

University of Zagreb - Faculty of Economics and Business  
Croatian Chamber of Economy

Ekonomski fakultet Sveučilišta u Zagrebu  
Hrvatska gospodarska komora

**TRADE PERSPECTIVES 2016**  
**Safety, security, privacy and loyalty**

**PERSPEKTIVE TRGOVINE 2016.**  
**Sigurnost, privatnost i lojalnost**

Proceedings of The International Scientific Conference  
Zagreb, Croatia, 23rd and 24th November 2016

Zbornik međunarodne znanstvene konferencije  
Zagreb, 23. i 24. studeni 2016. godine

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**Sanda Renko**

**Blaženka Knežević**

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## **FOREWORD**

According to the Global Terrorism Database (GTD) since 2012 there is a notable rise in the number of deaths resulting from terrorist attacks on global level. Unfortunately developed European countries are not exception. Nonetheless, in Europe since 2004 terrorist attacks are growing in size measured by number of deaths. For instance, 2004 four bombs were detonated in Madrid and 200 people were killed, 2005 in London transport bombing around 60 people were killed, in 2011 in Norway around 80 young people lost live in Andrew Breiwick's attack, almost 140 people were killed in Paris at Bataclan Club attack in November 2015. Shopping centres are also the target of terrorist actions, the unfortunate example is Munich attack in Olympia shopping centre in July 2016 when 10 people died and around 20 were injured by gunshots.

In addition, piracy attacks are also intensified around world and are becoming the threat to global exchange of goods and services by causing global trading companies large losses. According to the Live piracy map issued online by Commercial Crime Services in 2016 boat crews reported following piracy actions: 6 attempts of attack, 6 fired upon, 6 hijacked, more than 30 piracy boarding.

Not only terrorism and piracy are issues that modern companies in distributive trade are dealing with. There are also losses on everyday basis resulting from various types of thefts. And finally, there is necessity to apply different methods to protect customer privacy and to create customer loyalty in those new and challenging environments.

In this publication there are three papers dealing with topic of terrorism and piracy from the aspect of distribution trade. Three papers are dealing with various aspects of thefts and their prevention. A couple of papers are raising the question on consumer protection and several are discussing challenges of security and privacy in electronic and mobile commerce.

This publication is the result of a scientific conference Trade Perspectives taking place since 2010, i.e. 90th anniversary of the Faculty of Economics, University of Zagreb. The conference has continuum ever since, year after year, putting into a focus some relevant topic in the field of distributive trade.

We are honored that the quality of the conference and the accompanying publication has been recognized not only by the Faculty of Economics, University of Zagreb, but also by the Croatian Ministry of Science, Education and Sports; and of the Croatian Chamber of Economy who co-found conference activities and the accompanying publication. We thank them warmly for their efforts and financial contribution.

Zagreb, November 2016.

Nikola Knego, PhD

Sanda Renko, PhD

Blaženka Knežević, PhD

## **PREDGOVOR**

Prema Bazi globalnog terorizma (engl. Global Terrorism Database, GTD), od 2012. godine primjećuje se porast broja poginulih uslijed terorističkih napada na globalnoj razini. Nažalost, razvijene europske zemlje nisu izuzetak u ovim podacima. Dapače, u Europi od 2004. godine raste broj poginulih u terorističkim napadima. Na primjer, 2004. godine četiri bombe detonirane u Madridu ubile su 200 osoba, 2005. godine u Londonu u napadu na podzemnu željeznicu ubijeno je oko 60 osoba, u 2011. godini u Norveškoj je izgubilo život oko 80 mladih ljudi u napadu Andrewa Breiwicka, gotovo 140 ljudi poginulo je u Parizu u napadu na klub Bataclan u studenom 2015. godine. Trgovački centri su također meta terorističkih akcija, nesretni primjer je napad na Olympia trgovački centar u Münchenu u srpnju 2016. kada je 10 ljudi poginulo, a oko 20 je ozlijeđeno u pucnjavi.

Osim toga, piratski napadi su intenzivirani diljem svijeta i postali su ozbiljna prijetnja globalnoj razmjeni dobara i usluga jer globalnim trgovačkim poduzećima uzrokuju velike gubitke. Prema Karti piratstva (engl. Live Piracy Map), koju online publicira Commercial Crime Services, 2016. godine brodske posade su izvjestile o sljedećim akcijama pirata: 6 pokušaja napada, 6 pucnjava, 6 otmica, te više od 30 ukrcaja pirata na brodove.

Nisu samo terorizam i piratstva pitanja kojima se bave moderna poduzeća u distributivnoj trgovini kada se radi o sigurnosti. Tu su, svakako, i gubici koji na svakodnevnoj osnovi proizlaze iz različitih vrsta krađa. I na kraju, tu je nužnost primjene različitih metoda za zaštitu privatnosti te stvaranje lojalnosti kupaca u tim novim i izazovnim uvjetima.

U ovoj publikaciji tri rada bave se temama terorizma i piratstva s aspekta distribucije trgovine. Tri rada se bave različitim aspektima krađa i njihovom prevencijom. Nekoliko radova bavi se pitanjem zaštite potrošača, a nekoliko ih raspravlja o izazovima sigurnosti i privatnosti u elektroničkom i mobilnom poslovanju.

Ova publikacija je rezultat znanstvenog skupa Perspektive trgovine koji se održava od 2010. godine, to jest od 90. obljetnice Ekonomskog fakulteta Sveučilišta u Zagrebu. Konferencija ima kontinuitet od tada te iz godine u godinu stavlja u fokus neke konkretne, specifične i relevantne teme iz područja distributivne trgovine.

Izuzetna nam je čast što je kvaliteta konferencije i prateće publikacije prepoznata ne samo od Ekonomskog fakulteta Sveučilišta u Zagrebu, već i od Ministarstva znanosti, obrazovanja i športa Republike Hrvatske, te od Hrvatske gospodarske komore koji podupiru konferencijske aktivnosti i prateću publikaciju. Na tome im se srdačno zahvaljujemo.

Zagreb, studeni 2016.

Prof. dr. sc. Nikola Knego

Prof. dr. sc. Sanda Renko

Izv. prof. dr. sc. Blaženka Knežević

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# SUPPLY CHAIN RESILIENCE AND INTERNATIONAL TERRORISM

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## ABSTRACT

*Since 9/11 and the terrorist attacks on the United States of America the growing threat of international terrorism has been glooming over the global economy. The effects of those attacks had a dramatic impact on the global supply chains at the time and left a mark on the supply chain management in the years to come. Ever since the founding of the Islamic state the terrorist threat has once again become a topic of interest for researchers, especially in the area of supply chain management.*

*This paper is a contribution to research on the impacts of terrorism on the supply chain and it offers a literature review of the most important terms when discussing supply chain resilience. The paper explains the concept of supply chain resilience, the risks within the supply chain and the effect of international terrorism on the global supply chains. It also offers a number of recommendations for practice in the form of theoretical designs that a resilient supply chain should contain.*

**Keywords:** supply chain risk, supply chain resilience, international terrorism

## 1. INTRODUCTION

There is no universal definition of terrorism, but from an economic perspective it can be said that terrorism presupposes a use of a threat or violence in order to achieve a political, religious or ideological change. (Cunningham, 2003) It also has an effect on the whole of society that comes under a terrorist threat, and not only on the directly targeted individuals or companies. Although there have been a number of terrorist attacks in the western world over the course of the 20<sup>th</sup> century none have had such an effect on the global economy as the 9/11 attacks on the World Trade Centre. The attacks themselves resulted in significant loss of lives and material damage but were not a direct cause for the disturbances in the global supply chains that followed them. The government actions, such as border closing and shutting down of the air traffic were the direct causes of supply chain disruptions (Sheffi, 2001). Since 9/11 the United States of America have waged a war on terror, first in Afghanistan and Iraq. However, their goals have not been fully achieved since they have managed to depose the former regimes supporting terrorist groups but didn't manage to root out terrorism. In fact, with the founding of the Islamic state caliphate in 2014 the number of terrorist attacks has increased significantly in the western hemisphere.

This paper discusses the implications of terrorism on the global supply chains through the concept of supply chain resilience. The first part of the paper will explain the concept of supply chain risk management and important factors for the implementation of a successful risk management system. It will also offer a classification of risks that can cause disruptions

in the supply chains. An emphasis will be placed on environmental risk factors, as acts of terrorism are an integral part of environmental risks.

The second chapter will be dealing with supply chain resilience. The concept of resilience is multidimensional and multidisciplinary. Therefore, it is researched in a number of scientific disciplines such as ecology, sociology, psychology and economy. These different views are summarized in order to clarify the concept of resilience which is a subject of great interest in the research of supply chain risk management. An overview of the theoretical design of resilient supply chains and the important features such supply chains should adhere to will also be presented.

The conclusion sums up the findings of the paper and delivers implications for practice and further research on the topic.

## **2. BUILDING A SUPPLY CHAIN RESILIENT TO TERRORISM THREATS**

### **2.1. Risks in the supply chain**

The supply chain can be defined as a network of organizations that are involved through upstream and downstream relationships in the different processes and activities that produce value in the form of products and services in the hands of the ultimate customer (Christopher, 1992). It can be seen from the definition that there are a number of stakeholders involved in each supply chain and a number of functions that are a part of each supply chain. A well-organized supply chain delivers goods efficiently and effectively to the market with the minimum costs. Supply chain management that focuses on the minimization of costs and maximization of efficiency and speed of the supply chain has been an academic research area for some time. Another important area of research are the risks in the supply chain. Because of the growing awareness of the supply chain risks the supply chain risk management has become a growing research area over the past few years, both for the academia as well as the business sector. (Manuj and Mentzer, 2008).

There are a number of definitions of risk, but most of them have a shared view on the attributes of risk. Thus, it is seen as a probability of damage, loss, or any other negative occurrence that is caused by external or internal vulnerabilities, and that may be avoided if preemptive action and careful risk assessment tools are in place (Rao and Goldsby, 2006). As seen from the definition of the supply chain there are a number of potential sources of risk in the supply chain. A definition of supply chain vulnerability provided by Juttner et al. (2003) states that vulnerabilities in the supply chain rise from exposures to serious disturbances, arising from risks within the supply chain as well as risks external to the supply chain. The International Organization for Standardization (ISO) has created a set of standards for supply chain management (ISO 28000) that take the risks in the supply chain greatly into account. Supply chain risk management can be defined as the implementation of a strategy to manage risks in the supply chain based on a continuous risk assessment, and with a goal the reducing vulnerability and ensuring continuity of the supply chain (Rao and Goldsby, 2006). Juttner et al (2003) state four important management aspects of the supply chain risk management:

- Assessment of the risk sources for the supply chain
- Definition of adverse consequences for the supply chain
- Identification of the risk drivers

- Mitigation of the risks for the supply chain.

In order to build and successfully manage risks and build a resilient supply chain it is important to correctly assess the risks and the risk drivers for potential threats to the supply chain.

Ekwall (2012) states that usual risks in the supply chain are shrinkage and theft, terrorism, smuggling of goods and piracy. Other authors tend to take a more general approach when defining risks in the supply chain. Ritchie and Marshall (1993) have identified five factors that can be seen as mayor sources of risk for a company: environmental factors, industry factors, organizational factors, problem-specific factors and decision maker related factors. The framework factors that comprise the circumstances in which the organization is operating are the environmental, industry and organizational factors. Mason-Jones and Towill (1997) suggest a similar framework that divides the risks to the supply chain in three categories with a number of sub-categories as shown in the table 1 below:

**Table 1** Risks in the supply chain

Risks internal to the firm	<ul style="list-style-type: none"> <li>• Process</li> <li>• Control</li> </ul>
Risks internal to the firm, but external to the network	<ul style="list-style-type: none"> <li>• Demand</li> <li>• Supply</li> </ul>
Risks external to the network	<ul style="list-style-type: none"> <li>• Environmental</li> </ul>

Source of the figure: Mason-Jones, R., & Towill, D. R. (1997)

Both the internal and external risks pose a significant threat and source of distrupction for the supply chain. The scope of this paper will be limited to identifying environmental risks in the supply chain since terrorism is one of the sources of risk in this factor group. The environmental risk factors have the largest influence on the supply chains since they affect each industry to some extent. Miller (1992) has divided the environmental risk variables into: political instability, shifts in government policy, macroeconomic uncertainties, natural uncertainties and social uncertainties. When writing about environmental risk, other authors usually take into account political, social and technological factors that make up the environmental risk.

Political instability signifies a government that is not stabile and thus cannot be expected to function independently and in the best interest of all the stakeholders. It can also mark political changes caused by disruptions in the political systems such as a war or a revolution that brings about great uncertainty for the future political course of a country (Shubik, 1986). The shifts in government policy refer to a change that affects the business community. An example of those would be government initiated changes in the monetary or fiscal system or other laws that have a direct effect on businesses such as the tax and wage regulations (Ting, 1988). Macroeconomic uncertainty is connected with the level of economic activity and prices as well as the exchange rate that has a great impact on the global supply chains (Oxelheim and Wihlbor, 1987). Natural uncertainties are a great potential disturbance for the supply chain especially in the case of catastrophic events such as flood, earthquakes and fires. Social uncertainty signals a difference between the beliefs and values of the population and the current government policy or business practice (Dunn and Herring, 1983).

The companies usually do not give due consideration to social uncertainty since they are more adapted to managing technical and financial risks. Miller (1992) argues that the assessment of social insecurity is very important since it can be a trigger for future political instability. The greatest form of social uncertainty is the threat of terrorism that has been researched by a number of authors (Sheffi and Rice, 2005; Mitroff and Alpasan, 2003). Since terrorism has a goal of initiating political, religious or ideological changes through violent acts that fuel up the political instability it should be taken into high regard when assessing environmental risks in the supply chain. The Arabian spring is the most recent example of social uncertainties that turned into political instability through violent antigovernment revolutions all across the middle east that eventually spiraled out of control and created a hot spot in Syria in a war that has been going on for the past five years and isn't nearing its end soon enough. Terrorism also has a significant impact on other risk factors. An example of this connection is a case of Cisco which wrote off more than \$2,5 billion worth of inventory because of the slowdown of networking market following 9/11. (Sheffi, 2001).

Acts of terrorism are unexpected events that can occur almost at any time and any place in a world that has never been more connected and interdependent. Therefore, the question of building supply chains that can sustain the direct and indirect damage caused by the acts of international terrorism becomes vitally important for the companies that take place in the global market. The concept of resilient supply chains explains the features a supply chain should have in order to successfully cope with the threats of international terrorism.

## **2.2. Supply chain resilience**

According to Ponomarov and Holcomb (2009) resilience as a concept is directly related to several issues in a number of scientific disciplines. Therefore, it is related to social and ecological vulnerability, disaster recovery and risk management under increasing threats. From the ecological point of view resilience determines the ability of systems to absorb change, i.e. it is a pace of restoration of initial structure and function in an ecosystem after a disturbance (Westman 1978). Folke et al (2001) offered a different view on resilience and introduced the adaptive cycle theory. According to this theory dynamic systems evolve rather than tend towards an initial state.

The social perspective of resilience takes into account the disturbances that can take place in a community. Social definition of resilience can be cited from the International Strategy for Disaster Reduction (2004) as the capacity of a system or a community exposed to hazards to adapt by either resisting or changing in order to reach and maintain a minimum level of functioning and structure.

Developmental psychopathology is an area of psychology that examines differences in the way people react to stress and adversity as sources of disturbances in everyday life. A number of findings of the main psychological aspects of resilience have been taken into account for defining the economic concept of resilience. Reich (2006) states that the most important principles coming from psychology which can be implemented into the building of any resilient system are:

- Control, in order to direct and coordinate activities
- Coherence, a principle that states that it is important to enhance direction and understanding during the worst time of the disruption in order to develop processes and procedures needed to reduce uncertainty

- Connectedness, that states that systematic coordination is necessary to avoid duplication and waste of resources in stressful times

When discussing the economic perspective of resilient systems many authors have similar definitions that take into regard the capability of the system return to a stable state after a disruption has occurred. According to Hamel and Valikangas (2003) the goal of resilient organizations from an economic perspective is to continuously innovate without causing damage to the organization. Ponomarov and Holcomb (2009), taking in consideration Carpenters theory of the adaptive cycle gives a following definition of supply chain resilience: “The adaptive capability of the supply chain to prepare for unexpected events, respond to disruptions, and recover from them by maintaining continuity of operations at the desired level of connectedness and control over structure and function”. Falasca et al (2008) define resilience as the ability of a supply chain to reduce the probabilities of disruptions, to reduce the consequences of those disruptions, and to reduce the time to recover normal performance. Christopher and Peck (2004) on the other hand define resilience as the ability of a system to return to its original state or move to a new more desirable state after being disturbed. It can be seen that all authors take into account two states of a system, the original, stable state and the state after a disturbance in the supply chain has occurred which, in the case of a resilient supply chain can be the same as the original state or better.

As it was mentioned in the introduction, after the terrorist attacks on 9/11 there has been a tectonic shift in the terms of global security and a whole new approach to the risk that terrorism poses for the global economy. The case of automobile companies Ford and Toyota is widely cited as an example of a supply chain disturbance following the attacks. The main supplier for Toyota steering sensors couldn't deliver the shipment as it was being delivered by plane, and all air traffic was stopped instantly after the attack. Since the Japanese company adhered to the rules of “just in time” production they nearly halted the US based production of Toyota vehicles. The same thing happened to Ford due to trucks delivering car parts vital for production being held at US borders.

The main attribute of terrorism as a source of risk is that the threat of another terrorism attack is continuous, always present and has a number of unwanted side effects that have a big influence on the global supply chains. Sheffi (2001) states four challenges a company faces when dealing with a terrorist threat.

The first one is the preparation for another attack. In case of a successful terrorist attack in the future, a company must prepare plans to operate in the aftermath of the attack since it can damage the company's assets, but it can also have an undesired effect on the company's suppliers or customers as well as other stakeholders. The best answers for ensuring the continuity of the supply chain are the investment in the relationship with the suppliers, creating a sustainable inventory surplus and backing up the knowledge and the processes of the company.

Management of the supply chains under increased uncertainty caused by both the terrorist actions and government responses to the actions is another challenge. In order to reduce those risks, companies should cooperate more with their shippers to increase the shipment visibility and generally work on improved collaboration in the supply chain. A number of models such as the “just in time” manufacturing, “efficient consumer response” in the grocery industry, and “quick response” in the textile industry are examples of good cooperative schemes that

strengthen the collaboration within the supply chain. More advanced risk pooling techniques are also needed in order to minimize the effects of increased uncertainty.

A new era in relationship between the government and companies in which they will have to cooperate more closely in order to minimize the risk of terrorism is another challenge, as well as the management actions needed for the insurance of security of the employees, physical assets and intellectual property. The sharing of information between company's and the government especially in an era of ever growing digitalization and huge amounts of data being transferred over PCs and smartphone is a hot topic all around the world since it raises the questions of user privacy and the governments right to know everything.

As was mentioned, the goals of efficient supply chain management are to lower costs and increase speed in producing, delivering end selling products to the end consumer. Lee (2004) explains how even the most efficient supply chains were sometimes not able to make the delivery and have significantly affected the company's workflow and caused market trouble. One of the reasons is the inability of efficient supply chains to quickly adapt to unexpected changes in supply or demand that can also be caused by acts of terrorism. If the supply chains are organized efficiently it means that they are highly standardized which leaves little place for fast reactions to market disturbances. Terrorism disturbs supply chains in various ways, directly by causing damage to important supply nodes and assets of a company, and indirectly through changes in market supply and demand and government actions that disrupt the supply chain. Therefore, in order to build a resilient supply chain, efficiency is not enough.

A number of authors have described the features a resilient supply chain should have (Rice and Caniato, 2003, Christopher and Peck, 2004, Sheffi and Rice, 2005). Since flexibility in the terms of returning to a previous state of functioning of the supply chain, or continuing to operate on a different level of stress is very important for a resilient supply chain they emphasize agility as an important feature a resilient supply chain should have. Another important issue in a resilient supply chain is the collaboration between the enterprises in the chain in order to ensure every part of the chain is working for a better performance and anticipating and dealing with risks continuously and effectively. Pooling risk also has a vital role being able to react to increased uncertainty. When speaking of supply chain design the most common used risk pooling methods are postponement and build to order. Postponement is a method by which the companies delay the moment in which their products become customizable, thus trying to use up the most of economies of scale by creating generic products and differentiating them at the furthest possible point down the supply chain. Build to order is another type of postponement strategy and it is used by companies who build items only after they have been ordered. These methods tend to significantly decrease the risks in the supply chain, and tend to make it more resilient to disturbances. The main issue is that only companies that make large quantities of products with the similar technological base such as printer or mobile manufacturers can use these methods.

By examining the paradox of companies that have very efficient supply chains and are not able to gain a sustainable competitive advantage Lee (2004) proposed a triple A supply chain design that incorporates the most important features a resilient supply chain should have. The triple A stands for agility, adaptability and alignment.

When discussing agility in the terms of economics it is the ability of a business system, or in this case a supply chain to rapidly respond to disruptions. Agile supply chains handle disruptions in a way that is cost efficient and does not endanger the continuity of actions

within the supply chain. Lee (2004) states the importance of communication within the supply chain, and sharing information about possible changes in supply or demand. Another important issue for accomplishing the goal of agility is the importance of redundancy in terms of keeping a small inventory of product components to prevent production halts.

The goal of adaptability is the creation of a supply chain that can easily accommodate market changes. In order to have an adaptable supply chain a company must always assess economic changes in the countries that are important suppliers and try to diversify the input sources and create different supply chains for different products. This is similar to the concept of postponement when pooling risk in the supply chain. An adaptable supply chain evolves over time as external changes reshape markets, and this feature is shared by Folke et al. (2002) when discussing the adaptive cycle theory in the ecosystems.

Alignment is the third bottom line of the triple A supply chain. When a company manages to align the interest of all enterprises taking part in a supply chain in such a manner that all parts of the chain maximize their own interest, thus optimizing the performance of the chain as well it can be said that a supply chain is aligned. In order to achieve alignment, a company should clarify the role of each enterprise taking part in the supply chain. It should also make sure that the incentives coming from the company towards the enterprises in the chain are aligned in such a manner that they help each enterprise to maximize their returns from the partnership. The table 2 below sums up all the important features a triple A supply chain should have.

**Table 2** The Triple A supply chain

<b>Agility</b>	<b>Adaptability</b>	<b>Alignment</b>
<p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Respond to short term changes in demand or supply quickly, handle external disruptions smoothly</li> </ul>	<p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Adjust supply chain’s design to meet structural shifts in markets; modify supply network to strategies, products and technologies</li> </ul>	<p><b>Objective:</b></p> <ul style="list-style-type: none"> <li>• Create incentives for better performance</li> </ul>
<p>Methods:</p> <ul style="list-style-type: none"> <li>• Promote flow of information with suppliers and customers</li> <li>• Develop collaborative relationships with suppliers</li> <li>• Design for postponement</li> <li>• Build inventory buffers by maintaining a stockpile of inexpensive but key components</li> </ul>	<p>Methods</p> <ul style="list-style-type: none"> <li>• Monitor economies all over the world to spot new supply bases and markets</li> <li>• Use intermediaries to develop fresh suppliers and logistics infrastructure</li> <li>• Evaluate needs of ultimate consumers - not just immediate customers</li> <li>• Create flexible product designs</li> <li>• Determine where</li> </ul>	<p>Methods</p> <ul style="list-style-type: none"> <li>• Exchange information and knowledge freely with vendors and customers</li> <li>• Lay down roles, tasks and responsibilities clearly for suppliers and customers</li> <li>• Equitably share risks, costs and gains of improvement initiatives</li> </ul>

<ul style="list-style-type: none"> <li>• Have a dependable logistics system or partner</li> <li>• Draw up contingency plans and develop crisis management teams</li> </ul>	<p>companies products stand in terms of technology cycles and product life cycles</p>	
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Source of the figure: Lee, H. L. (2004)

The triple A supply chain design offers an overview of all the features and actions a resilient supply chain should have. It also offers a multidimensional approach taking into account the important findings regarding the concept of resilience from sociology, psychology and ecology. Christopher and Peck state that one of the reasons for lack of resilience in the supply chains is that resilience is rarely set as a target objective, as opposed to costs and speed of the supply chain. They stress out the importance of understanding the pinch points and critical paths within the supply chain in order to be able to build a resilient supply chain. Similar to Lee (2004) they also offer a number of design principles that should be incorporated in a resilient supply chain.

Choosing a strategy of keeping several options open helps companies in reducing the impact of a disruption although it is not cost efficient in the short run. A policy of reexamining the redundancy against efficiency tradeoff in order to maintain a sustainable inventory surplus that can help defend against disruptions in critical points in the supply chain is another recommendation. Other design principles have been mentioned by Lee (2004) and other authors as well, such as collaboration within the supply chain, agility and visibility.

### 3. CONCLUSION

The threat of global terrorism has never been more up to date especially when discussing the global supply chains and disruptions that acts of terrorism could possibly cause. This paper has offered an overview of the risks present in the supply chain, characterizing terrorism as a social insecurity with a tendency to spread to an all-out political instability if not kept in check by local political authorities. In an ever more connected global economy a single terrorist act in another part of the world can cause significant loss due to disruptions in the supply chain of a company caused by the act itself, as well as the actions of government and other stakeholders after the attack.

