 11 Asian stock markets, with results showing weak cointegration among them, but these Asian equity markets likely have become integrated during the Asian financial crisis (from 1997 to 1998). These both studies find divergence in a whole picture, however explore convergence in certain periods. Particularly, dynamic co-integration methodologies are one of rarely applied to the method of in stock market convergence. In this study we use rolling and recursive cointegration tests after determines the most comoving series using Johansen cointegration test. We argue the dynamic methods are more informative, especially for the data series high-frequency data, in our case daily data.

3. METHODOLOGY AND DATA CHARACTERISTICS

3.1. Johansen Cointegration. Johansen cointegration is a common multivariate test to see the series are cointegrated. This methodology takes its starting point in the vector autoregression (VAR) of order p given by
\[ Y_t = \mu + A_1 Y_t - 1 + A_2 Y_t - 2 + \cdots + A_p Y_t - p + \varepsilon_t \]  

(1)

If cointegration exists, this equation can be rewritten in the form of a vector error correction by differentiation

\[ \Delta Y_t = \mu + \Pi Y_t - 1 + \Gamma_1 \Delta Y_t - 1 + \Gamma_2 \Delta Y_t - 2 + \cdots + \Gamma_p \Delta Y_t - p + \varepsilon t \]  

(2)

where \( \Pi = -(A_1 + A_2 + A_p) \) and \( \Gamma = (A_1 + A_2 + A_p - I_n) \) \( I_n \) denotes the n-dimensional identity matrix and the \( \Pi \) and \( \Gamma \) are matrices of variables. Typically, we will assume that \( \Delta Y_t \) is integrated of order one, their variables will be stationary. And so if all residuals from (4) are stationary, except the \( Y_t - 1 \), the matrix \( \Pi \) must contain the cointegration relationships. \( \Pi \) is thus called the cointegration matrix, and there are three possible setups of this matrix which yield stationary residuals: -If the matrix is of full rank, meaning the matrix span the entire n-dimensional space, all different linear combinations give stationary residuals. This means that all variables are stationary and cointegration analysis is not applicable. - If the matrix have rank zero, implying that \( \Pi \) is the zero matrix \( \Pi = 0 \). The variables are not cointegrated; -The last possibility is \( 0 < \text{rank}(\Pi) < (n-1) \) meaning that at least one cointegration relationship exists. Further, the cointegration matrix can be separated into two matrices, \( \Pi = a \beta' \), where \( a \) and \( \beta \) are both of size (n\times p). \( a \) presents the speed of adjustment to equilibrium and \( \beta \) represents the long-run relationship. Johansen and Juselius(1990) proposes the reduced rank of the \( \Pi \) matrix: the trace test and maximum eigenvalue test, shown in equations (3) and (4) respectively.

\[ j_{\text{trace}} = -T \sum_{p=1}^{r} \ln(1 - \lambda_p) \quad (3) \]

\[ j_{\text{max}} = -T \ln(1 - \lambda_{r+1}) \quad (4) \]

Here \( T \) is the sample size and \( \lambda_p \) is the p the largest canonical correlation. The trace test tests the null hypothesis of \( r \) cointegrating vectors against the alternative hypothesis of \( n \) cointegrating vectors. The maximum eigenvalue test, on the other hand, tests the null hypothesis of \( r \) cointegrating vectors against the alternative hypothesis of \( r+1 \) cointegrating vectors.

### 3.2. Data Characteristics and Unit Root Tests.

The data used in this study was collected from the publicly available websites and the official website of national stock exchange KASE for Kazakhstan. Data covers daily observations of selected post 6 post-soviet union countries and Poland. Three of these countries (namely Russia, Ukraine and Kazakhstan) are members of the CIS by 1992. The Baltic countries Latvia, Lithuania, Estonia are not members. They are included to the analysis as former countries of the Soviet Union and Poland is as the example from CEE countries. The analysis covers the daily data from 9 January 2008 to 30 December 2015. If any national holiday in one country data is found, that day observation is deleted from all of the countries data. In total it includes 1804 observations for each country. Returns are calculated as continuously compounded returns, \( \ln P_t - \ln P_{t-1} \) and multiplied by 100. \( P_t \) is price index on day \( t \). The index series are transformed in daily frequency as chained series with base value 100 on 9 January 2008, the earliest date for all countries. Table 1 gives the descriptive statistics for the daily returns of the indices. As can be seen from Table 1, the Estonian index displays the highest mean and Ukraine index show the lowest mean in the group.

#### Table 1.

<table>
<thead>
<tr>
<th></th>
<th>RU</th>
<th>UA</th>
<th>KZ</th>
<th>LV</th>
<th>LT</th>
<th>EE</th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>-0.062</td>
<td>-0.078</td>
<td>-0.061</td>
<td>-0.001</td>
<td>-0.003</td>
<td>0.011</td>
<td>-0.03</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>2.365</td>
<td>2.461</td>
<td>2.105</td>
<td>1.474</td>
<td>1.277</td>
<td>1.313</td>
<td>1.588</td>
</tr>
</tbody>
</table>
Since cointegration can exist only between non-stationary variables, we examine the data for stationary by applying ADF and KPSS tests. The ADF test was introduced by David Alan Dickey and Wayne Arthur Fuller in 1979 and 1981. ADF test is used to test the unit root hypothesis. If one time series has unit root that means data is non stationary and it follows random walk. Test is based the following equation:

$$\Delta y = c + \beta t + \delta y_{t-1} + \delta^2 y_{t-2} + \cdots + \delta^p y_{t-p} + \varepsilon_t$$

(5)

$\Delta y$ is the first difference operator, $c$ is a constant, $\beta t$ is a linear time trend, $p$ is the number of lag-length and $\varepsilon_t$ is white noise. The null hypothesis of the ADF test assumes the presence of individual unit root processes within the group and can be defined as $H_0: \gamma = 0$.

The KPSS is against alternative of a unit root and has an inverted null hypothesis compared to the ADF test. The null hypothesis says the data is stationary.

We examine for the presence of a unit root in stock price data. Table 2 presents the results of stock price indices series results. It is worth to note that constant and constant and trend results have not big difference; so we omit constant results in Table 2. The results of the ADF and KPSS tests indicated the presence of a unit root in all country series. Therefore we infer all series follow I(1) processes qualifying them for inclusion in the cointegration analysis. Once we establish that all stock indices follow I(1) processes at the 5% significance level, we will apply cointegration test by Johansen-Juselius. Second we employ the rolling cointegration technique and recursive cointegration analysis to the selected co-moving series. This techniques allow to emerge of a clearer picture of the possible dynamic linkages among the stock markets.

Table 2.

<table>
<thead>
<tr>
<th>ADF* test, $H_0$: data has a unit root</th>
<th>KPSS**: $H_0$: data is stationary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td>First Differences</td>
</tr>
<tr>
<td>RU</td>
<td>-2.214</td>
</tr>
<tr>
<td>UA</td>
<td>-1.352</td>
</tr>
<tr>
<td>KZ</td>
<td>-2.086</td>
</tr>
<tr>
<td>LV</td>
<td>-2.850</td>
</tr>
<tr>
<td>LT</td>
<td>-2.599</td>
</tr>
</tbody>
</table>

Note: Descriptive statistics are for all 7 countries from January 9, 2008 to December 30, 2015. Daily returns calculated as $(\ln P_t - \ln P_{t-1}) \times 100$. Since cointegration can exist only between non-stationary variables, we examine the data for stationary by applying ADF and KPSS test. The ADF test was introduced by David Alan Dickey and Wayne Arthur Fuller in 1979 and 1981. ADF test is used to test the unit root hypothesis. If one time series has unit root that means data is non stationary and it follows random walk. Test is based the following equation:

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(5)

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<td>LT</td>
<td>-2.599</td>
</tr>
</tbody>
</table>
4. EMPIRICAL ANALYSIS

After completion of unit root testing on our time series, assuming all our time series are integrated of the same order, we conduct bivariate, trivariate, quadvariate (2, 3 and 4 country combinations) test between each of our 7 indices with all possible combinations. Table 3 presents the results of bivariate cointegration test. As can be seen in the table there is evidence of cointegration in the Baltic countries (Latvia, Lithuania, Estonia) at a 1% level and at less degree 10% between Russia and Poland, Latvia and Poland country groups. The remaining series test shows that the null hypothesis of no cointegration is accepted. In the trivariate and quadvariate tests (see the appendix 1 and 2) a number significant cointegrating country combinations are arising compare to bivariate test results.

Table 3. Johansen Bivariate Cointegration Test Results.

<table>
<thead>
<tr>
<th>H0</th>
<th>RU</th>
<th>UA</th>
<th>KZ</th>
<th>LV</th>
<th>LT</th>
<th>EE</th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>r=0</td>
<td>RU</td>
<td>0.33</td>
<td>0.3</td>
<td>0.3</td>
<td>0.49</td>
<td>0.85</td>
<td><strong>0.05</strong></td>
</tr>
<tr>
<td>r=0</td>
<td>UA</td>
<td>0.33</td>
<td>0.19</td>
<td><strong>0.06</strong></td>
<td>0.19</td>
<td>0.73</td>
<td>0.12</td>
</tr>
<tr>
<td>r=0</td>
<td>KZ</td>
<td>0.3</td>
<td>0.19</td>
<td>0.39</td>
<td>0.53</td>
<td>0.59</td>
<td>0.18</td>
</tr>
<tr>
<td>r=0</td>
<td>LV</td>
<td>0.3</td>
<td><strong>0.06</strong></td>
<td>0.39</td>
<td><strong>0.01</strong> ***</td>
<td>0***</td>
<td><strong>0.07</strong></td>
</tr>
<tr>
<td>r=0</td>
<td>LT</td>
<td>0.49</td>
<td>0.19</td>
<td>0.53</td>
<td><strong>0.01</strong>*</td>
<td><strong>0.08</strong></td>
<td>0.12</td>
</tr>
<tr>
<td>r=0</td>
<td>EE</td>
<td>0.85</td>
<td>0.73</td>
<td>0.59</td>
<td>0***</td>
<td>0.08</td>
<td><strong>0.08</strong></td>
</tr>
<tr>
<td>r=0</td>
<td>PL</td>
<td><strong>0.05</strong></td>
<td>0.12</td>
<td>0.18</td>
<td><strong>0.07</strong></td>
<td>0.12</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Note: ***, **, * denote significance at the 1%, 5% and 10% levels respectively.

Johansen cointegration method use in static analysis includes all observations in an only one event window and that result one set of test statistic representing the entire sample period. As mentioned earlier the convergence is time-varying and that results based on a fixed-window analysis can be spurious. If static cointegration analysis is done with over many structural breaks, more correct figure of the cointegration process can be easily identified. After testing Johansen cointegration in its normal way, analysis we employ the rolling and recursive cointegration techniques to the most co-moving series. We choose two country groups with the highest probability of integration, each subgroup includes 4 countries. We think analyzing them separately we can obtain more meaningful results than the result whether included more countries.
The rolling cointegration analysis can provide essential information about the time-varying shape of cointegrating vectors. (Mylonidis, 2010) Mylonidis rolls over 250 observations by adding one observation and finds upward- and downward-shifts of convergence through the whole period. We roll an even 600 observations window of , which is one third of the whole data. We add the window 20 observations, corresponding to one month, forward at a time until the estimation window covers the last 600 observations of the sample. That is starting with observations 1–600 calculate the first result of rolling cointegration analysis. Then, we calculate the trace tests for observations 20–620, 40–640, etc. For simple interpretation, the results of trace statistics are scaled by their 5% critical values. A value of the scaled test statistic above 1.0 means that the null hypothesis can be rejected. For each step the window is moved the cointegration analysis is done manually on Eviews 7, statistics for each event window in time. In spite of the fact that the rolling-window approach have positive sides, such as depicting how the level of cointegration changes over time, it is not unproblematic. One potential problem has to do with the size of the event window; a too small event window might fail to identify cointegration and a too large eats up observations (Brada, 2005) In this study we also encounter observation losing problem and the numbers of observations equals to 600.

The recursive cointegration technique is a dynamic approach to evaluate series for time-varying co-movement. In simple word, the recursive approach figures out whether the series are integrated and “when” that point of integration is occurred. An earlier example of study that employs the recursive cointegration technique can be seen on Rangvid’s (2001) paper, which analyze the degree of convergence among three European stock market countries. Later, Yunus (2013) used the recursive technique to investigate the dynamic interdependence among ten global stock markets. She finds long-run relationship among the markets and the recursive technique allow her to catch the exact timing of crisis periods. The technique is conducted by fixing the start of observations and increasing the sample by adding additional observations for each estimate (Rangvid, 2001). In this thesis we add an event window of 20 observations at the end of each recursive estimate, which is approximately one month. The first event window is 1-600, which is the Same as the first event window in rolling cointegration analysis. Same as the rolling cointegration analysis, the recursive trace statistic is scaled by the 5% critical value. If the number of trace statistics greater than 1.0 indicates the rejection of the null hypothesis and below 1.0 indicate that we cannot reject the null, which means the cointegration process is comparatively stable. Using trace statistic for recursive cointegration test we can identify and visually portray the time-varying cointegrating vector across the stock markets. The recursive cointegration methodology assess whether convergence is increased over the observed periods (Yunus, 2013).

