

LABOR COSTS ANALYSIS IN THE TRADE MARKET OF SERBIA

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Abstract

Considering the nature of business, labor costs belong to the group of critical factors of trade company business success or, on the other hand, they significantly influence their business and financial performances. In order to optimize the effects of labor costs, more attention needs to be dedicated to the improvement of human resources management effectiveness, especially in the retail chains of countries with a developed trade economy, by applying training programs for employees and modern technology. An increased appliance of modern technology significantly influences the improvement of the efficiency of human resources management in trade companies, as the managing instrument of their performances. The comparative research used in this paper determines that, due to the influence of various factors, the participation of labor costs in the total revenues from trade company sales, or retail chains, is different in different countries. For example, labor costs are lower in Serbia related to the EU member countries and Croatia, as a comparable country within the region. Similar differences exist in the area of the total labor costs observed in certain countries. Knowing of these reasons is an important assumption for an efficient management of labor costs in trade companies, especially in the case of Serbia as the subject of a special analysis in this paper.

Keywords: labor costs per hour, unit labor costs, work productivity adjusted for earnings, human resources management.

1. INTRODUCTION

It is well known that labor costs per work hour, unit labor costs, the number of employees and labor costs per employee are significant factors of productivity and the effectiveness of business activities in trade or the retail area (Sarantopoulos, 2013; Gornostaeva, 2014). Within the structure of total costs (costs of sold goods and operational costs), that is, the operational costs of trade, the participation of labor costs (employee wages) is very important, considering the nature of the business (work-intensive). Nevertheless, it is different due to the influence of various factors in certain countries, trade types – wholesale, retail, motor vehicles and car parts trade, trade companies, retail chains and retail stores.

The goal of the research in this paper is a complex exploring of the influences of labor costs on the performances of retail chains in certain countries, primarily developed trade economies, treated as a

critical factor of business success. In the aim of a more complex exploring of the topic, an empirical analysis of labor costs of certain relevant segments, with a special reference to Serbia, was carried out.

The subject of research in this paper is a complex analysis of factors which influence labor costs management efficiency in trade companies, with a special reference to effective human resources (hereinafter: HR) management and the appliance of modern technology. The efficiency of labor cost management in trade companies in Serbia is emphasized.

The significance of the research in this paper is reflected in the systematically analyzed empirical results of the research giving a dependable base for improving labor cost management efficiency in trade companies, especially in Serbia – or in other words, this should be its scientific and professional significance.

The literature (especially the articles) about labor costs management in trade companies is very plentiful (Bryan, 2007; Ton, 2008 and 2009; Walker, 2008; Higón, 2010; Lichtenstein, 2010; Lukic, 2011b; Lukic, 2012; Ilić, 2012; Lovreta, 2013; Gauri, 2013; Lukic, 2013a, b and e; Lukic, 2014 a, b; Teng, 2014). There are also a significant number of publications in the form of studies (Deloitte, 2009; Measuring up Retail Benchmarking Survey, 2013; Productivity Commission 2011; Retail Market in China, 2013). These topics are researched in literature from various angles in certain relevant segments of trade company business activities, including work productivity. Understanding this is significant for improving the efficiency of labor cost management in a specific trade company, especially Serbian.

The research hypotheses in this paper are adjusted to the issues at hand. They are the following: H1 – the number of employees influence the sales revenue; H2 – personal labor costs impact profitability, H3 – an efficient HR management and applying modern technology influence a reducing of labor costs as a critical factor of business success.

The research methodology of the given hypotheses is based, in accordance with the goal and subject of the research, on the comparative analysis of trade company labor costs in certain countries (and other segments) and on correlation analysis. In that context, other supporting research methods have been used.

The analyzed statistical data have been collected from various resources: the OECD statistics, Eurostat, the U.S. Bureau of Labor Statistics, the Statistical Annual for Canada, Russia and Serbia, the Agency for Business Registers in Serbia and various web sites. These are used in their primary and secondary forms.

2. EMPLOYMENT AS A FACTOR OF WORK PRODUCTIVITY, COSTS AND PROFIT IN TRADE

Trade participates significantly in the total number of employees in the national economy, a fact which is supported by empirical data about sectoral employment, including trade (total and per type). For example, the total number of staff participating in the wholesale and retail trade in the United Kingdom is 16.0% - 4.1% in wholesale and 10.2% in retail (Rhodes, 2014). Observed per country, the participation of trade in the total number of staff in a national economy differs. For example, the participation of retail trade in the total number of staff within the national economy in 2012 was the following: Australia with 9.63%, Austria with 6.60%, Belgium with 5.77%, Brazil with 7.17%, Bulgaria 10.48%, Canada 12.60%, China 3.77%, the Czech Republic 7.24%, France 7.21%, Germany 5.71%, Hungary 6.86%, Italy 8.83%, Japan 11.90%, Morocco 20.67%, Russia 3.47%, the UK 9.93%, and the USA with 10.30% (World Retail Data and Statistics 2014, 8th edition, Euromonitor International Ltd.; http://www.euromonitor.com/medialibrary/PDF/Book_WRDS_2014_toc.pdf). Thereby, it ranges from 3.47% in Russia to 20.67% in Morocco.