Two most important determinants of an efficient supply chain management are the reduction of costs and increase of speed of the chain. Research has shown that these two are not enough for creating a sustainable competitive advantage. In order to stay competitive, companies need to take into account the risks and changes of factors that influence the supply chain. The supply chain risk management theories assume that risks should be assessed continuously and dealt with strategically. The concept of supply chain resilience is closely connected to risk assessment and creation of a sustainable competitive advantage.

Resilience is a multidisciplinary concept that is used in economy, psychology, sociology and ecology. It is an attribute that defines the possibility of a system to return to its previous state or to evolve to a new state of stability after a disturbance has occurred. In order to be able to

fully fulfill its purpose a supply chain must be able to withstand or to minimize the effects of all possible disruptions, such as terrorist attacks on all the enterprises involved in a supply chain.

The challenges that await supply chain management in the face of terrorist threats in the future are the actions a company will take in order to be prepared for another attack, reduction of risks in the supply chain under increased uncertainty, and a change in relations with the government in terms of information sharing in order to minimize risks of potential terrorist attacks. In order to answer to these challenges companies should try and develop supply chain that adhere to the principles of triple A supply chain. This implies that a supply chain should be not only cost efficient and speed sufficient but also agile, adaptable and aligned. Terrorism as a source of disruption in the supply chain is a question that requires further research. Resilience of the supply chain is a key attribute in dealing with the threats of terrorism but further research into different methods of strengthening the supply chain should also be undertaken.

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# THE IMPACT OF TERRORISM ON THE SECURITY AND CONTINUITY OF INTERNATIONAL BUSINESS ACTIVITES

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## ABSTRACT

*In the international business, terrorism has become a daily challenge and the risk of terrorism, as a type of political risk, has been integrated more and more into the systemic models of risk assessment. Terrorism involves considerable risks and greatly influences international operations, where we can differentiate prevention costs, direct and indirect costs related to terrorism. It is the indirect costs that have the most significant influence on international business, since they have a constant negative impact on the business environment. Managers of the international companies have to accept the fact that terrorism cannot be so easily suppressed and they have to adapt. However, literature suggests that the awareness considering danger and risks connected with terrorism is growing and that many international companies are already using different mechanisms for protection in order to increase security of their property and employees and preserve international business continuity. The aim of this paper is to, based on the research of specific economic and political factors, come to conclusions on possible future influence of terrorism, especially concerning international business.*

**Keywords:** Egypt, France, international business, terrorism, tourism

## 1. INTRODUCTION

Terrorist activities have become an ever-increasing threat to global security. Although the attack on the USA in 2001 is seen as an escalation of terrorist activities, they had occurred earlier as well, for example, the Palestine terrorist attack on the Israeli athletes in the Olympics in 1972, numerous Irish Republican Army (IRA) attacks in the United Kingdom and the activities of Basque Fatherland and Liberty (ETA) - a Catalan terrorist organization. Since 2001, many countries have introduced severe antiterrorist laws and measures with the aim to prevent financing of terrorism, like the measure of freezing suspected accounts. But, those measures have proven insufficient in the prevention of global terrorism.

At present, the greatest terrorist threat to contemporary peace is the Islamic state, whose activities do not just impedes the free flow of people and threaten their activities, but also influence the economic growth of countries with the highest terrorism alert. The best example of terrorism influencing international business can be seen in the tourist trade, where up till recently leading tourist destinations, like Egypt, Tunis and Morocco, are dealing with great business losses. The fear of terrorism has influenced the stability of the free trade in the European Union as well. More and more member states are advocating more rigorous controls on the border crossings, which then influences the free flow of people and goods. Considering the new political situation at hand, this paper will analyze the impact of terrorism on international business.

During the problem processing in this paper, methods of analysis, synthesis and comparison will be used. By means of a case study, descriptive data analysis and simple regression analysis the research on the influence of terrorism on international business will be conducted. By using the case study method and the descriptive analysis of the World Tourism Organization and the World Bank data for the terrorism inflicted countries, the influence of terrorism on tourism activities in Egypt and France will be explored.

## 2. TERRORISM AND THE ROOTS OF TERRORISM ACTIVITIES

### 2.1. Definition and the development of terrorism in the past

Although the term terrorism has been used internationally since the end of the 18<sup>th</sup> century, the very definition of terrorism is quite complex, and the literature overview shows that there is no unique and generally acknowledged definition. The reasons for this can be found in various political, philosophical, security, sociological or even etymological facts, which intentionally or not, directly or not, make it difficult to define this widely spread term.

Bilandzic (2009) points out that terrorism is a politically generated phenomenon and it implies the use of violence (terror) with the aim of achieving (political) goals, where the complexity of the term is explained by the fact that terrorism is a product of a highly intertwined combination of many factors: historical, political, social, cultural, ideological, religious, economic, psychological, and its research should therefore be multidisciplinary. Terrorism implies the use of threat and force towards civilians and noncombat targets by nongovernmental subjects (sub national or international) in an asymmetrical conflict, with the aim of achieving political goals (Schmid, 2011).

Matusitz (2013) points out that certain activities, in order to be seen as terrorism, should meet the following criteria:

- the use of violence or threat in order to achieve political, religious or ideological change;
- a terrorist act can be done only by nongovernmental subjects or secret services in the name of their governments;
- it reaches further beyond the imminent victim, and is also directed towards the goals which encompass a broader spectre of society;
- a terrorist act is also *mala prohibita* (a crime against the law) and *mala in se* (a crime amoral in its core).

On the international scale, it is important to point out the definition given by the United Nations Security Council (Resolution 1566), which defines terrorism as: “criminal acts, including against civilians, committed with the intent to cause death or serious bodily injury, or taking of hostages in order to provoke a state of terror in the general public, or in a group of persons, or particular persons, intimidate a population or compel governments or international organizations to do or to abstain from doing an act, which constitute offences within the scope of and as defined in the international conventions and protocols relating to terrorism, are under no circumstances justifiable by considerations of a political, philosophical, ideological, racial, ethnic, religious or other similar nature” (UN, 2004).

Although there have been situations when independent individuals used terrorist acts, it is usually attributed to different terrorist organisations, where a terrorist organization is defined as an illegal secret organization, generally consisting of a planner, trainer and actual killers.

Based on the data from the American Antiterrorist Organization, there are over fifty registered terroristic organizations worldwide today (USDS, 2015).

Internationally, terrorism became known and recognized as a problem in 1934, when the League of Nations made a huge step and designated terrorism as illegal and punishable. The League then issued the Convention for Prevention and Punishment of Terroristic Acts. Only few years later, Stern Gang, a militant Zionistic group founded by Ayrham Stern, hit the front pages. The goal of the group was to evict British government from Palestine, to enable immigration of Jews and to create a Jewish state. A similar Jewish terrorist group, Irguna, was active during the British mandate in Palestine, from 1931 till 1948. The notorious terrorist act of Irguna group happened in Jerusalem in 1946, when they bombarded the King David Hotel (the seat of British forces in Palestine) and killed about twenty people.

Terrorism hit cover pages again in the 1970s and reached culmination in the middle 1980s (Abadie and Gardeazabal, 2008). From 1975 till 1984, an average number of reported terroristic acts rose from ten per week to ten a day. The Middle East had the highest number of international terrorist incidents. Europe was second, while Africa, Asia and the Americas experienced considerably fewer international incidents. During the 1990s, there was a bomb attack on the World Trade Centre in 1993 and in 1995 there was a gas attack in the Tokio subway. Not long after this incident, the most known terrorist attack happened, the attack on the World Trade Centre in New York in 2001, for which Al-Quaeda took responsibility. It is that very attack that spread terrorism awareness worldwide and gave a strong motive for antiterrorist activities, but has also resulted in a number of new terrorist organizations.

To conclude, terrorism became massive in the 20th century, while “global”, omnipresent terrorism emerges in the 21<sup>st</sup> century. Today, there is almost no media which do not release news on terrorist activities around the world on a daily basis (Maric, 2012).

## **2.2. Motives for terroristic actions**

Terrorist groups have different purposes, goals and motives for their actions. According to Kislali (2011), their primary goal is not to kill a lot of people, but to leave powerful impression on the public and expose as many people as possible to the terrorist activities. In this sense, one of the main goals of terrorist attacks is their influence on the processes of collective thinking and spreading mass confusion which induces the atmosphere of distrust and uncertainty. Thereby, the atmosphere of distrust among citizens, arising from terrorism, creates anxious feelings about the future, and uncertainty makes us feel like we have no control.

Literature highlights the second general goal of terroristic activities – creating a division between “us” and “them”, which is promoted by different radical groups (Kokdemir, 2003). Next important goal of these groups is to undermine the morale of citizens and security forces and to create panic by intimidating population or groups of persons. Most common targets of terrorist attacks are churches, schools, trade centres, restaurants, airports and other locations where larger groups of people linger. The violation of government authority and degradation of public institutions, security forces and other public services in the eyes of the public is seen as a specific goal of these groups. The goal is not just to inflict material damage and cause human losses, but also to demonstrate their superiority by intimidating the community.

The main goals of terrorist organizations can be classified into three groups, based on tactical characteristics (Tavares, 2004):

1. Drawing attention. Terrorists draw media attention and public attention with the attacks on strategic targets like public institutions, companies etc.
2. Give rise to political instability. By provoking political instability, terrorist organizations try to discredit, diminish the power and influence or bring down the existing governmental structures.
3. Inflicting damage on economy. In this way, terrorist try to accomplish several goals. One is to create unfavourable conditions for business or investments by the existing or potential multinational companies.

The other goal can be connected to the first one, where the undermining of economic stability and creating general dissatisfaction can lead to a general uprising which can then lead to the overthrowing of the existing government.

### **3. COSTS AND IMPACT OF TERRORISM ON THE INTERNATIONAL COMPANIES**

#### **3.1. Characteristics of international companies' activities**

A company's activities are defined by many factors, and their interaction often places specific organizational challenges in front of their managers. Managing local companies is a highly demanding process, but the complexity of international business, due to the fact that there are many factors atypical for local business (e.g. international regulations, risks, strategies etc) is even more challenging. Factors that influence international business activities can be placed into groups relating to economic, legislation, political and socio-cultural environment (Vidovic, 2013).

According to Schuler et al (2002), in order for an international company to be successful globally, it has to be (i) competitive worldwide, (ii) efficient, (iii) adjusted to local conditions, (iv) flexible, i.e. capable of adapting in the shortest period possible and (v) capable of transferring knowledge and learning processes into all the organizational units around the world. To achieve these diverse goals is an important challenge international companies face daily.

The particularity of international business is the fact that international companies, unlike national ones, face higher risks, especially those political, legal and social. Companies dealing with international business activities face three basic forms of risks (Dlabay and Scott, 2010).

- Political risks, which include government instability, political uncertainty, changes in regulations etc. One of the key features of political risks is that they are very hard to project and manage, as will be further presented in the paper.
- Social risks are most often manifested through different formal and informal institutions relating to religion, culture, social and family values. Behavioural patterns, showing of respect, protocols and similar factors considerably influence business activities in foreign countries.
- Economic risks, unlike those present in national economies, most often include currency exchange rates risks, unknown behavioural patterns of customers (upon entering a new market) and inflation risks (especially on the undeveloped markets).

Risk management presents an important tool for companies which operate in the environment of speedy changes in clients' demands and market globalization. Today, it is important to

have a comprehensive strategy of risk management in order for a company to stay on the market, and this is especially true of international companies because of the complexity and uniqueness of business activities. The key benefits of efficient political risks management, which improve global business, can be manifested in two basic ways. First, by protection of existing and new investments and activities. And second, by exploiting different opportunities significant political changes can lead to (PwC, 2013). The second way can be related to terrorism as well, where a better risk control system can lead to a situation in which the company was a more difficult terrorist target than its competitors. In the long run, absence of terrorist attacks can bring higher reputation and credibility to a company. Therefore, it can be concluded that potential benefits from financing methods for systemic political risk management can considerably surpass all the financial and organizational costs in a short while.

The said advantages of political risk management are especially emphasized in the situations of terrorist activities, because the costs of terrorism risk have been identified as considerably higher than average risk costs (Mazzarella, 2005). It is of great importance that international companies, besides managing risks by means of classic methods (buying insurance policies, hiring security consultants, education of employees, integration of terrorism risk into risk assessment models etc), to undertake a series of specific terrorism risk measures.

Frey (2009) notes that it will not be possible to ever completely remove the risk of terrorism and that, from the managements' aspect, it should be seen as one of many challenge in the international business activities. In line with this, managers and/or heads of risk departments can implement two sets of specific activities in the protection from terrorism risk. The first group of activities is made of "preventive" measures targeted at discouragement of terrorist to take the specific company as their point of interest. The second group are activities with a goal of minimizing costs after the company was targeted by terrorists, i.e. activities that reduce as much as possible the effects of terrorist activities. When managing this type of risk, international companies, besides using standard methods of political risk management, have to use a set of specific measures to discourage terrorists and minimize the effects of their activities.

### **3.2. Direct and indirect effects of terrorism**

The effects of terrorist activities can be direct or indirect and can hurt the business in the short term and in the long term likewise, and the damage from the terrorist attacks is often great. It is for this very reason important to understand all the ways in which terrorism influences international business. In literature, the effects of terrorism are divided into direct and indirect effects and/or costs. Some authors list the prevention costs as a separate category, i.e. costs of insurance and all other measures implemented for prevention of potential attacks before they occur (Oladimeji and Oresanwo, 2014).

Direct terrorist costs usually imply the most evident effects of terrorist attacks which lead to human casualties, devastation and seizure of material property and infrastructure and blocking of production and business processes. However, literature cites that direct costs also imply the costs of sanitation, like emergency interventions, costs of reconstruction, loss of payments and work posts, losses on the capital market, losses of insurance (Enders and Olson, 2012).

Indirect costs are most evident in the rise of uncertainty which can have several impacts on the business environment (Oladimeji i Oresanwo, 2014):

- demand for goods and services is falling rapidly in the conditions of fear and panic and the uncertain future can entice consumers to stop spending and start saving more;
- offer of input, resources and services essential for business activities of a company that has been attacked or is located near the target area can be limited or completely stopped very quickly, and, in some cases, a cancelation of contract can happen;
- changes in the legislations and regulations brought by a government reacting to terrorist attacks can significantly influence the business environment (e.g. more rigorous controls, administration can become more complicated etc.)
- macroeconomic effects (drop of GDP, currency becomes weaker, drop of domestic and foreign investments etc.) can influence the business greatly;
- rise of uncertainty due to terrorist attacks influences the relationship between countries as well, and the compromised relationships further influence the activities and cooperation of the companies in those countries.

The first three components are key for international business operations, since drop in demand, discontinuance of supply chain and significant changes in regulations can in short time have strong negative influence on international business.

Indirect effects of terrorism are often concentrated in several sectors. Enders and Olson (2012) point to a series of empirical research which show that most of costs connected to terrorism are concentrated in the area of transport, tourism and financing, regardless of in which economic sector the initial terrorist attack occurred. Finally, direct costs sometimes include psychological consequences victims, their families and witnesses suffer, but those costs are almost impossible to quantify. International companies, besides the costs of the initial attacks, bear a series of other indirect costs, since after terrorist attacks external conditions for business activities deteriorate.

Besides the costs related to the consequences of terrorist attacks, literature points out the importance of prevention and protection from terrorism. Although those costs can seem minimal from the national companies' point of view, international companies allocate significant amounts for prevention and protection from terrorism. These costs include: heightening security of equipment and staff, using security consultants' services, endangering of global supply chains, reducing investments in the high - risk areas, costs of staff employment and costs related to insurance from political risk (Mazzarela, 2005).

Terrorism creates considerable costs in the international business dealings during all phases; in the prevention phase, acute phase (direct cost of attacks) and in the phase of mending damages from the attack. For international companies, most important are indirect influences of terrorism, because they bear the greatest costs, both short-term and long-term.

#### **4. EMPIRICAL RESEARCH ON THE IMPACT OF TERRORISM ON THE INTERNATIONAL BUSINESS ACTIVITIES**

Although there are a number of empirical papers on terrorism, there are not many authors that deal with the impact terrorist activities have on international companies (Frey, 2009). Most authors concentrate on the effects terrorism has on specific economic sectors (tourism, trade, transportation, foreign investments, insurance, defence etc.), like for e.g. Keefer and Loayza (2008), and Brück (2007). Other authors have studied the effects of terrorism on different macroeconomic aspects (prices of financial assets, movement of the capital, national GDP etc.), which, for example, can be seen in Bird et al. (2008). A detailed overview of empirical

literature and the economic aspect of terrorism can be found in Enders and Sandler (2006), Frey (2004) and Krueger (2007). This paper will assess the indirect effects as well, using macroeconomic variables.

France and Egypt were chosen for this research, since those are countries with a highly developed tourism sector and have been facing numerous terrorist attacks. Since tourism is one of those sectors mostly hit by terrorism, this research will analyze indirect effects of terrorism on the economies of these countries and on the related business activities.

#### **4.1. Role of tourism in the economy and terrorism in France and Egypt**

Although culturally, politically, geographically and institutionally very different, France and Egypt share certain characteristics which make it possible to compare these two countries.

**Table 1.** Number of foreign tourist arrivals in the selected countries in 2014

	<b>Country</b>	<b>No of tourists (in millions)</b>
<b>1</b>	<b>France</b>	<b>83,767</b>
<b>2</b>	USA	75,011
<b>3</b>	Spain	64,995
<b>4</b>	China	55,622
<b>5</b>	Italy	48,576
<b>6</b>	Turkey	39,811
<b>7</b>	Germany	32,999
<b>8</b>	UK	32,613
<b>9</b>	Russia	32,421
<b>10</b>	Mexico	29,346
	...	
<b>31</b>	<b>Egypt</b>	<b>9,628</b>

Source: World Tourism Organization (2016). UNWTO Tourism Highlights 2015 Edition, p. 6

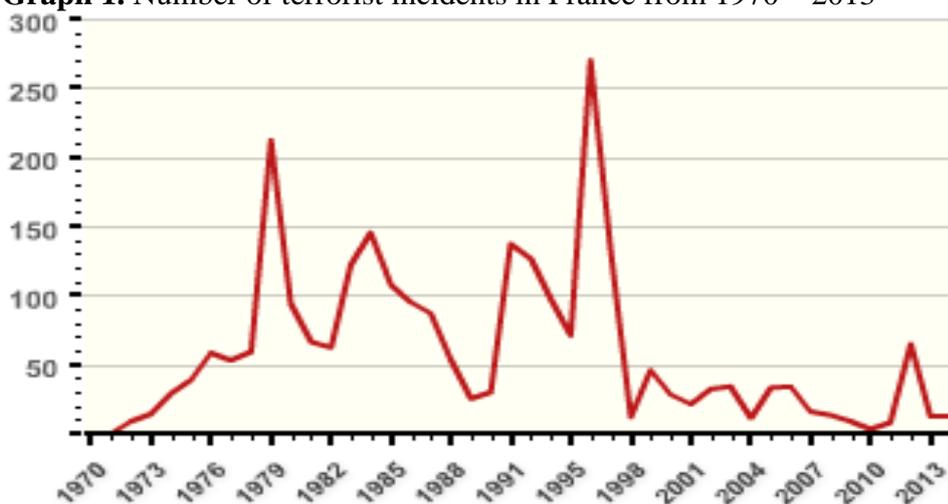
**Table 2.** Global index of terrorism in the selected countries in 2015

	<b>Country</b>	<b>Index</b>
1	Iraq	10.00
2	Afghanistan	9.23
3	Nigeria	9.21
4	Pakistan	9.07
5	Syria	8.11
6	India	7.75
7	Yemen	7.64
8	Somalia	7.60
9	Libya	7.29
10	Thailand	7.28
	...	
<b>13</b>	<b>Egypt</b>	<b>6.81</b>
	...	
<b>36</b>	<b>France</b>	<b>4.55</b>

Source: Institute for Economics and Peace (2015), Global Terrorism Index 2015, p. 10

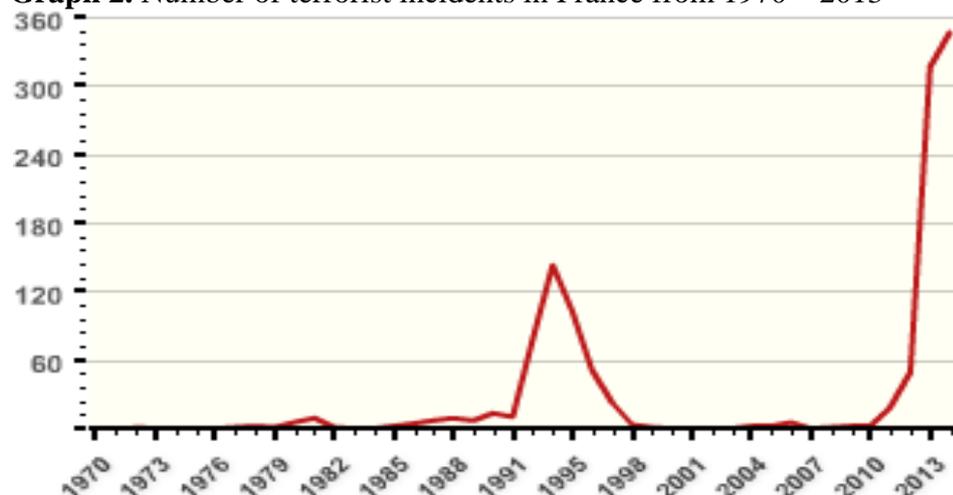
The first similarity comes from the importance of tourism as a sector: France, with almost 84 million foreign tourists, was on the world’s top, while Egypt, with about 10 million tourists, was 31st (Table 1 and Table 2). Other similarity is seen in the exposure to terrorist activities, i.e. in the terrorism risk. According to the global index of terrorism, which shows the influence of terrorism on a certain economy, Egypt and France belong to a group of countries with the biggest terrorism threat in the world. Thereby, Egypt is placed 13<sup>th</sup> in the world in 2015 and France 36<sup>th</sup>. If the data is monitored regionally, the conclusions are even more sinister, for Egypt is in the top three of most endangered in Africa (along Libya and Somalia) and France in the top four in Europe (next to Russia, Ukraine, the UK and Greece).

**Graph 1.** Number of terrorist incidents in France from 1970 – 2013



Source: Global Terrorist Database (2016). 2015 Global Terrorism Database

**Graph 2.** Number of terrorist incidents in France from 1970 – 2013



Source: Global Terrorist Database (2016). 2015 Global Terrorism Database

Graphs 1 and 2 are showing several interesting facts. First, although France is a developed, western democratic country, the number and frequency of terrorist incidents during the entire period indicated in the graph is considerably higher than in Egypt. Secondly, in 1990s both countries recorded a sudden rise in terrorist attacks. And lastly, after the beginning of the Arab Spring in 2010 and the revolution in Egypt in 2011, the number of terrorist attacks has risen to a historical maximum.

#### 4.2. Methodology of research and research hypothesis

In order to evaluate the impacts terrorism has on tourism and economy of France and Egypt, data on the number of tourist arrivals and income, growth rate of GDP and the number of terrorist attacks will be used. The data sources that will be used in the paper come from the World Bank, the World Tourist Organization and the Global Terrorist Database.

**Table 3.** Description of data used in the analysis

DATA	SOURCE	DATA DESCRIPTION
Number of tourist arrivals	World Bank; World Tourism Organization	In millions; annual data; growth rate
GDP	World Bank	real growth rates; annual data
Number of terrorist attacks	Global Terrorist Database	The change in the number of cases; annual data

Source: created by the author

In the first part of the research descriptive analysis of the data will be used, and in the second one, the impact of terrorism will be assessed by the model of simple liner regression. The model of simple linear regression can be written down like this: where  $Y_t$  is the dependent variable,  $X_t$  the independent variable,  $\varepsilon_t$  is the relation error and  $\beta_0$  and  $\beta_1$  are parameters which will be assessed by the regression model. In this research, the dependent variable will be the change in the number of tourist arrivals. while the change in the number of terrorist attacks will be the independent variable. After the regression analysis is conducted, the effect of terrorism on the GDP will be assessed, using the data on the share of toruism in the GDP. Due to the limited availability of data on the number of terrorist attacks, the analysis is conducted for the period from 2000 till 2014.

Two basic hypotheses on the effects of terrorist activities on the Egyptian and French economies will be tested in the paper. The first hypothesis relates to the influence of terrorist attacks on the number of tourist arrivals in Egypt and France, whereby it is expected that terrorist attacks influence the number of tourist arrivals in a negative way. The other hypothesis relates to the relative intensity of the effects of terrorist attacks on the economies of those countries, where it is expected that terrorist attacks have a stronger influence on the GDP in Egypt than in France. The hypotheses can be put concisely in this way:

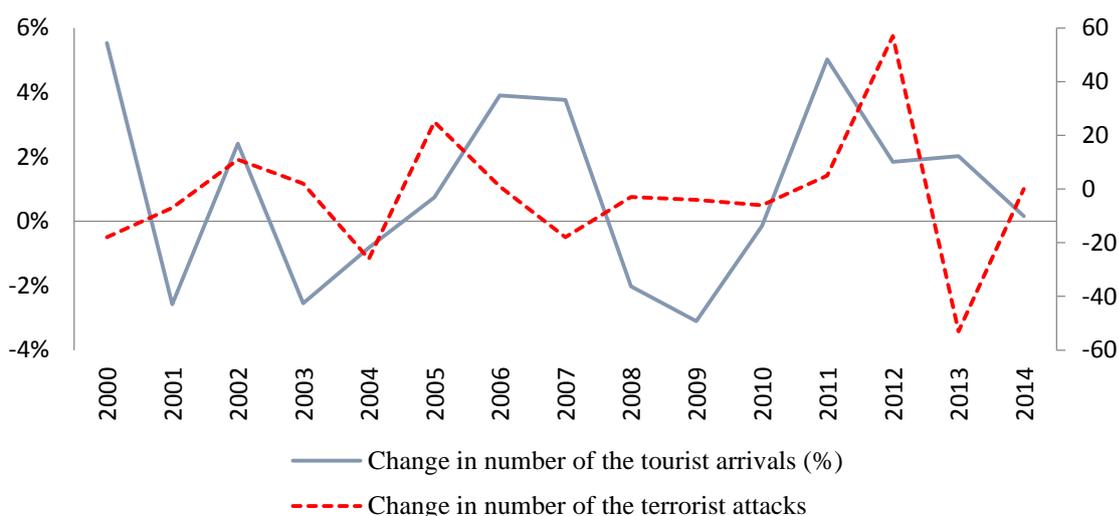
- The first hypothesis ( $H_1$ ): Terrorist attacks negatively influence the number of tourist arrivals in Egypt and France.
- The second hypothesis ( $H_2$ ): Terrorist attacks have a stronger influence on the GDP of Egypt than the GDP of France.