Figures 1.1; and Figure 1.2; below present the results of the rolling-window cointegration analysis based on the methods outlined above. As we can see in the figure there is the only one significant cointegration vector, remaining vectors are excluded from the study due to non-cointegration. All figures data starting point is September 2010, as mentioned before the previous period data was excluded because we choose 600 observation as rolling and recursive window. The Figure 1.1 presents the results for a group of Ukraine, Kazakhstan, Latvia and Estonia. As can be seen the group rises integration around third quarter of 2011 which continues until the second quarter 2012, after there can be seen a period below the line until the third quarter of 2013. At the begging of 2014 there is a sharp peak of convergence and after 2015 there can been seen the same peeking vector. Overall, The Figure 2.1 depicts that this group has upward and downward shifts in cointegration process. Figure 1.2 below presents the results for Russia, Lithuania, Latvia and Poland. The group begins with cointegrating in the third quarter of 2010 and continues until the first quarter of 2012. It contrast, Figure 1.2 does not have sharp peaks, it is likely cointegrating in smaller degree until 2013 and after 2014 they non cointegrating at all. Overall Figures 1.1 and 1.2 do not display clear picture throughout the full sample period because of losing 1/3 of data and probably amount of rolling window. However, we can suggest that both country group is converging in certain periods.
Figure 1.1: Rolling-window Cointegration Analysis results for subgroup Ukraine, Latvia, Kazakhstan and Estonia.

Note: The test statistics is scaled to the 5% critical value, thus series above 1 indicate are rejection of null hypothesis.

Figure 1.2: Rolling-window Cointegration Analysis results for subgroup Russia, Latvia, Lithuania and Poland.

Note: The test statistics is scaled to the 5% critical value, thus series above 1 indicate are rejection of null hypothesis.

Figures 2.1 and 2.2 show the results of the recursive window cointegration analysis which is discussed above. Country groups remained same as the rolling-window cointegration, it allows us to make some comparable conclusions. Figure 2.1 has some similarities with Figure 1.1, both them has a sigh of convergence from 2011 to the third quarter of 2012. In Figure 2.1 can be seen convergence among Ukraine, Kazakhstan, Latvia and Estonia markets at most of periods. Interestingly in contrast with rolling cointegration analysis, Figure 2.2 presents totally strong evident that the degree of cointegration Russia, Lithuania, Latvia and Poland stock markets stay significantly the whole period.
5. CONCLUSION

This study analyzes the convergence among seven developing markets over a period from January 2008 to December 2015. The results of this study can be useful in further integration process, especially for the CIS countries. Specifically, the study employs a three kind of cointegration analysis on the selected most comoving series. The results of Johansen cointegration test give a general pattern if the one country comoves with other one. The empirical results indicate a positive and statistically significant long-run relationship among the Baltic stock markets. The results of rolling cointegration and recursive cointegration analysis differ from each other and conflicting in some periods. However, neither of them can reject the evident that both selected group countries moving together, at least periodically. In our opinion, the results of recursive cointegration analysis is more reliable, due to increasing number of observations. Rolling cointegration analysis could be more consistent in case longer sample period.
REFERENCES


## Appendix 1

### Johansen Trivariate Cointegration Test Results

<table>
<thead>
<tr>
<th>Country</th>
<th>H0</th>
<th>Trace statistic</th>
<th>Max Eigenvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Statistic</td>
<td>Probability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Statistic</td>
<td>Probability</td>
</tr>
<tr>
<td>RUS-UKR-KAZ</td>
<td>=0</td>
<td>21.229</td>
<td>0.34</td>
</tr>
<tr>
<td>RUS-UKR-LAT</td>
<td>=0</td>
<td>20.211</td>
<td>0.41</td>
</tr>
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<tr>
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<tr>
<td>KAZ-EST-POL</td>
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Note: ***, **, * denote significance at the 1%, 5% and 10% levels respectively.

Table includes all possible combinations.
### Johansen Quad-variate Cointegration Test Results

<table>
<thead>
<tr>
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<th>Max Eigenvalue</th>
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</tbody>
</table>

Note: ***, **, * denote significance at the 1%, 5% and 10% levels respectively

Table includes all possible combinations.
Dollarization, Eurozation or Rublization?

Prospects for Monetary Integration in Euro Asia Countries: Some Preliminary Findings from Generalized PPP Theory

Shavkatova CHAROS

Gyeongsang National University (GNU)
South Korea

I. INTRODUCTION

The last decades were marked by a significant increase in the interest of the economic and political processes of integration. Customs unions and multilateral trade agreements, the liberalization of foreign exchange and financial markets are a few of those integration processes. In the late twentieth - early twenty first centuries the formation of the European Monetary System and its subsequent transformation into the European Union affected the currency monetary union, one of the most important achievements of European countries on the path of economic and, in particular, monetary integration. Against this background, there is an increased attention to the problems of interethnic integration on the territory of the countries of the Commonwealth of Independent States.

As an early step of market integration, eleven CIS countries signed free trade agreement in 1994. Later in 2010 Russia, Belarus and Kazakhstan founded customs union. But these integration processes didn’t move further. In order of devaluation of national currency in the CIS countries, the need for exchange rate and monetary cooperation among these countries has sharply increased in the past 4 years.

In this paper I attempt to investigate the potential of monetary integration for 6 CIS countries (Armenia, Kazakhstan, Moldova, Russia Federation, Kyrgyz Republic, Ukraine) and 2 post-Soviet Union East Europe Countries (Bulgaria, Lithuania).

Monetary union among these countries poses two interesting issues for the structure and process: they have already been members of a wider currency union, so it helps to handle the problems of history. Secondly, the union would be of a very unequal size with the Russian Federation, outweighing the others, so rublization would be the best choice as a common currency for this area. In this paper I will try to test all possible common currencies for this area including EUR, USD and RUB.

In this work I will investigate possibility of monetary integration from the Generalized PPP theory.

The objective of this thesis is to complement the existing empirical literature on the monetary integration among the 6 ex-Soviet countries and 2 East Europe countries. This paper complements the ‘shocks’ literature by applying the Generalized PPP theory proposed by Enders and Hurn (1994). Consistent with the conclusion made by Chaplygin (2006), the union among these countries can be indeed expensive.

The structure of the paper is as follows. Section 2 presents the Generalized PPP theory and some statistical details for data interpretation. Section 3 describes the data to which the theory is to be applied and presents econometric results for USD, EUR and RUB base analyses. Finally, Section 4 evaluates this paper’s results.

Literature Review on Monetary Integration

Overview of the Eurasian Economies.

Table 1 below gives general information about population, area and GDP of investigating countries. As it can be seen in the table Russia has significant advantage from all perspectives in this table, this is the main reason why we take Russia as an anchor country in this paper, and respectively I take RUB as one of the base currencies in my research.
Number of population in Russia is more than 142,830,000, this is 3 times more than population of Ukraine, which is second country according to population number. And almost 8 times more that population of Kazakhstan, which is third country according to population.

GDP of Russia is 1,365,865.25 mil USD which is almost 7 times more than GDP of Kazakhstan, which is second country according to GDP, and almost 15 times more than GDP of Ukraine which is third country according to GDP.

And the last one is area, territory of Russia is 7 times more than territory of Kazakhstan, which territory is second biggest among of these countries. Territory of Ukraine almost 30 times smaller than territory of Russia, and territory of Ukraine is on the third place among to territory of given countries.

From all of these perspectives we can conclude that Russia is the most important country in this union and has the highest economic potential in the integration region.

It’s obvious that RUB is the most preferable as a base currency, and Russia has significant impact on all post-soviet area.

<table>
<thead>
<tr>
<th>Countries</th>
<th>Population</th>
<th>GDP (USD mil)</th>
<th>Area (km sq)</th>
</tr>
</thead>
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<tr>
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<tr>
<td>Kazakhstan</td>
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<td>Kyrgyz Republic</td>
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<td>6,571.85</td>
<td>199,951</td>
</tr>
<tr>
<td>Moldova</td>
<td>3,490,000</td>
<td>41,400.14</td>
<td>65,300</td>
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<tr>
<td>Lithuania</td>
<td>3,020,000</td>
<td>6,568.29</td>
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<tr>
<td>Ukraine</td>
<td>45,240,000</td>
<td>90,615.02</td>
<td>603,500</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>142,830,000</td>
<td>1,365,865.25</td>
<td>17,098,246</td>
</tr>
</tbody>
</table>


**Monetary Integration based on OCA theory**

For several decades, close attention has been paid to the problem of optimal currency areas. A new idea, defined by the term "optimal currency area" (OCA), is that, for some countries, initially, it may not be optimal to use your own currency to carry out transactions both domestically and internationally. In the literature, the concept of "optimal currency area" is referred to as "optimal" geographically. In the territory of which the most common means of payment are either in a single currency, or a group of currencies whose bilateral exchange rates are rigidly fixed.

In comparison, the rest of the world's currencies use a floating exchange rate regime. In addition, other terms can be used that are closely related to the concept of an optimal currency area, these terms include: "monetary integration" and "monetary union". Both these terms refer to a group of countries, the territory of which are drawn by a single currency (a new currency or the currency of one of the countries).

The analysis of the OCA problem is closely related to the choice of the regime’s exchange rates and, in particular, with the discussion of comparative advantages and disadvantages of fixed and floating exchange (Friedman, 1953). It was argued that countries where prices and wages that, for one reason or another, were not flexible enough
required a floating exchange rates in order to maintain internal (the optimal ratio of inflation and unemployment) and external (balance of payments balance) balance.

Conversely, the OCA also states that there are conditions where, for some countries, a fixed exchange rate is more preferable in order to achieving internal and external balance. A large number of studies have been devoted to understanding the benefits and drawbacks to these kinds of conditions. This includes publications not only of foreign, but also of Russian authors – such as Semenov (2002) and Butorina (2003).

There are no ideal currency union criteria which can be applied for all regions. According Mundell (1961) the main criteria was factor mobility, particularly labor, across the union. Mundell’s investigation based on a simple model where there were 2 main subjects (regions, countries) with the equilibrium of balance payments. The main factor of this model was shifting of demand from B product to A product. In further investigation (Fleming, 1971) was found weakness points of Mundell’s theory about demand shifting and later of their nature and impact have evolved considerably (Grubel, 2005; Edwards, 2006).

There are many works about currency union in CIS countries. One of the recent works in this field, Knobel and Mironov (2015) use the same methodology as Drobishevski and Polevoy (2004), where they analyze macroeconomic factors of CIS countries, with the main criteria of OCA. In many researches (Drobishevski and Polevoy, 2004; Knobel and Mironov, 2015; Bayourni and Eichengreen, 1997; Mayes and Korhonen, 2007; Mongelli, 2008; Sklias and Maris, 2012; Vieira and Vieira, 2012) countries investigation is doing toward an anchor country, it means toward country with the highest economic potential in the integration region. In the works about European Currency Integration, the anchor country is Germany. In this work the Anchor countries are Russia, USA and EU.

Knobel and Mironov (2015) investigated eleven CIS countries and Georgia. They used some OCA criteria such as: Asymmetry of real and nominal shocks, similar inflation rate across countries, indicator of economy, financial markets integration, labor mobility.

One way to establish whether a group of countries constitutes a natural currency area is to see if their real exchange rates (RERs) are co-integrated, since this might be broadly indicative of similarities in their economic fundamental variables. In 1994, Enders and Hurn developed the Generalized PPP theory. The authors applied the theory to the Pacific Rim countries. Since then the theory has been extensively used to assess the asymmetry of shocks criterion on many other potential monetary unions. Bernstein (2000) used the Generalized PPP to study the success of the European monetary system in creating a successful currency area for a stable European monetary union. Antonucci and Girardi (2006) applied the theory on Euro zone countries as well. Mkenda (2001), Grandes (2003) and Carmignani and Girardi (2006) used the theory to measure the degree of shock asymmetry across countries in several African clusters. Da Silva et al. (2008) consider the Generalized PPP to show that a necessary condition for Mercorsur to be an optimum currency area is met. In this paper I will use G-PPP to test possibility of OCA in 6 CIS and 2 East Europe countries.

Data and Empirical Methodology

Generalized - PPP theory and the Optimum Currency Area

One way to establish whether there is a natural currency area among a group of countries is to see if its currencies are co-integrated, since this might be broadly indicative of similarities in the economic forces which drive the member exchange rates or commonalities in exchange rate policy. G-PPP theory (Enders and Hurn, 1994) was developed ‘to explain the stylized facts of real exchange rate behavior’ consistent with standard open economy models, in response to the empirical evidence that purchasing power parity theory (PPP), both in its absolute and relative forms, was inadequate to explain price and exchange rate movements for low inflation countries after the Second World War. This is not surprising if the fundamental variables which lie behind real exchange rates do not converge to a stable long-run mean or share any common trends.

The empirical failure of PPP is also consistent with many structural models of exchange rate behavior, such as the Dornbusch (1976) overshooting model. In this model nominal shocks can induce short-run deviations from PPP even if long-run money neutrality guarantees that these shocks have no long-run effects on real variables. On the other hand, real shocks, such as output shocks, can affect real variables and permanent real shocks can produce permanent changes in the RER. PPP fails, therefore, because the fundamental macroeconomic variables which determine RERs, such as real output levels or expenditure patterns, are themselves nonstationary variables, so the RERs are also nonstationary.
The importance of fundamentals in determining equilibrium RERs is now well established in the literature. See, for example, Edwards (1994), MacDonald (1998), Clark and MacDonald (1999) and the review by Driver and Westaway (2001). G-PPP, which is consistent with models of RER behavior which incorporate ‘fundamental’ variables, provides a useful vehicle to examine the case for an OCA in the original Mundellian. Note that this is only one (necessary but not sufficient) criterion for the formation of an OCA. In the two-country case, to see if they constitute an OCA is tantamount to testing if PPP holds between them, which will be true if their bilateral RER measured in terms of one of the countries is stationary. However, even if individual RER series are nonstationary, as the empirical evidence suggests, certain groupings of them in a multi-country setting may be stationary if their real fundamentals are sufficiently interrelated such that they share a reduced number of common trends. One can then use co-integration analysis to establish whether this is true.