The role and importance of trade in the European Union is quite large, considering the number of companies, employees and creating additional value (Retail & Wholesale: Key sectors for the European Economy, Understanding the role of retailing and wholesaling within the European Union, April 2014, Institute of Retail Management, Said Business School, University of Oxford). For example, in 2012 the trade (wholesale and retail; repair of motor vehicles and motorcycles) participated in the total number of staff in the EU with 24.28% (the author's calculation in accordance to A Recovery on The Horizon? Annual Report on European SMEs 2012/2013, October, 2013, Final Report, European Commission).

The employment per the size of trade company is different. Table 1 shows employment in EU trade sectors (EU-27) per company size for 2012.

TABLE 1- EMPLOYMENT IN THE EU TRADE SECTORS PER COMPANY SIZE, 2012

	0-9	10-49	50-249	SMEs	250+	Total
N.	5,387,99	349,142	45,796	5,782,93	7,227	5,790,16
Employment	11,253,6	6,771,05	4,434,06	22,458,7	9,261,98	31,720,7
Average size	2.09	19.39	96.82	3.88	1281.54	5.48
Additional value (million €)	279,969	268,594	210,493	759,056	354,144	1,113,200
Labor productivity (annual in €)	24.88	39.67	47.47	33.80	38.24	35.09

Source: A Recovery On The Horizon? Annual Report on European SMEs 2012/2013, October, 2013, Final Report, European Commission.

The data in the given table leads to the conclusion that work productivity is at its highest in medium size trade companies (50-249 employees).

Also significant is the role of trade related to the number of enterprises, employees and profit creating in the Russian economy. Table 2 gives some basic indicators of the trade economy per sectors in Russia for the period 2005-2012.

TABLE 2- BASIC INDICATORS OF TRADE ECONOMY PER SECTORS IN RUSSIA, 2005 – 2012

	Motor vehicles trade and repair			Wholesale			Retail		
	2005	2011	2012	2005	2011	2012	2005	2011	2012
Number of enterprises (at year end) in thousands	44,0	90,2	91,2	398,6	686,8	700,0	133,3	259,4	262,7
Average number of employees in thousands	397,4	495,7	531,8	2265,0	2343,9	2319,9	1808,4	2440,8	2500,9
Average nominal wage of employed workers in rubles	7112	21939	23701	7522	22974	25429	5214	15913	17674
Traffic (per actual prices) in billions of rubles	1211,7	4629,5	5246,8	10251,7	29099,3	33928,3	2659,7	7492,7	7869,3
Investments in basic capital (per actual costs) in millions of rubles	8424,7	32820,4	38198,4	58948,7	103800,5	111545,2	34243,7	68176,4	102819,7
Gain in billions of rubles	76,0	355,1	416,3	1459,6	4170,5	4530,8	223,7	853,0	1289,8
Commercial and management expenses in billions of rubles	48,6	236,9	294,4	887,7	2339,6	2793,7	183,3	793,5	1205,8

Source: Российский статистический ежегодник - 2013 г.

http://www.gks.ru/bgd/regl/b13_13/lssWWW.exe/Stg/d3/20-02.htm (accessed 8/30/2014 10:16 AM).

This shows the tendency of growth of the role and importance of trade in all sectors in managing the total Russian economy. Other statistics support this - for example, in 2013, trade participated in the total number of enterprises in the economy of Russia with 35.13%, motor vehicles trade and repair with 2.9%, wholesale with 24.6% and retail with 7.8% (Федеральная служба государственной статистики, Россия в цифрах - 2014 г.; http://www.gks.ru/bgd/regl/b14_11/lssWWW.exe/Stg/d01/13-01.htm 9/29/2014 11:18 AM). Trade participated in the total number of employees in the Russian economy thus: 2005 – 16.6%, 2012 – 18.1% and 2013 – 18.3% (Федеральная служба государственной статистики, Россия в цифрах - 2014 г.; http://www.gks.ru/bgd/regl/b14_11/lssWWW.exe/Stg/d01/06-04.htm, accessed 9/29/2014 11:18 AM).

In the aim of accomplishing target performances, a more efficient HR in trade or retail is necessary (Mc Goldrick, 2002; Levy, 2007; Berman, 2010; Lovreta, 2011; Lukic, 2011; Lukic, 2013a).

This is completely understandable when we take under consideration the significant participation of HR in the total retail resources. This is supported by the data given in Table 3 about the participation of human capital in retail organizations, observed per certain formats (stores) in India.

TABLE 3- HUMAN CAPITAL IN THE RETAIL ORGANIZATIONS OF INDIA (PARTICIPATION IN %)

Retail stores	Participation percentage
Food and grocery store	17%
Beauty and body care	3.56%
Books, music and gifts	13.08%
Pharmacies	2%
Jewelry and watches	10%
Shoes	32.84%
Clothing and textiles	36%
Home décor and furniture	8.76%
Consumer durables	17.04%

Source: Bhatla (2014).

Therefore, it ranges from 2% (pharmacies) to 36% (clothing and textiles). In order to accomplish a target profit, it is necessary, by investing in reliable training programs, to increase the efficiency of using human capital.

Trade is, like in other countries, a very significant generator of the total Serbian economic performances. In other words, the role and importance of trade in terms of participation in the total number of companies, employees, or in the total traffic and additional value per factor costs in the Serbian economy is quite large. The data given in the table supports this conclusion.

