

EMPLOYMENT PERSPECTIVES IN CROATIAN TRADE SECTOR

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ABSTRACT

The basic objective of this research is to analyze the employment trend in Croatian trade industry in the current crisis and its post-crisis perspectives. Current market conditions are alarming in terms of trade employee perspective because in recent years the distributive trade in Croatia lost more than 30,000 jobs. The methods of correlation and regression analyses are used to prove the statistically significant correlation between changes in the number of employees in distributive trade as the dependent variable and the number of total employees and gross domestic product (GDP) as the independent variables. The analysis period spans over the years 2000 – 2013. According to a multidimensional linear regression model we estimate that Croatia will reach the 2008 number of employed in distributive trade in 2025. Data analysis and numerical calculations are performed using Statistica software.

Key words: employment, distributive trade, forecast

JEL classification: E24; J21; J49;

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1. INTRODUCTION

Employment refers to the number of workplaces in one economy, economic sector or particular economic activity over a year. Employment in distributive trade shows the national economic structure and the level of human resource engagement and allocation. Distributive trade represents a significant economic activity within national economy (Knego, 2004). Its importance is commonly indicated by its contribution to the national GDP and labor force employment (Slabinac, 2014).

In periods of economic crisis distributive trade shows greater sensitivity to market events (Pupavac, 2014), in a way that trade companies quickly reduce labour costs in order to maximize profits or minimize losses, because that is the easiest way to make cuts in the short term. The reduction of salaries and/or downsizing them seems as an efficient solution so as to maintain market position of trade companies.

Accordingly, the objective of this paper is to evaluate the effects of the distributive trade and to point a solution of the unemployment problem in the post-crisis perspective. To achieve the intended goal, numerous scientific methods were used in various combinations, including statistical methods of regression and correlation analysis. The obtained insights could help trading companies and managers at all levels as a basis for calculating an estimated number of employees in the distributive trade.

2. RESEARCH PROBLEMS AND METHODOLOGY

The labour market is a complex and important area of economic and social subsystems because it validates workforce and determines working conditions, amount of monetary compen-

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sation, employment levels, job security, dynamics and structure of employment, social division of labour, labour mobility, unemployment dynamics and the like. Economists agree that a certain unemployment rate should always exist. Low unemployment is not a big problem for a country. Even the most developed countries have a number of people of working age who are not employed, at any time. However, when the unemployment rate exceeds a certain limit and remains high year after year, it becomes a major problem, and it is usually a symptom of other economic disorders.

In 2008, arguably the greatest global financial and economic crisis since the Second World War happened, with consequences influencing economies of the EU-27 to a greater or lesser extent. In Croatia, the highest GDP decline was recorded in trade and transport sectors. In the aforementioned sectors in 2009 there was a decline in unemployment compared to 2008. The share of trade in the total number of employees in legal entities declined from 17.4% to 16.8%, in transport from 5.47% to 5.41%.

There are 5.5 million operating business entities in the distributive trade within the EU, that is, every fourth business is registered in trade. In Croatia, more than a quarter of businesses is registered in trade, or 26,03% (Anić, 2013). Number of employees in trade in Croatia and the EU indicate that trade is the leading and second largest employer (Dunković, 2014). According to the Central Bureau of Statistics, about 16% of all employees work in trade, while in the EU that share is 13% or 29 million people.

Negative economic trends had a negative effect on Croatian distributive trade. Reduction in real income and purchasing power had a negative impact on employment trends within the distributive trade. Drop in employment in trade has been intensified since the beginning of crisis. From 2009 to 2014, 27,501 positions in trade were lost, while retail suffered with 9,374 (Anić, 2015). That influenced a decrease of trade share in the total employment of 5,7%, and of retail with 1,3% decrease. To reduce operating costs, retailers resort to reducing the number of employees, and artisanal shops are affected the most by this. Number of employed in artisanal shops in 2014 dropped by 5,8% in comparison to 2013. Number of employees in trade continues to drop in 2015 - in January 2015 it dropped by 2,8% in comparison to January 2014, and in retail by 1,8%.