### 4.3. Research results

Graph 3 shows the growth rates in the tourist arrivals and the annual change in the number of terrorist incidents from 2000 till 2014 in France while graph 4 shows the growth rates in the tourist arrivals and the annual change in the number of terrorist incidents from 2000 till 2014 in Egypt.

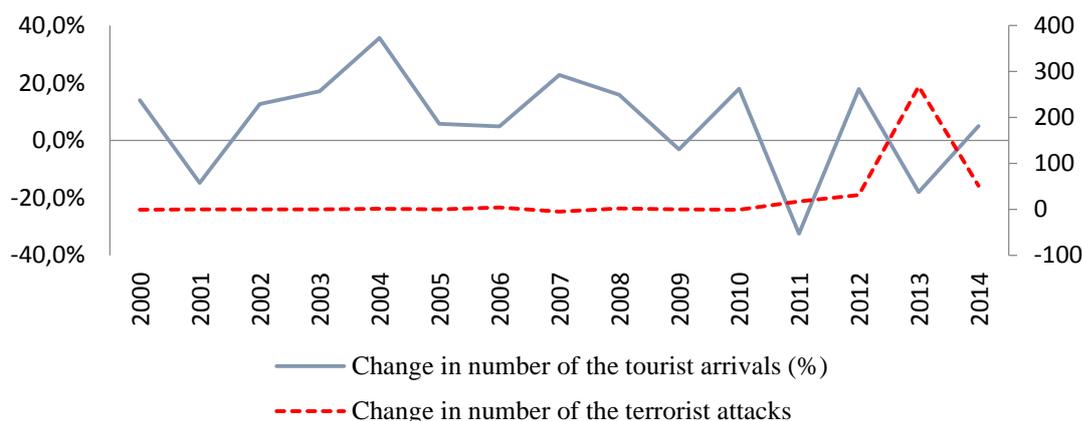
From the Graphs 3 and 4 it can be concluded that there is no strong visible connection between the annual growth of tourist arrivals and the change in the number of terrorist incidents, whereby at the first glance, the correlation between the terrorist attacks and tourist arrivals may seem stronger in France than in Egypt. However, it is noticeable that, regardless of the number of terrorist attacks in the country, both countries recorded a drop of tourist arrivals in 2001, which can probably be largely attributed to the attack on the World Trade Centre in New York, which was also one of the main triggers for the recession which spread that year from the USA to the rest of the world. Therefore, based on the data shown, it seems that the external shocks which influence the tourist perception of the dangers terrorism brings, influence more the tourist arrivals than the local terrorist attacks.

**Graph 3** Tourist arrivals and terrorist attacks in France



Source: created by the author

**Graph 4** Tourist arrivals and terrorist attacks in Egypt

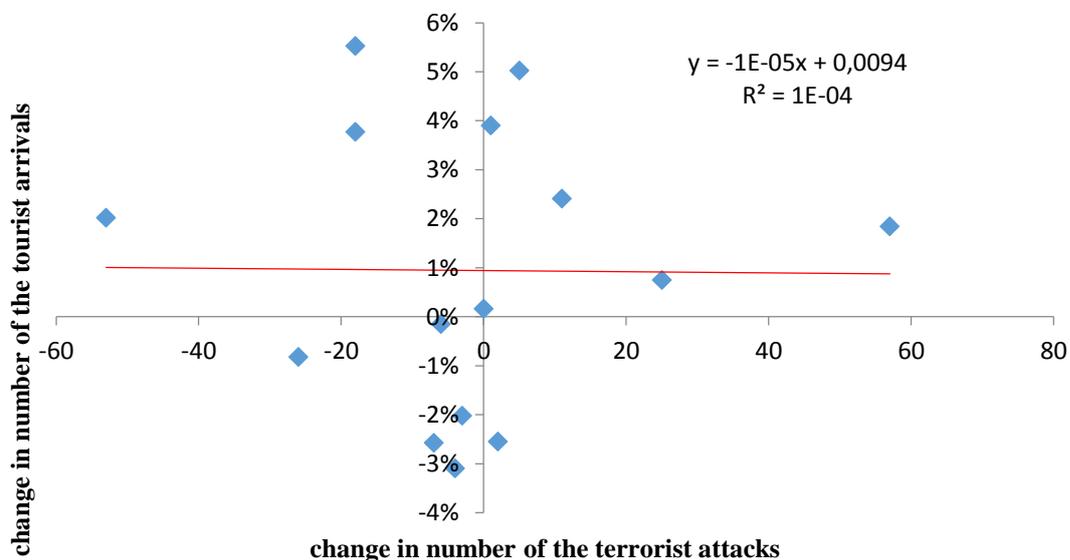


Source: created by the author

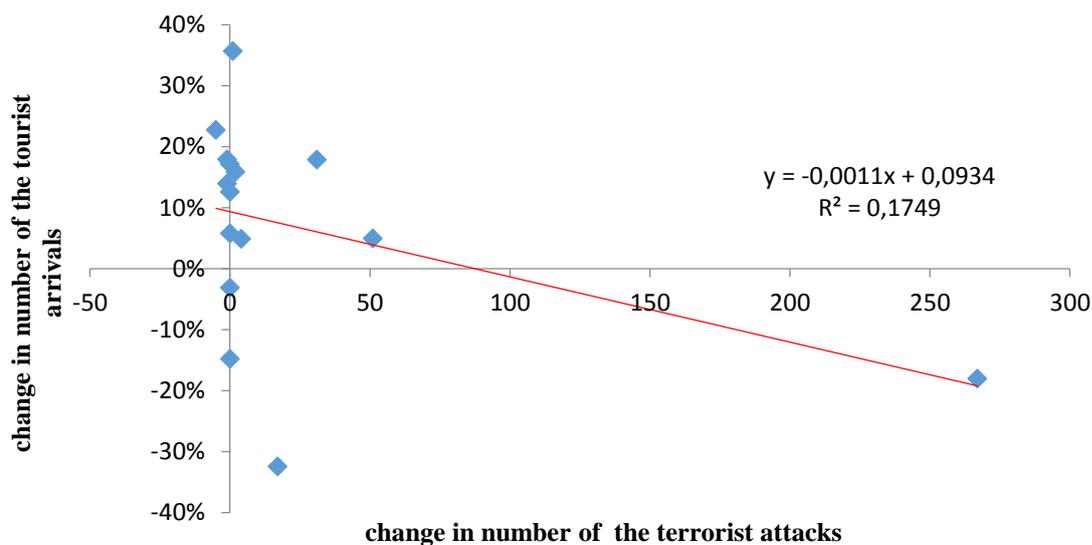
Graph 3 additionally confirms previous conclusions on the attacks in France and it is interesting to note that France recorded more cases of negative growth in the number of tourist arrivals (although it should be taken into consideration the fact in the absolute number and that during the entire period it was one of the leading European and world destinations).

In order to investigate these variables in a more formal way, Graph 5 and graph 6 are showing the diagrams of dissipation, with the related regression line which shows the results of the equation shown at the beginning of this section.

**Graph 5** Impact of terrorism on tourist arrivals in France



Source: created by the author

**Graph 6** Impact of terrorism on tourist arrivals in Egypt

Source: created by the author

From the diagrams of dissipation as shown here, it can be concluded that terrorist attacks in the observed period did not have influence on the change in the number of tourist arrivals in France, which is indicated by the completely horizontal regression line. And the appropriate regression equation shows that the effect is almost equal to zero and the corresponding value of determination coefficient  $R^2$  indicates that change of terrorist attacks can explain almost none of the variations in the number of tourist arrivals. On the other hand, the negative slope of the regression line in the case of Egypt indicates that there is a negative correlation between the number of terrorist incidents and the tourist arrivals. However, the regression equation shows that this influence is relatively weak, and  $R^2$  shows that the change in the number of terrorist incidents can explain around 17% of variations in the change of tourist arrivals.

These results can also serve for a debate on the potential negative effects of terrorism on the entire economies of the countries in question. In the case of France, it can be concluded that the impacts of terrorism on the entire economy are very low, since there was no clear influence of terrorism on the tourism sector shown, and the share of tourism in the GDP of France is below 10%. In Egypt, there was a negative relation between the number of terrorist incidents and tourist arrivals, and considering the more significant share of tourism in the GDP, one can conclude that in Egypt terrorism could have negative consequences on the entire economy.

In the context of the set hypothesis, conclusions can be summed up in this way:

$H_1$ : Terrorist attacks have negative influence on the number of tourist arrivals in Egypt and France.

This research cannot confirm the statements of the first hypothesis in the case of France, since the slope of the regression line and determination coefficient value do not indicate that terrorist attacks are relevant for the number of tourist arrivals in that country. In the case of Egypt, one can conclude that hypothesis  $H_2$  has been confirmed, since the regression line has an expected negative slope, although the determination coefficient being relatively low.

*H*<sub>2</sub>: Terrorist attacks have stronger influence on the GDP of Egypt than on the GDP of France.

Hypothesis *H*<sub>2</sub> can be confirmed, since the negative relation between terrorist attacks and the number of tourist arrivals in Egypt has been shown, and considering the rising dependence of the Egyptian economy on the income from tourism, it can be concluded that the effect is stronger than in the case of France, where no negative correlation between the terrorist attacks and tourist arrivals has been found (even if a negative influence has been confirmed, lesser dependence of the French economy upon tourism could enable the acceptance of this hypothesis).

Before final conclusions are made, it is important to note certain limitations of this research. The first limitation relates to the quantity of data used, which is due to the unavailability of the data, too little to make solid conclusions. Secondly, the analysis does not include a set of other variables that could explain the movements of tourist arrivals, like the movement of the GDP in the emissive countries, global crises etc. Thirdly, method of simple linear regression was used in this research, and literature suggests a number of other alternative methods of empirical assessments which could give different results.

## **5. CONCLUSION**

Although widely spread and always present in the media, the concept of terrorism is highly complex and there is no unique definition of terrorism, but because of the increase of efficiency and coordination of international security regulations, a consensus on the characteristics of terrorist acts has been reached, and most common definition used is the one given by the UN Security Council. Globally, terrorism is primarily conditioned by various religious goals, and modern day terrorism appears as a reaction to military and political activities of developed countries, especially in the countries in the Middle East. Terrorism, besides the political and social consequences and human casualties, brings an important influence on international business.

Terrorist attacks on international companies create considerable costs for the companies, and, as has already been mentioned, for the entire economy in which specific companies operate, likewise. The costs of terrorism for a company can be divided into preventive, direct and indirect. Mechanism by which terrorist attacks make an impact on the environments and therefore the conducting of business is based on the influence on the trust and the rise of distrust in the economy where international companies operate.

In order to empirically assess the effects of terrorism on the companies in France and Egypt, famous tourist destinations with a history of terrorist attacks, this paper points to the correlation between the number of terrorist incidents and the number of tourist arrivals.

The results of the analysis have shown that in France, there is no connection between the terrorist incidents and tourist arrivals, while in Egypt this correlation is negative. Considering the perceived connection between terrorism and tourist arrivals, and a larger share of tourism in the economy, it can be concluded that terrorism has stronger impact on the international business in Egypt than in France.

To sum up, the risk of terrorism for international companies is almost an everyday reality and challenge. For that reason, they have to conduct various measures to prevent or buffer the

effects of terrorist activities. Thereby, international companies can invest into financial insurances from political risk (assets, employees or supply chains insurance), into physical insurance, into trainings of staff etc.

However, it is necessary to keep in mind certain specific organizational methods that companies can use for protection from terrorism, like production and administration decentralization, management decentralization and hiring person who are in some ways close to the terrorist groups active in the country of interest.

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# MODERN MARITIME PIRACY – A THREAT TO INTERNATIONAL CHAINS OF SUPPLIES?

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## ABSTRACT

*Maritime piracy is one of the elements present at seas and oceans which makes international maritime transport difficult and dangerous. Since 2005 one could observe “renaissance” of piracy in the Somali region and the Gulf of Aden. Although the number of attacks in this region has significantly decreased in a last few years the problem still exist because of raising violence activities in West Africa and Indian Ocean.*

*The main purpose of the paper is an attempt to answer the question whether the modern maritime piracy is in a position to threaten the international chains of supplies. It discusses: main development tendencies in the maritime transport at the beginning of the 21st century (the size of transports, the types of cargoes, the most important geographical destination on the world maritime transport) and the major aspects of the contemporary maritime piracy (the definitions of maritime piracy, the most important reasons for the increase in violent activities in the first decade of the 21st , number and types of piracy attacks in the main sea areas and the consequences of modern maritime piracy).*

*The analysis shows that the modern maritime piracy should not be perceived as an essential threat to international chains of supplies. The major arguments which prove that maritime piracy has a limited impact on the operation of the international supply chains are the size of such activity and its direct economic costs, in comparison with the size of the global trade carried out along sea routes, as well as the geographical structure of the contemporary maritime trade, in particular of the container sea traffic.*

**Keywords:** maritime piracy, seaborne trade, international chains of supply

## 1. INTRODUCTION

International chains of supplies face numerous threats, the consequence of which might be direct disruption of their operation, such as delays of the supply or the damage of the cargo. The crimes related to the chains of supplies are varied, comprising, among others: a theft of the cargo (including entire vehicles) and kidnappings for ransom, crimes related to human trafficking and illegal immigration, violation of customs law, including smuggling, tax offences, corporate espionage, corruption, piracy and terrorism (Hintsá *et al.*, 2010). The potential consequences of such events are affected not only by the type of the committed crime, but also the scope of the chain of supplies in question: the more entities (diversified with regards to the country of activity or its type) there are involved in the flow of materials, products or financial resources, the larger is the scope of the effects of the committee crime. Given the fact that the globalisation leads to an increase of the international character of the supply chains, the consequences of unpredictable events in some place are experienced within the links of the supply chain even in very remote parts of the world.

The core task within the supply chain is to guarantee a continual flow of goods from their place of origin to the end customer (Harrison and van Hoek, 2010). Therefore, when discussing the threats for the security within the supply chain, one must pay special attention to the transport of cargo and the places of its trans-shipment, as it is during the transport that the flow of goods faces the largest threat. In international trade, the largest role is played by maritime transport – according to the UNCTAD estimation, the seaborne trade accounts for about 80% of the world trade, while in insular countries (Japan, Great Britain, Australia, Indonesia, the Philippines) seaborne trade makes up almost 100% of their general trade. Seaborne trade dominates also in the international exchange of the countries exporting mineral resources (crude oil, hard coal, metal ores and cereals). The significance of this branch of transport is especially large in the intercontinental chains of supplies on account of the lack of any alternative branch of transport with comparable costs. The fact that 90% cargoes exported from China is transported by sea, and, in the case of the United States of America it is 99% (Fransoo and Lee, 2008) whilst in the EU – 72% of cargo exported the third countries and 37% in inter-community trade is transported by sea (Eurostat, 2009) seems to confirm the role of maritime transport.

Maritime piracy has been for ages a great threat to the security of sea transport and, as a consequence to the international trade. At the turn of the 20<sup>th</sup> and 21<sup>st</sup> centuries, such dealings have been undergoing some kind of revival. An increasing scale of maritime piracy and, first of all, the strategic character of water areas threatened with pirate attacks, raises the question whether these crimes currently pose the real threat for the existence of seaborne trade, and, as a consequence – for the entire international chains of supplies. This paper is an attempt to answer this question.

The article consists of two basic parts. The first of them is devoted to the characteristics of the main development tendencies in the seaborne trade at the beginning of the 21<sup>st</sup> century. This part discusses the statistics concerning the size of transports, the types of cargoes and the most important geographical destination on the world seaborne trade. The second part of the article concerns the contemporary maritime piracy. At the beginning, the issue of maritime piracy in the light of international regulations is discussed and statistical figures concerning the numbers of pirate attacks and the main locations of their occurrence are presented. Further on, the paper discusses the most important factors influencing the development of contemporary maritime piracy and their consequences for the world economy, in particular for the operation of the international supply chains. The presented statistics mainly come from the publications of United Nations Conference on Trade and Development (UNCTAD), International Maritime Organisation (IMO) and One Earth Future foundation (OEF) and cover the period of 2005-2014.

## **2. DEVELOPMENT TENDENCIES OF THE INTERNATIONAL SEABORNE TRADE**

In 2000-2014 there was a permanent increase of seaborne trade. The only exception was in 2009, when a decrease by 5.2% of the tonnage of the transported cargo was observed. This drop comprised all the groups of cargoes with the exception for main bulks. In 2014 the size of seaborne trade, in comparison with 2000, was by 74% larger with regards to tones loaded and, with regards to the ton-miles the increase was 71%. The growth in maritime shipment was seen in all types of cargoes, whilst the largest growth was observed in container traffic (an increase of 173%) and main bulks (an increase of 140%), whilst oil and gas, as well as dry

cargo shipment increased at a much slower pace, by 31% and 55%, respectively (Table 1 and Figure 1). A large dynamics in maritime container trade is determined first of all by the internationalization and fragmentation of production processes, the development of international supply chains and economic benefits from container traffic within these chains. Also, the import demand of emerging developing economies, in particular China and India, has been the main driver of growth in dry bulk cargo shipments in the last dozen years.

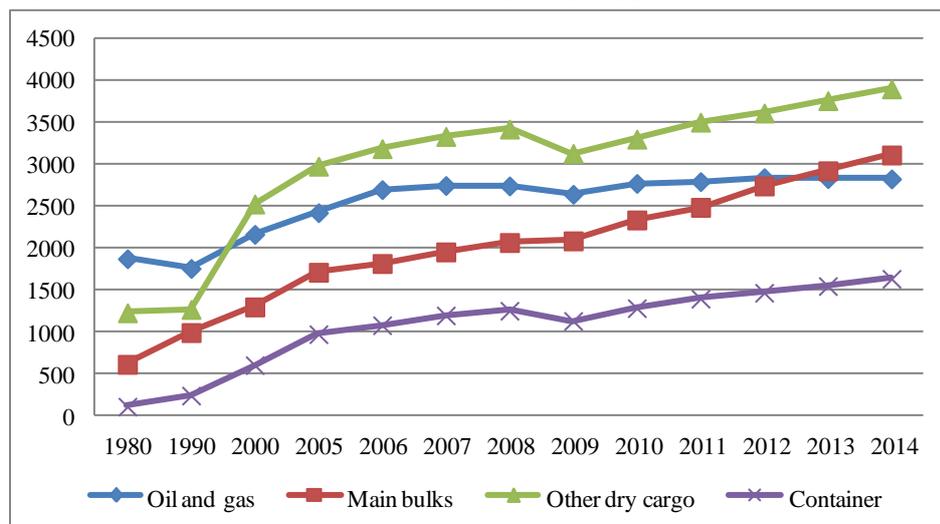
**Table 1** World seaborne trade by cargo type, 2000 - 2014 (millions of tons loaded and billions of ton-miles)

Cargo type / Years	2000	2005	2006	2007	2008	2009
millions of tons loaded						
Oil and gas	2163	2422	2698	2747	2742	2642
Main bulks	1295	1709	1814	1953	2065	2085
Other dry cargo	2526	2978	3188	3334	3422	3131
Container	598	969	1076	1193	1249	1127
Seaborne trade total	6582	8078	8776	9227	9478	8985
millions of tons loaded						
Cargo type / Years	2010	2011	2012	2013	2014	2014 2000=100
Oil and gas	2772	2794	2841	2829	2826	131
Main bulks	2335	2486	2742	2923	3112	240
Other dry cargo	3302	3505	3614	3762	3903	155
Container	1280	1393	1464	1544	1631	273
Seaborne trade total	9689	10178	10661	11058	11472	174
Cargo type / Years	2000	2005	2006	2007	2008	2009
billions of ton-miles						
Chemicals	552	651	689	724	736	765
Gas	576	736	833	913	956	958
Oil	9631	10729	11036	11011	11200	10621

Five main dry bulks	6896	9107	9745	10503	11028	11400
Other (minor bulks&other)	9998	10782	11330	11186	11272	10325
Container	3170	5269	5757	6422	6734	6030
Seaborne trade total	30823	37274	39390	40759	41926	40099
Cargo type / Years	2010	2011	2012	2013	2014	2014 2000=100
Chemicals	824	864	889	908	899	163
Gas	1147	1344	1346	1347	1382	240
Oil	11237	11417	11890	11779	11969	124
Five main dry bulks	12824	13596	14691	15312	16294	236
Other (minor bulks&other)	11504	11927	12375	12952	13514	135
Container	6833	7469	7673	8076	8514	269
Seaborne trade total	44369	46617	48864	50374	52572	171

Source of the table: [UNCTAD, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015]

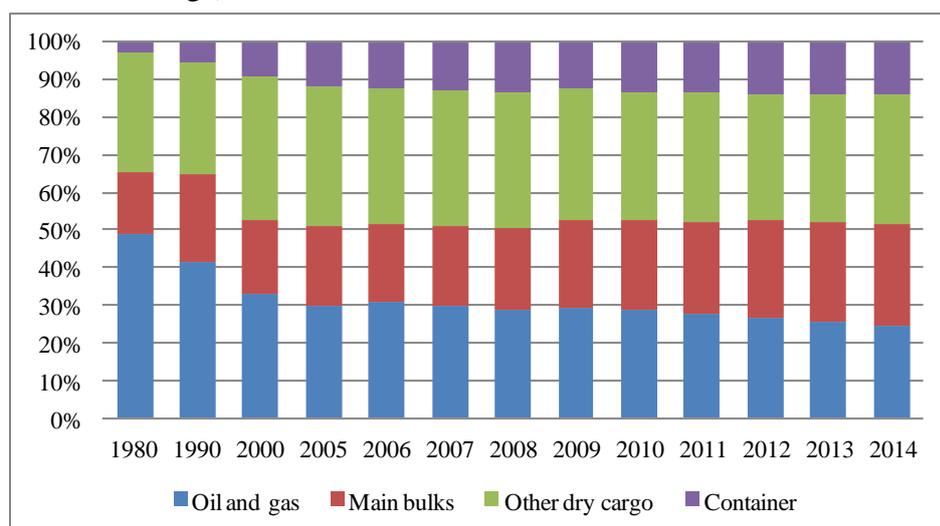
**Figure 1** International seaborne trade by cargo type, 1980 - 2014 (millions of tons loaded)



Source of the figure: [UNCTAD, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015]

The dominating type of maritime trade is other dry cargo, which, in 2014, made up about 34% of the entire tonnage transported by sea. The second largest group, with the 27% share in seaborne trade is made up by main bulks, followed by oil and gas (24.6%) and container traffic (14.2%). The change of the structure of the world sea shipment is observable: since 2000 oil and gas have decreased their share by as much as 8.3 percentage points; a drop has also been noted in other dry cargo shipment (by 4.4 percentage points). On the other hand, the shares of main bulks and intermodal freight transport increased by 7.4 and 5.1 respectively (Figure 2).