TABLE 4- ROLE AND IMPORTANCE OF TRADE IN SUSTAINABLE DEVELOPMENT AND CREATING ADDITIONAL VALUE IN THE SERBIAN ECONOMY, 2011 AND 2012

	Number of business subjects, %		Number of employed persons, %		Traffic, %		Additional value per factor costs, %	
	2011	2012	2011	2012	2011	2012	2011	2012
Economy of Serbia - total	100	101	100	100	100	100	100	100
Wholesale, retail and motor vehicles repair	39.4	38.4	22.8	22.3	39.8	40.7	19.5	20.6

Source: Republic of Serbia Statistic Annual 2013 and Annual data of structural statistics 2012, Republic of Serbia – Republic Institute for Statistics.

In 2012, trade participated in the total number of companies with 38.4%, employees with 22.3%, traffic with 40.7% and the additional value per factor costs with 20.6%. The influence of trade on creating economic, social and sustainable values of the Serbian economy is significant (considering the high participation). This is, generally speaking, the case in other countries as well, considering the general characteristics of trade.

The structure of employment in trade in Serbia is, same as in the EU and other countries, different by individual company sizes. Table 5 shows the number of employees according to the size of trade companies in 2013.

TABLE 5- THE NUMBER OF EMPLOYEES ACCORDING TO THE SIZE OF BUSINESSES IN THE TRADE SECTOR IN SERBIA, 2011

	Total	Size of business according to the number of employees			
		Micro (0-9)	Small (10-49)	Medium (50-249)	Large (250 and more)
Wholesale, retail and motor vehicle repair-total	233,543	85,434	51,967	40,068	56,074
Wholesale, retail and motor vehicle repair	17,909	8,233	5,568	3,751	357
Wholesale except motor vehicles trade	143,377	60,444	34,204	22,146	26,583
Retail, except motor vehicles trade	72,257	16,757	12,195	14,171	29,134

Source: Annual Statistics of the Republic of Serbia 2013, Republic of Serbia – Republic Statistics Institute.

In Serbia, there is significantly larger employment in the wholesale than in the retail sector. The reasons for this are, generally speaking, better business conditions in wholesale than in retail.

In Serbian trade, according to the size of the companies, there is bigger employment in micro companies (entrepreneurship – individual independent businesses), than in large companies and retail chains (similar as in EU trade). In regards to individual sectors, employment in motor vehicle sale and repair is the largest in micro companies (and smallest in large companies; the bigger the company the smaller the employment). In wholesale, employment is the largest in micro companies, and in retail in large companies. The general conclusion is that, according to these criteria, the trade network in Serbia is still 'shredded', with an expectation of enlargement in the future. It is, in a certain way, reflected on the total costs, including the labor costs of trade companies in Serbia.

3. LABOR COSTS AS A COST COMPONENT IN TRADE

The structure of costs in trade is, in accordance with its character, specific in relation to the other economic sectors. The two significant categories of costs in trade are the following: the cost of sold goods and the operational costs. In the structure of operational costs, the participation of labor costs is significant. Labor costs significantly participate in the income of sold goods and trading costs, or in retail (especially operational). Their participation in the total income of the sales of goods and costs is without doubt, different in certain countries, trade companies, retail chains, retail shops and product category. This will be shown in this paper by researching the given topic, based on specific original empirical statistical data of trade in selected countries (primarily developed trade markets), retail chains and product categories.

Table 6, in accordance with the purpose of the research, shows the costs per types of retail in Canada for the period 2002-2011.

TABLE 6- COSTS PER RETAIL TYPES IN CANADA, 2002-2011

Cost types	Value (in billions \$)		% from total, 2011	Average annual growth rate, 2002-2011	% of changes, 2010-2011
	2002	2011			
Costs of sold goods	253.5	345.2	76.9%	3.5%	4.7%
Total labor costs	36.3	51.1	11.4%	3.9%	3.0%
Other operational costs	32.8	52.7	11.7%	5.4%	3.1%
Total costs	322.6	449.0	100%	3.7%	4.3%

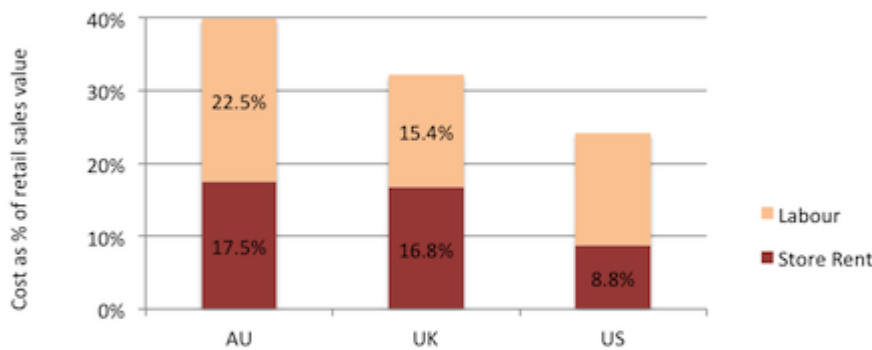
Source: Statistics Canada, special tabulation, unpublished data, Annual Retail Trade Survey

<https://www.ic.gc.ca/app/scr/sbms/sbb/cis/revenues.html?code=44-45#f1-ref> (accessed 9/17/2014 4:03).

In the total retail costs (costs of sold goods and operational costs) in Canada, labor costs participated with 11.4 % in 2011. Followed by the costs of sold goods, they have a great impact on retail performance in Canada. It is, generally speaking, the case with retail in all countries.