Following Enders and Hurn (1994), suppose that m+1 of the countries in an n-country world constitute the domain of a currency area, then there exists a long-run equilibrium relationship between their m bilateral real rates such that:

$$r_{1i,t} = \beta_{10} + \beta_{11} r_{1t} + \beta_{14} r_{14t} + \ldots + \beta_{1m} r_{1mt} + \varepsilon_t$$

(1)

where the $r_{1i,t}$ are the logarithmic real exchange rates in period t between country 1 (base country) and country i. The $\beta_{1i}$ are the parameters of the cointegrating vector and $\varepsilon_t$ is a stationary stochastic disturbance term. If a vector of bilateral real exchange rates share common trends, there will exist at least one linear combination of the real rates which is stationary.

Thus the RERs will be cointegrated, which is a reflection of sufficient interrelationship among their underlying economies. G-PPP will hold and the set of countries can be construed as satisfying one of the necessary conditions for forming a potential OCA.

Enders and Hurn (1994) further showed that G-PPP depends on the interrelationships between the underlying fundamentals and how the values of the $\beta$ coefficients in equation (1) are related to the various behavioral parameters of the aggregate demand functions derived from a market-clearing model. So the coefficients in the cointegrating vector of bilateral RERs are not arbitrary but are functions of the parameters in a goods market clearing relationship. If the RERs are nonstationary then there must be at least one of the income processes which is nonstationary, which is likely, since the macroeconomic variables are themselves likely to be nonstationary. The real income processes are linked through technology transfers, immigration, capital movements etc.

Data and Unit Root Test

Using the USD, EUR and RUB as the base currency or numeraire, monthly data was collected between 1996(1) and 2014(12) for each country’s nominal exchange rate against the USD, EUR, RUB, and price level, represented by the consumer price index (CPI), from the International Financial Statistics CD-Rom database. All nominal exchange rates against the USD, EUR, RUB and price indices were normalized, with 2005 as the base year, and RERs computed according to the following formula:

$$q_t = s_t + p_t^* - p_t$$

(2)

where $q_t$ is the real exchange rate, $s_t$ is the domestic currency price of the base currency (USD/ EUR/RUB), $p^*$ is the base country (USD/ EUR/RUB) price level, and $p_t$ is the domestic price level. All the data are normalized at the base year 2005=100 and in natural logarithms.

Unit Root Test

For G-PPP to hold, all RERs must be individually non-stationary and there should be evidence of co-integration among the set of RERs of the countries constituting. Since cointegration only can exist between non-stationary variables, we will examine the data for stationary. To verify the presence of a unit root in the series we will apply Augmented Dickey–Fuller (ADF) and Kwiatkowski–Phillips–Schmidt–Shin (KPSS) tests. ADF test is used to test the unit root hypothesis. If one-time series has unit root, that means it is non stationary and it follows random walk. Test is based on the following equation

$$\Delta y_t = \alpha_{0} + \beta t + \delta_{1} y_{t-1} + \delta_{1} y_{t-2} + \ldots + \delta_{p} y_{t-p} + \varepsilon_{t}$$

(3)

$\Delta$ is the first difference operator, $\alpha_0$ is a constant, $t$ is a linear time trend, $\varepsilon_t$ is an error term, and $p$ is the number of lag-length and $\varepsilon_t$ is white noise. The null hypothesis of the ADF test assumes the presence of individual unit root processes
within the group and can be define as $H_0: \gamma = 0$.

The KPSS test that has an inverted null hypothesis compared to the ADF test.

\[ y_t = \alpha_t + \beta_t + \sum_{i=1}^{\infty} \mu_i + \varepsilon_t \]  \hspace{1cm} (4)

We examine for the presence of a unit root of RER in USD, EUR and RUB.

Table 2 reports the results of ADF unit root test of Euro based RER series. It can be seen that the ADF test showed that null hypothesis cannot be rejected at 10% significance level.

Table 3 presents the results of KPSS test. The test shows that null hypothesis is rejected in level. Real exchange rate is non-stationary.

### TABLE 2. ADF unit root tests of EUR based RER

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<thead>
<tr>
<th>Series</th>
<th>Level</th>
<th>First Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Constant</td>
<td>Constant and Trend</td>
</tr>
<tr>
<td>Armenia</td>
<td>1.314***</td>
<td>0.1677**</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>1.642***</td>
<td>0.294***</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>1.405***</td>
<td>0.122*</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>1.419***</td>
<td>0.205**</td>
</tr>
<tr>
<td>Moldavia</td>
<td>1.522***</td>
<td>0.112</td>
</tr>
<tr>
<td>Russia</td>
<td>1.422***</td>
<td>0.279***</td>
</tr>
<tr>
<td>Ukrain</td>
<td>0.448*</td>
<td>0.124*</td>
</tr>
</tbody>
</table>

Note: The ADF test critical values are – 1% (-3.46) 5% (-2.87) 10% (-2.57) and Trend – 1% (-4.00); 5%(-3.43) 10% (-3.14) "**" "***" "****" denote statistical significance at the 10%, 5%, 1% levels. The lag length for each series are determined by the Schwarz Info Criterion. Null hypothesis: data has a unit root.

### TABLE 3. KPSS unit root tests of EUR based RER

<table>
<thead>
<tr>
<th>Series</th>
<th>Level</th>
<th>First Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Constant</td>
<td>Constant and Trend</td>
</tr>
<tr>
<td>Armenia</td>
<td>1.314***</td>
<td>0.1677**</td>
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<td>1.405***</td>
<td>0.122*</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>1.419***</td>
<td>0.205**</td>
</tr>
</tbody>
</table>

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Table 4 reports the results of ADF unit root test of USD based RER series. It can be seen that the ADF test showed that null hypothesis cannot be rejected at 10% significance level.

Table 5 presents the results of KPSS test. The test shows that null hypothesis is rejected in level most of countries, only exception in Armenia. Real exchange rate is non-stationary.

### Table 4. ADF unit root tests of USD based RER

<table>
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<tr>
<th>Series</th>
<th>Level</th>
<th>First Differences</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>Constant</td>
<td>Constant and Trend</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>Constant and Trend</td>
</tr>
<tr>
<td>Armenia</td>
<td>-0.947**</td>
<td>-2.243***</td>
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<tr>
<td></td>
<td>-9.810***</td>
<td>-9.796***</td>
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<tr>
<td>Bulgaria</td>
<td>-1.370***</td>
<td>-3.520***</td>
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<td>-13.235***</td>
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<td>Kazakhstan</td>
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<tr>
<td>Kyrgyzstan</td>
<td>-1.380***</td>
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<td>-0.964***</td>
<td>-2.514***</td>
</tr>
<tr>
<td></td>
<td>-9.579***</td>
<td>-9.564***</td>
</tr>
<tr>
<td>Russia</td>
<td>-1.258***</td>
<td>-1.721***</td>
</tr>
<tr>
<td></td>
<td>-10.634***</td>
<td>-10.602***</td>
</tr>
<tr>
<td>Ukraine</td>
<td>-1.279***</td>
<td>-1.146***</td>
</tr>
<tr>
<td></td>
<td>-9.615***</td>
<td>-9.624***</td>
</tr>
</tbody>
</table>

Note: The ADF test critical values are –1% (-3.46) 5% (-2.87) 10% (-2.57) and Trend –1% (-4.00); (-3.43) 10% (-3.14) “∗” “∗∗” “∗∗∗” – denote statistical significance at the 10%, 5%, 1% levels respectively. The lag length for each series are determined by the Schwarz Info Criterion. Null hypothesis: data has a unit root.

### Table 5. KPSS unit root tests of USD based RER

<table>
<thead>
<tr>
<th>Series</th>
<th>Level</th>
<th>First Differences</th>
<th>Second Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Constant</td>
<td>Constant and Trend</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>Constant and Trend</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>Constant and Trend</td>
<td></td>
</tr>
<tr>
<td>Armenia</td>
<td>1.561***</td>
<td>0.257***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.195</td>
<td>0.172**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.416*</td>
<td>0.396***</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Series</td>
<td>Level</td>
<td>First Differences</td>
</tr>
<tr>
<td>------------</td>
<td>---------</td>
<td>----------------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Constant</td>
<td>Constant and Trend</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>1.823***</td>
<td>0.218***</td>
<td>0.166</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>1.062***</td>
<td>0.277***</td>
<td>0.174</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>0.897***</td>
<td>0.324***</td>
<td>0.371*</td>
</tr>
<tr>
<td>Lithuania</td>
<td>1.850***</td>
<td>0.211**</td>
<td>0.188</td>
</tr>
<tr>
<td>Moldavia</td>
<td>1.449***</td>
<td>0.248***</td>
<td>0.157</td>
</tr>
<tr>
<td>Russia</td>
<td>1.311***</td>
<td>0.224***</td>
<td>0.186</td>
</tr>
<tr>
<td>Ukrain</td>
<td>0.382*</td>
<td>0.209**</td>
<td>0.184</td>
</tr>
</tbody>
</table>

Note: KPSS test critical values are Constant – 1% (0.74) 5% (0.46) 10% (0.35) and Trend – 1% (0.22) 5% (0.15) 10% (0.12). “∗” “∗∗” “∗∗∗” denote statistical significance at the 10%, 5%, 1% levels respectively, Newey-West bandwidth are determined automatically by the Bartlett kernel. Null hypothesis: data is stationary.

### TABLE 6. ADF unit root tests of RUB based RER

<table>
<thead>
<tr>
<th>Series</th>
<th>Level</th>
<th>First Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Constant</td>
<td>Constant and Trend</td>
</tr>
<tr>
<td>Armenia</td>
<td>-2.344</td>
<td>-2.312</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>-2.496</td>
<td>-2.952</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>-0.507</td>
<td>-2.608</td>
</tr>
<tr>
<td>Lithuania</td>
<td>-1.353</td>
<td>-1.469</td>
</tr>
<tr>
<td>Moldavia</td>
<td>-0.719</td>
<td>-2.497</td>
</tr>
<tr>
<td>Ukraine</td>
<td>-1.284</td>
<td>-1.084</td>
</tr>
</tbody>
</table>

Note: The ADF test critical values are – 1% (-3.46) 5% (-2.87) 10% (-2.57) and Trend – 1% (-4.00); (-3.43) 10% (-3.14) “∗” “∗∗” “∗∗∗” denote statistical significance at the 10%, 5%, 1% levels respectively. The lag length for each series are determined by the Schwarz Info Criterion. Null hypothesis: data has a unit root.
Table 7 presents the results of KPSS test. The test shows that null hypothesis is rejected in level most of countries, only exception in Armenia. Real exchange rate is non-stationary.

Once we found that all RER’s follow I (1) processes at the 5% significance level, we will apply cointegration test by Johanson–Juselius. Second we apply the rolling cointegration technique and recursive cointegration analysis to the selected co-moving series. This technique allows to identify a clearer picture of the possible dynamic pattern of the cointegration.

### Johansen Cointegration

Johansen cointegration is a common multivariate test to see the series are cointegrated. This methodology takes its starting point in the vector autoregression (VAR) of order p given by

\[ Y_t = \mu + A_1 Y_{t-1} + A_2 Y_{t-2} + \ldots + A_p Y_{t-p} + e_t \]  

(5)

If cointegration exists, this equation can be rewritten in the form of a vector error correction by differentiation

\[ \Delta Y_t = \mu + \Pi \Delta Y_{t-1} + \Gamma_1 \Delta Y_{t-2} + \Gamma_2 \Delta Y_{t-3} + \ldots + \Gamma_p \Delta Y_{t-p} + e_t \]  

(6)

Where \( \Pi = -(A_1 + A_2 + A_3) \) and \( \Gamma = (\lambda A_1 + A_2 + A_3 - I_n) \) \( I_n \) denotes the n-dimensional identity matrix and the \( \Pi \) and \( \Gamma \) are matrixes of variables. Typically, we will assume that \( \Delta Y_t \) is integrated of order one, their variables will be stationary. And so if all residuals from (4) are stationary, except the \( Y_{2:L} \), the matrix \( \Pi \) must contain the cointegration relationships. \( \Pi \) is thus called the cointegration matrix, and there are three possible setups of this matrix which yield stationary residuals:

- If the matrix is of full rank, meaning the matrix span the entire n-dimensional space, all different linear combinations give stationary residuals. This means that all variables are stationary and cointegration analysis is not applicable.
If the matrix have rank zero, implying that \( \Pi \) is the zero matrix \( \Pi = 0 \). The variables are not cointegrated;

- The last possibility is \( 0 < \text{rank}(\Pi) < (n-1) \) meaning that at least one cointegration relationship exists. Further, the cointegration matrix can be separated into two matrices, \( \Pi = \alpha \beta' \), where \( \alpha \) and \( \beta' \) are both of size \( (n \times p) \). \( \alpha \) presents the speed of adjustment to equilibrium and \( \beta' \) represents the long-run relationship. Johanson and Juselius (1990) proposes the reduced rank of the \( \Pi \) matrix: the trace test and maximum eigenvalue test, shown in equations (5) and (6) respectively.

\[
\begin{align*}
J_{\text{trace}} &= - \frac{T}{p} \sum_{p=1}^{r+1} \ln(1 - \lambda_p) \\
J_{\text{max}} &= - T \ln(1 - \lambda_{\text{max}})
\end{align*}
\]

Here \( T \) is the sample size and \( \lambda_p \) is the \( p \) largest canonical correlation. The trace test tests the null hypothesis of \( r \) cointegrating vectors against the alternative hypothesis of \( n \) cointegrating vectors. The maximum eigenvalue test, on the other hand, tests the null hypothesis of \( r \) cointegrating vectors against the alternative hypothesis of \( r+1 \) cointegrating vectors.