**Figure 2** Distribution of global seaborne trade by cargo type, 1980 - 2014 (percentage share in world tonnage)

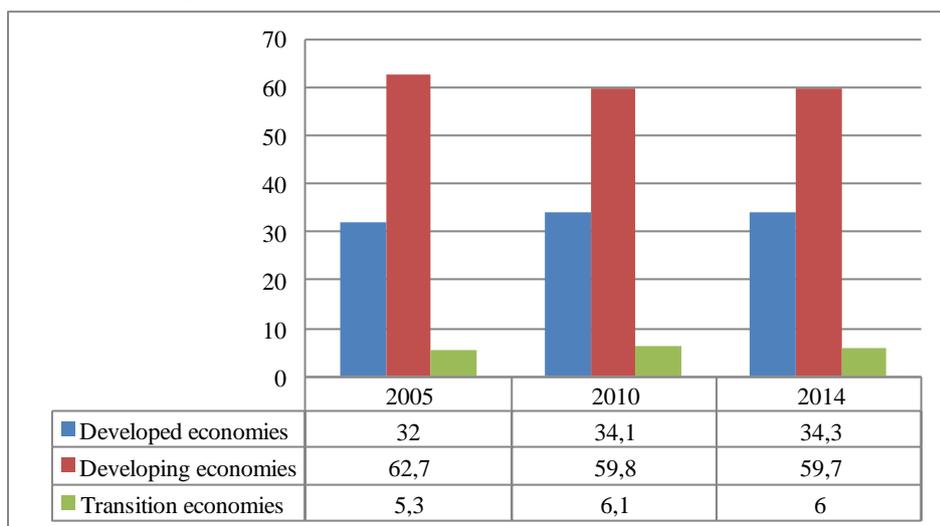


Source of the figure: [UNCTAD, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015]

In seaborne trade, the dominating role, both as loading ports and as recipients, is played by developing countries (Figure 3 and Figure 4). In 2014, this group of countries accounted for about 60% of the world tonnage of cargoes transported by sea. It is worth noting that in the

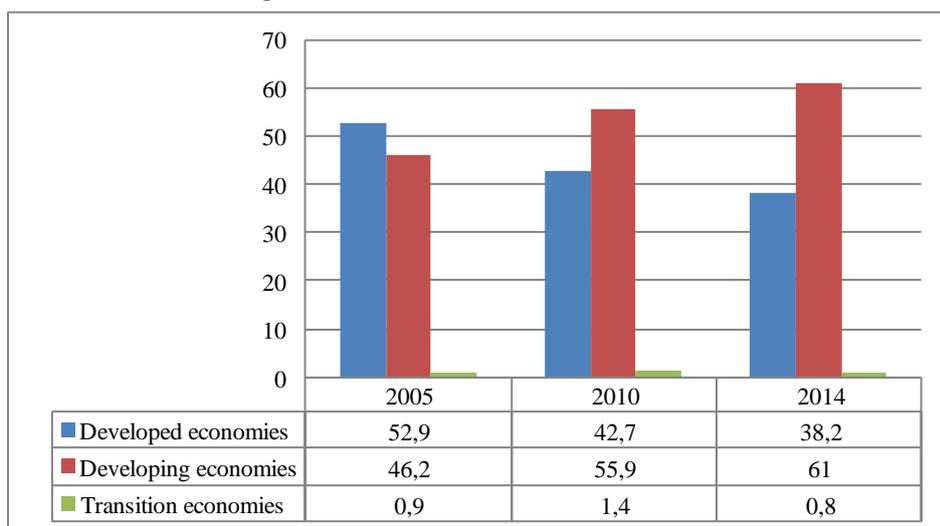
study years, the share of developing economies in shipments loaded decreased slightly, yet they significantly increased their share in unloaded cargoes (from 46% to 61%). These countries, in the 21<sup>st</sup> century, have become the world’s main exporters and importers. Now they are not only the sources of supply of raw materials, but also key players in globalized manufacturing processes and a growing source of demand. In the regional breakdown, the Asian region is dominating (41% loaded and 58% unloaded cargoes), followed by much smaller shares of America and Europe (Figure 5).

**Figure 3** World seaborne trade by country group, 2005-2014, goods loaded (percentage share in world tonnage)



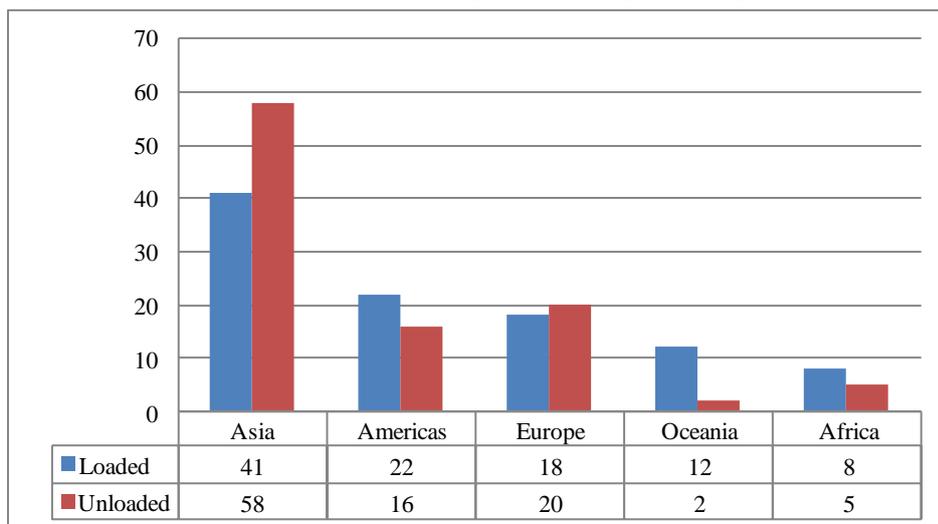
Source of the figure: [UNCTAD, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015]

**Figure 4** World seaborne trade by country group, 2005-2014, goods unloaded (percentage share in world tonnage)



Source of the figure: [UNCTAD, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015]

**Figure 5** World seaborne trade by region, 2014 (percentage share in world tonnage)



Source of the figure: [UNCTAD, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015]

The key element of the analysis is the structure and the course of the world major shipping routes, comprising the following connections:

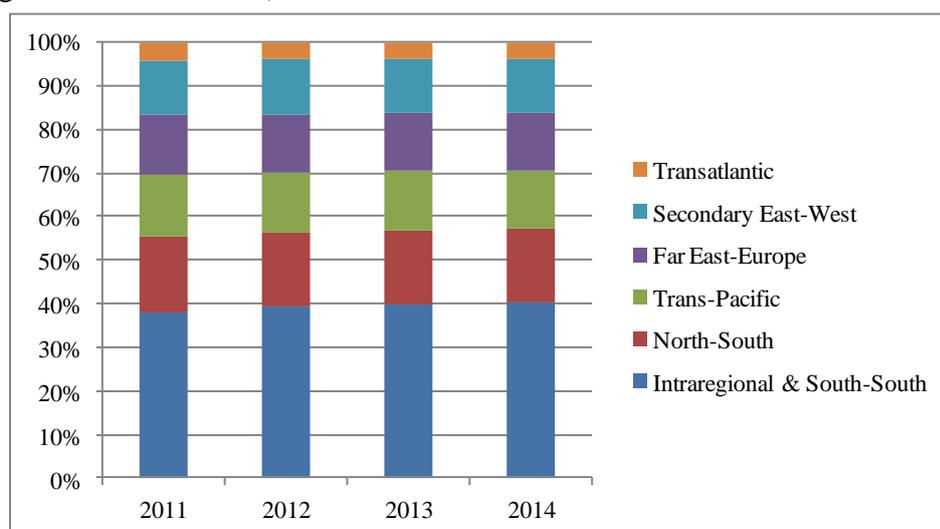
- in the North Atlantic, between Europe and East Coast of the United States and Canada;
- in the Atlantic between the People’s Republic of China, Japan and the United States of America as well as Australia and New Zealand;
- between Europe and the Middle East, Far East and the Persian Gulf;
- between Europe and South America, mainly Brazil and Argentina;
- between the ports of the Persian Gulf and the United States and the Far East.

The above sea routes frequently run along the coasts of politically instable countries (e.g. Somalia) or through the waters of archipelagos which are difficult to control (in particular the area of South-East Asia).

As it was already mentioned, a special role in the operation of international supply chains is played by container traffic. That is why, it seems necessary to analyse the development tendencies of global containerized trade. This type of transport, as it was already mentioned was characterised by a very fast growth pace, a consequence of which is the increase of its share in the world seaborne trade.

The world container traffic comprises a few routes. The largest share belongs to intraregional (led by intra-Asian trade) and South-South trade routes (40,2%), followed by North-South trade route (17%). On the East-West trade lane there are three main routes: trans-Pacific, Asia-Europe and transatlantic. These routes bring together three main economic regions: Asia (in particular China and India) – the manufacturing centre of the world – and Europe and North America – the major consumption markets. Their shares in the world container trade were, in 2014 as follows: trans-Pacific – 13.4%, Asia-Europe – 13.1% and Transatlantic – 3.8% (Figure 6). Container traffic is thus dominating in intraregional seaborne trade, mainly intra-Asian trade, and the share of this route in the world container traffic has systematically been growing in the recent years. It was caused by a significantly larger dynamics of increase of traffic on the route in comparison with other sea routes (Table 2).

**Figure 6** Distribution of global containerized trade by route, 2011–2014 (percentage share of global trade in TEUs)



Source of the figure: [UNCTAD, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015]

**Table 2** Global containerized trade by route, 2011–2014 (millions of TEU)

Trade routes	2011	2012	2013	2014	2014 2011=100
Intra-regional & South-South	56,2	60,1	63,7	68	121
North-South	25,8	26	27,2	28,7	111
Trans-Pacific	20,8	20,8	21,7	22,7	109
Far East-Europe	20,4	20,1	21	22,1	108
Secondary East-West	18,8	19,5	20	21,3	113
Transatlantic	6	6,1	6,2	6,5	108

Source of the figure: [UNCTAD, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015]

### 3. CONTEMPORARY MARITIME PIRACY

#### 3.1. The notion of maritime piracy in the international law regulations

In accordance with the *United Nations Convention on the Law of the Sea* (UNCLOS), which is the legal basis for anti-pirate actions, piracy is defined as any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed, on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft; against a ship, aircraft,

persons or property in a place outside the jurisdiction of any state. Moreover, article 101 UNCLOS stipulates that any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft as well as any act of inciting or of intentionally facilitating an act qualified as piracy are also regarded as piracy.

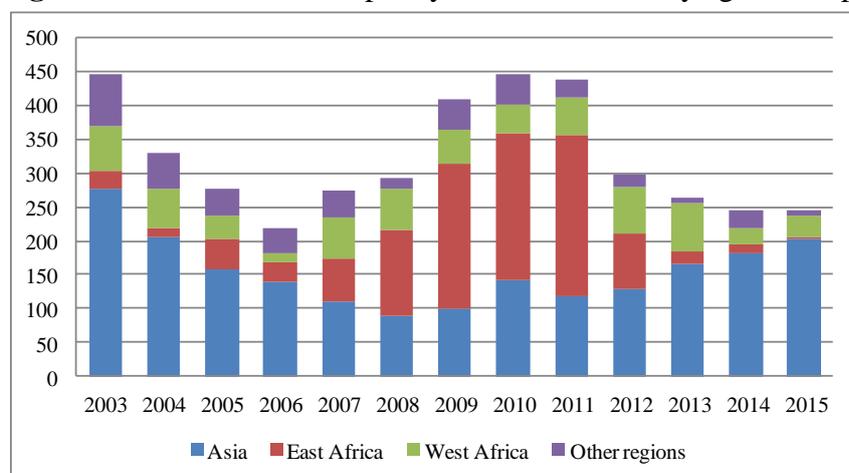
According to the UNCLOS, an act of piracy occurs when such an act (1) pertains to private or state ships and warships; (2) is committed solely for private ends; (3) takes place on the high seas. Such a notion of piracy does not include any acts of violence or depredation committed with political motives; neither does it refer to maritime terrorism. In Kubiak’s opinion (Kubiak, 2009), the most important features distinguishing between pirate attacks and maritime terrorism are the motive for such actions and the attitude towards anonymity. As opposed to sea terrorists, pirates are guided by private ends, avoiding publicity. Chew, in turn points to the differences in three areas: objectives, resources and effects. Contrary to pirates, sea terrorists are politically (and not economically) motivated and apply more advanced resources and want to achieve strategic and not tactical effects (Chew, 2005). Moreover, UNCLOS’ piracy definition underlines that these acts must take place on the high seas, which means that such acts, in accordance with the international law, may be prosecuted solely on such areas – beyond the jurisdiction of any state. Moreover, in accordance with UNCLOS, piracy concerns not only acts committed directly, but also inciting or of intentionally facilitating such acts.

It is worth noting that in comparison with UNCLOS, maritime crimes are more extensively defined in the regulations of the International Maritime Organisation (IMO) and in the statistics concerning the attacks committed by sea pirates, collected by *International Maritime Bureau*, IMB. The subject of their study interest comprises acts of violence, detention or seizure of assets directed against a ship, people or property on the board of such a ship, which are committed both on the high seas (piracy), and also on territorial seas (armed robbery at sea). The basic difference between piracy and armed robbery is therefore related to the location within which a criminal offence has been committed (IMO, 2010).

### 3.2. The scale of acts of piracy and the main regions affected by them

The reports concerning acts of piracy and robberies at sea have been published by the International Maritime Organisation since 1984 (IMO, 2015).

**Figure 7** Number of acts of piracy and armed robbery against ships by region, 2003-2015



Source of the figure: [ICC IMB, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016]

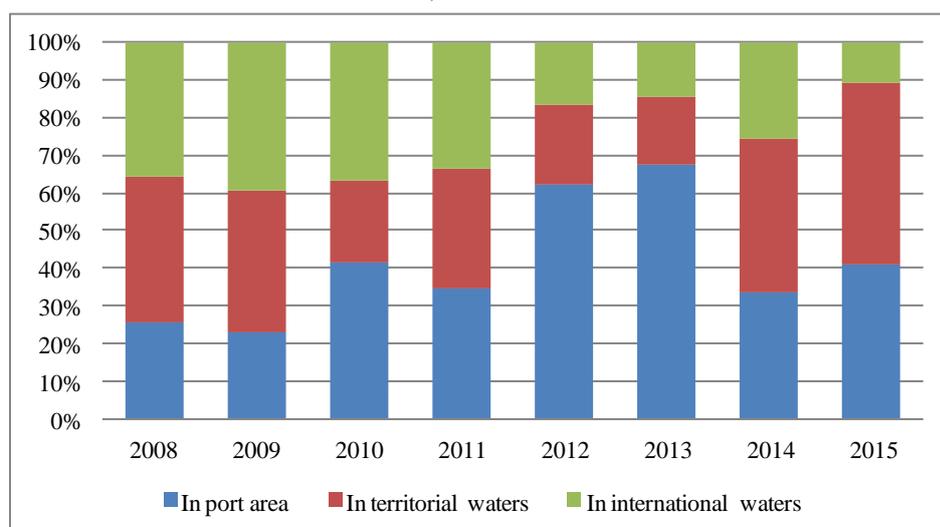
These reports point of a gradual increase of the number of pirate attacks in the global scale, since the beginning of the 1990s: in 1991 there were 107 pirate attacks reported, in 1995 – 126, whilst in 2000 there were as many as 471 attacks. By 2006 the number of pirate attacks was decreasing, yet in the following years the frequency of such attacks increased, growing to an especially large size in 2009-2011 (above 400 attacks). In the following years, the scale of piracy significantly decreased – to about 250 cases annually (Figure 7).

During the last two decades the frequency of pirate acts in specific regions of the world has also changed. The sea areas especially endangered with pirate attacks, since the beginning of the 1990s, have been: the South China Sea, the Strait of Malacca, the waters around the Horn of Africa (Somali Peninsula), and, in particular, the Gulf of Aden and the Gulf of Guinea. The IMO reports, till the first decade of this century pointed to South-Eastern Asia as the most dangerous region, with Western Africa ranking second – in 2003-2004 about 4/5 pirate attacks were committed in these two regions. The situation changed significantly in 2008-2011, when a real “explosion” of maritime piracy was observed at the east coasts of Africa, mainly because of Somali pirates, liable for almost a half of all the attacks committed against the sea ships in the whole world in the above time period. The scale of such dealings at the east coasts of Africa dramatically decreased in 2012-2015, and this tendency was accompanied by an intensification of the pirates’ activity in the Asian region (Figure 7).

It must be observed that among the regions especially endangered with pirate attacks there are areas with strategic importance for the seaborne trade. These are, among others: the Strait of Malacca – where about 13 million crude oil barrels are transported every day (Wardin, 2008) as well as the Gulf of Aden. Communication routes running through this area (i.e. Northern part of Somalia to the Red Sea and the Suez Canal) are the shortest waterways from Asia to Europe and Northern America –approximately 16 thousand ships carry Asian goods and crude oil from the Middle East along this route annually (Wardin, 2009).

Pirate attacks take place both in the sea ports and on territorial and international waters (Figure 8). A large number of attacks is made up by those mounted in sea ports and on territorial waters – in 2008-2015 such attacks accounted for from 60% (2009) to almost 90% (2015) of the total number of attacks on sea ships.

**Figure 8** Location of acts of piracy and armed robbery against ships, 2008-2015 (percentage share in total number of incidents)



Source of the figure: [ICC IMB, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016]

Only at the coast of Africa, in 2008-2011, the attacks carried out on international waters were dominant (Table 3). The fact that the majority of pirate assaults take place on the areas under the jurisdiction of given states is a serious limitation for the possibility of undertaking anti-pirate actions by an international community as in accordance with the regulations of the international law, such actions may only be carried out on the high seas (international waters).

**Table 3** Location of acts of piracy and armed robbery against ships by region, 2008-2015

Location/Years	2008	2009	2010	2011	2012	2013	2014	2015
Africa								
In port area	18	11	17	23	27	19	11	19
In territorial waters	25	27	16	17	9	8	10	1
In international waters	50	55	52	51	12	15	9	10
Asia								
In port area	25	18	59	57	89	126	64	79
In territorial waters	42	43	42	64	33	33	86	119
In international waters	18	20	47	42	23	21	52	18
Others								
In port area	7	19	35	17	18	20	5	8

In territorial waters	8	9	0	8	3	3	3	4
In international waters	2	8	0	1	1	0	0	0

Source of the figure: [ICC IMB, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016]

### 3.3. The causes and consequences of the contemporary maritime piracy

Currently, the most significant motive of maritime pirates' activity is, similarly as in the past, economic benefit. The publications on this issue, however, widely discuss other factors which influence the rebirth of maritime piracy at the turn of the 20<sup>th</sup> and 21<sup>st</sup> centuries. The most important of them are:

1. The decreased presence of the military navy of the world empires on the oceans, after the end of the cold war, in particular, in the areas of special strategic importance (Padzik, 2013; Wardin, 2009);
2. Political factors, resulting from the weakness of a state and its institutions; the importance of this factor is especially seen in the case of African countries, where the limitation of the interference of the western countries into internal affairs of these African countries lead to a release of independence and nationalistic aspirations, which had been suppressed before. They became the cause of numerous conflicts, leading to a deep violation, or even breakdown, of the authority and social infrastructure existing in those countries (Petretto, 2008; Teitler, 2001; Wardin, 2009);
3. Economic factors – dire poverty with a lack of possibility of finding any sources of income (Frecon, 2005);
4. Cultural factors – related to the existence of local traditions, on which social acceptance for piracy and its further development is based; the significance of this factor is particularly seen in South-Eastern Asia (Vagg, 1995);
5. Technical and technological factors - affecting the mobility of pirates and facilitating the observation of ships. Contemporary pirates are equipped with fast motor vessels, satellite communication devices, GPS and internet applications enabling them to track the movement of ships (Murphy and Saba, 2011);
6. The marginalisation of the issue of piracy by an international community – by 2008 the Western states, concentrated on the war against terrorism devoted very little attention to maritime piracy, which was perceived as a problem which could be and should be solved with local resources, on the level of specific countries, without any necessity for an intensive co-operation of the international community.

The general overview of the factors influencing the revival of maritime piracy points to its complexity and diversification. By all means, the correct understanding of these determination factors is of key importance for an effective combat with piracy.

Maritime piracy generates large costs: apart from human costs connected with abductions, or even death of sailors, there is also some significant economic burden, both direct and indirect (UNCTAD, 2014). The first group of such costs are those which affect the ship owners: the costs of ransoms, an increase of insurance premiums and remunerations of the crew, the costs connected with redirecting ships to the routes which are not endangered with pirates' attacks, the costs of security services and protective equipment of a ship, a larger consumption of fuel resulting from an increased speed of ships' movement, and also the costs of the navy involved

in the regions endangered with pirates' attacks, the costs of operation of anti-pirate organisations, as well as the costs related to court litigations against pirates. Among indirect costs there are the costs borne by the economies of the countries affected by maritime piracy, in particular: the losses in trade, fishery, transit fees and ports' revenues.

**Table 4** The economic costs of maritime Somalia piracy, 2010-2014 (million USD)

Cost factor	2010 <sup>1</sup>	2011	2012	2013	2014
Ransom	176	160	32	-	0,2-1
Insurance	460-3200	635	551	186	103
Re-routing Ships	2400-	486-681	291	-	15
Labour	3000	195	472	462	72
Increased Speed	n.a.	2710	1530	276	576
Security Equipment and Guard	n.a.	1064-	1650-	1000-	601-
Naval Forces and Military	363-2500	1160	2060	1200	693
Operations	2000	1270	1090	999	741
Counter Piracy Organizations	20	21	24	45	57
Prosecutions and Imprisonment	31	16	15	12	6
Total Estimated Cost (billion USD)	7-12	6,6-6,9	5,7-6,9	3-3,2	2,2-2,3

Note: <sup>1</sup> for 2010 estimations include: Horn of Africa, Nigeria, The Gulf of Guinea and the Malacca Straits

Source of the table: [OEF 2011, 2012, 2013, 2014, 2015, 2016]

According to the estimations of the One Earth Future foundation, carried out within the Oceans Beyond Piracy Project, the direct costs of Somali piracy accounted in 2014 for about 2.3 billion USD (Table 4). In spite of a significant decrease in comparison with 2010, when the above report was published for the first time, these costs are undoubtedly exorbitant, and still, this is only their small part. A much greater consequence of piracy is connected with its threat for the freedom and safety of navigation and international trade, and also for humanitarian aid. What is more, a strategic location of the regions with the highest activity of maritime pirates results in a direct threat for the supplies of energy and energy security of many states, which is confirmed in the opinion of the European Economic and Social Committee: *“Piracy starts as a maritime problem, evolving into a humanitarian, trade and global economic problem, affecting world consumer (..)”* (EESC, 2012).

### 3.4. International community in view of maritime piracy

The threats related to maritime piracy, in particular the threats for the security of navigation and seaborne trade, as well as the economic costs of the attacks, forced the international community to undertake actions aiming at the limitation and combating such acts. A detailed discussion of these measures reaches beyond the limitations of such a publication, yet it seems worthwhile to make a brief overview. In general terms, such measures may be divided into three groups. These are:

- *Military measures* – carried out by warships in the areas especially endangered with the attacks. These measures comprise: the supervision of such areas, the protection of merchant ships, undertaking necessary actions in response to the acts of piracy and armed robberies, including the use of force, detention and handing over the persons suspected with piracy to the competent authorities. Such actions are conducted by:
  - The NATO: since 2009, the Ocean Shield Operation on Somali waters, preceded by such operations as Allied Provider and Allied Protector;

- The European Union: European Union Naval Force Somalia – Operation Atalanta EU NAVFOR – ATALANTA is the first maritime military operation of the European Union within the Common Security and Defence Policy (CSDP) carried out since 2009. The units of European navies operate in the southern part of the Red Sea, in the Gulf of Aden and in the western part of the Indian Ocean, reaching in their scope the waters surrounding the Seychelles. What is also significant is the fact that, pursuant to the resolution of the UN Security Council No.: 1851 from 2008 and on the basis of the contract between the EU and Somalia on the status of the EU navy acting within the ATALANTA operation, the EU NAVFOR mandate was, in 2012, extended into the Somali territorial and internal waters. Thanks to this it was possible to combat piracy also on land, among others in ports and pirates' hideouts;
- Combined Maritime Forces (CMF): this is an international partnership of marine forces, comprising currently 31 states with an objective of promoting security and stability on international waters encompassing the major sea routes. The coalition forces act on the international waters of the Red Sea, the Gulf of Aden, the Somali Basin, the Arabian Sea and the Indian Ocean, with the area of 6.5 million km<sup>2</sup>.
- The navy units of China, India, Russian Federation, South Korea and Japan.
- *Civilian missions and training and information programmes* – their objective is to support the countries affected by piracy “from inside” with the use of “soft” tools influencing the development of national and regional abilities of counteracting piracy thanks to which these countries could supervise the security of water routes themselves. A large activity in this issue here is manifested by the EU, thanks to whose initiative the following measures have been undertaken:
  - EUCAP NESTOR - European Union Maritime Capacity Building Mission in the Horn of Africa – a civilian mission, started on the basis of the Council decision from 16<sup>th</sup> July 2012;
  - Critical Maritime Routes Programme – a programme initiated in 2009 and financed from the Instrument for Stability, with an objective to increase the security and protection of the world main sea routes. The programme comprises five projects: CRIMGO (for the region of the Gulf of Guinea), CRIMSON, MARSIC, CRIMLEA, CRIMARIO (for sea routes on the Indian Ocean)
- Developmental and humanitarian aid provided for the states which are “cradles” of piracy aiming at the liquidation of poverty being one of the core causes of piracy.

#### 4. CONCLUSION

A tentative answer to the question whether the contemporary piracy poses a real threat to seaborne trade, and, as a consequence, for the operation of international supply chains, seems that it does not.

This is evidenced first of all by the fact that the size of such activity and its direct economic costs, in comparison with the size of the global trade carried out along sea routes, seems to be insignificant. It does not mean, however, that maritime piracy does not cause operational difficulties and an increase of the direct costs (pertaining to ship-owners) as well as indirect costs, being extremely difficult to estimate (in particular stemming from the disruptions in the operations of specific transportation links within the supply chain).

Another argument which proves that maritime piracy has a limited impact on the operation of the international supply chains is the geographical structure of the contemporary seaborne trade, in particular of the container sea traffic. Its analysis points to the fact that a gross part of seaborne transport is carried out along the sea routes free from the threat of piracy. The most endangered connections are between Europe and the Middle East, Far East, the Persian Gulf and between the ports of the Persian Gulf and the United States of America and the Far East. It must be stressed, however, that a negative answer to the question posed in the title of this paper does not imply that the problem of maritime piracy can be underestimated. It is beyond all doubt that the actions undertaken in the international community have been necessary so as to prevent the escalation of the attacks. Yet the key role in combating maritime piracy shall be played by the effectiveness of the measures undertaken by the governments of the countries whose territorial waters and sea ports are the site of activity of maritime pirates.