In Australia, the costs of specialized retail are significantly bigger than in the UK (more than 25%) and in the USA (more than 65%). They are the following (in percentage of sale): Australia - 40% (rent 17.5%, labor 22.5%); the UK – 32.2% (rent 16.8%, labor 15.4%); US – rent 8.8% (total with labor about 24%). The costs of department stores are the following: Australia – rent 7.4%, labor 14.9%, the UK – rent 7.6%, labor 13.7%; US – rent 6.2% (total with labor about 20%). The high retail costs in Australia are reflected on the prices, as profitability is similar to the one in the UK and the USA (Analysis of cost base of Australian retail compared to the UK and US; <http://richardblundell.net/2012/01/high-cost-base-australian-retail/9/1/2014> 1:09 PM). In all the observed countries, labor costs in retail are significant (Figure 1 and 2). Following that, in the aim of achieving the target profit (by applying relevant strategies), more efficient HR management (labor costs) in modern retail is necessary.

Cost base of Specialty Retailers - AU, UK, US

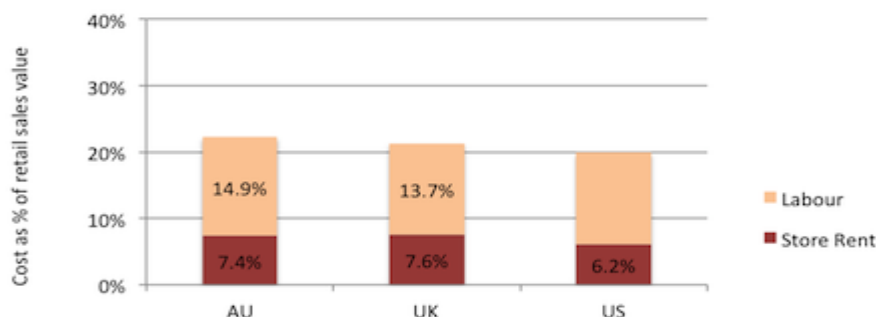


Source: Analysis of selection of listed apparel retailers

- (1) Equivalent rent was estimated for retailers that own their own stores
- (2) Labour costs for US retailers were not declared so chart has conservatively used UK rate as illustration
- (3) Rent/sales is based on retail sales value so includes transaction value of concession based sales
- (4) Labour/sales is based on store's own labour and store's own sales - concession sales excluded

FIGURE 1- COST OF SPECIALTY RETAILERS – AU, UK, US

Cost base of Department Stores - AU, UK, US



Source: Analysis of selection of listed department store retailers

Notes: (1) Equivalent rent was estimated for retailers that own their own stores

(2) Labour costs for US retailers were not declared so chart has conservatively used UK rate as illustration

(3) Rent/sales is based on retail sales value so includes transaction value of concession based sales

(4) Labour/sales is based on store's own labour and store's own sales - concession sales excluded

FIGURE 2- DEPARTMENT STORES COSTS – AU, UK, US

In USA, the cost structure (shown in percentage of sale) of the total retail and retail per segment in 2013 looked like thus: 1. the average costs of retail: profit 3.7%, salaries 9.5%, procurements 73.7%, amortization 1.4%, marketing 2.3%, rent and services 3%, other costs 6.5%; 2. costs of retail segment Big-box and department stores: profit 4.8%, salaries 13%, procurements 66.9%, amortization 1.3%, marketing 5%, rent and services 4.8%, other 4.2% (according to: U.S. retailer costs: retail industry vs. big-box and department stores ... <http://www.statista.com/statistics/303888/us-retailer-costs-retail-industry-vs-big-box-and-department-stores/> 9/17/2014 11:50 Am). In regards to the USA, significant is, in line with the general characteristics, the participation of labor costs in the total retail costs and per specific segments (type of stores). Also, it is smaller in relation to some other countries, as for example Australia.

Table 7 shows the costs of employees in trade in the European Union per selected countries with the largest participation in additional value.

TABLE 7- COSTS OF EMPLOYEES IN TRADE OF SELECT EU MEMBER COUNTRIES

	Employee costs - total (in million Euros)	Costs of employees per employee-average (in thousands Euros per person)	
	2010	2010	2011
EU-27	704894	25.9	26.5 (EU-28)
Germany	151409.9	28.1	28.6
Spain	64197.3	26.6	27.1
France	122311.8	39.5	41.3
Italy	63770.4	32.1	32.6
United Kingdom	97333.1	22.1	22.3
Croatia	2512.6	11.2	11.0

Source: Eurostat, May 2013.

The total costs of employees in trade in the EU are, according to the data in the table, the highest in Germany, and the lowest in Croatia. Staff costs per employee (average), in the EU trade in 2011 were the highest in France, and the lowest in Croatia (with which Serbia is compared to in the region).

Table 8 shows employee costs in trade per sector in the EU.

TABLE 8- EMPLOYEE COSTS IN TRADE PER SECTOR IN THE EU, 2010

	Employee costs – total (in million Euros)	Employee costs per employee – average (in thousand Euros)
Wholesale, retail and motor vehicles repair - total	704,894	25,9
Wholesale, retail and motor vehicles repair	88,385	28,4
Wholesale except motor vehicles trade	324,556	36,0
Retail except motor vehicles trade	291,953	19,4

Source: Eurostat, May 2013.

Observed per sectors, the total costs of employee in the EU in trade, according to the given data in the table, are the highest in wholesale. It is also the case with the average employee costs. The situation is in accordance with the character of business activities of the sectoral trade.

Table 9 shows coordinated work productivity for the amount of salaries in trade per sectors in the EU.