### Rolling-window Cointegration Analysis

The recursive cointegration technique is a dynamic approach to evaluate series for time-varying co-movement. In simple word, the recursive approach figures out whether the series are integrated and “when” that point of integration is occurred. An earlier example of study that employs the recursive cointegration technique can be seen on Rangvid (2001) paper, which analyze the degree of convergence among three European stock market countries, interpreting

Johansen cointegration method use in static analysis includes all observations in an only one event window and that result one set of test statistic representing the entire sample period. As mentioned earlier the convergence is time-varying and that results based on a fixed-window analysis can be spurious. If static cointegration analysis is done with over many structural breaks, more correct figure of the cointegration process can be easily identified.

After testing Johansen cointegration is normally used in static analysis we employ the rolling cointegration technique to the most co-moving series. We choose two country groups with the highest probability of integration, each group includes 4 countries. We think analyzing them we can obtain more meaningful results than the result where included more countries.

The rolling cointegration analysis can provide essential information about the time-varying shape of commoving vectors. Mylonidis (2010) rolls over 250 observations by adding one observation and find upward- and downward-shifts of convergence through the whole period. This thesis uses an event window of a rolling 103 observations, which is almost half of the whole data. We add the window 6 observations, corresponding to 6 months, forward at a time until the estimation window covers the last 103 observations of the sample. That is starting with observations 1–103 calculate the first result of rolling cointegration analysis. Then, we calculate the trace tests for observations 7-109, 13-115, etc. For simple interpretation, the results of trace statistics are scaled by their 5 % critical values. A value of the scaled test statistic above 1.0 means that the null hypothesis can be rejected. For each step the window is moved the cointegration analysis is done manually on Eviews7, statistics for each event window in time.

### Recursive-window Cointegration Analysis

The recursive cointegration technique is a dynamic approach to evaluate series for time-varying co-movement. In simple word, the recursive approach figures out whether the series are integrated and “when” that point of integration is occurred. An earlier example of study that employs the recursive cointegration technique can be seen on Rangvid (2001) paper, which analyze the degree of convergence among three European stock market countries, interpreting

Later, Yunus (2013) used the recursive technique to investigate the dynamic interdependence among ten global stock markets. She finds long-run relationship among the markets and the recursive technique allow her to catch the exact timing of crisis periods.

The technique is conducted by fixing the start of observations and increasing the sample by adding additional observations for each estimate Rangvid (2001). In this thesis we add an event window of 6 observations at the end of each recursive estimate, which is six months. The first event window is 1-103, which is the Same as the first event window in rolling cointegration analysis. Similarly, in chapter of rolling cointegration analysis, the recursive trace statistic is scaled by the 5% critical value. If the number of trace statistics greater than 1.0 indicates the rejection of the null hypothesis and below 1.0 indicate that we cannot reject the null, which means the cointegration process is comparatively stable.
Using trace statistic for recursive cointegration test we can identify and visually portray the time-varying cointegrating vector across the stock markets. The recursive cointegration methodology assess whether convergence is increased over the observed periods (Yunus, 2013).

**Results of Empirical Analysis**

After completion of unit root testing on our time series, assuming all our time series are integrated of the same order, we apply Johansen cointegration test between 8 countries RER with all possible combinations for all base currencies. Table 8 presents the results of Johansen-Juselius multivariate cointegration RUB based test. As can be seen in the table there is evidence of cointegration in the all given countries at a 1 % level. We can see the same results on the tables 9 and 10.

**Table 8. Johansen – Juselius cointegration test for USD based RERs**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Trace stat.</th>
<th>p-value</th>
<th>Eigen value</th>
<th>Max-eigen</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>r = 0</td>
<td>234.5339</td>
<td>0.0000***</td>
<td>0.284582</td>
<td>74.68008</td>
<td>0.0001***</td>
</tr>
<tr>
<td>r ≤ 1</td>
<td>159.8538</td>
<td>0.0001***</td>
<td>0.227362</td>
<td>57.52155</td>
<td>0.0022***</td>
</tr>
<tr>
<td>r ≤ 2</td>
<td>102.3323</td>
<td>0.0163**</td>
<td>0.162185</td>
<td>39.46156</td>
<td>0.0585*</td>
</tr>
<tr>
<td>r ≤ 3</td>
<td>62.87069</td>
<td>0.1580</td>
<td>0.091575</td>
<td>21.41758</td>
<td>0.6525</td>
</tr>
<tr>
<td>r ≤ 4</td>
<td>41.45311</td>
<td>0.1746</td>
<td>0.072406</td>
<td>16.76105</td>
<td>0.6005</td>
</tr>
<tr>
<td>r ≤ 5</td>
<td>24.69206</td>
<td>0.1727</td>
<td>0.061085</td>
<td>14.0566</td>
<td>0.3605</td>
</tr>
<tr>
<td>r ≤ 6</td>
<td>10.6364</td>
<td>0.2349</td>
<td>0.029336</td>
<td>6.639842</td>
<td>0.5326</td>
</tr>
<tr>
<td>r ≤ 7</td>
<td>3.996556</td>
<td>0.0456**</td>
<td>0.017762</td>
<td>3.996556</td>
<td>0.0456**</td>
</tr>
</tbody>
</table>

Note: ***., **., * denote significance at the 1%, 5% and 10% levels respectively.

**Table 9. Johansen – Juselius cointegration test for EUR based RERs**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Trace stat.</th>
<th>p-value</th>
<th>Eigen value</th>
<th>Max-eigen</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>r = 0</td>
<td>159.3878</td>
<td>0.0001***</td>
<td>0.24281</td>
<td>52.01374</td>
<td>0.0109**</td>
</tr>
<tr>
<td>r ≤ 1</td>
<td>107.3741</td>
<td>0.0063***</td>
<td>0.17820</td>
<td>36.70131</td>
<td>0.1144</td>
</tr>
<tr>
<td>r ≤ 2</td>
<td>70.67276</td>
<td>0.0427**</td>
<td>0.12174</td>
<td>24.27506</td>
<td>0.4356</td>
</tr>
<tr>
<td>r ≤ 3</td>
<td>46.39769</td>
<td>0.0681*</td>
<td>0.10245</td>
<td>20.21329</td>
<td>0.3266</td>
</tr>
<tr>
<td>r ≤ 4</td>
<td>26.1844</td>
<td>0.1233</td>
<td>0.07735</td>
<td>15.05451</td>
<td>0.2851</td>
</tr>
<tr>
<td>r ≤ 5</td>
<td>11.12989</td>
<td>0.2036</td>
<td>0.03485</td>
<td>6.633819</td>
<td>0.5333</td>
</tr>
<tr>
<td>r ≤ 6</td>
<td>4.496073</td>
<td>0.034**</td>
<td>0.02375</td>
<td>4.496073</td>
<td>0.0340**</td>
</tr>
</tbody>
</table>

Note: ***., **., * denote significance at the 1%, 5% and 10% levels respectively.
Table 10. Johansen–Juselius cointegration test for RUB based RERs

<table>
<thead>
<tr>
<th>Rank</th>
<th>Trace stat.</th>
<th>p-value</th>
<th>Eigen value</th>
<th>Max-eigen</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>r = 0</td>
<td>195.5296</td>
<td>0.0000***</td>
<td>0.278893</td>
<td>72.9137</td>
<td>0.0000***</td>
</tr>
<tr>
<td>r ≤ 1</td>
<td>122.6159</td>
<td>0.0002***</td>
<td>0.200428</td>
<td>49.88039</td>
<td>0.0029***</td>
</tr>
<tr>
<td>r ≤ 2</td>
<td>72.73553</td>
<td>0.0287**</td>
<td>0.131129</td>
<td>31.34498</td>
<td>0.0974*</td>
</tr>
<tr>
<td>r ≤ 3</td>
<td>41.39055</td>
<td>0.1765</td>
<td>0.081953</td>
<td>19.06793</td>
<td>0.4093</td>
</tr>
<tr>
<td>r ≤ 4</td>
<td>22.32263</td>
<td>0.2809</td>
<td>0.048937</td>
<td>11.1891</td>
<td>0.6284</td>
</tr>
<tr>
<td>r ≤ 5</td>
<td>11.13353</td>
<td>0.2034</td>
<td>0.032454</td>
<td>7.357303</td>
<td>0.4478</td>
</tr>
<tr>
<td>r ≤ 6</td>
<td>3.776223</td>
<td>0.0520*</td>
<td>0.016791</td>
<td>3.776223</td>
<td>0.0520*</td>
</tr>
</tbody>
</table>

Note: ***, **, * denote significance at the 1%, 5% and 10% levels respectively.

Figure 1. Recursive cointegration test for EUR based RERs

Note: The trace statistics is scaled to the 5% critical value, thus series above 1 indicate the rejection of null hypothesis, which means RERs are cointegrated.

Figure 1 shows the results of the recursive – window cointegration analysis which is discussed in chapter III. 5. for all countries, it allows us to make some comparable conclusions. The figure shows euro base cointegration in whole period, but we can see high level of cointegration in the beginning, and then after 2008 cointegration was sharply decreased, but still has cointegration. All figures data starting point is January 1996, as mentioned before the previous period data was excluded because we choose 103 observations as rolling and recursive window.

In Figure 2 can be seen convergence among these countries USD based RER in all period. As we can see from this figure cointegration is strong and stable, the only fluctuated period is 2008, world financial crises period, but this crises didn’t have that much impact to USD based cointegration.
In the Ruble based RER cointegration analyze in Figure 3 we still can see strong cointegration but there are too many fluctuations. We can see how world financial crises had effect on RUB based cointegration.

Figure 2. Recursive cointegration test for USD based RERs

Note: The trace statistics is scaled to the 5% critical value, thus series above 1 indicate the rejection of null hypothesis, which means RERs are cointegrated

Figure 3. Recursive cointegration test for RUB based RERs

Note: The trace statistics is scaled to the 5% critical value, thus series above 1 indicate the rejection of null hypothesis, which means RERs are cointegrated

Figure 4 below presents the results of the rolling-window cointegration of USD based RER analysis based on the methods outlined in III.4. As we can see there is significant cointegration in all period.
Figure 4. Rolling-window cointegration test for USD based RERs

Note: The trace statistics is scaled to the 5% critical value, thus series above 1 indicate the rejection of null hypothesis, which means RERs are cointegrated.

Figure 5. Rolling-window cointegration test for EUR based RERs

Note: The trace statistics is scaled to the 5% critical value, thus series above 1 indicate the rejection of null hypothesis, which means RERs are cointegrated.

The Figure 5 presents the results for all countries Euro based RER. As can be seen the line has cointegration in all period, but there are little fluctuations in all cointegrated period.

Figure 6 below presents the results for all sample countries. Countries begin with cointegrating in the beginning and continues until 2009. In contrast, Figure 3 which is integrated in whole period. In RUB based rolling-window cointegration we can see from period 2009 to 2012 RER is not cointegrated, what means Finance crises in 2008 had effect to cointegration among these countries and recovered only after 2012. So, we can see nonstable position of RUB based cointegration.
Conclusion

In this study, I investigate possibility of monetary union between 8 Eurasian countries by using Generalized-PPP approach.

I found cointegration among RER of these countries based on USD, RUB and EUR over a period January 1996 and December 2014. Johansen – Juselius multivariate cointegration test shows cointegration among all given countries in the given period time for all base currencies.

The empirical results of Rolling-window cointegration test indicate existence of cointegration over all period, but in the world financial crises period from 2008 we can see unstable position of RUB based RER. EUR base currency results in this test shows convergence among all countries in the all period, but slightly decreased of cointegration level after crisis period.

Recursive cointegration test shows strong and stable cointegration of USD based RER in all given period, the only fluctuated period is 2008, world financial crises period, but this crises didn’t have that much impact to USD based cointegration.

Rolling-window cointegration test shows strong cointegration of USD based RER in all tested period without significant fluctuations.

USD based RERs cointegration tests show stable position of currency in all tests results.

I can conclude from my tests results that the most strong and stable currency from 3 base currencies is USD. These analyses results are not sufficient to make final decision but can be used for the further investigation on monetary integration.

References


Abstract

In work, based on the analysis and comparison of macro-indicators, the unfavorable situation in the Georgian economy is characterized. A low real per capita gross domestic product or an insufficient standard of living and a serious gap from the European Union are shown.

On the basis of the appropriate calculations and the method of abstraction, it is justified that in order to get out of this situation and a rapprochement towards the European Union, it is objectively necessary not for an annual three percent growth of the economy, but for higher rates, stable and long-term growth. The main priorities for accelerated growth are identified.

The best determinant of economic development is business development. In turn, business innovation promotes innovative business, i.e. entrepreneurship. The symmetric development of business in the regional and sectoral context is necessary. The national economy will be developed separately from the non-industry, tourism, or, if you want, the agricultural sector, but entrepreneurship, which is a wider phenomenon and deals with all areas of economy and region.

On the basis of analysis and estimations of the unfavorable situation in Georgia, suggestions and recommendations on trade partners and diversification of foreign investments of Georgia are developed in the presented article.

Realization of the ideas, suggested by the author, will promote enhanced economic growth, purposeful and fair distribution of surplus income, formation of inclusive and differentiated welfare of the population and natural development of pride and patriotic feelings in each citizen.

The main value of the research is new ideas, their theoretical and practical character and adaptability to the conditions and peculiarities of Georgia.

The work is intended for the students of all three educational levels (bachelor, master, doctoral), professors, beginner entrepreneurs as well as businessmen and managers, and other people interested in the issue.

Key words: Diversification Problems, Economic growth, Economic Situation in Georgia, Socioeconomic problems, Inevitability of Growth Enhancement

Introduction

It is logical to firstly find out the situation in Georgia according to the basic indicators of economic security. Generally, on the one hand, Georgia stands out of post-Soviet countries with its market and institutional reforms, and on the other hand, major socio-economic problems are still unsolved (Pylin, 2013).