However, this is not unusual, since retail is labour-intensive business and in conditions of low demand retailers reduce the number of employees to rationalize labour costs and operating expenditures.

Managers of trading companies are faced with an important issue concerning planning of human resources: how are employment in the distributive trade, national economy and total employment exactly correlated? To answer this in a scientific manner, this study will explore the interdependence between the number of employed in the distributive trade, gross domestic product and total employment in Croatia using data from Table 1.

Table 1. Movement of GDP, total employment and the number of employed in the distributive trade from 2000 to 2013.

Year	GDP (mill.HRK)	Total employment (000)	Number of employed in the distributive trade (legal entities)
2000.	239,9	1341	152503
2001.	250,4	1348	158051
2002.	263,5	1359	164155
2003.	274,8	1393	175369
2004.	285,2	1409	184979
2005.	297,5	1420	188675

2006.	311,8	1468	200074
2007.	329,8	1517	214459
2008.	344,1	1555	222153
2009.	324,1	1499	203494
2010.	320,2	1432	189241
2011.	320,2	1411	187645
2012.	314,4	1395	185277
2013.	311,3	1320	178084

Source: author's calculation and Statistical Yearbook of the Republic of Croatia 2013., (online data at www.dzs.hr , PC-Axis) (access: 5/10/2014)

In order to make an objective forecast the number of employees in distributive trade in Croatia, a theoretical model should be defined first. This study investigates dependence the number of employees in distributive trade (ET) as the dependent variable and the number of total employees (TE) and gross domestic product (GDP) as the independent variables. Accordingly, a model to estimate the number of employees in distributive trade can be written as a function

$$ET = f(GDP, TE) \quad (1)$$

Where:

ET – number of employees in distributive trade,

GDP – gross domestic product,

TE – total employees.

Variable ET is a dependent variable, while GDP and TE are independent or explanatory variables.

Supposing that the number of employees in distributive trade depends on the GDP and the number of total employees, its linear form would be as following:

$$ET = b_0 + b_1GDP + b_2TE \quad (2)$$

3. RESULTS AND DISCUSSION

Based on data given in Table 1, correlation analysis was conducted (cf. Table 2). It shows a high interdependence between the number of employed in the distributive trade and GDP ($r=0,91$), and between the number of employed in the distributive trade and the total employment ($r=0,93$).

Table 2. Interdependence of the number of employed in the distributive trade, GDP and total employment

Correlations (Trgovina.sta) Marked correlations are significant at $p < ,05000$ N=14 (Casewise deletion of missing data)			
	GDP	Total_employees	Employees_trade
GDP	1,00	0,74	0,91
Total_employees	0,74	1,00	0,93
Employees_trade	0,91	0,93	1,00

Since there was a high interdependence between the number of employed in the distributive trade, GDP and total employment, regression analysis was also conducted using data from Table 1 (cf. Table 3).

Table 3. Regression analysis for the number of employees in the distributive trade