TABLE 9- COORDINATED WORK PRODUCTIVITY FOR THE AMOUNT OF SALARIES IN TRADE PER SECTOR IN THE EU (EU-27), 2010

	Work productivity (in thousands of Euros per capita)	Coordinated work productivity for salaries (%)	Gross operational ratio – rate of profit (%)
Wholesale, retail, motor vehicles repair – total	35,0	135.0	5.0
Wholesale, retail and motor vehicles repair	35,7	125.7	4.6
Wholesale, except motor vehicles trade	53,6	148.9	4.5
Retail, except motor vehicles trade	24,4	125.7	6.2

Source: Eurostat, May 2013.

According to the data given in the table, work productivity or coordinated work productivity for salaries in EU trade is bigger in wholesale. However, profitability is higher in retail than in wholesale. It has, thereby, managed more efficiently the revenues from sales, mark-ups, costs, profit and capital.

Labor costs are different but significant according to certain product categories – food, non-food products. Thus, for example, in Western Europe, the personal costs of large grocery retail chains are very significant, which shows the structure of the total operational costs of the store (shown in

percentage of sales): personal costs of the store 10%, other costs 3%, logistical costs 4%, general and other administrative costs 4%, and total operational costs 20% (Retail: Workforce efficiency – Improve your service level and productivity while reducing costs, 2011, White paper, Bearing Point, Management & Technology Consultants). In retail, independently from product category, efficient HR management is necessary.

The key elements of an efficient labor force in stores are the following: 1) the flow of goods, 2) measures of sales areas and routines, 3) schedule, and 4) managing system (Retail: Workforce efficiency – Improve your service level and productivity while reducing costs, 2011, White paper, Bearing Point, Management & Technology Consultants).

The participation of labor costs in the total costs of trade in Russia is also significant. Table 10 gives the percentage of participation of costs in total trade costs (production and sales) per sectors in Russia for the period 2005 – 2012.

TABLE 10- PERCENTAGE OF PARTICIPATION OF LABOR COSTS IN TOTAL TRADE COSTS (PRODUCTION AND SALES) PER SECTORS IN RUSSIA, 2005-2012

	Motor vehicles trade and repair	Wholesale	Retail
2005	19.9	6.9	31.1
2011	18.7	9.3	27.3
2012	17.4	9.2	24.2

Source: Российский статистический ежегодник - 2013 г.

http://www.gks.ru/bgd/regl/b13_13/lssWWW.exe/Stg/d3/20-05.htm (accessed 8/30/2014 10:19 AM).

The participation of labor costs in the total trade costs in Russia, observed per sector, is the highest in retail (24.2-31.1), followed by motor vehicles trade and repairs (17.4-19.9) and the lowest in wholesale (6.9-9.2). The average monthly nominal wage of the trade worker in Russia shows a tendency of growth from year to year. Observed per certain years (in rubles) it was as follows: 2005 – 6552, 2006 – 8235, 2007 – 11476, 2008 – 14927, 2009 – 15950, 2010 – 18406, 2011 – 19613, and 2012 – 21634 (Федеральная служба государственной статистики: Труд и занятость в России - 2013). In 2013 it rose by 231% in comparison with 2005. In Russia, retail labor costs are bigger than in Canada and the USA. This, considered as a whole, is significant, and thereby efficient HR management is necessary in the aim of accomplishing the target profit of trade in Russia. We must take into account the fact that research has determined that work productivity (sales per employee and profit per employee) in the service sector in Russia is lower than in Western Europe countries, the reasons being general unfavorable business conditions (Gornostaeva, 2014).

4. LABOR COSTS PER HOUR AND UNIT LABOR COSTS IN TRADE

Generally speaking, labor costs in Europe during the previous period have shown a tendency of growth (in almost all countries) observed on a global level and in certain economic sectors. The increase undoubtedly differs in certain countries. Thus, for example, the increase of labor costs per hour in the service business economy (where trade belongs) during the period 2008 – 2013 was the following: the EU 10%, the Czech Republic 11%, Germany 12%, Spain 8.6%, France 10%, Croatia -11%, Italy 12%, Hungary -5%, the UK -1% (author's calculation based on: Labor costs per hour, 2008-2013, Eurostat, 2014). Croatia and Hungary, based on the given data, recorded a decrease of labor costs per hour in the service business economy compared to the other countries.

Table 11 shows the average annual changes of labor costs per hour and unit labor costs in wholesale and retail, as well as accommodation and food services, transport and storage in select EU member countries.

TABLE 11- LABOR COSTS PER HOUR AND UNIT LABOR COSTS IN WHOLESALE AND RETAIL, ACCOMMODATION AND FOOD SERVICES, TRANSPORT AND STORAGE IN SELECT EU MEMBER COUNTRIES (AVERAGE ANNUAL GROWTH/CHANGES, SELECTED PERIODS, %)

	2001-2012			2001-2007			2007-2012		
	Gross additional value per work hour, fixed price	Unit labor costs	Labor costs per work hour	Gross additional value per work hour, fixed prices	Unit labor costs	Labor costs per work hour	Gross additional value per work hour, fixed prices	Unit labor costs	Labor costs per work hour
France	0.5	2.2	2.7	0.8	2.5	3.4	0	1.9	2
Germany	1.2	0.3	1.5	2.7	-1.6	1.1	-0.6	2.7	2.1
Italy	-0.6	2.8	2.2	-0.4	2.5	2.1	-0.9	3.2	2.3
Spain	1	2.1	3.1	-0.1	3.3	3.1	0	1.5	1.4
United Kingdom	0.9	2.4	3.4	3	0.9	4	-1.5	4.3	2.7
European Union	0.8	1.4	2.1	1.5	0.9	2.4	-0.2	2	1.7