Poor condition of Georgian economy is clearly indicated in the ratings data, published by International Monetary Fund. Whereby, our country’s economic development (GDP per capita is $3 852) is ranked 108th in the world (International., 2013);

Georgia is at about eight times lower than the EU average of this indicator (GDP per capita is $32 000). In other words, despite of the Association Agreement on 2014 June 27, we are still seriously lagging behind in economic development. By our calculations it will take 60 years to overcome that lag (assuming that EU will remain at this level).
Materials and Methods

In our study the following research methods were used: the method of analysis and synthesis, abstraction and comparison, method of analogies (to develop recommendations for Georgian practice).

Many world-famous authors promote the development of the theory and practice of diversification of trade and economic relations: (Balassa, 1961), (Cordonnier, 2007), (Ghemawat, 2011), (Papaphilippou, 2008), (Pylin 2013), (Rodrik, 2007), (Uzagaliieva, 2007), (Vincentz, 2006) and others.

Native researchers are also very interested in diversification processes: (archvadze, 2014), (Beridze, 2009), (Berulava, 2015), (Gabunia, 2014), (Ghaghanidze, 2007), (Nadaraia, et al., 2013), (Papava, 2012), (Tokmazishvili, 2007) and others.

Results

By the safety standards, the unemployment rate should be no more than 5-6%, but according to the official statistics of Georgia, this figure equals to 11.8%. Also, there are some more pessimistic calculations. This increases retardation of the actual GDP from the potential GDP, causes unemployment and poverty.

Logically, foreign trade, the country’s openness contributes to economic growth, but this is the case, when import and export and balanced or export dominates. In Georgian, import is 3.8 times higher than export which means, our product is not competitive enough in foreign market. In another words, Georgia is lacking so-called “second economy” and therefore, the international benefits in the outside world.

Usually, domestic product should be redundant in consumer basket, but 75% of Georgian consumer basket is filled with imported product (Samadashvili, 2016). In other words, domestic market is not saturated with enhanced productivity, but it is with imports exceeding exports. This means, Georgian product is not competitive and profitable, even in the domestic market. So, Georgian market is dominated other countries’ “second economies”. The largest part of the supply is established outside the country.

Georgia has employed more abroad (750-800 thousand people) than domestically (625 thousand people). Compatriots living overseas transfer remittances, which exceeds foreign direct investments (FDI) for several years. In 2016, transfers amounts 818 million USD (53% of total 1535 million USD). There was not such income from FDI since 2008 (Archvadze, 2014). This means, the largest part Georgian supply and demand is held abroad. It turns out that Georgia is lacking manufacturers and users, there are only mediators. In other words, Georgian economy, essentially, is standing on one foot instead of three. This demonstrates economic instability.

Thus the most urgent task in the country is acceleration of economic growth, because without that it is impossible to raise living standards, to overcome the backwardness in EU economic indicators, to strengthen international reputation and awareness. In addition, it is also necessary to note that we are interested in accelerating the national economic growth not only for the production of domestic goods, but also for consumers, which are the main subject of internal market. It can be said that consumers are formed during production of goods.

In the modern world, economic openness is essential for country’s economic development. In addition, the smaller the country is, the more the mentioned regulatory is revealed. That is why the Georgia’s foreign economic openness and liberalization is important for accelerating the economic growth. This is because, from the world’s experience, there is a strong correlation between economic growth rates and liberalization of foreign economic activity. Calculations conducted by economists at Harvard University showed that there was 5 times less growth of GDP per capita (0.7%) in the countries with closed economic (protectionist) policy than the ones with economic openness and liberalization (3.5%) (Bulatov, 2005).

Liberalization of economy, first and foremost, means the liberalization of exports and imports. For Georgia, as a country with a small domestic market, export demand is very important to be added to the internal demand to encourage local enterprise and economic growth.

In this regard, the interest is where the country applies for foreign economic orientation during the terms of openness. The answer is ambiguous: One group of politicians, economists and entrepreneurs support Georgia in the European Union. The second – integration to Eurasian Customs Union and the third group believes that Georgia should
voluntarily integrate to the whole world. Obviously, each of those directions has the right to exist only with convincing arguments. However, it is very important to take into account what kind of benefits and losses will each option bring. In my opinion, having only one way of trade and economic relations is pointless for the country. Therefore, in cases of Georgia’s foreign economic orientation, we must take into account the fact that: Georgia does not have a consistently good or consistently bad partners, Georgia has a permanent economic interest. Accordingly, Georgian economy has to have its vector in an area with the most economic benefits. Given’s evidence is cited by the statistics below. Russia was the main partner of Georgia in foreign trades till the announced embargo and Russian-Georgian war. Then Turkey replaced. Although, after embargo in 2006, Georgian wine and water diversified their markets, but as soon as Russian markets opened last summer, the demand turned out a lot higher than it was estimated. In only 6 months, 21-22 million bottles of wine were exported (40% of total exports) instead of 10 million. Russia’s share in the export of Georgian wine was increased because of the tensions in Ukraine. Wine is exported in China too, even though it is one of the top five manufacturers of wine itself. Predominantly, Georgian wine is demanded by elite circles in China. Recognition of Georgian wine in is higher in Russia, so it is important to raise it in China too.

At present, Russia’s share is 9.4% of total Georgian exports, a bit lower than Ukraine’s (10.4%). Meanwhile, In January 2014, Russia’s share in total trade turnovers (6.7%) has surpassed Ukraine’s (6.3%) and became the fourth trade partner for Georgia, ahead of Ukraine which is fifth in top five. Systematic shift in top ten of largest trading partners evidences the above said. It should be emphasized that the EU Association Agreement on deep and comprehensive free trading does not impose any restriction on the free trade agreements signed with other countries by Georgia. On the contrary, free trade areas, for example, with the countries like Turkey, facilitates trade expansion, as companies face the cheaper possibilities to unite the components of manufacturing processes and imports. Georgia is able to produce free trade relations with Russia, Ukraine, Turkey, Azerbaijan, Iran, US, China or any other current or future partners.

By contrast of Eurasian Customs Union, free trading area does not demand the equalization of every partner’s import and export levy. Also, it does not oblige them to maintain the same trade policy towards the whole world.

Poland and Baltic countries’ experience shows that they maintained the economic relations with Russia and other CIS countries even after joining the European Union. For example, Poland’s experience refutes the idea that EU membership will automatically lead to “frozen” economic relations with Eastern countries. On the contrary, Poland’s accession to EU significantly increased its exports to the eastern region, particularly in Russia, which was led by the overall growth of the Polish economy. If in 2004 the eastern part’s share in Poland’s exports and imports amounted 7.0 and 9.7% respectively (Russia accounted for 1.7 and 2.1%), in 2012 it increased to 10.0 and 16.3% (accordingly, Russia’s share rose by 5.4 and 14.3%). I think it is quite normal (Integratsiya. 2013).

The fact that European free trade area preserves the sovereign right for associated and, moreover, for full-fledged members of implementation of foreign trade policy with non-member countries, is both good and bad, I think. It is good in the short term, because Georgian product’s competitiveness, quality, safety and security can’t meet the European standards at once. Accelerating is unthinkable here. We must not repeat the negative experience of Poland and Baltic countries. According to experts, the unemployment problem in Poland is the clearest example of the negative effect after associating with EU. The high level of unemployment is explained by the erroneous policy of dismantling the steel and coal industries, which, in turn, led to a severe downturn in Mechanical Engineering, which focuses on urban industry. This was led by European Union’s strict environmental standards, which was activated after joining the EU. Investing the enterprises for increasing the ecological awareness was considered as inappropriate and economically unprofitable by Polish government. This happen when the mentioned branches form the significant amount of jobs, which can’t be compensated even by dynamic development of the high-tech and small and medium enterprise sector. In Ukraine, the unemployment rate is significantly lower because of maintaining the industrial enterprises (but environmentally harmful ones). The only Ukrainian, but quite important advantage is the relatively low level of unemployment (Integratsiya. 2013). Or, in Baltic countries, 70% of small farmers went bankrupt because they couldn’t quickly adopt the EU standards and effective European foreign state control system. Therefore, Georgia should consistently and slowly revise and change economic ties with the CIS. Long-term goals are rather complex and diverse here. Not a single country (especially the CIS countries with higher risk levels) should have a 25% share in Georgian exports and imports in order to diversification, reduce risk, and at the same time, more modern and flexible trade structure should be formed.

World’s practice shows that most of the free trade agreements covering countries in the same area. Neighboring countries become trading partners due to shorter, safer and economical distance for goods’ movement. Also, costumer’s tastes are similar and therefore the distribution channels are easily formed between them. The neighboring countries have common interests and are more willing to jointly coordinate their policies (Balassa, 1961). However, the geographical proximity is not the main factor in all regional trade agreements. For example, regional trade agreement
between Canada and Israel is clearly not based on geographical proximity, but most of the others are built in that. Armenia has a regional trade agreement with Kazakhstan, Moldova, the Russian Federation, Turkmenistan and Ukraine. India has trade agreements with most countries in the region. European Union’s member, Germany exports 62.9% of its goods to EU and imports 58.3% from its countries. Switzerland is not an EU member, but has a trade agreement anyway and it exports 59.7% of its goods to EU countries and imports 78% from them. The North American free trade agreement covers Canada, US and Mexico. There are many reasons for importance of geography in regional trade agreements. Neighboring countries often, but not always, have a common history, language, culture and monetary units. Countries tend to form trade unions if they are peaceful to each other. Proximity reduces the expenses of transporting, which decreases the overall costs of trading products. Various studies have shown that when the distance between two countries increases by 1%, the international trading decreases by 1.1%. On the other hand, trade between two countries increases by 80% when they have a common border, common language increases it by 200% (for example, English language in US and Canada or Russian in post-Soviet republics) and the common currency increases it by 340% (18 countries in European Union which have adopted euro). Another incentive for regional trade agreements between geographically close countries is that trade among the members of trade bloc will increase to 330%, rather than the absence of a treaty (Ghemawat, 2011).

Unfortunately, besides of benefits from regional trade agreements established on the basis of geographical proximity, Russia could not become a reliable trading partner of Georgia because of the traditional political motive in its attitude to post-Soviet countries, which became clearer after the introduction of embargo against Georgia in 2006 and the free trade agreement cancellation on July 31 2014, which was signed in 1994 (ghaghanidze, 2007)

It is axiomatic that the economic interests are the main factor in unity of various countries and its people, but somehow Europe is interested in Georgia more politically than economically and this is not covered up: “The European Union makes a covenant with Georgia, as it believes that Georgia is on its European path and it desires to establish an European management model. Georgia is an important partner for EU politically, but less important economically. That is why the independent study, after considering the size and Georgia’s minimum share in EU trade (0.1%), says that the overall effect of the agreement will be negligible for EU. In contrast, it is expected that Georgia will receive almost 300 million euros (4.3% of GDP) in the form of additional income, if the reforms are carried out (European... 2014). So, the benefits of the agreements depend on the process of reforms.” It turns out that the logic of economic development is not always attributable to the economic factors. In my opinion, this makes the economic prospects less optimistic and positive.

The best determinant of economic development is business development. In turn, business innovation promotes innovative business, ie entrepreneurship. The symmetric development of business in the regional and sectoral context is necessary. The national economy will be developed separately from the non-industry, tourism, or, if you want, the agricultural sector, but entrepreneurship, which is a wider phenomenon and deals with all areas of economy and region.

Discussion and Conclusions

Obviously, a stable and secure EU market consisting of 28 countries with higher than 500 million consumers (real GDP per capita – 32 000 US dollars) is more attractive than the Eurasian Customs Union consisting of 4 countries with less than 175 million consumers (real GDP per capita – 16 000 US dollars), which plagued the economy for political purposes. The EU market is attractive, but at the same time it is high demanding. Therefore, Georgia’s trade links with this business world should enhance and expand with the same size as the Georgian product’s competitiveness – quality, safety, security and law, the accreditation system, infrastructure and local staff’s qualification closer to EU. Discreet and sober European businessman can’t be misled by promises, special and preferential terms, which he will use with privileged manner. He believes and trusts only those conditions that apply across the country.

On the negative side, the worst thing might happen in the long term of keeping the economic relations with CIS (of course, if there won’t be an increase of standards of production and deleting the politicization of economy!), is lowering the quality of products. We have to underline that the low demand for good’s quality on CIS markets courage the local enterprises to cling those markets since there is relatively easy to produce, rather than the European Union and other developed countries’ markets.

Every normal and strategically minded government diversify the economic relations, finding short and secure ways to access new markets, implementing the policy of rapprochement and not alienation. Diversification is not only having 25% share in one or two foreign countries. The more diverse the market is there are lower risks and high possibility of a long-term success and vice versa. For example, the comparative analysis over the past half century shows that the fast-growing countries with high growth of population as well as economy are mostly in Asia. Those are: South Korea,
Singapore, Thailand, Japan, China and Indonesia (International., 2013). The common characteristics are interesting in those countries during the economic development. The main common peculiarity in those countries is a high diversification of production. Paul Romero, who laid the foundation for directions of endogen development of economy, illustrated a housewife, who puts too much effort to improve meal for increasing the quality of a dinner (Always have to bring up the professionalism, kitchen equipment expenses and to buy higher quality, more expensive products), while it is much easier way to increase the dinner quality by preparing another meals and diversifying the dinner. Indeed, if South Korea has not chosen the way of diversification and stick with the traditional preferences, it still would be a riceproducing country instead of world’s leading cars and electronics producer (Nadaraia., 2013). So, after the ratification of the Association Agreement with EU, entirely new industries may emerge and develop in Georgia.