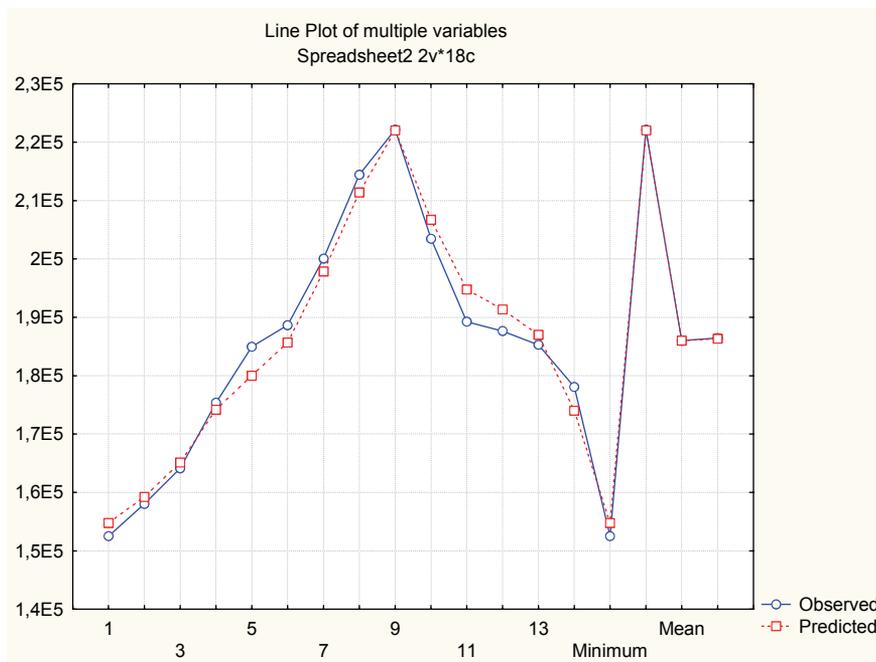
Regression Summary for Dependent Variable: Employees_trade (Trgovina.sta) R= ,98726239 R2= ,97468702 Adjusted R2= ,97008466 F(2,11)=211,78 p						
	Beta	Std.Err. - of Beta	B	Std.Err. - of B	t(11)	p-level
Intercept			-136070	21214,10	-6,41415	0,000050
GDP	0,498499	0,071806	316	45,48	6,94235	0,000024
Total_employees	0,558462	0,071806	160	20,63	7,77742	0,000009

Regression analysis between the number of employed in the distributive trade (ET), GDP and total employment (TE) has resulted with the following model of multiple linear regression:

$$ET = -136070 + 316GDP + 160TE \quad (3)$$

According to regression analysis (cf. Table 3), it can be concluded that there is a statistically significant correlation between the number of employed in the distributive trade, GDP and total employment ($R=0,98$; $F(2,11)=211,78$; $p<0,01$). The correlation is positive, indicating that an increase in the number of employees in distributive trade is connected with the number of total employees (TE) and the GDP. Application of the mentioned model for planning the movement of the number of employees is shown by Chart 1.

Chart 1. Comparison of results obtained by using econometric model and real data on the movement of the number of employed in the distributive trade in Croatia from 2000 and 2013.



Based on the given model (1), an estimate of the number of employees in the Croatian distributive trade by 2025 was made. It seems appropriate to assume that the considered variables - the number of total employees and GDP - will increase in the coming period, so if we anticipate that the average growth rate of GDP will grow at an annual rate of 2% and the number of total employees will grow at an annual rate of 0,81%, the number of employed in the Croatian distributive trade by 2025 will also be on the rise (as shown in Table 4). Assumptions on the average growth rates of GDP and the total number of employed were made based

on average growth rates in times preceding the recession. From 2000 to 2009, the average growth rate of the GDP was 4,61%, and of total employment 1,87%. This means that for an increase in total employment by 1%, the growth rate of GDP had to be 2,46%.

Table 4. Estimate of the total number of employees in the Croatian distributive trade by 2025

<i>Year</i>	<i>Number of employees</i>
NE ₂₀₁₇	189220
NE ₂₀₁₉	197098
NE ₂₀₂₁	205208
NE ₂₀₂₃	213558
NE ₂₀₂₅	222157

4. CONCLUSION

Distributive trade is a significant source of employment. It employs 13% of the total labour force in the European Union. In Croatia, about 180 000 people are employed within the distributive trade or 16% of the total workforce. This study proves the statistically significant correlation between changes in the number of employees in distributive trade as the dependent variable and the number of total employees and GDP as independent variables. Estimated number of employees in the Croatian distributive trade by 2025 is calculated according to average annual growth rates of GDP of 2% and the number of total employees of 0.81%. According to a multidimensional linear regression model and assuming the average annual growth rate of the total number of employed and the GDP, we can estimate that Croatia will reach the 2008 number of employed in trade in 2025. The main limitations of this study stems from the fact that employment in distributive trade is seen as a dependent variable of only two independent variables. In the future researches in the model for estimate the numbers of employees in distributive trade should be included the greater number of variables, for example the impact of technology, sales formats, development of e-commerce, purchasing power and demographic factors

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