Source: Productivity and ULC by main economic activity (ISIC Rev. 4), Data extracted on 05 Oct 2014 10:09 UTC (GMT) from OECD. Stat

According to the given data in the table, the gross annual value per hour in the period 2001/2012 has increased the most in the United Kingdom and the least in Germany. In the 2001-2007 period, the lowest labor costs per hour in the service sector were in Germany, compared with the other countries with the biggest share in additional value in the EU. It is considered that lower unit labor costs in the complete business economy in Germany compared with the other countries is the result of a very efficient staff training (valid for trade). In the 2007-2012 period, the highest labor costs per work hour

and unit labor costs were in the UK and the lowest were in Spain. Table 12 and Figure 3 shows the growth index of unit labor costs in select EU member countries for the 2008 – 2013 period.

TABLE12- THE DYNAMICS (GROWTH INDEX) OF UNIT LABOR COSTS IN WHOLESALE AND RETAIL, FOOD STORAGE AND SERVICE, TRANSPORT AND STORAGE IN SELECTED EU MEMBER COUNTRIES (INDEX 2005 = 100)

	2008	2009	2010	2011	2012	2013
Hungary	114.8	129.8	126.3	131.8	132.9	138.1
United Kingdom	110.8	118.2	120.2	123.7	126.9	126.2
Italy	106.9	115.6	114.0	115.1	120.3	122.7
Slovenia	114.6	124.7	124.1	120.1	121.7	119.5
Slovakia	114.1	121.3	123.0	131.3	123.5	116.7
France	104.7	110.8	111.2	110.8	112.7	114.3
European Union	103.7	106.4	108.3	109.2	112.4	112.1
Germany	97.5	100.2	107.1	107.3	110.2	110.5
Czech Republic	107.6	112.2	111.5	109.7	109.1	108.0
Spain	115.6	116.9	113.5	114.8	109.4	106.4

Source: Productivity and ULC by main economic activity (ISIC Rev.4), Data extracted on 05 Oct 2014 10:09 UTC (GMT) from OECD. Stat

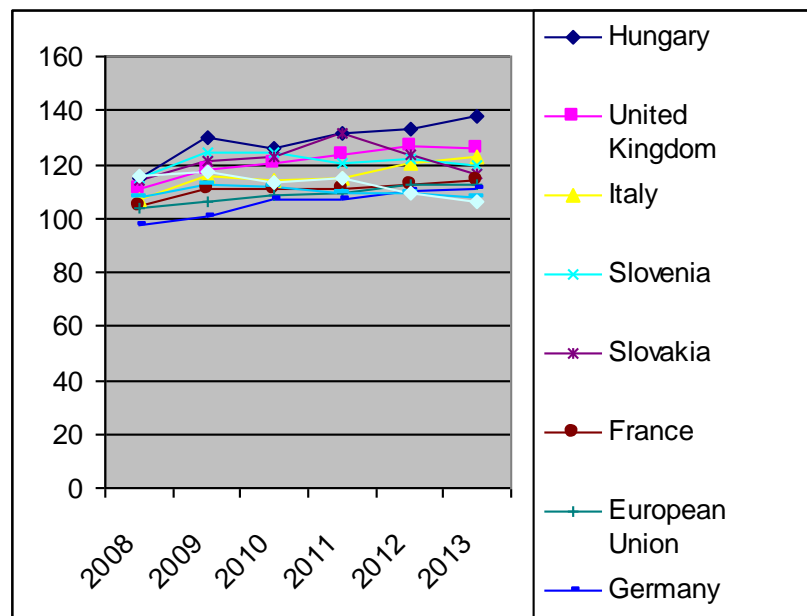


FIGURE 3- DYNAMIC (GROWTH INDEX) OF UNIT LABOR COSTS IN WHOLESALE AND RETAIL, FOOD STORAGE AND SERVICING, TRANSPORT AND STORAGE IN SELECTED COUNTRIES EU MEMBERS 2008 - 2013 (INDEX 2005 = 100).

According to the given data in the table and the figure, the highest increase of unit labor costs in 2013 was in Hungary, and the lowest in Spain, in comparison with 2005.

The labor costs and unit labor costs in trade of the USA are lower and record a tendency of decrease in comparison with the European Union. Table 13 shows the data.

TABLE13- AVERAGE ANNUAL PERCENTAGE OF CHANGES IN WORK PRODUCTIVITY AND LABOR COSTS IN THE USA TRADE

	Work productivity	Labor costs	Unit labor costs
<i>Wholesale</i>			
1987-2013	3.1	4.1	0.7
2012-2013	2.3	2.1	-2.0
<i>Retail</i>			
1987-2013	2.9	3.2	-0.1
2012-2013	5.0	1.8	-2.7

Source: U.S. Bureau of Labor Statistics, Productivity and Costs by Industry: Wholesale and Retail Trade, Food Services and Drinking Places, September 2014, www.bls.gov

Table 14 shows unit labor costs in Serbian trade for the period 2009 – 2011.