Considering of a Georgia’s small export market we can assumed that the EU Association Agreement facilitates the creation of new export products, rather than the existing ones to expand. This assumption is particularly true when the export basket doesn’t contain any derivative products. So far, several industry sectors of Georgia are beyond the international division of labor. Export potential is still unused. A substantial increase in real economic growth is more likely to coincide to the structural changes in Georgian export basket. Therefore, instead of aiming to increase the volume of same products, the export promotion policies should be discovering and using new export products, which can be produced under relatively low trade barriers and implementation of the local policy of market development (Vincentz, 2006).

The predominant share of the resources of Georgian export products really means that the country’s processing industry still has not plaited into international division of labor. This is undoubtedly a problem, but, at the same time, a new possibility and a reserve of the export growth. Industry can make a big contribution to the Georgian economy, which will be much more important than the one all about “hotels and restaurants”. It will be difficult for Georgia to keep the most qualifies citizens without a revival of the industry. If Georgia ignores industry factors and sticks with the economy of “hotels and restaurants”, why should young people bother studying abroad, which is quite complicated and expansive? Or why they should stay in Georgia, where the knowledge and talent can’t be used? And why should they be prepared as business management specialists? (Georgia’s..., 2007).

European companies have an alternative for opening the new Georgian markets: increase product exports and investments in logistics, or expand the export of capital in Georgia and organize their own or joint ventures. Based on the experience of the world, a country integrates economically with its export-imports not the investments. Therefore, on the transitional stage (deep and comprehensive trade regime) of Georgia’s integration with EU, product exports may be expanded in the first place instead of investments and technologies by the European partners. Also, the deep and comprehensive free trade agreement should not be overestimated. “Deep and comprehensive free trade area” offers big opportunities for Georgian entrepreneurs, however, the high rate of exports can’t be fixed in a short term, because non-tariff access is not a major barrier for Georgian export products. Effective system of state control should be guaranteed as well as product quality. Only the effective state control system gives opportunity to EU to allow the export of high-risk (meat, dairy products, honey) products from Georgia. The entrepreneur must ensure that the quality of products meet European requirements. State agencies need a special training. For example, the food safety agency should be at the level that it is able to organize the relevant inspections. When the country declares its readiness and says that, for example, its meat production meets EU standards, then the Mission arrives to check the system (Gabunia, 2014). After the transitional period, the quality requirements will become mandatory for exporters, as well as local for market sellers.

In the medium and long run it is expected that the EU association agreement will increase the domestic and direct foreign investments, will promote the creation of new companies and modernize several economic sectors with help from European Union. Growth of investments will contribute to creation of new jobs, which will positively impact on the growth of salaries. Harmonized rules will become more transparent for citizens and businesses and will be more able to obtain the information from Georgian government about the implementation of agreement.

The association agreement gets the parties in somewhat unequal conditions of justice. For example, according to the agreement, EU “entry price” – fixed price of import will affect 28 tariff lines (fruits, vegetables, grapes or what is strategic for Georgia). This means that if the product sale price (invoicing price) in Georgia is lower than the fixed price set by EU, the importer will have to repay those distortions. If the sale price will be equal or more than the EU “price” then the products will be completely free from customs duties and the main 28 products will be imported without any charges from EU to Georgia.

Finally, widely famous question – why is not the Russia’s reaction on the signing the agreement between EU and Georgia same as Ukraine’s? Because the agreement does not get Georgia in as enslaving conditions, such as the case of Ukraine: 1) Georgian industry is not as close to the Russia’s military industrial complex as Ukraine’s. 2) Russian
population is not as densely settled in Georgia as in Ukraine. 3) Unlike Ukraine, Georgia’s economy is less depended on Russia, while the energy - almost does not depend on.

Overall, the potential benefits from the European integration is very attractive for the national economy, however, it contains a lot of danger. The success is largely depended on the country’s leadership, local businessmen and EU joint efforts and coordinated actions. However, the most important is the leadership and its will to integrate with EU.

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Limits to the Implementation of the Appraisal Standards of the Corporate Body Conduct and the Implementation of the Mechanism of Reasonable Business Risk

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Abstract

This article is devoted to the issue of the ratio of entrepreneurial risk as an integral element of business management by a commercial organization and ethical and legal standards of reasonableness and integrity of its management body. The success of companies is largely predetermined by the quality of professional decisions of the head of the organization. However, the modern legal model, fixed at the level of the norms of Russian civil law, contains appraisal standards on the conscientious and reasonable behavior of the manager. In connection with the introduction of these categories into corporate legislation, in practice there are often contradictions regarding the limits of the implementation of “business and risk” of entrepreneurial activity and compliance with evaluation standards. Where does the responsibility of the management body of a legal entity end, and the consequences that depend solely on the market of goods and services begin? In the literature not a large number of studies on a given topic are presented due to the relative novelty of the civil legal norm on the liability of persons authorized to speak on behalf of a legal entity. In this connection the chosen topic is actual and poorly explored. The variety of forms of doing business and the absence of clear, including legislative criteria, principles of reasonableness and fairness of directors of companies as representatives of business entities, gives rise to the need for a deeper study of this problem. Through logical methods of analysis and synthesis of information the authors in this article argue in favor of the advisability of using a new design in order to stimulate management to make useful and profitable decisions. They also identify the problems that arise in the judicial practice and suggest possible ways to resolve them.

Key words: entrepreneurial risk, management body, reasonable and conscientious conduct, corporation.
данных категорий на практике не редко возникают противоречия относительно пределов осуществления «на свой страх и риск» предпринимательской деятельности и соблюдения оценочных стандартов. Где заканчивается ответственность органа управления юридического лица, и начинаются последствия, зависящие только от конъюнктуры рынка товаров и услуг? В литературе представлено не большое количество исследований на заданную тему, по причине относительной новизны гражданского-правовой нормы об ответственности лиц, уполномоченных выступать от имени юридического лица. В связи с чем, выбранная тема представляет актуальную и мало изученной.

Многообразие форм ведения бизнеса и отсутствие четких, в том числе и законодательных критериев принципов разумности и справедливости директоров компаний как представителей субъектов бизнеса, рождает необходимость более глубокого исследования данной проблемы. Прибегая к логическим методам анализа и синтеза информации, в данной статье авторы приводят доводы в пользу целесообразности применения новой конструкции в целях стимулирования менеджмента к принятию полезных и выгодных решений. А также выявляют проблемы, возникающие в судебной практике, и предлагают возможные пути их разрешения.

Ключевые слова: предпринимательский риск, орган управления, разумное и добросовестное поведение, корпорация.

Введение
В условиях становления рыночной экономики, одной из приоритетных задач Российского государства является обеспечение равноправия хозяйствующих субъектов, которое во много зависит от оценочных стандартов поведения руководящего звена. Управленческая политика коммерческой структуры должна носить долгосрочный характер. Выбор экономической стратегии компании должен быть направлен на соответствие наилучшим ее интересам с учетом исследования конкретных обстоятельств, связанных с условиями рынка. В связи с чем, отдельные сделки органа управления необходимо рассматривать в контексте стратегии организации. Под этим реформы гражданского законодательства был принят целый ряд нововведений, связанных с расширением полномочий исполнительного органа. Что с одной стороны предоставило новые возможности в управленческой среде, но с другой стороны, все чаще стали нарастать и усугубляться трудноразрешимые корпоративные конфликты, выливающиеся в длительные судебные тяжбы, а как следствие колоссальные имущественные и личностные потери, как для компаний, так и для управленцев.

Вышеперечисленные факторы определяют актуальность данного научно-практического исследования, и ставят перед автором конкретные цели и задачи. Цель работы заключается в определении пределов реализации принципов разумности и добросовестности в поведении исполнительного органа коммерческой организации в рамках реализации механизма обоснованного предпринимательского риска. Для достижения обозначенной цели автор ставит следующие цели: изучение научных и теоретических подходов в понимании оценочных стандартов поведения руководителя корпорации - добросовестность и разумный предпринимательский риск; выявление превентивных мер, которые были бы направлены на недопущение корпоративных конфликтов и ликвидацию причин и условий, способствующих их появлению; выработка критериев, определяющих категории добросовестности, разумности и предпринимательский риск исходя из комплексного анализа теории, науки и правоприменительной практики.

Методология исследования
В данной работе использовалась система методов, характерных как для экономической, так и для юридической науки. Посредством методов анализа и синтеза информации принцип добросовестности представителей корпоративной культуры изучен как основополагающее начало управленческой политики компании, что привело к выводу о его многоаспектности и неоднозначности. Благодаря эклектическому методу познания, автор изучил оценочные поведенческие стандарты менеджера организации с точки зрения различных теоретических, научных и практических позиций. Юридический метод системно-структурного анализа позволил выявить разнородные суждения относительно критериев определения доложного поведения руководителя бизнеса в принятии управленческих решений и предложить возможные пути разрешения существующих противоречий.
Теоретические и научные предпосылки, определяющие этические стандарты поведения органа управления корпорации

Попытки установить общие правовые критерии оценки приемлемости управленческих решений для удовлетворения и частного, и публичного интересов неоднократно предпринимались как в России, так и за рубежом. Известно, что в юрисдикциях англосаксонской правовой семьи правовые нормы могут устанавливаться как законами, так и судебными прецедентами. Согласно традиционному для этой правовой семьи подходу обязанности директоров перед компанией и ее акционерами в значительной степени определяются именно прецедентным правом. Должность директора, по существу, соответствует позиции фидуциария (fiduciary), т.е. лица, которому вверено управление имуществом в интересах другого лица. Согласно праву справедливости (equity) действия менеджмента компании в рамках разумного предпринимательского риска принято называть стандартом поведения директоров (standart of behavior). По мнению английских юристов, поведенческие стандарты руководителя в реализации бизнес решений неизбежно связаны с предпринимательским риском.

В российской правовой действительности, одним из наиболее распространенных оснований корпоративных споров является причинение убытков лицом, осуществляющим полномочия единоличного исполнительного органа хозяйственного общества, в результате совершения от его имени сделки или принятия иного управленческого решения, повлекшего негативные экономические последствия. При обращении в суд заинтересованных лиц с требованием о возмещении обществу убытков регулярно возникает проблема установления юридического основания ответственности руководителя. На сегодняшний день, отсутствует четкое основание для привлечения управленца к гражданско-правовой ответственности. Очевидно, что юридическим фактом порождающим обязанность директора по возмещению убытков обществу должно быть его противоправное поведение. А сам по себе правовой статус руководителя не предполагает автоматического наступления его ответственности в случае возникновения у организации убытков. Ряд зарубежных авторов, а в след за ними и отечественные цивилисты, оценочные стандарты поведения руководителя организации называют – фидуциарными обязанностями, что на наш взгляд вполне оправдано с точки зрения теории гражданского права, согласно которой под фидуциарностью понимается лично-доверительный характер взаимоотношений.

Так, к примеру, Л. Рибштейн попытался систематизировать понятие фидуции применительно к корпоративному управлению. Он считает, что фидуциарная обязанность является продолжением управленческой дисперсии, которая делегируется от собственников к органу управления; фидуциарные обязанности базируются на договорных отношениях между собственниками и руководством компании (Рибштейн, 2005, с. 209).

Б. Носворти отмечает, что фидуциарные отношения между собственником и руководителем играют ключевую роль для достижения добросовестного поведения со стороны органа управления (Носворти, 2016, с. 1389)

По мнению большинства ученых, современное российское гражданское-правовое регулирование нуждается в выработке критериев оценки с одной стороны разумности и добросовестности руководителя в принятии управленческого решения, и обоснованного предпринимательского риска с другой стороны.

Согласно ст. 2 Гражданского кодекса РФ предпринимательская деятельность это самостоятельная, осуществляемая на свой риск деятельность, направленная на систематическое получение прибыли от пользования имуществом, продажи товаров, выполнения работ или оказания услуг. Так, основной интерес предпринимателя - систематическое извлечение прибыли - удовлетворяется в условиях значительно большей неопределенности (рискованности) результата, чем удовлетворение интереса, связанного с бытовыми личными потребностями. Более высокая степень неопределенности объясняется, в частности, тем, что чаще всего проявление искомого результата в разные по времени моменты. В этот временной период, который может быть весьма продолжительным, в зависимости от вида деятельности, на получение результата может влиять множество внутренних и внешних факторов, в том числе находящихся вне сферы контроля предпринимателя. К внутренним факторам относятся: уровень хозяйствования; компетентность руководства и менеджеров; конкурентоспособность продукции; уровень организации производства и труда и др.; производительность труда; состояние и эффективность производственного и финансового планирования. К внешним факторам можно отнести: конъюнктура рынка; уровень цен на потребляемые материально-сырьевые и топливно-энергетические ресурсы; нормы амортизационных отчислений; природные условия; государственное регулирование цен, тарифов, процентных ставок, налоговых ставок и льгот, штрафных санкций и др. (таб.1).
Таблица 1
Факторы, влияющие на получение прибыли