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# SHRINKAGE IN THE RETAIL TRADE IN SOME EUROPEAN COUNTRIES AND THE REPUBLIC OF CROATIA

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## ABSTRACT

*Shrinkage in the retail trade is something to which management of retail enterprises should pay due attention. It is calculated in monnetar or in relative terms as a percentage of the sales value. The relative amount of shrinkage is calculated as a percentage of realised sales. The causes of shrinkage in the retail trade are analysed in more details. The results of the available studies show that thefts performed by customers and employees are two key causes of shrinkage in the retail trade. They are responsible for three-quarters of the total shrinkage. This paper provides an overview of the estimated shares of each of the causes of shrinkage in some countries with highly developed market structures with particular emphasis on the European Union member states.*

*There are no studies available that deal with this issue in Croatia. This paper attempts to make a value assessment of this phenomenon in the retail trade in the Republic of Croatia based on the experience of the countries where such researches have been performed.*

*Any reduction in shrinkage and in shrinkage prevention cost can be utilized to increase the quality of business results as well as in the pricing policies management. The costs of preventing shrinkage include personnel expenses of the people performing the job and the cost of equipment and technical aids that are used for shrinkage prevention.*

*Interpretation and research of shrinkage in retail trade is based on the data contained in secondary publications.*

*The aim of this paper is to point out the existence of shrinkage, to determine the extent of shrinkage as a phenomenon and to indicate possible research topics related to shrinkage in Croatian retail trade.*

**Keywords:** shrinkage, retail trade, European Union, the Republic of Croatia, employee theft, shoplifting

## 1. INTRODUCTION

Business people in the retail trade are faced with the issue of shrinkage. Shrinkage reduces operating result as it undermines the basis for the acquisition of income and leads to additional costs to prevent its occurrence. The basis for the realisation of income in the retail trade is merchandise used for sale. Simply put, shrinkage is loss of inventory due to various causes. Preventing loss of inventory requires the engagement of people and equipment. Both of it increases the cost of business operations of a company.

The most common definition of shrinkage as a term defines shrinkage as a loss of inventory. This would be meaningful definition of shrinkage as a term in the narrow sense which is commonly used in

the business practice. The term broadly refers not only to the inventory. The subject of loss can be anything else. It may be the loss of assets, goods, cash and etc.

Researches of shrinkage in the retail trade confirm that, on the global level, its share in the realised sales value is estimated over 1%. The causes of shrinkage are investigated as well as the contribution of each cause to the estimated shrinkage rate.

There are two key, but not the only causes of shrinkage. These are employees and customers. They provoke the most attention with the staff that deals with shrinkage prevention.

Shrinkage can be accessed at the global, regional, national, local or individual level. Global level includes research of shrinkage at the world level. This means determination of the shrinkage level by assessing its share in the realized global retail trade.

A regional approach means to explore causes of shrinkage, its height, ways of prevention and most usual shrinkage targets at the regional level. Consequently it would be able to determine regional similarities and differences in shrinkage.

Research of shrinkage at the national level determines the key causes, their individual contribution and the amount of shrinkage achieved in a particular country. This can be compared with the causes, their character and level of shrinkage in other countries. Such an approach would be beneficial for the trading companies which, in the process of business internationalization, are operating in a number of markets.

Local or individual level of shrinkage research refers to the local community or individual company in the retail trade industry.

The research of shrinkage is reduced to: a) assessment of the value of shrinkage in cash and its share in realized sales. This creates the basis for monitoring the trend of shrinkage and its increase or decrease over time; b) research of the causes of shrinkage and their contribution to the total shrinkage, c) connecting different sales formats and shrinkage through answering the question whether all sales formats are equally susceptible to shrinkage, d) what are the most common targets of shrinkage in different retail formats, e) what are the costs of shrinkage in relation to sales, per household and per capita.

The remainder of this paper will provide the review of the achieved level of shrinkage on the global, regional, national and local level based on the review of available literature. An assessment of the level of shrinkage in the Republic of Croatia will be performed.

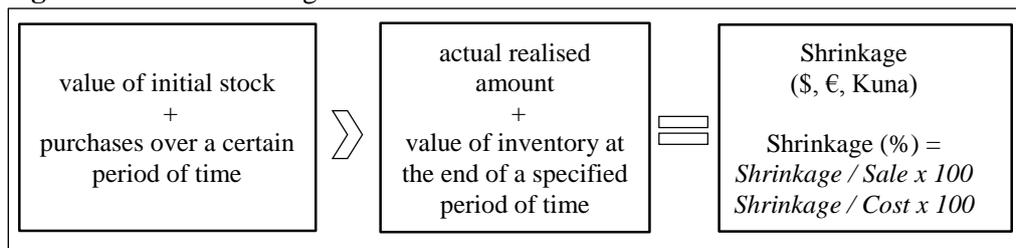
## **2. DEFINITION OF SHRINKAGE AND ITS CAUSES**

The term *shrinkage* or *shrink* is well known in the literature and language practice. In Europe, shrinkage is often used as a term while in the United States they use the term *shrink*. This is an accounting data which is the difference between income which is supposed to be achieved on the basis of the opening balance of inventories and purchases over a certain period and the actually realized amount (Euromonitor International, 2013).

Often there is a difference between one and the other in a way that:

Value of initial stock + purchases over a certain period of time < actual realized amount + value of inventory at the end of a specified period of time.

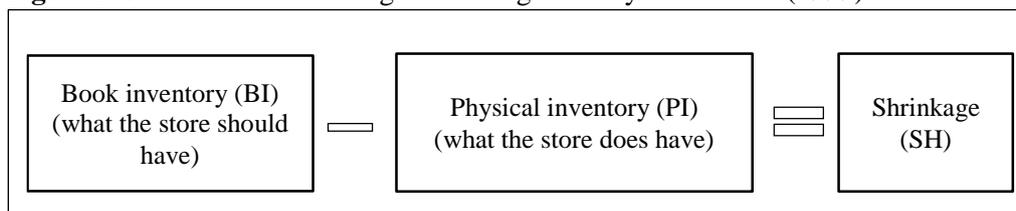
**Figure 1** What is shrinkage?



Source of the figure: Created by authors on the basis of Euromonitor International (2013), p.8

According to Tilley and Dafore (1999) shrinkage is the difference between book inventory (BI) and physical inventory (PI). See Figure 2.

**Figure 2** Calculation of shrinkage according to Tilley and Dafore (1999)



Source of the figure: adopted from Tilley, B., Dafore, R. (1999), pp.5-8

The relations between BI and PI in the above equation can be different. It is possible: a)  $BI > PI$ , b)  $BI = PI$  and c)  $PI < BI$ . One can talk about shrinkage only if the conditions stated in a) and c) are met. Book inventory is higher than the physical inventory and physical inventory is lower than the book inventory.

If the amount of shrinkage in monetary terms is divided by the value of sales and multiplied by one hundred it shows shrinkage as a percentage of sales.

Shrinkage (US \$) divided by Sales (US \$) x 100 = Shrinkage as the % of sale

Example:

Shrinkage (US \$) = 2.060

Sales (US \$) = 200.000

Shrinkage in % =  $2.060 / 200.000 \times 100$

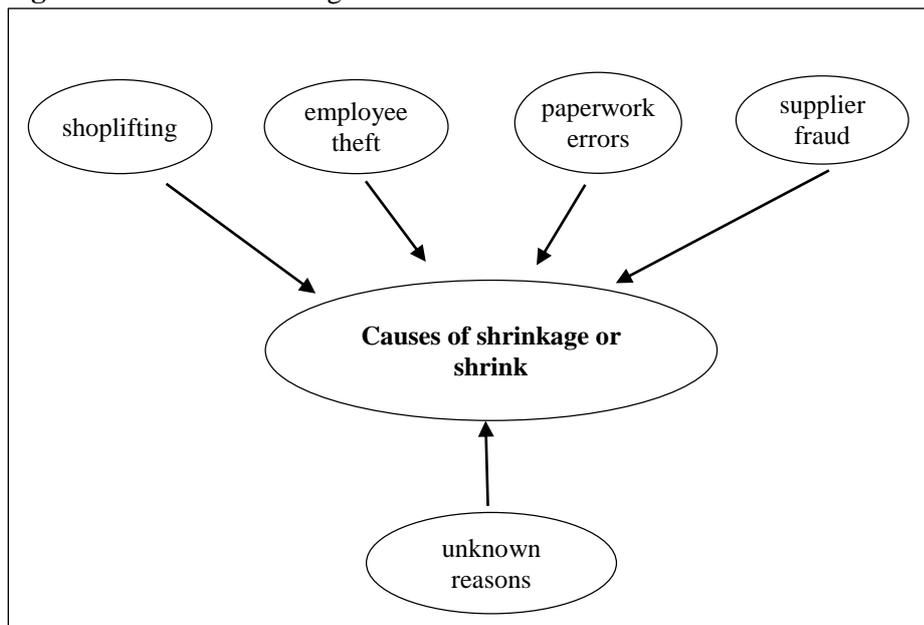
Shrinkage in % = 1,03

According to Euromonitor International (2015) Austria had a shrinkage rate of 1.03% in 2014.

There are several causes of shrinkage. These are: a) theft, b) administrative errors or mistakes in the paperwork and c) suppliers fraud. According to Hayes (2007) *retail theft is as old as retail*. According to the same author, the first records of retail theft are dating back to the first half of the seventh century (more precisely from 627 AD). Retail theft can be caused by employees and customers and can be treated as internal and external. Internal theft are caused by the behavior of employees and external theft is caused by the customer behavior.

According to Waters (2016) in the retail world, shrinkage, or shrink, is the term used to describe a reduction in inventory due to shoplifting, employee theft, paperwork errors or supplier fraud. These are the four major sources of shrinkage in retail. There is a fifth reason which is quite frustrating because it is the unknown cause. See causes of shrinkage in Figure 3.

**Figure 3** Causes of shrinkage



Source of the figure: adopted from Waters, S. (2016)

Hayes (2007) states that the earliest documented shoplifting, referring to the USA area, is recorded in 1597. According to him, at the end of the 17th century (1698 to be precise) one law defined shoplifting as *the crime of stealing goods privately out of shops*. The law defined the death penalty for shoplifting.

Martinez (2004) states *that employees are the eyes and the ears of the organization*. According to Hayes (2007) employees in the organization can act in two roles. The first one is desirable and in this role *our employees can be our greatest assets*. In the second role they could unfortunately be our *worst enemies*.

According to Tilley and Dafore (1999) *shrinkage is used to define any sort of loss that the retailer cannot account for directly and includes all items relating to retail loss. Shrinkage is the loss or theft of assets, goods, cash and etc.* There are three categories of loss. These are: external theft, internal theft and paperwork losses.

The most extensive approach treats shrinkage as an industry. See Kays (2010) according to whom *shrinkage is industry -speak for any product lost between manufacturing and sale*.

### **3. CONTRIBUTION OF INDIVIDUAL CAUSES OF SHRINKAGE TO TOTAL SHRINKAGE**

There are different estimates of the share of individual causes of shrinkage, depending on the source or author.

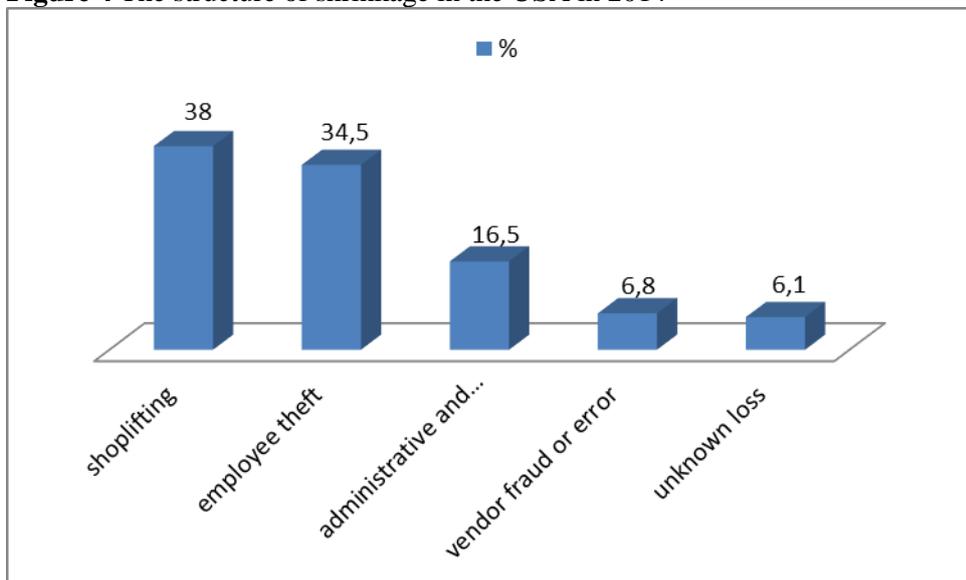
So it was estimated that in the USA (National Retail Federation and the University of Florida, 2015) the average shrinkage rate was 1.38% at retail in 2014. Total retail sales was \$ 3.19 trillion. Inventory shrink represented \$ 44.02 billion. That was the value of lost sales revenue in 2014.

The share of the thefts performed by customers in total shrinkage was 38% and this was the leading cause of shrinkage. Employees were in the second place (employee theft or internal theft or incidents of fraud) with 34.5% share in the total shrinkage. These are two key causes of shrinkage and, as it can be seen, each of them is involved with more than 1/3 in the total shrinkage. According to this

assessment, shoplifting amounted to \$ 16.72 billion, and employee or internal theft amounted to \$ 15.18 billion.

The structure of causes of shrinkage in the USA in 2014 is given in the Figure 4.

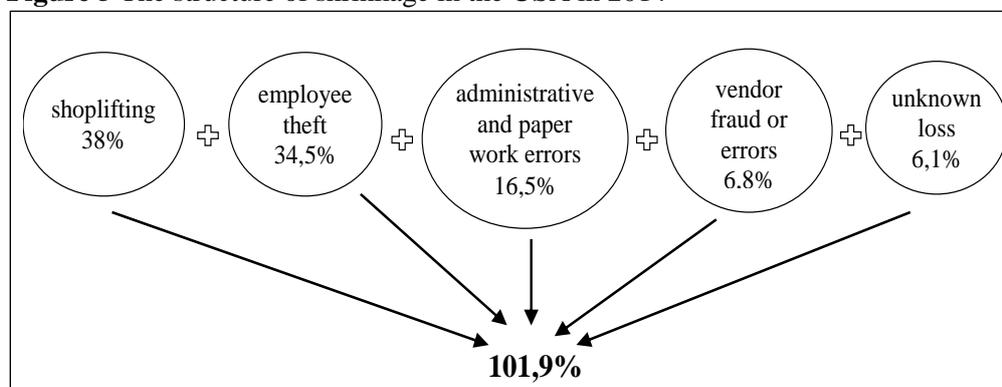
**Figure 4** The structure of shrinkage in the USA in 2014



Note: Prepared by the authors based on the source National Retail Federation and University of Florida (2015)

This example illustrates the gravity of the problem and its causes. The sum of causes is 101.9%. National Retail Federation (NRF) and University of Florida (UF) remarked that *since these are the averages, they do not total to exactly 100%*. See Figure 5.

**Figure 5** The structure of shrinkage in the USA in 2014



Note: Prepared by the authors based on the following source: National Retail Federation and University of Florida (2015)

1.9% of the US \$ 44 billion is US \$ 836 million. Irrespective of this difference in relative term, the causes of shrinkage are indicative. If every cause of shrinkage would be reduced by 1.9% the order of the top three causes wouldn't be changed.

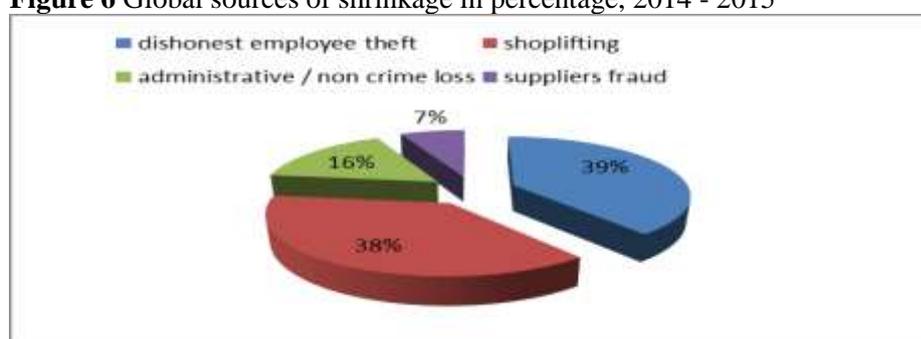
According to another source (Euromonitor International, 2015) it is estimated that the shrinkage in the USA represents 1.27% of sales in 2014. Shrinkage value was US \$ 36.8 billion.

Thus, according to the two sources, estimated shrinkage rate ranged from 1.27 to 1.9% of sales in the USA in 2014. The difference in the value of shrinkage between those two estimates was US \$ 7.2 billion.

According to Euromonitor International(2015) there are two key reasons for shrinkage on global level. These are dishonest employee thefts and shoplifting. Those sources contributes to the total shrinkage by more than 75%, to be more precise - 77%. Four sources of shrinkage are identified. These are: dishonest employee thefts, shoplifting, admin / non crime loss and suppliers fraud. This research was performed in 24 countries in four regions. Depth phone interviews were performed with loss prevention managers of leading retailers and retail industry experts. The study was conducted by The SmartCube and ErnieDeyle and commissioned by Checkpoint Systems. In total, 203 retailers with more than 113 000 shops were covered by the research. They realized US \$ 996.2 billion sales during 2014-2015. Shrinkage was estimated at US\$ 123.4 billion or 1.23% of retail sales. All data are reported to the Smart Cube and Ernie Deyle and commissioned by Checkpoint Systems (GRTB 2014 to 2015, pp.7-8).

The importance of individual causes of shrinkage on globally level is shown in Figure 6.

**Figure 6** Global sources of shrinkage in percentage, 2014 - 2015



Note:Made by the authors according to the following source: Euromonitor International (2015), p. 13  
The scope of research in 2014 was significantly changed compared to the survey conducted in 2012.  
Table below shows elements for comparison of the research performed in 2012 and 2014.

**Table 1** Comparison Global Retail Theft Barometar (GRTB) 2012 and 2014

GRTB	Region	Number of countries	Country	Number of surveyed enterprises	The share in retail trade (%)
2012	• Asia / Pacific	3	China, Hong Kong, Japan	157	18% (US\$1,500 billion USD)
	• Australasia	1	Australia		
	• Europe	8	Belgium, France, Germany, Italy, Netherlands, Portugal, Spain, United Kingdom		
	• Latin America	3	Argentina, Brazil, Mexico		
	• North America	1	USA		
	Total countries	16			
2014	• Asia / Pacific	4	Australia, China, Hong Kong Japan	203 (more than	US\$ 996,2 billion

• <b>Europe</b>	<b>16</b>	Austria, <b>Belgium</b> , Finland, <b>France</b> , <b>Germany</b> , <b>Italy</b> , <b>Netherlands</b> , Norway, Poland, <b>Portugal</b> , Russia, <b>Spain</b> , Sweden, Switzerland, Turkey, <b>United</b> <b>Kingdom</b>	113.000 stores)	USD during 2014- 2015
• Latin America	3	Argentina, Brazil, Mexico		
• North America	1	USA		
Total countries	24			

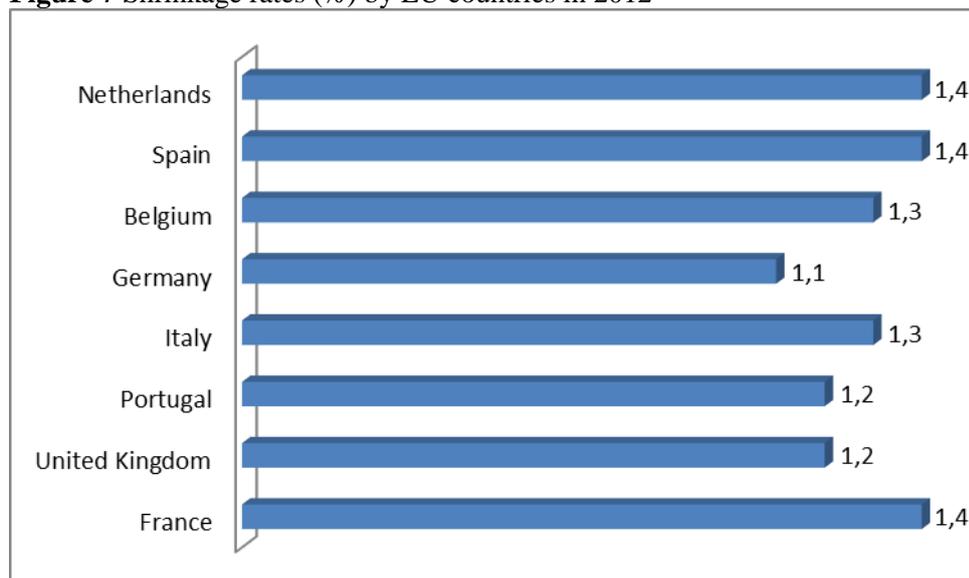
Note: made by the author based on the following sources Euromonitor International (2013), p.8 and Euromonitor International (2015), p. 13.

Countries marked bold are European countries included in both conducted research.

Waters (2016) noted that the percentage of shrinkage in the retail industry is about 2% of sales.

What were the shrinkage rates of the European Union Member States in 2012 is evident from Figure 7.

**Figure 7** Shrinkage rates (%) by EU countries in 2012



Note: made by the authors by the following source Euromonitor International (2013), p. 14

In each of the eight EU member states shoplifting had the first position regarding the contributions to shrinkage. This contribution ranged from less than 36% in the United Kingdom to the highest 56% in France. Another major source of shrinkage was employee theft. Employee theft in the structure of shrinkage was the lowest in the Netherlands with 19%. 1/3 of shrinkage in the United Kingdom related to employee theft. Two key causes of shrinkage in each of the eight EU member states were shoplifting and employee theft. Their lowest aggregate share was in the United Kingdom (69%), and the highest achieved in Portugal (81%). Supplier fraud, according to the importance in the structure of shrinkage was in the third place only in Germany with a share of 14%. Lowest share of supplier fraud in the structure of shrinkage had France, Portugal and Spain (5%). Administrative / non crime losses were the third position to the contribution to shrinkage in Belgium, France, Italy, Netherlands,

Portugal, Spain and United Kingdom. The United Kingdom with a share of 25% had a leading position. For details, see Figure 8 and Table 2.

**Figure 8** Structure of shrinkage sources in the EU in 2012 in %



Source: The same as for the previous figure, p. 15

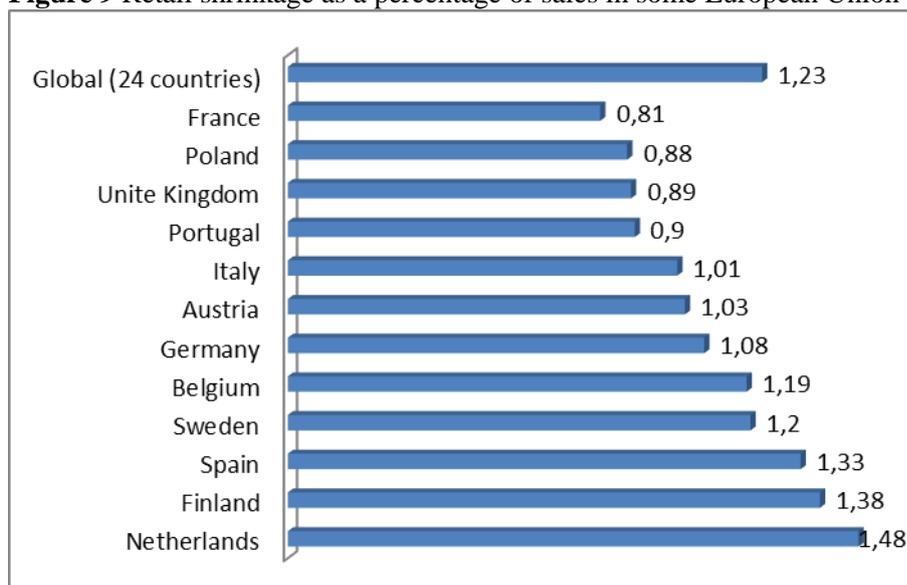
**Table 2** Structure of shrinkage sources in the EU in 2012 in %

Sources of shrinkages	Country							
	Belgium	France	Germany	Italy	Netherlands	Portugal	Spain	United Kingdom
Shoplifting	47	<b>56</b>	49	49	59	51	50	<u>36</u>
Employee theft	28	22	24	27	<u>19</u>	30	27	<b>33</b>
<b>Total: shoplifting and employee theft</b>	<b>75</b>	<b>78</b>	<b>73</b>	<b>76</b>	<b>78</b>	<b>81</b>	<b>77</b>	<b>69</b>
Supplier fraud	10	<u>5</u>	<b>14</b>	9	9	<u>5</u>	<u>5</u>	6
Administrative / non crime losses	15	17	<u>13</u>	15	<u>13</u>	14	18	<b>25</b>
<b>Total:</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Note: made by the authors by the following source Euromonitor International (2013), p. 15

The Global Retail Theft Barometer 2014-2015 (GRTB) examines merchandise shrinkage in global retail industry. Research on merchandise shrinkage were carried out in four regions (North America, Latin America, Asia / Pacific and Europe). It was based on 24 countries of which 16 were from Europe, and 12 of them are members of the EU.