TABLE 14- UNIT LABOR COSTS IN SERBIAN TRADE, 2009 – 2011

	2009	2010	2011	Average annual percentage changes, 2011 - 2009
Wholesale and retail, motor vehicles repair - total (Index 2009 = 100)	0.06 (100.0)	0.05 (83.3)	0.05 (100.0)	-0.2
Wholesale and retail, motor vehicles repair (Index 2009 = 100)	0.07 (100.0)	0.07 (100.0)	0.06 (85.7)	-0.1
Wholesale except motor vehicles trade (Index 2009 = 100)	0.05 (100.0)	0.05 (100.0)	0.04 (80.0)	-0.2
Retail except motor vehicles trade (Index 2009 = 100)	0.07 (100.0)	0.06 (85.7)	0.06 (100.0)	-0.1

Note: Author's calculation.

Source: Statistical Yearbook of the Republic of Serbia 2011, 2012 and 2013, and annual data of structural statistics 2012, Republic of Serbia – Republic Statistic Institute.

Unit labor costs for trade in Serbia are calculated by dividing the labor costs with trade as a measure of performance (service size) in trade. In the observed period, they were reduced, which means that the cost efficiency in Serbian trade had increased, and the increase is lower than American trade. In other words, unit labor costs in Serbian trade were higher than American trade.

5. EMPLOYEE COSTS AS DETERMINANTS OF PERFORMANCES IN SERBIAN TRADE

Employee costs in trade in Serbia are very significant. In 2012 they participated in the additional value of the Serbian economy with 56.1%, and in total trade (wholesale, retail, repair) with 48.5%. The participation of labor costs in Serbian trade in 2012 was 4.67% (author's calculation based on: Annual structural statistical data 2012, Republic Institute for Statistics, Republic of Serbia).

Thereby, it was lower than in other countries mentioned. Lower labor costs are a significant factor of attracting foreign retail chains in Serbia. In the aim of achieving the targeted cost and profit performances, it is necessary to manage more efficient total costs (including labor costs) as well as the profit by applying new business models, the cost managing concept and modern technologies in Serbian trade.

Table 15 shows trade costs per sectors in Serbia for the period 2009-2012.

TABLE 15- TRADE COSTS PER SECTORS IN SERBIA, 2009 – 2012

	2009		2010		2011		2012	
	In million s RSD	%	In million s RSD	%	In million s RSD	%	In million s RSD	%
Serbian economy-total	680695	100	699655	100	761486	100	821154	100
Wholesale and retail, motor vehicles repair - total	126527	18.6	129234	18.5	138215	18.2	145946	17.7
Wholesale, retail and motor vehicles repair	10544	1.5	11496	1.6	10429	1.4		
Wholesale except motor vehicles trade	82019	12.0	82745	11.9	90449	11.9		
Retail except motor vehicle trade	33963	5.0	34992	5.0	37337	4.9		

Source: Statistical Yearbook of the Republic of Serbia 2011, 2012 and 2013. Annual structural statistical data 2012, Republic of Serbia – Republic Statistics Institute.

According to the given data in the table, it is obvious that the participation of employee costs in trade is significant in regards to the total costs of employees in the Serbian economy – and in 2012 it was 17.7%. Observed by sector, wholesale took up the largest participation - in 2011 it was 11.9%. The participation of retail was about 5%.

Table 16 shows the average costs of employees in Serbian trade for the period 2009 – 2012.

TABLE 16- AVERAGE COSTS OF EMPLOYEES IN TRADE IN SERBIA, 2009-2012 (IN THOUSANDS RSD)

	2009	2010	2011	2012
Serbian economy - total	679	729	794	862
Wholesale, retail and motor vehicles repair	597	637	671	729

Source: Statistical Yearbook of the Republic of Serbia 2011, 2012 and 2013. Annual data of structural statistics for 2012, Republic of Serbia – Republic Statistics Institute.

The average employee costs in trade are lower compared with the Serbian economy and they are lower related to trade in EU countries and other countries. For example, costs of employees in Serbian trade in 2010 (in millions) were 1230.8 EUR. The average costs of employee (given in thousands per capita) in Serbian trade in 2011 were 6,390 EUR. They are significantly lower, nearly twice in comparison with the costs of the employees in Croatian trade. This is undoubtedly a positive reflection on attracting foreign retail chains to Serbia. Dynamically speaking, the average employee costs in Serbian trade have shown a tendency of growth from year to year. In 2012, they were higher by 22.11% in comparison with 2009. This was reflected on the performances of trade companies in Serbia.

Table 17, in the aim of a more complex processing of the issue, gives the labor costs of select retail chains in Serbia in 2013.

TABLE17- LABOR COSTS OF SELECTED RETAIL CHAINS IN SERBIA, 2013

	Number of employees	Operating income (in 000 RSD)	Labor costs - total (in 000 RSD)	Participation of labor costs in operating income, %*	Net profit (in 000 RSD)	Operating income per employee (in 000 RSD)*	Labor costs per employee –average (in 000 RSD)*	Net profit per employee (in 000 RSD)*
Delhaize Serbia	7413	76836096	5043557	6.56	4094120	10365	680.36	552
Mercator-S	4701	63393962	3406468	5.37	518542	13485	724.62	110
IDEA	3949	55300760	2879145	5.20	(2237097)	14003	729.08	(566)
Knez Petrol	520	37602982	327682	0.87	222120	72313	630.15	427
OMV Srbija	42	31075305	195572	0.63	(545967)	739888	4656.47	(12999)
Lukoil Srbija	176	30347465	399810	1.31	(3195070)	172428	2271.64	(18153)

Note: Author's calculation.