<table>
<thead>
<tr>
<th>Внутренние</th>
<th>Внешние</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Производственные:</strong></td>
<td></td>
</tr>
<tr>
<td>Экстенсивные</td>
<td>конъюнктура рынка;</td>
</tr>
<tr>
<td>воздействуют на процесс получения прибыли через количественные изменения:</td>
<td>уровень цен на потребляемые материально-сырьевые и топливо-энергетические ресурсы;</td>
</tr>
<tr>
<td>Объема средств и предметов труда, финансовых ресурсов,</td>
<td>нормы амортизационных отчислений;</td>
</tr>
<tr>
<td>времени работы оборудования,</td>
<td>природные условия;</td>
</tr>
<tr>
<td>численности персонала,</td>
<td>Государственное регулирование цен, тарифов,</td>
</tr>
<tr>
<td>фонда рабочего времени и др.</td>
<td>процентных ставок, налоговых ставок и льгот,</td>
</tr>
<tr>
<td><strong>Интенсивные</strong></td>
<td>штрафных санкций и др.</td>
</tr>
<tr>
<td>воздействуют на процесс получения прибыли через «качественные» изменения:</td>
<td></td>
</tr>
<tr>
<td>повышение производительности оборудования и его качества;</td>
<td></td>
</tr>
<tr>
<td>использование прогрессивных видов материалов и совершенствование технологии их обработки;</td>
<td></td>
</tr>
<tr>
<td>ускорение оборачиваемости оборотных средств;</td>
<td></td>
</tr>
<tr>
<td>повышение квалификации и производительности труда персонала;</td>
<td></td>
</tr>
<tr>
<td>снижение трудоемкости и материалоемкости продукции;</td>
<td></td>
</tr>
<tr>
<td>совершенствование организации труда и более эффективное использование финансовых ресурсов и др.</td>
<td></td>
</tr>
<tr>
<td><strong>непроизводственные</strong> - связаны со снабженческо-сбытовой и природоохранительной деятельностью, социальными условиями труда и быта.</td>
<td></td>
</tr>
</tbody>
</table>

Высокой степенью риска отличается деятельность по принятию управленческих решений в тех хозяйственных обществах, в отношении имущества которых существуют несовпадающие интересы множества лиц. Это и
интерес акционеров на получение дохода от инвестированных средств, и интерес трудового коллектива на получение стабильной и все более высокой зарплаты, прочих компенсаций, и аналогичный интерес менеджмента, и интерес публичной власти по сбору налогов, иных обязательных платежей, и известный интерес контрагентов, и т.д. Ожидаемо, что в силу ограниченности ресурсов коммерческой организации принять решение, удовлетворяющее в полной мере интересу каждого, едва ли возможно: в отношении любого управленческого решения всегда может быть обнаружен тот, чей имущественный интерес то или иное управленческое решение не удовлетворяет. Множественность лиц и интересов, рисковый и конкурентный характер предпринимательской деятельности объясняют отчасти и широкую вариативность возможных управленческих решений. Едва ли возможно выработать на все случаи жизни безупречные формулы и алгоритмы, устанавливающие, каким именно образом следует учитывать многочисленные факторы, влияющие на процесс принятия решений органами управления коммерческих организаций (Бушуев, 2013).

Советский правопорядок относительно четко формулировал признаки недопустимого поведения и даже устанавливал алгоритм ожидаемого управленческого поведения. На сегодня, когда Россия идет по пути развития рыночных отношений, основанных на добросовестной конкуренции, широкой свободе усмотрения хозяйствующих субъектов, праве на риск и на ошибку - говорить о максимально четких пределах соотношения нравственно-этических категорий и предпринимательского риска не приходится.


Еще один аспект, заслуживающий пристального внимания, который неоднозначно рассматривается в доктрине гражданского права это то, как соотносятся понятия вины и риска. Современная и научная учебная литература свидетельствуют о «психологизации» в определении вины, заимствованной из уголовного права. Однако Е.А. Суханов, анализируя положения абз. 2 п. 1. ст. 401 Гражданского кодекса РФ, отмечает, что вина в гражданском праве рассматривается не как субъективное отношение лица к своему поведению, а как неприятие им объективно возможных мер по устранению или недопущению отрицательных результатов своих действий, диктуемых конкретными обстоятельствами. Иными словами, вина переводится из трудно доказуемых психических ощущений конкретного человека в область объективно возможного поведения участников имущественных отношений, где их реальное поведение сопоставляется с должным (Суханов, 2016, с. 89).

Таким образом, не важно, какие переживания испытывает лицо, важно лишь, то, что оно сделало для надлежащего исполнения обязательства. А в случае с юридическими лицами о психологическом необоснованности обращении к данной категории, о сомнительности применения данного понятия в рамках гражданского права рассматривается не как субъективное отношение лица к своему поведению, а как сознательное допущение любого результата деятельности, возможного несовпадения ожидаемого результата и того, который возникнет» (Суханов, 2016, с. 89). В этой связи, интересна также идея, выдвинутая С.С Алексеевым, согласно которой особенности гражданско-правового регулирования отношений, связанных с имущественными правоотношениями, показывают, что более логичным было бы пойти по другому пути, и, отказавшись от аналогии с уголовным правом, отнести вину не к составу правонарушения, а, рассматривая ее в негативном ключе как неиновинность, как особую правовую категорию, как основание освобождения от ответственности (Алексеев, 2003, с. 33). Вместе с тем, стоит отметить, что в настоящее время вина как основания гражданско-правовой ответственности выступает больше в качестве исключения, чем правила.

Отсюда рождается еще одна спорная ситуация - проблема ответственности без вины, которую помогла разрешить субъективная теория риска, родоначальником которой может считать В.А. Ойгензихта. По мнению указанного ученого, риск можно определить как субъективную категорию, которая существует параллельно с виной, но может существовать и совместно с ней как психическое отношение субъектов к результату

Для определения виновности законодатель использует критерий осмотрительности и заботливости, что вполне оправдано. Они устанавливают разные направления, в которых частным лицом должны быть приняты меры (действия) и посредством которых устанавливается психическое отношение (виновность) лица. Осмотрительность характеризует преимущественно отношение к внешнему миру (контраргенты, государство, клиенты, партнеры и т.п. - к тем, в отношении кого контроль управления незначителен), а заботливость есть проявление отношения предпринимателя к внутреннему миру (структура управления, персонал, бизнес-процессы и другие явления бизнеса, на которые управленец может влиять в наибольшей степени).

Таким образом, если руководитель намеренно небрежно относится к анализу обстоятельств заключения сделки и не принимает во внимание объективно существующий риск, не оценивает его и не принимает доступных ему мер для минимизации возможных отрицательных последствий, то его действия следует признавать неразумными и недобросовестными. Такие действия квалифицируются как противоправное поведение, и как следствие являются основанием для привлечения руководителя бизнес структуры к имущественной ответственности за причиненные убытки. Тем самым, признаки вины субъекта ответственности, по нашему мнению, могут помочь с определением критериев добросовестности и разумности в принятии управленческих решений.

Понимание того, что под собой подразумевает разумный предпринимательский риск также является важной отправной точкой для оценки действий руководителя. Как справедливо отмечает исследователи, основная проблема применения норм об ответственности лиц, участвующих в управлении обществом, состоит в обнаружении граней между допустимым предпринимательским риском, без которого эффективная предпринимательская деятельность невозможна, и риском, признаваемым чрезмерным, когда действия или бездействия, повлиявшие для общества ущерб, признаются виновными», то есть такими, которые совершаются вопреки требованиям о добросовестности и разумности (Молотников, 2006, с. 94).

Правовое регулирование и практика применения оценочных стандартов управленческого поведения

Роль стандартов «добросовестности» и «разумности» в качестве элементов российского корпоративного права была определена в Кодексе корпоративного поведения, принятого, на уровне Центрального Банка России на заседании Правительства. Однако положения данного документа носят рекомендательный характер. Вместе с тем, данный документ может быть весьма полезен, поскольку толкует и детализирует нормативные положения. Кодексом корпоративного управления введены: критерии добросовестности и разумности действий в интересах общества; помимо отсутствия личной заинтересованности предусматривается проявление осмотрительности и заботливости, которых следует ожидать от хорошего руководителя; принятие решений с учетом всей имеющейся информации, при отсутствии конфликта интересов, с учетом равного отношения к другим лицам деятельности (п. 126). В ответ на нарушение руководителем своих фидуциарных обязанностей собственник может инициировать процедуру судопроизводства.

На правовом уровне в отношении управленческой деятельности руководителей хозяйственных обществ общие положения отражены в пункте 3 статьи 53 и 53.1 Гражданского кодекса РФ, которые были развиты в специальных законах: статья 71 Федерального закона от 26.12.1995 N 208-ФЗ «Об акционерных обществах», статья 44 Федерального закона от 08.02.1998 N 14-ФЗ «Об обществах с ограниченной ответственностью». Специальные законы подчеркнули необходимость вины как одного из условий привлечения руководителя хозяйственного общества к гражданско-правовой ответственности, легализуя тем самым дополнительные критерии для оценки управленческих решений. При принятии управленческих решений в контексте предпринимательского риска, обратим также внимание на то, что специальная норма в развитие одного из признаков понятия вины предусмотрела дополнительный критерий – «обычные условия делового оборота». Специальные законы, обязав суды учитывать «изменение обстоятельств, имеющие значение для дела», предоставили судам широкое поле для оценки принимаемых управленческих решений. С другой стороны, недопустимо и излишняя детализация, поскольку рисковой и самостоятельной характер предпринимательства диктует необходимость предоставления органам управления коммерческого объединения широкого усмотрения в выборе способов организации своей деятельности. Современный законодатель отказался от конкретизации условий принятия управленческих решений и обратился преимущественно к оценочным понятиям (добросовестность, разумность, осмотрительность, заботливость и др.) (Луценко, 2016, с. 50). А для ограничения произвола судебной власти в качестве

Морально-этические критерии, скорректированные допустимым предпринимательским риском управленческого поведения, сложно доказывать. Как следствие - положительная судебная практика по этому поводу долгое время отсутствовала.

Применительно к данной категории споров важна правильная оценка уровня риска при совершении сделки (принятии иного решения) и предпринятые руководителем меры по анализу всех обстоятельств, связанных с заключаемой сделкой (принимаемым решением). Вместе с тем, попытки определения критерия действий руководителя в пределах «разумного предпринимательского риска» имели место в судебной практике. Так, согласно позиции Высшего Арбитражного суда РФ, изложенной в Постановлении от 22.05.2007 N 871/07, «привлечение единоличного исполнительного органа к ответственности зависит от того, действовал ли он при исполнении своих обязанностей разумно и добросовестно, то есть проявил ли он заботливость и осмотрительность и принял ли все необходимые меры для надлежащего исполнения своих обязанностей. Единоличный исполнительный орган общества не может быть признан виновным в причинении убытков, если он действовал в пределах разумного предпринимательского риска».

В значительной степени облегчило ситуацию Постановление Пленума ВАС РФ от 30.07.2013 № 62 «О некоторых вопросах возмещения убытков лицами, входящими в состав органов юридического лица», в п.2 и в.3 которого были обозначены типовые модели, в которых «недобросовестность» и «неразумность» презюмируется. Пленум отметил также, что предпринимательская деятельность носит экономически рисковый характер. В связи с этим при разрешении дел становится необходимым применение конструкции разумного предпринимательского риска (таб.2).

Таблица 2.
Нормативные и судебные акты по юридической силе

<table>
<thead>
<tr>
<th>Нормативно-правовые акты</th>
<th>Судебные акты</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Общие положения:</strong></td>
<td>Постановление Пленума Высшего Арбитражного суда от 22.05.2007 N 871/07;</td>
</tr>
<tr>
<td>Ст. 53 ст. 53.1 и ст. 401 Гражданского кодекса РФ</td>
<td>Определение Высшего Арбитражного от 14.12.2011 N ВАС-12434/11</td>
</tr>
<tr>
<td>Специальные нормы:</td>
<td>Постановление Пленума Высшего Арбитражного суда РФ от 30.07.2013 № 62 «О некоторы</td>
</tr>
<tr>
<td>ст. 71 Федерального закона от 26.12.1995 N 208-ФЗ «Об акционерных обществах»;</td>
<td>вопросах возмещения убытков лицами, входящих в состав органов юридическог</td>
</tr>
<tr>
<td>ст. 44 Федерального закона от 08.02.1998 N 14-ФЗ «Об обществах с ограниченной ответственностью»</td>
<td>ом лица»;</td>
</tr>
<tr>
<td>п. 4 ст. 10 Федерального закона от 26.10.2002 N 127-ФЗ «О несостоятельности (банкротстве)»</td>
<td>Постановления Пленума Верховного суда от 23.06.2015 № 25;</td>
</tr>
<tr>
<td></td>
<td>«О применении судами некоторых положений раздела 1 части первой Гражданского кодекса Российской Федерации».</td>
</tr>
</tbody>
</table>

Отдельные положения правоприменительной практики:

Постановление Арбитражного суда Центрального округа от 20.11.2017 N Ф10-732/2015;
Прочтение нормы пункта 3 статьи 53 ГК РФ, согласно которой всякий руководитель компании должен действовать в ее интересах добросовестно и разумно вместе с положениями пункта 3 статьи 10 ГК РФ о презумпции добросовестности и разумности участников гражданских правоотношений в отношении некоторых управленческих решений закон прямо устанавливает исключения. Например, при нахождении организации в состоянии имущественного кризиса, согласно пункту 4 статьи 10 Федерального закона от 26.10.2002 № 127-ФЗ «О несостоятельности (банкротстве)», контролирующее должника лицо не отвечает за вред, причиненный имущественным правам кредиторов, если докажет, что действовало добросовестно и разумно в интересах должника. То есть презумпция добросовестности и разумности не применима. (Емельянов, 2002, с. 15).

Возвращаясь к критерию разумного предпринимательского риска, стоит отметить также, что речь идет о принятии обоснованных управленческих решений в ситуации, не имеющей однозначной модели поведения. Иными словами, стандарт предпринимательского риска наделяет органы управления свободой ведения бизнеса, освобождает от ясственности в рамках границ, установленных предпринимательским оборотом. Есть риски, которые нельзя предвидеть изначально при принятии решения, а есть очевидные риски, которые невозможно не принять во внимание при заключении сделки.

Ссылки на рисковый характер банковской деятельности как разновидности предпринимательской при применении субсидиарной ответственности по долгам кредитной организации не могут приниматься во внимание в случаях, когда должник изначально не представлял собой финансово стабильную структуру или физическое лицо не обладало должной платежеспособностью либо не было надлежащего обеспечения исполнения ими обязательств. Эти факты существовали на момент заключения сделки и, следовательно, не могли обладать признаками вероятности и случайности наступления». Таким образом, лицом, ответственным за принятие решения, в любом случае должны быть исследованы те обстоятельства, которые объективно известны на момент его принятия (Курбатов, 2007, с. 10).