**Figure 9** Retail shrinkage as a percentage of sales in some European Union countries, 2014 - 2015



Note: made by the authors based on the following source Euromonitor International (2015), pp. 11-12.

Out of 12 EU countries included in this study, nine had a lower rate of theft (shrinkage rates) than the global retail shrinkage (1.23%). France had the lowest shrinkage rate (0.81%) and Netherlands had the highest (1.48%). In Europe, Norway had the lowest rate of shrinkage (0.75%), followed by Switzerland with 0.76%. There are also Russia (1.18%) and Turkey (1.17%). Mexico led the way with 1.68%, followed by the Netherlands with 1.48%.

Shrinkage rates across the 16 European researched countries remain within 1.0% and 1.6% in 2014.

#### 4. DIFERENT APPROACHES TO SHRINKAGE IN RETAIL TRADE

##### 4.1. SHRINKAGE AS A GLOBAL PROBLEM - GLOBAL APPROACH

###### *First example*

According to the research contained in The GLOBAL RETAIL THEFT BAROMETER 2012-2013 (Euromonitor International, 2013:14) which included four regions with a total of 16 countries, shrinkage rates were lowest in Japan (1%) and highest in Mexico (1.6%). To the contrary to research from 2014-2015 the average rate of shrinkage for all 16 states or the whole research has not been established. Australia, Hong Kong and Germany had a rate of shrinkage of 1.1%. The two countries, United Kingdom and Portugal had a rate of shrinkage of 1.2%. Belgium and Italy had the rate of shrinkage of 1.3%. Three countries (Netherlands, Spain and France) had a rate of shrinkage of 1.4%. The rate of shrinkage of 1.5% had China, USA and Argentina. Brazil, along with Mexico with the shrinkage rate of 1.6% were the top-ranked countries.

###### *Second example*

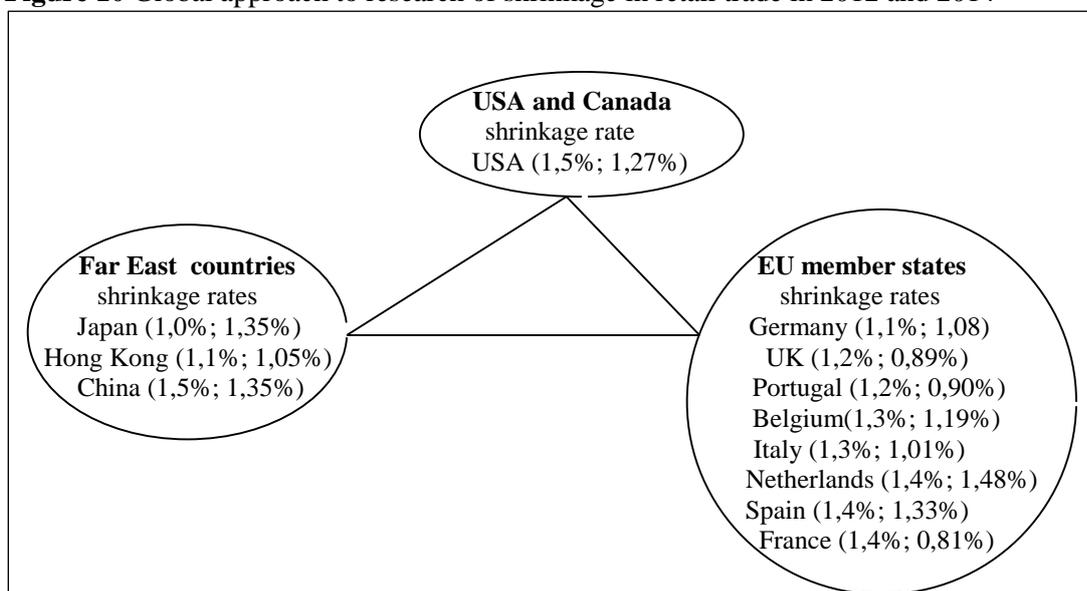
According to the research contained in The GLOBAL RETAIL THEFT BAROMETER 2014-2015 (Euromonitor International, 2015:10) which included four regions with a total of 24 countries the average global rate of shrinkage was 1.23%.

Seventeen surveyed-covered countries had shrinkage rates below the mentioned average. Country shrinkage rates were lowest in Norway (0.75%) and highest in Sweden (1.20%). Another 15 countries according to the amount of shrinkage rates were in the range of more than 0.76% and less than 1.20% of the realized value of retail sales.

Seven countries had a shrinkage rate greater than the above mentioned global average (1.23%). The average shrinkage rate in the US was 1.27% and in Mexico 1.68%. Five more countries were in the range from 1.27% to 1.68%.

Conducted researches of shrinkage for 2012 to 2014 that studied spatial coverage of retail companies had the characteristic of a global approach. The country from the three key segments of the global market were included in the research. The three key segments of the global market are: a) USA and Canada, b) the countries of the Far East and c) the European Union. Figure 10 shows countries from one of the three global markets in both surveys from 2012 and 2014. It is evident that the only two countries (Japan and the Netherlands) increased the rate of shrinkage. In Japan from 1.0% in 2012 to 1.35% in 2014. In the Netherlands shrinkage rate has increased from 1.4 to 1.48% in the same period. Rugman (2001) is an advocate of the triadic approach when explaining globalization and global players.

**Figure 10** Global approach to research of shrinkage in retail trade in 2012 and 2014



Note: Prepared by the authors according to the data contained in the next sources: Euromonitor International (2013), p. 14 and Euromonitor International (2015), p.11-12  
The first number refers to 2012 and the second to 2014.

#### 4.2. SHRINKAGE AS REGIONAL PROBLEM - REGIONAL APPROACH

Data on shrinkage rates contained in Figure 10 can be used in explaining the regional approach to shrinkage. Thus, in the group of countries from the Far East (Japan, Hong Kong and China), Japan had the lowest rate of shrinkage in 2012, followed by Hong Kong with 10% higher rate and China with a 50% higher rate of shrinkage. The rate of shrinkage in Japan increased by 35% in 2014 compared to 2012. The rates of shrinkage in China and Hong Kong decreased in 2014 compared to 2012. In Hong Kong the shrinkage rate decreased by 4.5% and in China by 10%.

At the same time the US rate of shrinkage compared to sales in retail trade decreased by 15.3%.

In seven out of eight EU member states the shrinkage rate was reduced in 2014 compared to 2012. The exception is the Netherlands where the rate of shrinkage increased by 5.7%. The lowest reduction of shrinkage was in Germany (1.8%) and the highest in France (42.1%). The reduction in rate of shrinkage of ¼ had Portugal (25%) and the United Kingdom (25.8%). Italy had a reduction of

shrinkage greater than 1/5 compared to 2012 (22.3%). Belgium and Spain took the bottom places of the EU member states according to the reduction in rates of shrinkage of 8.5% and 5%.

The change in share of shrinkage in realized retail sales can happen in several ways: a) the value of sales remains the same while the estimated shrinkage is reduced, b) the value of sales is growing faster than the increase in the estimated shrinkage, c) the value of sales decreases slower than the realised shrinkage and d) the value of sales is growing while the estimated shrinkage is reduced.

#### **4.3. SHRINKAGE AS A NATIONAL PROBLEM – ASSESING THE SHRINKAGE FROM THE POSITION OF A SPECIFIC COUNTRY**

This is the approach to shrinkage, which recognizes this problem from the economy level such as segment G NACE or retail in general. The monetary impact of shrinkage is estimated together with the shrinkage rate, shrinkage per household, shrinkage per capita and total costs of shrinkage with the included prevention expenses.

#### **4.4.SHRINKAGE AS AN INDIVIDUAL APPROACH-AN INDIVIDUAL APPROACH TO SHRINKAGE**

Individual approach to shrinkage is the approach to this problem in terms of a particular company. It is estimated that the amount of shrinkage in the case of Wal-Mart is up to US \$ 3 billion per year.

### **5. ESTIMATION OF THE SHRINKAGE IN RETAIL TRADE IN THE REPUBLIC OF CROATIA**

There is no publicly available research on the shrinkage in the retail trade in the Republic of Croatia. Retail trade of the Republic of Croatia was not surveyed within GRTB 2014 - 2015. We believe that it is possible to make an estimation of shrinkage in the retail trade of the Republic of Croatia in 2014. When estimating the shrinkage in Croatian retail trade one starts from the findings established by the research GRTB 2014 -2015. The key findings obtained during the research are stated and based on them there is an estimation of shrinkage in retail trade in the Republic of Croatia.

The aforementioned research determined: a) estimated global shrinkage rate is 1.23% of the actual sales on a global basis, b) Mexico with 1.68% had the highest rate of shrinkage among the countries surveyed, c) Norway was country with the lowest rate of shrinkage (0.75%) among European countries, d) EU member state with the lowest rate of shrinkage was France (0.81%) and e) a member state with the highest rate of shrinkage was the Netherlands (1.48%) .

All findings of the shrinkage rates were below 2% of realized sales in retail trade. The paper states approach by which the rate of shrinkage can be estimate to 2% of sales of the retail trade. This is 19% more than the highest rate of shrinkage, which is estimated for Mexico.

Retail trade according to Croatian Bureau of Statistics (2016) achieved a turnover of 129 billion kunas with included VAT in 2014. 93,8% of this turnover was achieved in the stores. Table 3 contains data of some key indicators that will be used in the assessment of shrinkage in the retail trade of the Republic of Croatian.

All this could be a framework for the assessment of shrinkage in the Republic of Croatia in 2014.

**Table 3** Some indicators of retail trade in the Republic of Croatia, 2014

Republic of Croatia	Population	Stores	Sales area, m <sup>2</sup>	Persons employed in retail trade	Retail trade turnover including VAT, thousand kuna
Continental Croatia	2 833 731	17 970	2755 897	75 139	71 319 926 USD= 5,705883 USD = 12 499 367
Adriatic Croatia	1 404 658	13 156	1 710 016	50 148	49 636 057 USD= 8699 102
Total:	4 238 389	31 126	4 465 913	125 287	120 955 983 USD=21 198 469

Source: Created by authors on the following source: a) Croatian Bureau of Statistics (2016) and b) Croatian Bureau of Statistics (2015), p. 427

Our estimation of shrinkage in the retail trade of the Republic of Croatia in 2014 are contained in Table 4. The estimated shrinkage could range from US \$ 159 million to US \$ 356 million. This is 1: 2.24. This range could be even higher if we include an estimated shrinkage of 2% of retail trade sales. Then the lower shrinkage limit would amount to US \$ 159 million and top limit to US \$ 424 million. The assessment ratio would be 1: 2.67.

The assessment of the shrinkage in the retail trade of the Republic of Croatia can be narrowed. The arguments on which this approach can be based would be: a) Mexico had the highest estimated rate of shrinkage in the individual examples of countries. This rate was 36.6% higher than the estimated average global rate of shrinkage ( $1.68: 1.23 \times 100 = 136.59$ ). The Republic of Croatia is a member of the European Union. It would be more appropriate to include in the shrinkage assessment analytical framework the shrinkage rates estimated for European countries. To be more real, the lowest rate estimated for Norway (0.75%) as well as the lowest rate recorded in France (0.81%) as a member of the EU would be excluded.

An open question remains whether the Republic of Croatia, according to the rate of shrinkage, can be better than Netherlands (1.48%). This is a member state of the European Union that had the highest rate of shrinkage of all of the surveyed EU countries. We have no answer to the question whether the Republic of Croatia, according to the estimated rate of shrinkage, would be better than the global average, all 24 covered countries (1.23%).

Procjena stope shrinkage u trgovini na malo za Republiku Hrvatsku bi se realno mogla kretati u rasponu od 1, 23% do 1,48%. To bi bilo u rasponu od 261 do 314 milijuna US \$ u 2014. godini. Raspon procjene ostvarenog shrinkage u trgovini na malo u Republici Hrvatskoj bi bio 1: 1,20.

Realistically, estimation of the shrinkage rate in the retail trade of the Republic of Croatia could range from 1, 23% to 1.48%. It would be in the range of 261 to 314 million US \$ in 2014. The range of estimation of the realised shrinkage in the retail trade in the Republic of Croatia would be 1: 1.20.

**Table 4** Estimations of shrinkage in retail trade in the Republic of Croatia in 2014

Republic of Croatia	Continental Croatia	Adriatic Croatia	Total
Retail trade turnover including VAT, thousand USD	12 499 367	8 699 102	21 198 469
Average global	153 742	106 999	260 741

rate of shrinkage (1,23%) according to GRTB 2014-2015			
The highest rate of shrinkage in investigated countries (Mexico -1,68%)	209 989	146 144	356 133
The lowest rate of shrinkage in investigated countries (Norway-0,75%)	93 745	65 243	158 988
The highest rate of shrinkage in EU (Netherlands – 1,48%)	184 990	128 747	313 737
The lowest rate of shrinkage in EU (France – 0,81%)	101 245	70 463	171 708

Source: Created by authors on the following source: a) Croatian Bureau of Statistics (2016) and b) Euromonitor International (2015), p. 11-12

The Republic of Croatia had 4,238,389 inhabitants. Number of households in Croatia was 1,519,038 in 2014 and the average household had 2.8 members (Croatian Bureau of Statistics, 2015:113).

The Table 5 contains information about the shrinkage value (US \$), shrinkage value per households and shrinkage value per inhabitants (US \$).

**Table 5** Estimated total shrinkage value, shrinkage value per household and shrinkage value per inhabitant in US\$ in 2014

Estimation of shrinkage in the Republic of Croatia in 2014	Shrinkage value (US\$)	Shrinkage value per household (US\$)	Shrinkage value per inhabitant (US\$)
Average global rate of shrinkage (1,23%) according to GRTB 2014-2015	260 741 000	171,6	61,5
The highest rate of shrinkage in investigated countries (Mexico - 1,68%)	356 133 000	234,4	84,0
The lowest rate of shrinkage in investigated countries (Norway-0,75%)	158 988 000	104,7	37,5
The highest rate of shrinkage in EU (Netherlands – 1,48%)	313 737 000	206,5	74,0
The lowest rate of shrinkage in EU (France – 0,81%)	171 708 000	113,0	40,5

Note: Authors calculated according to the same sources as for the previous table

If we keep the same approach as in the assessment of shrinkage in retail trade in the Croatia, then the total shrinkage per household ranged from 171.6 to 206.5 US \$ in 2014. This was 61.5 to 74 US \$ per the member of household.

This issue is much more complex so that the total cost of the trading companies in addition to shrinkage include also costs related to the prevention of shrinkage. Thus the global loss prevention expenditure in 2011 were estimated at US \$ 28.318 billion. These costs included: security equipment, armored car collection, direct employees and control employees. Direct and control employees are loss

prevention employees. The costs of the people were highest cost. Thus, 56% of all costs of preventing shrinkage globally in 2011 related to people. Security equipment amounted to 31%. The rest related to armored car collection (8.5%) and other cost with a share of 4.5% (Centre for Retail Research, 2012).

## **6. CONCLUSION**

The research confirmed that there is no single approach to contextual understanding of the term shrinkage. It can be treated intensively and extensively, and in the narrow and broad sense. Narrowly understood, shrinkage is the loss of inventory. This is a term used to describe the loss of inventory. The broader consideration of shrinkage is used to define any sort of loss (assets, goods, cash and etc.). Widest or most extensive approach treats this term as a kind of industry that represents any product lost between manufacturing and sale.

A common use of shrinkage is as the loss of inventory in retail trade. The loss of inventory is determined in cash and as a percentage of the actual sales.

Shrinkage has a global, regional, national and individual dimension. Each of these dimensions is discussed and quantified either in cash or as a percentage.

There is no available research on the shrinkage in the retail trade in the Republic of Croatia. Estimations of the total amount of shrinkage in the retail trade in the Republic of Croatia are made on the basis of five variations of the average rate of shrinkage in 2014. On this basis the possible range of total shrinkage is determined as well as shrinkage value per household and shrinkage value per inhabitants in US \$.

This does not represent the total cost of shrinkage in retail trade, although it is usually presented as such to the professional public. There are also the costs of preventing shrinkage in the retail trade industry. We have listed one of the structures of these costs.

It would be expected that the Republic of Croatia conducts comprehensive research on shrinkage that would give answers to many questions. We will mention some of them:

- a) What is realistic estimation of shrinkage in the Croatian retail trade in absolute and relative terms from actual sales?
- b) What are the key causes of shrinkage and what is their relative share in the total shrinkage in the retail industry?
- c) What are the costs of preventing shrinkage and how are they structured?
- d) If and how the location and format of sales affects the level of shrinkage?
- e) What are the leading technical means or methods of preventing shrinkage by customers and employees?
- f) Does the sales formats differ according to the application of preventive measures to shrinkage?
- g) Which are the most common targets of shrinkage and whether they differ by sales formats?

It is clear that one could add more questions that would need to be answered. One of them relates to the legal framework relating to the prevention of shrinkage. There was no research available that dealt with socio-economic profile of the customer or employee who is prone to theft in the store.

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# THE ECONOMIC IMPACT OF TRADE IN COUNTERFEIT GOODS AND CONSEQUENCES FOR CONSUMER SAFETY

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## ABSTRACT

*The paper looks at the concept of intellectual property and trademark from a legal and economic point of view with an aim to explore the economic impact of trade in counterfeit goods. A more affordable price of fake luxury goods and the increasing ease of online trading are the main reasons for the growing demand for tighter control of trade in goods from certain parts of the world. However, inferior quality of such products and non-standardized production processes may pose a substantial risk to the health and safety of consumers. Online purchase of counterfeit products increases these risks even more because the consumer is not able to examine the product before buying it. The paper gives an overview of the development of legal environment for the protection of intellectual property and trademark at the EU level with a view to identifying a more efficient plan for raising consumer awareness and enabling access to information on the negative impacts of counterfeiting and piracy. The direct commercial impacts of trade in counterfeit goods on the trademark owner's company are the lost revenue, potential price decrease and damage to brand reputation. Obviously, there is also the economic impact that should by no means be ignored. For this reason, a previously developed econometric model that takes into account economic and counterfeiting phenomena variables was used in the empirical section of the paper. The aim was to determine the negative economic impacts of counterfeiting in relative and absolute terms of lost revenue in the sportswear, cosmetics and luxury bags markets. The interpretation show that revenue losses in on Croatian market due to trade in counterfeit goods in these categories reach almost 10%, consequently reducing job creation, tax revenues and consumer spending.*

**Keywords:** counterfeit goods, intellectual property rights, trade, consumer safety

## 1. INTRODUCTION

Consumers want to feel noticed by those around them and seek to create a distinctive image of themselves among friends, colleagues and other members of the community. This is the main reason for purchasing luxury brand goods superior in their design and quality. However, for a large number of consumers, the price of such products is a major obstacle to the purchase of genuine products, which motivates them to opt for a riskier alternative (Cohen & Juggessur, 2009). The higher the value of the brand, the more determined consumers will be to become a part of a small group of those who possess this highly-regarded brand. Short-term satisfaction of this need is often so strong that some consumers are inclined to purchase counterfeit goods at a much lower price disregarding the risks to their safety and other potential negative effects. The driving force behind purchasing counterfeits is an individual's desire to create a perception in others that he or she belongs to "the upper class" and in this way separate himself/herself from "the lower class", ignoring the fact that the price of such goods exceeds their financial possibilities (Bagwell & Bernheim, 1996). A person who shows

the proof of his/her financial power expects special treatment in social interactions. According to Eisend & Schuchert-Güler (2006) although high-income consumers in developed countries can afford the genuine brand name products, they still buy counterfeits.

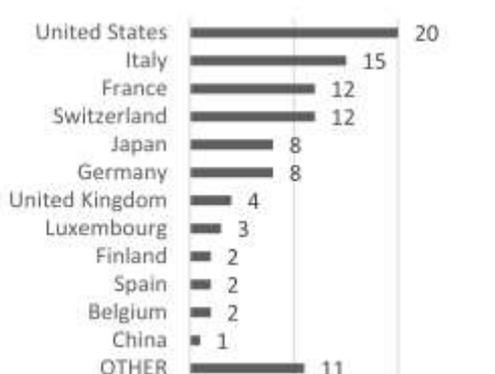
Consumers need to be aware of the negative effects and risks involved in purchasing counterfeit and pirated goods both to themselves and the society (Cesareo, 2016). A well-copied design of counterfeit products is a reason enough for some consumers to decide to obtain them, despite the risks associated with the purchase and subsequent use of such goods. They are aware of and willing to take the risk because of their perception that the value of fake goods is higher than the price they paid for it and the risks associated with the purchase. However, many are unaware of or unable to recognize potential risks.

Trade in counterfeit goods increases the risk to consumer safety because of their questionable quality and creates negative economic impacts on the genuine brand image and sales. The value of trade in counterfeit products differs depending on the category of goods, e.g. sports goods, music DVDs, cosmetics, software, toys and games, etc. According to CSIPO (2015) the most affected categories identified in Croatia are apparel, footwear, accessories and digital media. The paper examines the extent of the economic impact of trade in counterfeit goods on three product categories or market sectors in Croatia: a) sportswear, b) cosmetics and personal care products and c) handbags and luggage. A previously developed impact forecasting model based on Weighted Least Squares estimation method has been used. Depending on the category, the model uses several different variables to calculate regression coefficients. For example, by using such a model, OECD/EUIPO (2016) estimated that the direct adverse economic impact of trade in counterfeit cosmetics in the EU amounts to EUR 4.7 billion a year, of which EUR 1.7 billion refers to the sales lost by manufacturers, while the rest refers to the loss of sales suffered by traders. This is the equivalent of 51,560 jobs and loss of potential fiscal revenue (VAT, income tax, corporate tax, social security contributions) of nearly EUR 1.7 billion. Indirect impacts include losses suffered by suppliers from other economic sectors that supply manufacturers with inputs (materials, energy, insurance, storage, etc.).

Counterfeiting of goods constitutes an infringement of intellectual property rights and refers to the copying of physical items and brands. Apart from potential adverse effects on customer safety and well-being, trade in counterfeit goods also creates unfair competition and has a negative economic impact on the right holder. The aim of this paper is to identify the economic impact of intellectual property and trademark infringements on the economy.

Global counterfeit trade routes indicate the hotspots with highest risks to customer safety. Graph 1 shows that such goods are in high demand predominantly in developed countries. Graph 2 shows that China and Hong Kong are the main provenance economies. A provenance economy refers to those economies of origin where the actual production of infringing goods is taking place.

**Graph 1** Top countries, % total value of seizures in 2013



Source: OECD/EUIPO, 2016

**Graph 2** The provenance economies of fakes, as % of total seizures in 2013



Source: OECD/EUIPO, 2016

A vast amount of literature has been dedicated to explaining the reasons behind the protection of intellectual property rights which affords holders a certain degree of monopoly on the market. The underlying rationale for intellectual property protection is that it stimulates innovation which in turn drives economic growth and job creation.

## 2. BACKGROUND OF INTELLECTUAL PROPERTY PROTECTION

Intellectual property rights are granted, in principle, on an exclusive basis and for different subject matters which are products of human intellect or creativity. Various aspects of that subject matter are the reason why intellectual property rights differ in purpose and in the scope of legal protection afforded to them which leaves us with no uniform definition of the term intellectual property. Thus, it is safer to refer to intellectual property as a set of rights<sup>1</sup> which have some mutual characteristics. Apart from territoriality and exclusivity, the main characteristic of all industrial property rights is that these are property rights granted for intangible assets which are dealt with by broad analogy to property rights in tangibles (Cornish & Llewelyn, 2003). A further common characteristic is that they are private rights.

Trademarks are signs that distinguish the goods or services of one undertaking from those of another. Once this sign is registered under the relevant law in a particular territory as a trademark the owner is granted exclusive right of using the trademark and the exclusive right of transferring or by other means, such as licensing, disposing of its right. Trademark being exclusive gives the owner a monopoly over other competitors on the market to use that particular or a similar sign for the same or similar products or services and the possibility to enforce its right and prevent all others in doing so. These basic principles of trademark protection in an international context existed as far back as 1883, when the Paris convention for the protection of industrial property was adopted, but were further defined in the Trade-

<sup>1</sup> Intellectual property rights are copyright and related rights on the one hand and trademarks, patents, industrial designs, topographies of integrated circuits, new plant varieties and geographical indications on the other. The so-called “soft intellectual property rights” such as trade secret and unfair competition are also considered to be intellectual property rights.

Related Aspects of Intellectual Property Rights, i.e. the TRIPS Agreement, which is Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization, signed in Marrakesh, Morocco on 15 April 1994. Further to defining the protectable subject matter of certain intellectual property rights and rights conferred by them, the TRIPS Agreement is important in setting the international standards on the enforcement of intellectual property rights. Regulating the special requirements related to border measures in Article 51, the TRIPS Agreement defines in footnote 14, for the first time in an international agreement, what is considered a counterfeit trademark good. A counterfeit trademark good, for the purposes of the TRIPS Agreement, means any goods, including packaging, bearing without authorization a trademark which is identical to the trademark validly registered in respect of such goods, or which cannot be distinguished in its essential aspects from such a trademark, and which thereby infringes the rights of the owner of the trademark in question under the law of the country of importation.