Source: Commercial Register Agency

Based on the given data in the table, it is easy to conclude that labor costs (given in percentage of operating income) are significantly higher at grocery retail chains than at fuel retail chains. It is, for sure, a consequence of the nature of their operating. Furthermore, there are significant differences between them. Thus, for example, total labor costs for the first product category – food, are the highest in the Delhaize Serbia company, as well as the average employee costs in IDEA. Similar differences exist regarding the total and average employee costs between companies in the fuel market. Employee costs have significantly influenced the performances of the given retail chains.

There is a certain correlation between the given indicators (Table 18), as well as significant correlation between the number of employees and operating incomes, labor costs per employee and work productivity and a medium inversion between them and profitability.

TABLE 18- CORRELATIONS (INDICATOR OF THE COST EFFICIENCY OF RETAIL CHAINS IN SERBIA)

		Number of employees	Operating income	Labor costs-total	Net profit	Operating income per employee	Labor costs per employee - average	Net profit per employee
Number of employees	Pearson Correlation	1	.994(**)	.998(**)	.838	-.593	-.607	.155
	Sig. (2-tailed)		.000	.000	.367	.215	.201	.901
	N	6	6	6	3	6	6	3
Operating income	Pearson Correlation	.994(**)	1	.990(**)	.805	-.617	-.647	.098
	Sig. (2-tailed)	.000		.000	.404	.192	.165	.938
	N	6	6	6	3	6	6	3
Labor costs - total	Pearson Correlation	.998(**)	.990(**)	1	.808	-.590	-.594	.103
	Sig. (2-tailed)	.000	.000		.401	.218	.214	.934
	N	6	6	6	3	6	6	3
Net profit	Pearson Correlation	.838	.805	.808	1	-.595	.105	.669
	Sig. (2-tailed)	.367	.404	.401		.594	.933	.534
	N	3	3	3	3	3	3	3
Operation income per employee	Pearson Correlation	-.593	-.617	-.590	-.595	1	.976(**)	.200
	Sig. (2-tailed)	.215	.192	.218	.594		.001	.872
	N	6	6	6	3	6	6	3
Labor costs per employee-average	Pearson Correlation	-.607	-.647	-.594	.105	.976(**)	1	-.669
	Sig. (2-tailed)	.201	.165	.214	.933	.001		.533
	N	6	6	6	3	6	6	3
Net profit per employee	Pearson Correlation	.155	.098	.103	.669	.200	-.669	1
	Sig. (2-tailed)	.901	.938	.934	.534	.872	.533	
	N	3	3	3	3	3	3	3

** Correlation is significant at the 0.01 level (2-tailed).

Note: Author's calculation of statistical variables with SPSS program.

Source: Republic of Serbia – Commercial Register Agency: Annual Reports.

Table 19, in the aim of a more complex processing of the issue, shows work productivity and trade profitability in Serbia for the period 2009 – 2011.

TABLE 19- WORK PRODUCTIVITY AND TRADE PROFITABILITY IN SERBIA, 2009-2011

	Work productivity (in thousands RSD)			Work productivity corrected by salaries, (%)			Profitability (%)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011

Serbian economy	1201	1341	1297	176.9	183.8	163.3	11.0	10.7	8.1
Wholesale and retail and motor vehicles repair	1037	1161	1107	173.7	182.4	165.0	5.6	5.6	4.3

Source: Statistical Yearbook of the Republic of Serbia 2011, 2012 and 2013, Republic of Serbia – Republic Statistics Institute.

In the observed time period, work productivity in trade was smaller in comparison with the Serbian economy. An amended work productivity for salaries in trade was higher in 2010 in comparison with the Serbian economy, and lower in other observed years. Trade productivity, observed dynamically, has shown a tendency of decreasing which was reflected on its profitability, which in 2011 was smaller than in the other observed years.

6. CONCLUSIONS

Based on the conducted research, this paper can conclude that there is a significant participation of labor costs in sale revenues in trade companies. Considering this, they significantly influence performance and are treated as a crucial factor of business success. Participation of labor costs in income from the sale of retail chains is different in various countries. Thus, the labor costs in Australian trade are bigger than those in the UK and the USA. Also, labor costs in the trade of the EU and Russia are also higher than in the USA.

In addition, unit labor costs in USA trade are lower than in the EU although within the EU itself, there are numerous differences in different countries. It is typical that unit labor costs in the service sector of business economy (including trade) are lower in Germany in comparison with all other European countries, which is, inter alia, a result of a more efficient training of employees. In Serbia, unit labor costs of trade are higher compared with the USA, and labor costs per employee in Serbian trade are lower than in the EU, which are significant factors for attracting foreign retail chains to Serbia.

The number of employees and labor costs are significant indicators of trade company performance in all countries. For example, according to research, there is in Serbia a high correlation between the number of the employees and sale revenues, and between labor costs and labor costs per employee and work productivity. The medium correlation is the negative one between labor costs and profitability.

Numerous factors influence the effectiveness of labor costs management in retail chains. Key are company size, HR management, work productivity, part-time employment, improvement of relations with suppliers and buyers, new business models, and the appliance of new concepts of costs management and modern technologies. With adequate control, labor costs could be optimized as a critical factor of the business success of retail chains. This is especially related with the retail chains, primarily Serbian ones.

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