Каким же образом соотносятся фидуциарные обязанности руководителя и разумный предпринимательский риск? Под выходом за пределы, установленным предпринимательским оборотом, законодатель понимает нарушение стандарта поведения, а кодекс корпоративного управления связывает добросовестность и разумность поведения членов совета директоров с принятием решений в рамках разумного предпринимательского риска.

Согласно п. 1. Постановления Пленума ВС № 62, п. 25. Постановления Пленума ВС от 23.06.2015 № 25, применение ответственности невозможно без наличия причинно-следственной связи между действиями органа управления и негативными последствиями, так как их наступление может быть вызвано риском характером предпринимательской деятельности.

Для того чтобы риск попадал в пределы, установленные фидуциарными обязанностями руководителя – он должен быть разумным и обоснованным. Подобный принцип освобождения от ответственности за «коммерческие неудачи» соответствует потребностям предпринимательского оборота (Поваров, 2013, с. 705). Очевидно, что, хотя предпринимательский риск берет на себя сама организация, решение о допустимости риска и о целесообразности совершения сделки в условиях соответствующего риска принимается лицами, осуществляющими управление данной организацией. Соответственно, ими оценивается не собственный риск, а риск компании, от имени которой они действуют, и их обязанностью является принятие взвешенного решения, максимально соответствующего ее интересам. Разумеется, при принятии такого решения руководители обязаны
учитывать риски и прогнозировать последствия предполагаемой сделки. Они несут ответственность за недостаточность мер, принятых для исследования ситуации и выработки оптимальных условий сделки. От них зависит, насколько активной будет деятельность хозяйствующего субъекта, насколько продуктивной будет его работа, от них требуется определенная смелость при принятии каких-либо новаторских решений в целях развития бизнеса. Суды берут за основу различные критерии, заимствованные из других норм Гражданского кодекса РФ (к примеру, критерии невинности лица, нарушающего обязательства, по ст. 401 ГК РФ; критерии извинительного заблуждения в соответствии с нормами о добросовестном приобретении и т.п.), но не всегда их удачно комбинируют. По-прежнему, во многом пределы реализации фидуциарных обязанностей руководителя с учетом предпринимательского риска зависят от судебского усмотрения. При разрешении спорных ситуаций, суды в обоснование неправомерности поведения руководителя при заключении сделки руководствуются не заимствованием цены сделки на фоне рыночной, а непродуманностью решения в целом и непринятием во внимание проблем, которые возникают на стадии его исполнения и в результате влекут убытки, хотя цена сделки и не отличалась от рыночной. Но если бы частично корпоративные отношения были отрегулированы по воле их участников, на уровне соглашений, разработки локальных актов организации – это существенным образом облегчило судебным органам задачу разрешения вопроса о привлечении руководителя к ответственности за необоснованные управленческие решения.

Например, известно, что интересы корпорации и личные интересы руководителя не совпадают. Обязанность действовать добросовестно и разумно запрещает руководителю действовать в личных интересах, совершать сделки с заинтересованностью. В действующем законодательстве понятие заинтересованности размыто. А на практике предлагается использовать определение заинтересованности руководителя, выработанное Высшим Арбитражным судом РФ в Определении от 14.12.2011 N ВАС-12434/11. Согласно указанным разъяснениям, заинтересованность руководителя включает в себя любой прямой или косвенный финансовый (материальный) интерес, выгоду, долю, бонус, иные привилегии и преимущества, которые лицо может получить непосредственно или через свое представление, номинального держателя, родственника в результате такой сделки. Полномочия менеджера осуществляются с соблюдением им фидуциарной обязанности, т.е. обязанности действовать от имени юридического лица исключительно добросовестно, с соблюдением должной осмотрительности, в интересах работодателя. Такая обязанность запрещает лицу, действующему от имени общества, заключать сделки с самим собой (запрет на заключение сделки через номинального приобретателя, с близким родственником, с юридическим лицом, где он или его родственники являются участниками, работают на управляющих позициях и т.п.) и иным образом обогащаться за счет совершаемой сделки, если полностью не была раскрыта информация относительно заинтересованности менеджера или представителя, который заключает такую сделку, включая особенности того, какую выгоду он получит прямо или косвенно или какие убытки понесет общество. В качестве превентивной меры недопущения нарушения руководителем фидуциарных обязанностей в будущем и как основание признания сделки в случае нарушения номинального или субсидиарного держателя, имел место, необходимо закрепить понятие заинтересованности в уставе или локальных корпоративных документах (положении об исполнительных органах, положении о совете директоров и т.п.). Регламентация сделок с заинтересованностью позволяет собственникам контролировать деятельность органов управления, а также облегчает процедуру доказывания в суде.

По этой причине, немаловажно определить во внутренних документах интересы компании. А интерес компании, который обеспечивается защитой субъективного права, производен от экономических интересов его участников (собственников), так как интересы организации не просто неразрывно связаны с интересами участников, они предопределяются ими, и, следовательно, удовлетворение интересов компании обеспечивает удовлетворение интереса ее участников (Луценко, 2017).

Тем самым появляется возможность детализации оценочных стандартов поведения руководителя исходя и интересов конкретной корпорации, которые нашли бы свое закрепление на уровне устава или специально разработанного кодекса корпоративного управления отдельной организации. Такой подход в решении проблемы нам видится оптимальным и с точки зрения диспозитивного начала гражданского права, где участники гражданского оборота обладают автономией воли при сохранении паритетных прав и обязанностей. В положения закона призваны выполнять роль общих положений, которые могут быть конкретизированы на уровне соглашений и локальных актов организации.

Приведем пример из английской судебной практики. В деле Howard Smith LTD v Ampol Petroleum LTD 1974 компании RW Miller and Go грозило враждебное поглощение со стороны двух компаний в рамках одного холдинга, которые контролировали в совокупности 55% акций компании. Чтобы избежать поглощения директор компании RW Miller and Go выпустил новый пакет акций компании, которые по закону в

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обязательном порядке должны были быть предложены к покупке враждебному холдингу. Однако этого сделано не было, и акции перешли к другим акционерам этой компании. Решая вопрос о том, подлежит ли ответственности директор, принявший решение о выпуске акций, которые не были предложены к покупке мажоритарным акционерам, суд выделил две цели, для которых были выпущены акции: во-первых для увеличения уставного капитала, то есть в этом отношении директор действовал добросовестно, и, во-вторых, для того, чтобы избежать враждебного поглощения, что свидетельствовало о недобросовестности директора. А поскольку по своему существу выпуск акций имеет целью увеличение уставного капитала, то из двух целей доминирующей является цель добросовестная, поэтому директор не был привлечен к ответственности за нарушение обязанности проявлять заботливость, умение и усердие по отношению к компании. На наш взгляд английский суд принял правильное решение, определив доминантную цель в действиях руководителя компании, что в очередной раз продемонстрировало гибкость прецедентной правовой системы. Это связано еще и с тем, что английские суды и законодатель, при определения стандарта поведения руководителя, в первую очередь ориентируются на субъективные критерии, такие как знания, навыки и опыт, присущие ему как конкретному лицу. Как это часто бывает в англосаксонской правовой системе, решения о привлечении к ответственности директора, чье поведение вышло за рамки оценочных стандартов, принимается ситуативно и калистично (Игнатов, Ефремов, 2016).


Требование: О взыскании убытков с бывшего руководителя должника. Конкурсный управляющий ссылается на то, что бывший руководитель перечислил контрагенту по договору оказания услуг авансовый единовременный платеж при отсутствии хозяйственной необходимости для должника в получении спорных услуг. Требование частично удовлетворено, поскольку факт наличия причинно-следственной связи между действиями руководителя должника и возникшими у должника убытками установлен. Отношения по приобретению товара носят гражданско-правовой характер в сфере предпринимательской деятельности и осуществляются на свой страх и риск. В свою очередь, в любом случае, руководитель общества обязан добросовестно и (или) разумно осуществлять обязанности по выбору и контролю за действиями (бездействием) контрагентов по гражданско-правовым договорам.

Как следует из материалов дела, ООО «Березка» был заключен договор на поставку вычислительной техники с компанией LLC West to East Business Solution (США). В соответствии с положениями договора общая стоимость оборудования составила 79 702,24 доллара США; оборудование по настоящему договору должно быть поставлено в течение 60 дней после подписания настоящего договора. Датой поставки считается дата передачи оборудования продавцом и письменного уведомления продавцом покупателя о готовности передачи оборудования по приемосдаточному акту в месте поставки по настоящему договору. Не позднее срока, указанного в договоре, покупатель обязан перечислить денежные средства в размере, указанном в договора, на банковский счет продавца. ООО «Березка» в счет оплаты стоимости подлежащего поставке оборудования оплатило иностранной компании 2 240 831 руб., что соответствует 70 000 долларов США. Учитывая вышеизложенное, в том числе, обстоятельства участия в сделке иностранного партнера, размера средств, подлежащих предварительной оплате, суд апелляционной инстанции пришел к правомерному выводу о том, все перечисленные обстоятельства, безусловно, требовали от руководителя, принимающего решения, особой предусмотрительности и учета экономической безопасности.

При этом, как верно указано судом апелляционной инстанции, из материалов дела не усматривается, что Кобелев Д.А. как руководитель общества при заключении сделки с LLC West to East Business Solution (США) проявил должную осмотрительность при выборе контрагента, совершил действия, направленные на проверку добросовестности контрагента, его деловой репутации, наличия у него необходимых ресурсов для поставки оборудования, являющегося предметом сделки.

Как видно из приведенного примера, российский суд, в отличие от английского, далек от субъективизма, и руководствуется исключительно формально-определённым подходом. А именно установление причинно-следственной связи, признака осмотрительности, то есть отношение руководителя, к сделке исходя из внешних факторов экономической безопасности компании.

Результаты

В ходе проведенного научно-практического исследования нами были выявлены следующие проблемы:

- отсутствие четких критериев оценочных стандартов поведения руководителя компании в доктрине и в теории;
- отсутствие четких критериев оценочных стандартов поведения руководителя компании на законодательном уровне;

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большой диапазон судейского усмотрения при оценке управленческих решений руководителя компании с точки зрения добросовестности, разумности и обоснованного предпринимательского риска и как следствие злоупотребление правом;
отсутствие четких пределов соотношения понятий предпринимательского риска и фидуциарных обязанностей руководителя компании;
вины как одно из условий привлечения руководителя хозяйственного общества к гражданско-правовой ответственности.

Для разрешения проблем мы предлагаем следующие способы их преодоления:
• в качестве превентивной меры недопущения нарушения руководителем фидуциарных обязанностей в будущем и в качестве основания привлечения к ответственности, на случай если факт нарушения со стороны директора имел место, необходимо закрепить понятие заинтересованности в уставе или локальных корпоративных документах (положении об исполнительных органах, положении о совете директоров и т.п.). Регламентация сделок с заинтересованностью на уровне отдельной бизнес-структуры позволит собственникам контролировать деятельность органов управления, а также облегчит процедуру доказывания в суде.
• немаловажно определить во внутренних документах интересы компании, производные от экономических интересов его участников, так как интересы организации не просто неразрывно связаны с интересами участников, они предопределяются ими, и, следовательно, удовлетворение интересов компании обеспечивает удовлетворение интереса ее участников;
• предоставить возможность детализации оценочных стандартов поведения руководителя исходя из интересов конкретной корпорации, которые нашли бы свое закрепление на уровне устава или специально разработанного кодекса корпоративного управления отдельной организации. Такой подход в решении проблемы нам видится оптимальным и с точки зрения диспозитивного начала гражданского права, где участники гражданского оборота обладают автономией воли при сохранении паритетных прав и обязанностей. А положения закона призваны выполнять роль общих положений, которые могут быть конкретизированы на уровне локальных актов организации.
• предложить следующие критерии добросовестности и разумности руководителя компании в пределах, допустимых предпринимательским риском:
критерий осмотрительности и заботливости;
отсутствие личной заинтересованности;
принятие решений с учетом всей имеющейся информации, при отсутствии конфликта интересов;
одинаковое отношение к акционерам общества, в рамках обычного предпринимательского риска;
отсутствие причинно-следственной связи между действиями органа управления и негативными последствиями для компании;
не уклонялся без уважительных причин от выполнения своих прав и обязанностей.

Заключение
В связи с усложнением экономической системы, в том числе вследствие резкого увеличения масштаба и скорости обмена информацией, использование традиционных правовых инструментов крайне ограничено. Зачастую правовое регулирование и практика правоприменения не успевает за развитием экономических отношений. На помощь отчасти приходят научные изыскания, заимствование опыта зарубежных государств. Однако внедрение в правовую материю корпоративной культуры является шагом, безусловно, новаторским и отвечающим духу времени. Кодификация норм поведения участников корпоративных отношений, выработка общей системы ценностей долженствования в интересах компании - тот бесценный ресурс, который формирует ее имидж и является неотъемлемой частью процесса построения бренда. Основной целью законодательства о юридических лицах является обеспечение справедливого баланса интересов между всеми участниками корпоративных отношений на всех стадиях жизненного цикла юридического лица. Важную роль в достижении такого баланса интересов играют нормы о добросовестности и разумности органов организации, силами которого организация осуществляет свою деятельность. Мы полагаем, что при наличии объективного
судейского усмотрения, а также отсутствия злоупотреблений со стороны представителей бизнес сообщества, положительное сосуществование обоснованного предпринимательского риска и оценочных стандартов в принятии управленческих решений станет частью как правовой, так и экономической реальности.

Список литературы