The primary function of a trademark is to enable consumers to differentiate between the goods or services of one trader on the market from another. Trademark further allows for recognition of the origin of goods and services, serves as a marketing tool as well as a tool for competition with other traders on the market, and guarantees the quality of goods and service marketed under the same trademark (Verona, 1978). It also serves as a badge of support or affiliation and enables a consumer to make a lifestyle statement (Philips, 2003). The quality function of trademarks is quite controversial because there is no legal requirement for a trademark owner to meet specific quality standards when putting its products or services on the market. Despite that, it seems that consumers perceive trademarks as a badge of product or service quality, which motivates them to make repeat satisfactory purchases. Trademarks also promote consumer loyalty. It is evident from the above that a trademark does not only serve its owner but also helps consumers in making their purchase choices. When consumers buy counterfeit goods, apart from the trademark owner losing revenue, there is obviously also an impact on the consumer. Regardless of whether a consumer was deceived into buying a counterfeit good or made a conscious choice, there are potential safety concerns associated with the consumption of such goods because they are likely to be of inferior quality.

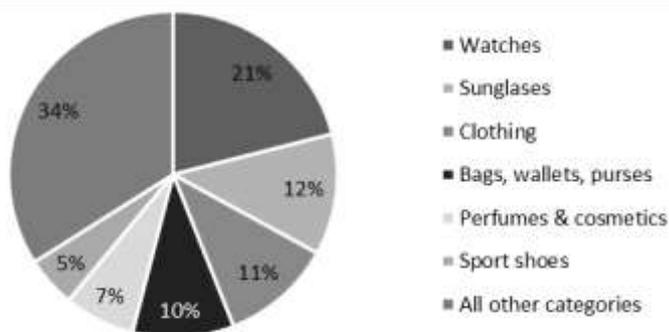
### **3. ECONOMIC IMPACT OF TRADE IN COUNTERFEIT GOODS**

The estimate by the International Chamber of Commerce indicates that the value of counterfeiting and piracy accounts for 5 - 7% of the global trade, worth an estimated USD 600 billion a year<sup>2</sup> Producers have a hard time fighting against counterfeiting and piracy. In terms of the scope of counterfeit trade, the most profitable markets include electronic devices, luxury goods, clothing, jewellery and accessories, pharmaceutical products, as well as beverages, toys, and batteries (Cesareo, 2016). Management is interested in deterring counterfeiting and piracy because these operations reduce their revenues, undermine brand image and present an obstacle to new investments. Graph 3 shows the structure of counterfeit goods market in the European Union expressed as retail value. As can be seen, luxury goods account for almost 55%.

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<sup>2</sup> Counterfeiting Intelligence Bureau, ICC, [available at: <http://www.iccwbo.org/products-and-services/fighting-commercial-crime/counterfeiting-intelligence-bureau>, accessed: 25.8.2016].

**Graph 3** Counterfeit and pirated goods seized at the EU border in 2013 by category



Source: OECD/EUIPO (2016)

Intellectual property rights as well as trademarks are protected to stimulate innovation and thereby economic growth and employment. The infringements of these rights, i.e. trade in counterfeit goods, have a negative impact on the owner of the trademark by causing him revenue losses and an even greater impact on the society at large. However, sometimes the public perceives the problem of counterfeiting as a problem affecting only the trademark owner. Moreover, a study conducted in 2013 entitled “European citizens and intellectual property: perception, awareness and behaviour” revealed that 38% of EU citizens surveyed agree with the statement “buying counterfeit products is an act of protest and a way to resist to the market-driven economy and the large premium brands”. This sentiment is known in literature as a “Robin Hood” type of crime (Lewis, 2009).

To challenge this perception it needs to be shown that infringements of intellectual property decrease the motivation for innovation, thus reducing economic growth, weakening national economy competitiveness and reducing job creation. To quantify the economic impact of counterfeiting, it is not enough to measure only the impact on trademark owner’s company. The impacts on trademark owner’s company such as lost revenue, potential price decrease, damage to brand reputation are direct and obvious economic impacts and should by no means be ignored. However, in consideration of the above perception, particularly in economies that may not have many famous national brands, where counterfeiting seems to damage mainly “foreign”, multinational brands, the public as well as policy makers may not be convinced by these numbers. It is the indirect economic damage on a national scale caused by counterfeiting in a domino effect to companies other than the trademark owner that could be convincing enough. Such indirect damage relates to damage incurred to other businesses, such as the advertising industry, logistics and transport services and alike, which depend on and support the legitimate businesses and lose revenue due to counterfeiting. Further consequences are the losses suffered by the governments, comprising mainly losses in tax and social contributions revenues. The calculation of these indirect costs as an economic impact of trade in counterfeit goods is made on the assumption that counterfeiting is in fact an illegal operation whose owners are unlikely to pay taxes, abide by labour laws or use legitimate companies to perform services such as transportation, storage, marketing or sales of such goods.

One should also bear in mind that counterfeiters tend to infiltrate legitimate business channels, a very dangerous and alarming practice which has recently also been addressed by policy makers. In July 2014, the European Commission adopted the Communication “Towards a renewed consensus on the enforcement of Intellectual Property Rights: An EU Action Plan”. In the Action Plan, the Commission seeks to redirect its policy for intellectual property rights enforcement towards better compliance with these rights by all economic

actors. One of the activities is applying due diligence in supply chains as a means to prevent commercial-scale intellectual property infringements in order to ensure that the distribution chains of products are secure and not infiltrated by infringing products. This includes not only right holders but also suppliers and intermediaries such as online platforms, search engines, shippers, payment services, etc. Under the Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights, right holders have the possibility of applying for an injunction against an intermediary whose services are being used by a third party to infringe the right holder's industrial property right.

Article 51 of the TRIPS Agreement defines counterfeit goods as any goods, including packaging, bearing without authorization a trademark which is identical to the trademark validly registered in respect of such goods, or which cannot be distinguished in its essential aspects from such a trademark. The term counterfeit goods used in Regulation (EU) No 608/2013 of the European Parliament and of the Council of 12 June 2013 concerning customs enforcement of intellectual property rights and repealing Council Regulation (EC) No 1383/2003 refers to goods infringing a trademark or a geographical indication. Customs procedure in relation to those counterfeit goods and goods suspected of infringing other intellectual property rights differ. Recent studies undertaken to map the economic impact of trade in counterfeit goods, in particular the study performed by OECD and EUIPO on Trade in Counterfeit and Pirated Goods, have based their research on counterfeit goods as tangible goods that infringe trademarks, design rights or patents. The mentioned study did not deal with infringements of geographical indications because the issue is quite controversial in the international arena as these rights are not recognized as *sui generis* intellectual property rights in certain countries of the world. This could compromise the relevance of the results of the study mapping the global economic impact of trade in counterfeit goods. It is, however, safe to say that economic impact of trade in counterfeit goods relates mainly to trademark infringements. The above-mentioned study shows that trademark infringements accounted for 95% of all seizures of counterfeit goods. Infringements of industrial designs may also be included in counterfeits especially in cases where the visual appearance of a product has assumed the function of the trademark. In some cases the design as such becomes the distinguishing element of a product and is being counterfeited without using the protected verbal or figurative mark under which the original product is marketed. The share of seizures of patent-infringing goods in the total number of seizures appears relatively small because the study was based on customs data and patent infringing products are usually seized on the internal market and not at borders.

#### **4. CONSEQUENCES OF TRADE IN COUNTERFEIT GOODS FOR CONSUMER SAFETY**

It was already argued that the function of trademarks and other distinctive signs on products affects the behaviour of consumers by influencing their purchasing decisions. Regardless of the various functions of a trademark and other distinctive signs as intellectual property rights, when put on a product and circulated in the market there is a specific bond between the consumer and the product established under that trademark or distinctive sign. That bond develops gradually and becomes stronger through market use and recognition. It does not last indefinitely because the consumer may be discouraged to buy a product under a certain trademark once he or she has been disappointed in the product for whatever reason, but mainly in its quality. A producer may register a trademark under which the product is marketed and gain legal right to it (and hopefully will do so) but it is not easy to develop the

bond with the consumer under the mark. Still, the producer can strongly influence the creation of such a bond.

Trademarks are private rights and consumers are by no means direct beneficiaries of rights granted under trademarks. Even if relevant consumer confusion is measured in determining the scope of protection afforded to trademark in administrative and court proceedings, the trademark law is not intended to protect the consumer (Phillips, 2003). However, they do benefit from rights granted under trademark law insofar as it allows them to make an informed and conscious choice between products of the same kind on the market.

When confronted by a choice of different products of the same kind, the consumer must make a purchase decision which can be based on different factors. Regardless of whether the consumer makes this decision based on the quality of the product, its price, visual appearance or some other factor, he or she should have all the relevant information to help him/her in making the decision. However, in many cases even the most cautious consumer cannot acquire all the relevant information. A trademark is often perceived by the customer as a means whereby information is conveyed to him/her. In particular quality cannot be properly checked or tested before purchase, but has to be taken on trust (Cornish & Llewelyn, 2003). When purchasing a product of a certain brand, one would expect a certain level of quality. Consumers using counterfeit or pirated products that are typically of inferior performance characteristics may be at increased health and safety risk because the quality and safety characteristics of the genuine product are not among the objectives counterfeit products designers seek to attain (De Matos, Ituassu, & Rossi, 2007). This would require higher-quality materials and tests and incur additional costs counterfeiters are not ready to pay.

Counterfeiting is defined to mean that an original product with a remarkable brand value worth copying already exists on the market. Its characteristics are copied into another product, which is indistinguishable from the original and sold at a lower price as if it were the original. Nevertheless consumers are well aware of the difference between the two products (Eisend & Schuchert-Güler, 2006). When it comes to counterfeit goods, consumers make a choice based on information given through a trademark which is not accurate. In some cases the consumer is aware of the fact that a product is a fake, which means that he/she buys it consciously. In others, he/she can be deceived into buying counterfeit products believing them to be genuine. Even though the consequences of the consumption of such products for health and safety may be the same for both types of consumers, the consumer who has wittingly bought the counterfeit product has at least made an informed choice, i.e. knew that the product was fake and decided to buy it anyway.

However, the results of the study “European citizens and intellectual property: perception, awareness and behaviour” reveal that only around a tenth of Europeans surveyed when asked who benefits most from the protection of IP mentioned “consumers like themselves”. It is clear that this aspect of trademark law and its enforcement is not recognized by consumers.

Given the fact that consumers are not always aware of the negative effects associated with purchasing IPR-infringing products, particularly the potential risks to their health and safety, the Action Plan “Towards a renewed consensus on the enforcement of Intellectual Property Rights” has envisaged activities aimed at raising consumer awareness. Potential health and safety risks are often disregarded by consumers buying counterfeit products. Nobody denies the fact that counterfeit medicines can be dangerous, but clothes, shoes, perfumes and other products are usually not perceived as dangerous even though consumers are aware that such

products may be of low quality. It is however the lack of information on a particular product that the consumer should bear in mind. Counterfeit products are not likely to be submitted to any official controls, meet standards or be produced in compliance with the relevant legislation. They will probably not be stored and transported in an appropriate and safe manner given the fact they must be smuggled into a country and stay hidden from enforcement authorities. A consumer who wittingly opts for a counterfeit therefore does not have much more information on which he/she could base his/her purchase than the one who is deceived into buying it. All he/she knows is the product is not genuine, but this brings him/her no comfort when the product turns out to be inadequate for consumption.

Another study performed in the framework of EUIPO Observatory for the enforcement of intellectual property rights under the title “IP and Youth Scoreboard” showed that 12% of young people intentionally bought counterfeit products online in the previous 12 months. Price was reported as the main driver for buying counterfeit goods online by more than half of young people surveyed, followed by indifference as reported by over 1/3 of the respondents. Given the risks mentioned above, these results are alarming, at the very least. The risks are even higher when the purchase is made online because the consumer cannot examine the product before buying it.

## **5. EMPIRICAL RESEARCH**

### **5.1. Method**

To determine the economic impact of trade in counterfeit goods one typically takes the value of lost sales by producers and traders in a specific category of goods. The value of the lost sales in certain categories of goods in Croatia as a result of trade in counterfeit goods has been estimated using the European Union Intellectual Property Office (EUIPO) methodology<sup>3</sup>. Three sectors have been examined: sports goods, handbags and luggage, and cosmetics and personal care. For robustness and heteroscedasticity of the estimation model a multicollinearity test of multiple variables has been performed (i.e. IP Perception Study Index, GDP growth, distribution of income, Index Rule of Law, etc.) by linking a specific econometric model to each category of goods. This methodology (OHIM/EUIPO, 2015; 2015a; 2015b) represents a new approach to measuring the economic impact of piracy and trade in counterfeit goods.

### **5.2. Results**

Table 1 shows the results of econometric model which, based on IP Perception Study, forecasts the loss of sales in the economy. It is forecasted that in Croatia counterfeit goods account for 9.23% of total turnover in the sports goods sector, amounting to around HRK 176.0 mil. Trade in counterfeit sports goods (i.e. sneakers, balls, sports jerseys, bags, caps, etc.) takes place mainly on street markets and stalls. The explanatory variable (IP Perception) is related to counterfeiting and covers the percentage of the population that have intentionally purchased fake products.

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<sup>3</sup> More about methodology to special category available on: The economic cost of IPR infringement in sport goods, 9/2015; Quantification of infringement in Manufacture of sport goods (NACE 32.30), [available at: [https://euipo.europa.eu/ohimportal/hr/web/observatory/ip-infringements\\_sports-goods](https://euipo.europa.eu/ohimportal/hr/web/observatory/ip-infringements_sports-goods), accessed: 1.9.2016].

**Table 1** Sportswear trade sector – estimation of the economic cost of infringement for Croatia

	Coefficient ( $\beta$ )	Data related to Croatia ( $Z$ )
IP Perception Study: buy counterfeit intentionally	1.9644***	0,047 <sup>1</sup>
Model <sup>2</sup>	$C_i = \beta \times Z_i$	
Value	$C = 1.9644 \times 0,047 = 0,0923$ or 9,23%	
Annual sales of category <sup>3</sup>	HRK 1.432 × 1.331.895 = HRK 1.907.273.600	
Absolute estimated loss of sales	$1.907.273.640 \times 0,0923 = \text{HRK } 176.041.300$	

\*\*\* significant at 99% confidence level

<sup>1</sup> The European Citizens and intellectual property: perception, awareness and behaviour, [available at: [https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document\\_library/observatory/documents/IPContributionStudy/25-11-2013/european\\_public\\_opinion\\_study\\_web.pdf](https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/IPContributionStudy/25-11-2013/european_public_opinion_study_web.pdf), accessed: 11.9.2016].

<sup>2</sup>  $C$  represents the sales lost due to counterfeiting in country,  $\beta$  is the estimated regression coefficient from the used model,  $Z$  is empirical results from the IP perception study related to country.

<sup>3</sup> Croatian Bureau of Statistics, Basic characteristics of household consumption in 2015; categories included: Equipment for sport, camping and open-air recreation plus sports clothing and footwear; number of households in 2014.

Source: authors' calculation according to EUIPO

Table 2 shows the method of estimating the value of lost sales due to counterfeiting of cosmetics and personal hygiene products. The value of market share of these counterfeit products is estimated at nearly HRK 52 million. These goods are most commonly bought online or in a direct contact with a person engaged in illegal trade.

**Table 2** Cosmetics and personal care trade sector – estimation of the economic cost of infringement for Croatia

	Coefficient ( $\beta$ )	Data related to Croatia ( $Z$ )
(1) IP Perception Study: buy counterfeit intentionally	2.0609***	0.047 <sup>1</sup>
(2) World Bank Index Regulatory Quality (annual growth rate)	4.477***	-0.0177 <sup>2</sup>
Model <sup>3</sup>	$C_i = \beta_1 \times Z_1 + \beta_2 \times Z_2$	
Value	$C = 2.0609 \times 0.047 - 4.477 \times 0,0177 = 0,0176$ or 1,76%	
Annual sales of category <sup>4</sup>	HRK 2.213 × 1.331.895 = HRK 2.947.483.600	
Absolute estimated loss of sales	$2.947.483.635 \times 0,0176 = \text{HRK } 51.875.700$	

\*\*\* significant at 99% confidence level

<sup>1</sup> The European Citizens and intellectual property: perception, awareness and behaviour, [available at: [https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document\\_library/observatory/documents/IPContributionStudy/25-11-2013/european\\_public\\_opinion\\_study\\_web.pdf](https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/IPContributionStudy/25-11-2013/european_public_opinion_study_web.pdf), accessed: 11.9.2016].

<sup>2</sup> Worldwide Governance Indicators (WGI) project, [available at: <http://info.worldbank.org/governance/wgi/wgidataset.xlsx>, accessed: 11.9.2016].

<sup>3</sup>  $C$  represents the sales lost due to counterfeiting in country,  $\beta$  is the estimated regression coefficient from the used model,  $Z$  is empirical results related to country.

<sup>4</sup> Croatian Bureau of Statistics, Basic characteristics of household consumption in 2015; category: Other articles and products for personal care - code 12.1.3.; number of households in 2014.

Source: authors' calculation according to EUIPO.

**Table 3** Handbags and luggage – estimation of the economic cost of infringement for Croatia

	Coefficient ( $\beta$ )	Data related to Croatia ( $Z$ )
(1) Tolerance index to Corruption (EB397)	0.3883***	0,49 <sup>1</sup>
(2) Index Rule of Law (score)	-0.2085***	0,61 <sup>2</sup>
Model <sup>3</sup>	$C_i = \beta_1 \times Z_1 + \beta_2 \times Z_2$	
Value	$C_i = 0.3883 \times 0,49 - 0.2085 \times 0,61 = 0.0631$ or 6,31%	
Annual sales of category <sup>4</sup>	HRK 224 × 1.331.895 = HRK 298.344.500	
Absolute estimated loss of sales	298.344.500 × 0,0631 = HRK 18.825.537	

\*\*\* significant at 99% confidence level

<sup>1</sup> The percentage of the population declaring that corruption in accepted or tolerated; Special Eurobarometer 397. [available at: [http://ec.europa.eu/public\\_opinion/archives/ebs/ebs\\_397\\_en.pdf](http://ec.europa.eu/public_opinion/archives/ebs/ebs_397_en.pdf), accessed: 11.9.2016].

<sup>2</sup> Rule of Law Index 2015, [available at: <http://data.worldjusticeproject.org/data/wjp-data-2015.xlsx>, accessed: 11.9.2016].

<sup>3</sup>  $C_i$  represents the sales lost due to counterfeiting in country  $i$ ,  $\beta$  is the estimated regression coefficient from the used model,  $Z_1$  and  $Z_2$  are empirical results related to country. Former is *Tolerance index to Corruption* and the latter equals to score of *Index Rule of Law*.

<sup>4</sup> Croatian Bureau of Statistics, Basic characteristics of household consumption in 2015; category: Other personal articles - code 12.3.2.; number of households in 2014.

Source: authors' calculation according to EUIPO.

The purchase of counterfeit handbags and luggage creates a negative effect on the sales of manufacturers and traders in this sector. The loss of sales in Croatia is estimated at 6.31% of the total consumption in the sector. According to the statistics on the structure of household consumption in Croatia, this amounts to HRK 18.8 million in the sales lost (Table 3).

### 5.3. Discussion

Forecast of the economic impact of trade in counterfeit products using different variables that have been tested and used in models could help relevant authorities develop anti-counterfeiting and anti-piracy policies. Among the three observed categories of goods that are frequent subject matters of infringement, it is estimated that the value of lost sales in Croatia is about HRK 81 million annually. These lost sales result in other direct (i.e. jobs, taxes) and indirect losses (i.e. by raw material suppliers). The models developed by multiple correlation analysis show that the perception of consumers and their preference towards counterfeit goods as well as the index of corruption in the country are some of the main factors that need to be addressed by the economic policy if the government wants to reduce the negative effects of trade in counterfeit goods. Chaudhry et al (2005) proposed a comprehensive anti-counterfeiting strategy and explained further its activities through a program (Chaudhry and Zimmerman, 2009). This strategy involves IPR actions targeting consumers (i.e. use special packaging and labelling, offer site license, etc.), host country governments (i.e. educate local law enforcement, seek assistance from tax authorities etc.), distribution channels (i.e. provide warnings to retailers, give financial incentives to reject counterfeits, etc.), international organizations, and pirates.

## 6. CONCLUSION

Counterfeit products are manufactured and distributed without the authorization of the owners of intellectual property rights. This is why the quality of such products and their compliance with safety standards is quite doubtful. Nowadays, counterfeit products include not only the copies of luxury and expensive brands of high-tech design products but also a large number of copies of some less-known products. In addition to being harmful for consumers and their safety, trade in counterfeit goods has an adverse effect on the economies of origin and destination. It also has negative consequences for the producers and the image of their brands as well as for the prices of genuine products, consequently harming distributors and retailers. Increased sales of counterfeits and piracy weaken the motivation of management for innovation and investments in new facilities and development. Online sales as well as sales at street markets and stalls are the most common channels for the distribution of counterfeits allowing for easy access to such products at low costs of communication without effective enforcement against illegal activities. Insufficiently consistent enforcement of regulations for the protection of intellectual property and trademarks on the national and international level (i.e. the TRIPS Agreement by setting international standards on the enforcement of intellectual property rights) creates the perfect environment for counterfeiters to enter the market with low risk.

Measuring the value of the market and the effects of trade in counterfeit goods is a quite demanding and complex task because these illegal activities are difficult to trace. This is why alternative ways of forecasting their effects had to be found. In seeking to assess the economic impact of trade in counterfeits, one must decide first how to measure it and what variables to consider to achieve heteroscedasticity. The methodology developed by the OECD/EUIPO includes several variables among which *sales lost* plays an important role. It is used by world-renowned institutions in their forecasts. The method is based on multicollinearity test of multiple variables to assess the relative value of trade in total trade in a particular category of goods. Using this method, the relative and absolute values of trade in the three categories of goods have been estimated using three models. The results show that the share of illegal trade in sports equipment for instance represents up to 10% of the market in this category of goods in Croatia, worth around HRK 176 mil.

The recommendation for policy-makers and regulators is to use already developed strategies to prevent trade in counterfeit goods bearing in mind that they require a concerted effort from all stakeholders (consumers, companies, tax and customs control institutions). Raising awareness among consumers about potential risks to their health and safety can be extremely helpful in the effort to combat trade in counterfeit goods.

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# SECURITY, LEGAL PROTECTION FOR CONSUMERS AND ETHICAL PROBLEMS IN INTERNATIONAL TRADE

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## ABSTRACT

*The aim of the paper is to analyze the most important issues of security, legal protection and ethical issues in international trade further compounded by the process of globalization and internationalization of business. The development of new productive resources and high technology, and removal of restrictions on the transfer of products, services, capital, knowledge and people encourage companies to become increasingly involved in international business and partnerships. Trading companies are expected to act in accordance with the basic business principles, legal norms and ethical standards, both on local and foreign market. This area is further complicated by economic, political, cultural, racial, religious and customary barriers present on certain segments of the global market. As a result, numerous problems appear in terms of security of trade exchanges, protection of the rights and privacy of consumers, warranty, etc., and the necessity of legal regulation of this area. The main task of the paper is to tackle four basic ethical problems of international trade that are almost completely ignored in the literature, such as: dumping, economic sanctions, fair trade - equalization of living and working conditions of workers in poor and developing countries and procurement and sales on the global market - relate to the issue of right to "exclusive territory", the fee for introducing new products in stores, the quality of goods and services, etc. Based on this analysis, we will propose legislative solutions and safety standards that will reduce the scope of an immoral business and provide better protection and safety for consumers and the market.*

**Keywords:** dumping, economic sanctions, fair trade, international trade, protection for consumers, security

## 1. INTRODUCTION

The issues of security, consumers' legal protection, ethics and morality are increasingly common in discussions involving trade, country's trade policy, international trade, etc. In the sector of international trade and trading companies, legal and moral standards are usually associated with multiple areas of business activities: the first is the retail area, directed toward the final consumer and the market, and relating to the respect of fundamental legal and moral principles in the purchase and sale of goods and services, safety and security for consumers, etc.; the second is mutual relationships within the trading companies, and the third area is concerned the problem of global (international) trade and measures of legal protection in the global market.

Significant reduction in transport costs, effective and rapid means of communication, and removing restrictions on transfer of goods, services, capital, knowledge and people for the purpose of free trade, encourage companies to be increasingly included in international

business and international partnerships. When it comes to international trade, trading companies are expected to act in accordance with the basic business principles, legal norms and moral standards, both in the home country and in the international market. Security, legal protection and ethical issues in international trade are further complicated by political, social, economic, cultural, racial, religious and customary barriers that exist in some segments of the global market. Consequently, numerous legal and ethical issues appear in the field of global trade and international business relations. We will point out the following basic issues concerning security and ethical issues, which are almost completely ignored in the literature, such as: dumping, sanctions, fair trade and the procurement and sales in the global market, with special reference to the legal protection of consumers and the legislative regulation of these areas.

## **2. ETHICAL ISSUES AND SECURITY IN INTERNATIONAL TRADE**

Many authors emphasize the complexity of the legal and ethical issues, issues of security and legal protection in global trade and the need for its resolution. Rose-Ackerman believes that the biggest problems in international trade and international business are corruption scandals of multinational companies and bribing of government of undeveloped countries with the aim of signing preferential trade agreements at the expense of home countries (Rose-Ackerman, 2002, p.1991). A slightly different view is represented by McGee, who supports utilitarian philosophy, and believes that any decision of trade policy of a country or region in the global market is “good” if it results in the greatest “good” for the greatest number or if the “good” outweighs the “bad”. The author particularly points to the ethical and legal complexity of the problem of anti-dumping laws, export subsidies and trade policies and regulations of various international organizations and institutions (McGee, 2002). On the other hand, as the biggest obstacles to the implementation of legal standards in international trade Davies sees great cultural differences and differences in ideology between nations, regions and countries. An aggravating circumstance is the inadequate implementation of legislative norms and legal protection of consumers in developing countries (Davies, 1997). However, according to Levschenko, the biggest problem in international trade are institutional differences. He points out that the developed countries in trade relations with the underdeveloped regions rely on their developed institutions and use the so-called institutional comparative advantages in order to be in a better position and achieve favorable trade relations compared to countries where institutions are in their infancy (Levschenko, 2007, p. 792). Another group of authors (McGee, 2002, 1998; Blowfield, 1999; Singh & Lakhan, 1989) stresses the importance of political and economic measures that directly affect the violation of rules of ethically responsible trade and free market, such as export subsidies, dumping prices, economic and trade sanctions, etc.

In order to more clearly systematize the concept of security, legal protection and ethical issues of international trade, the following Table 1 illustrates the chronological overview of important references.

**Table 1** Summary of references

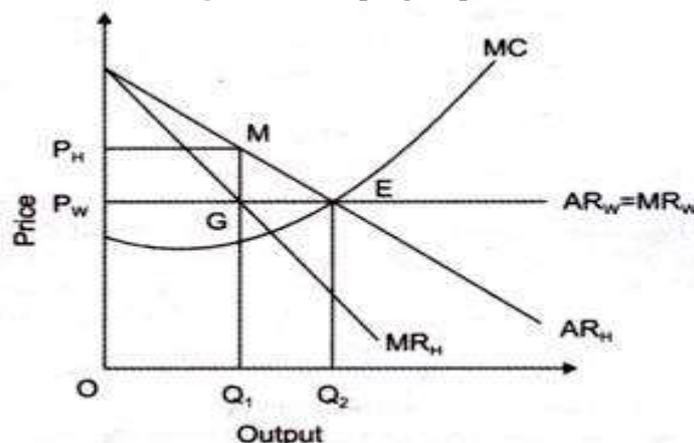
References	Issues in international trade
Davies, 1997	Large cultural differences and differences in ideology between nations, regions and countries resulted in inadequate application of legislative norms and legal protection of consumers in developing countries.
McGee, 2002, 1998; Blowfield, 1999; Singh & Lakhan, 1989	Political and economic measures that directly affect the violation of rules of ethically responsible trade and free market, such as export subsidies, dumping prices, economic and trade sanctions, etc.
Levschenko, 2007	Developed countries rely on their developed institutions and use the so-called institutional comparative advantages in order to be in a better position and achieve favorable trade relations.
McGee, 2002	The problem of anti-dumping laws, subsidizing of exports, vague and undefined rules of various international organizations and institutions
Rose-Ackerman, 2002	Corruption scandals of multinational companies and bribery of governments of underdeveloped countries with the aim of signing preferential trade agreements at the expense of home countries

Source: Author

We conclude that the legal and ethical issues of global trade are very complex and include a wide range of problems, from impact from cultures and different business ideology, to political and economic decisions. Bearing in mind the mentioned aspects, it can be concluded that the issues of dumping, trade sanctions, fair trade and global procurement and sales operations are the topics the least covered in the literature.

## **2.1. DUMPING AS A LEGAL AND ETHICAL SENSITIVE AREA OF INTERNATIONAL TRADE**

Brander and Krugman regarded dumping as a phenomenon of international trade based on the theory of monopoly prices and discrimination. The phenomenon of dumping occurs in situations where the elasticity of demand for certain goods is bigger abroad than on domestic market. Companies tend to maximize such situation and consciously place products on the foreign market at a much lower price than of the home companies (Brander, Krugman, 1983, p. 313). McGee considers dumping as each sale and placing of products on the market of global at prices far below the cost of production (McGee, 2002, p.175). In other words, dumping represents price discrimination between different markets (Đorđević, 2006, p.59). The problem of dumping can be presented by the following figure (Figure 1):

**Figure 1** Dumping of priced


Source: Nitisha, 2016

The figure presents indicated marks with the following meanings:  $AR_H$  is average revenue in home market,  $MR_H$  is marginal revenue in home market,  $AR_W = MR_W$  is foreign market demand curve,  $P_H$  is price in home market, and  $P_W$  is price in world market. The figure shows two markets (home market and world market) in which the organization tends to market its product. On the home market, the organization enjoys monopoly, whereas in foreign market, the organization faces perfect competition. Monopolist is in equilibrium when profits are maximum that is when  $MR=MC$ . Equilibrium is achieved at point E, with quantity as  $OQ_2$ , out of which  $OQ_1$  is sold in home market at  $P_H$  price and  $Q_1Q_2$  is sold at price  $P_W$  in world market. The price charged in world market is lower than the price charged in the home market. Dumping is a kind of predatory pricing in which a foreign organization charges high prices and earns profits in its own country and uses these profits to sell the products at lower prices to build market share in other countries (Nitisha, 2016). From the above interpretation of dumping, we can conclude that dumping is a specific situation where foreign producers in order to win a potential market of home country place the products on the market at a much lower price, even far less than the cost of production and economically justified price or the price at which the same product is sold on its own market. Since the goal of manufacturers is to deliberately destroy the competition in the host country, by selling products far below the economic viability of the manufacturer, this procedure is considered an example of immoral and illegal market operation. From the aspect of consumers, they will opt for a cheaper product if it has the same quality as existing product. However, after some time, when the result of such "manipulating struggle" squeezes competitors from the market, a foreign producer will consciously raise the cost of a new product, even sell it at price higher than price of placement by existing manufacturers. Thus the market is deceived, consumers are tricked and beyond any legal, market and moral principles the competition is destroyed.

Ethical question of dumping from the aspect of utilitarianism boils down to the claim that dumping is justified if it results in the highest "good" of consumers, or if a large number of consumers in the domestic market buys the products of satisfactory quality and at a price lower than of domestic products, then the concept of dumping is morally justified. However, this understanding of the policy of dumping is too general and the consequence for the final consumer who buys a given product cannot be isolated. In fact, if we apply the utilitarian aspect of the dimensions of the employees who work in companies that manufacture and sell products in the domestic market, then the concept of dumping does not bring the greatest "good". Their companies are losing market share, profitability is reduced and as a result of such indicators, the need for employees is eliminated. On the other hand, according to the

deontological concept that every action should become a universal law if it is “good”, we conclude that dumping as an economic measure is not justified, because then all the companies would use dumping policy and it would lead to the collapse of the free market and free trade.

In ethical terms, it is necessary to specifically analyze the following three groups of dumping (Table 2). These are sporadic, long-term and short-term dumping of prices (Đorđević, 2006, p.60).

**Table 2** Problems and types of dumping on the international market

Types of dumping	Ethical problems	Justification rating given the type of dumping (1-5 scale)
<b>Sporadic</b> (Nitisha, 2016; Đorđević, 2006; Johnson, 1995)	Due to the accumulated inventories, companies do not want to lower the prices on the domestic market but place these products on foreign markets at a lower cost.	4
<b>Short-term</b> (Đorđević, 2006; Prusa, 2005; Stiglitz, 1997)	Sales of products in a foreign market at a much lower price than the price of an identical product on the domestic market in a short period of time with the intention to raise the price of the product to a higher level when market conditions permit.	2
<b>Long-term</b> (Đorđević, 2006; Stiglitz, 1997)	Placement of products on the foreign market at low prices without any intention to soon raise those prices to economically justified level.	1

Source: Author

Sporadic dumping represents a situation where organizations due to accumulated inventories do not want to lower the prices on the domestic market, but they place these products on foreign markets at a lower price. This type of dumping is the closest to ethically correct procedure because it resolves inventory issue and protect the domestic market. The condition is that the organization had no intention of deliberate destruction of related organizations on the international market, and its intention is solely motivated by concern to avoid deterioration of goods in stock, perishability, expiration date, etc. The second group of dumping is the so-called long-term dumping, where organizations place products on the foreign market at low prices without any intention to soon raise those prices to economically justified level. If the intention of the company is conscious destruction of competition even at the expense of their own survival in the global market, this concept of dumping is ethically unjustified. Finally, short-term dumping is any sale of the product in a foreign market at a much lower price than the price of an identical product on the domestic market in a short period of time with the intention to raise the price of products to a higher level when market conditions permit. This type of dumping can be ethically justified only if low price represents the intention of the organization to adjust its own prices to the existing price of the identical product in the global market.

## 2.2. TRADE SANCTIONS AND SECURITY AT INTERNATIONAL MARKET

Another area of international trade policy that requires ethical analysis is the economic and trade sanctions. Sanctions can be considered as a form of nonviolent action taken by individual countries to other countries in order to influence them to change certain segments of their foreign and domestic policy (Hufbauer et al, 1997, p.2). When it comes to economic sanctions, that kind of pressure is realized through a ban on trade with “unsuitable” countries (Pape, 1997, p.95). The ban of trade can vary from the introduction of specific penalty tariff rates on imports of goods and services from a particular country to a complete ban on any form of trade through maritime, air and land blockade.

From the utilitarian aspect, any restriction on the individual consumer to make a free choice when purchasing products or services is considered to be immoral. Furthermore, according to Aristotle's stand, any attempt to influence the freedom of the individual, his/her safety and election is considered immoral and represents the greatest violation of man and his/her freedom (Aristotle, 2013). Individuals and groups of individuals should be able to boycott certain products and certain countries if they wish, but the governments and the state leaders cannot be expected to engage in this kind of coercion on other countries.

Restricting the freedom of the individual to sell or purchase products from certain countries is immoral, especially given the fact that the greatest burden of sanctions is borne by final consumers and individuals who are some kind of “collateral damage” of wrong policies of their government. In addition to ethics, economic sanctions are wrong from the perspective of law. Preventing individuals to sign contracts with other persons is *prima facie* violation of their right to property, contract and association.

The only unjustified action would be an intentional boycott of products and services that come from countries that are in violation of fundamental human rights. Governments should demonstrate to their citizens that some countries violate human rights and invite them to a conscious boycott of products and services that come from such countries (e.g. boycott of Chinese products made by children younger than 14). Any other form of coercion and influence on the choice of an individual, such as the imposition of economic sanctions on these countries, etc., is considered morally unjustified.

## 2.3. FAIR TRADE

From legal and ethical aspect, another issue of international trade concerns the application of the concept of fair trade. The basic principle of fair trade is that the living and working conditions of employees in poor and underdeveloped countries of the world should be improved and aligned with those in developed countries (Reynolds et al., 2007). As defined by the International Federation for Alternative Trade (IFAT), fair trade is regarded as an alternative way of international business that is useful and fair with the dual aim: to improve the living conditions of the poor and oppressed in developing countries, and to change the unfair structures in international trade (Renard, 2003, p.90). Fair trade prohibits any form of exploitation of cheap labor, exploitation of resources and raw materials from underdeveloped countries, unfair and overtime labor, child labor, the influence of multinational companies in the state structures of the “third” world countries, etc.

The International organization for standardization of fair trade (FLO) prescribed a set of morally responsible principles of fair trade concerning: creation of benefits for producers

from underdeveloped countries that are now on the brink of economic sustainability, transparency of organizations involved in fair trade, payment of a “fair price” for producers and employees who come from underdeveloped countries, the prohibition of slavery, exploitation of employees and child labor, the prohibition of discriminatory behavior, gender equality, etc., with the aim of enabling and creating good working conditions, the environment and natural resources of underdeveloped (poor) countries (Balj et al., 2011, p.193) Some organizations such as EFTA and IFAT put the stamp of “fair trade” on products that come from multinational companies that respect these moral principles. Buying and promoting products with the stamp of fair trade individuals and market give support and advocate for change in the rules and practice of conventional international trade policy.

The biggest problem of fair trade is reflected in the benefits brought by fair trade to developed countries. According to recent research, around 150 developing countries, out of which 49 belong to the group of very poor countries, account for only 30% in the total trade (Balj et al., 2011, p. 192). These data suggest that developed countries and multinational companies only promote, but not apply the concept of fair trade. Under the patronage of the concept of fair trade, developed countries are entering the market of developing countries and exploit their resources. As a result of the global race for profit, multinational companies enter the markets of underdeveloped countries, usually with a much more flexible employment contracts and working times. The real purpose of this flexibility is a very often satisfaction of the specific interests of companies, such as: overtime, inadequately paid job, unrealistic expectations regarding the performance of employees, etc. (Marić, 2010, p.179).

The meaning of the concept of fair trade is that it becomes a means and a step towards the better material and overall socio-economic situation of underdeveloped countries. In the utilitarian and deontological sense, any intention of misuse of the concept of fair trade to achieve own corporate objectives is considered immoral business decision. Ethically justified meaning of fair trade is more efficient economy, a better life for the individual and raising standards of underdeveloped regions.

#### **2.4. PROBLEMS RELATED TO PURCHASE AND SALE ON THE INTERNATIONAL MARKET**

During procurement and sale of retail and other commercial goods, organizations have an obligation not only to respect the needs and interests of management, employees, markets, customers, owners, shareholders, government, society and the public in general, but to operate under the principle of ethical and business responsibility and respect legal norms and standards. Authors (Narlikar, 2010; Lovreta, 2005; De Pelsmacker, Driesen, Rayp, 2005) state that the most common problem in procurement on the global market is fee for introduction of a new product to retailers. Namely, in the regions where the sectors of final consumption show a significant increase in the number of new products, the fight for entry into both limited and saturated sale space becomes increasingly fierce. Large retail companies, as a result of fierce competition, charge producers or distributors a special fee for introducing their new products in the existing sales area of trade companies, often up to 25% of the wholesale price of the product. From the ethical point of view, charging such fees is not morally permissible, because it is not about any actually incurred cost which will later be included in the price of products intended for final consumption. On the other hand, trading companies justify this by the fact fee collection is necessary to cover the accumulated costs and expenses of warehousing, inventory control, storage of new products, etc.

In global procurement activities it is necessary to point out the problems of exclusive territory that is often misused in the sense that manufacturers assign exclusive geographic areas to only one retail chain while the other trading companies are not allowed to sell products of that manufacturer in that territory. This allows creation of one form of monopoly and direct protection of selected retail chain from the competition. We will mention a dual distribution, which refers to the situation when the producers, bypassing the existing retail network in the home country, develop their own network with all the benefits of the manufacturers, and thus they stifle competition, create a monopoly and capture new markets.

When it comes to sales, the biggest problems are present in the area of consumer security, concerning product quality in terms of meeting their expectations, ways and methods of sales, attitude of employees to consumers, etc. Trade companies are legally and morally responsible for the quality of products offered to consumers in the global market. They should ensure security for the consumer, i.e. to provide guarantees for shelf life, safety of use, reliability and functionality of the product, regular maintenance, and repairs. In this regard, trade companies must be required to implement a number of control activities of product standards and quality, which relate to technical, cultural and social aspects of quality, such as: consistency and durability, precision of craftsmanship, quality of materials, costs of use, comfort, taste, style, fashion, design, service conditions, guarantee and refund of products, consumer complaints, etc.

### **3. LEGAL PROTECTION AND SECURITY AT INTERNATIONAL MARKET**

Individuals and groups that participate in the implementation of corporate business activities in international markets should prioritize not only achieving compliance with the letter of the law or regulations, but also the spirit of the law, since ethics means respecting the principle that are higher than just the legal minimum. Such compliance is based on basic respect for individuals, primarily as human beings, and not merely as potential consumers, then awareness of their need to have relevant information to be able to take advantage of freedom of choice and security, as well as caution to their human vulnerability.

The basis of the legal protection and security of consumers in the process of international trade is reflected in several steps. *Firstly*, products offered to the “global” consumer must be exposed, accessible, measurable and supplied with the necessary documentation, in accordance with the law of domicile country. Basically, when buying a product (and/or use of services) the consumer must be provided with: the product in exact unit of measure or quantity, enabling verification of accuracy; quantity of products required if available, unless otherwise is prescribed by the law or other regulation; product (or service) of defined or agreed quality, and if the quality is not stipulated or agreed upon, the product (or service) should be of usual quality; product with accompanying documentation in accordance with national law regulating standardization; proof of origin, etc. Regulation of this area and the development of institutions that will report to and educate consumers, and effectively protect their rights, was initiated by the UN General Assembly, which adopted resolution number 39/248 in 1985, which contains guidelines on the protection and security of consumers in the global market and which encourages Member States to protect their rights. The United States enacted the Consumer Protection Act in 1972, and this was foundation for establishment of the Special federal commission for the safety of US consumer goods (McGee, 2002).

*Secondly*, besides consumer protection of consumers, it is necessary to take concrete measures of legal protection and regulation of those problem areas of international trade. First of all, it is a necessity to pass anti-dumping act. The aim of these legal acts is that each country in case of a real threat to its economy can introduce antidumping measures to protect domestic production. In doing so, it is essential that the following basic requirements of anti-dumping measures are met: if the price of a product is lower than the comparable price of the same product, at which it is, under the usual commercial terms, sold in the exporting country, for consumption in that country; if the damage is clear from dumping of import and the damage inflicted by imports to domestic production in accordance with the Agreement on Implementation, Article 6 of the General Agreement on Tariffs and Trade (GATT), etc. Dumping is only possible if there is local government's willingness to allow dumping and it provides certain privileges to foreign producers. The US is one of the countries in the world that implemented the most anti-dumping investigations against foreign producers. The following table (Table 3) illustrates the countries against which the US government has launched anti-dumping measures.

**Table 3** Review of anti-dumping measures of the US government

Country - Destination of company	Number of implemented anti-dumping investigations	Structure
Argentina	9	5.49%
Brazil	21	12.80%
Chile	2	1.22%
Colombia	5	3.05%
European Union	10	6.10%
Indonesia	1	0.61%
New Zealand	2	1.22%
Australia	12	7.32%
Canada	26	15.85%
China (PRC)	1	0.61%
Costa Rica	1	0.61%
India	11	6.71%
Israel	5	3.05%
Korea (South)	6	3.66%
Mexico	39	23.78%
South Africa	6	3.66%
Taiwan	4	2.44%
Uruguay	1	0.61%
Venezuela	2	1.22%
<b>Total</b>	<b>164</b>	<b>100.00%</b>

Source: McGee, R.W. (2002). Legal ethics, business ethics and international trade: some neglected issues. *Journal of Accounting, Ethics & Public Policy*, Vol. 10, No. 1, pp. 216.

The USA anti-dumping investigation structure indicates that the largest number of companies is from Mexico, Canada and Brazil, which are also the largest trade partners of the US. Anti-dumping provisions of the WTO, which was signed by more than 120 countries should serve as future guidelines to other countries. Problems in the application of anti dumping law are

lack of efficiency of the judiciary, especially in developing economies; inability to initiate anti-dumping investigations because developing economies are insufficiently efficient and flexible; insufficient evidence of actual dumping harms (both moral and legal); dilemma whether antidumping laws violate someone's property and contractual rights; etc.

*Thirdly*, when it comes to the trade sanctions, it is necessary to apply the so-called “normative-political” strategy of legal protection (Marić, 2010, p.180). Such protection implies that policies are clearly conceived at the global level and are identical for all participants. Such concise rules would include clearly defined conditions, when, how and under what conditions trade sanctions can be imposed, but in no way should they be applied to the whole market of a given country or region, but only to its chosen segments (e.g., managing structures, specific companies, specific products, etc.).

*Fourthly*, control of the application of the concept of fair trade should be stricter. A regulatory body should be established in the most important international trade organizations, such as IFAT (IFAT - International Federation for Alternative Trade), FLO (FLO – Fair Trade Labelling Organization International) and EFTA (EFTA – European Fair Trade Association), which would exercise control and supervision over the implementation of agreements on fair trade between the signatory countries. In this regard, a clear legal protection would imply strict penalties for all companies or countries that use manipulation and exploitation of the resources of underdeveloped countries on the basis of fair trade agreements signed.

#### **4. CONCLUSION**

Management of trade companies should continuously recognize and build the analyzed problematic areas of international trade and their legal regulation. Management must learn, and that means that the reports on violations of ethical and legal norms and standards must be treated seriously and thoroughly analyze the failures that led to violations. It is essential that managers are familiar with the basic ethical dilemmas in carrying out trade policy in order to timely respond and identify potential problems before they occur.

On the other hand, managing structures should also recognize dumping and clearly define the damage brought by this form of business activity to their country and the economy. Any country, especially poor countries and developing countries need to invest resources in making antidumping laws and to conduct anti-dumping investigations. An important feature of antidumping is recognition of corruption and support to domicile government to foreign companies and countries that implement dumping and undermine the domestic market.

The next important fact is that all countries are represented and participate in international trade associations and organizations, through which they will protect their rights and promote the concept of free, fair trade without sanctions, dumping, an exclusive right to the territory, etc.

Furthermore, national legislation and regulations regarding consumer protection, security, quality of products and services, procurement, sales, etc., must be fully coordinated at the global level through the introduction of normative-political strategy and a clear conception of identical rules for all parties. Only those countries and companies that recognize the above problems and resolutely opt for the “good” business practices and fair trade can count on stability and success in modern conditions of global corporate business.

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# DETECTING AND PREVENTING EMPLOYEES' THEFT IN RETAIL

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## ABSTRACT

*Theft represents one of the major factors of retail shrinkage because of which retail organizations deal with heavy financial losses. A significant number of thefts occurs inside the organization and is committed by employees. As it causes significant losses to companies, employees' theft cannot be ignored. The level of the employees' theft increases over time in various companies and various markets. The most important method when preventing this kind of theft is an efficient supply management system. However, existing supply management systems have not been entirely successful in preventing employees' theft. This study aims to investigate personal attitudes of the respondents towards theft, penalties for theft crimes, perception on reporting thefts, and the possible procedures for theft preventing and detecting. The survey is done as a pilot on small sample in order to give an insight into this problem from the perspective of managers, retail section employees, supervisors, and security personnel of retail organizations in the Republic of Croatia. The questionnaire consists of three segments: (1) personal ethical and moral attitudes towards thefts, (2) managerial point of view regarding employment procedures, education of employees and other preventing actions, and (3) employees' perception on theft motives and punishment methodologies. The results of this pilot research are indicative and will be used for further broader empirical research on larger sample of retail companies.*

**Keywords:** employees' theft, retail, theft reporting, theft preventing, theft detecting

## 1. INTRODUCTION

Detecting and preventing inventory shrinkage is one of the most challenging tasks in the retail supply management. Among all types of retail shrinkage, significant proportion occupies employees' theft, as it results in an estimated \$26 billion in losses every year (Chen and Sandino, 2008: 2). Moorthy et al. (2013: 256) define employee theft as theft of anything of value by an employee or his accomplice. Customer theft as a prevailing form of shrinkage covers only 10% more theft in organizations than employees' theft (The Global Retail Barometer, 2011).

Despite an increasing utilization of technology-based controls to prevent theft in most organizations, the level of the employees' theft continues increasing (Hollinger and Davis, 2001). Therefore, it is necessary to determine the characteristics of the workforce in order to reduce the level of employees' theft within all forms of retail shrinkage.

In order to overcome shrinkage problems, retail managers and directors must possess information regarding the sources of the loss as well as to identify best strategies of preventing theft. Therefore, the research objectives of this study are: (1) to determine the general perception of the theft and people who are willing to commit the theft, or people that

make theft in various forms; (2) to examine opinion on the methods of preventing and detecting theft; and (3) to draw a conclusion on possible actions to prevent and detect theft.

## 2. EMPLOYEES' THEFT IN RETAIL

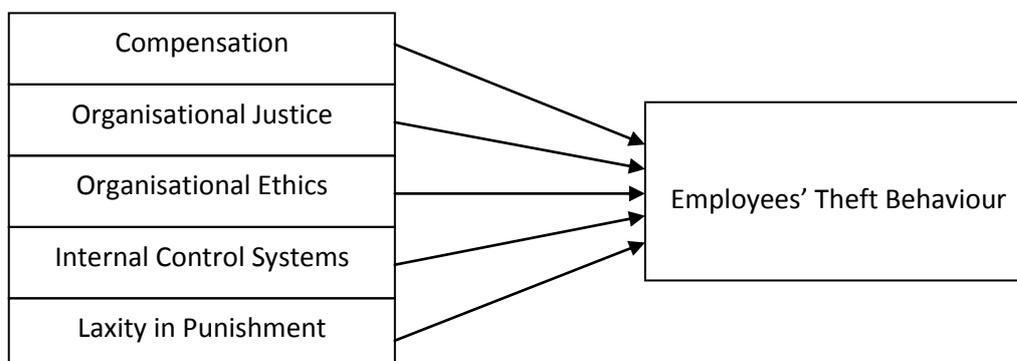
The Theory of Planned Behavior (Theory of Reasoned Action) is behavioural theory widely used by the researchers to assess the unethical behaviours and thefts committed by people (Moorthy *et al.*, 2013: 258). Behaviorism is a psychological school (completely rejecting self-perception) basing psychology almost entirely on the observation and measurement of objective behavior of living beings in different environmental conditions (Kovačec, 1996).

Employees' theft is intentional use of the organization funds in order to achieve personal gain. In doing so, the personal benefit is defined as a material (e.g. money) or intangible benefit (e.g. the realization of personal needs/desires), including activities such as stealing physical inventory, financial fraud and the use of company's inventory for activities that are not related to the performance of organizational activities (Rickman and Witt, 2007). Employees can steal independently, in cooperation with other employees or in cooperation with customers (Albrecht *et al.*, 1988).

Roberds (1998: 2) points out the most common methods of stealing: (1) theft of goods, (2) theft of cash from the cash register, (3) bill theft as the evidence that stolen goods are actually purchased, (4) stealing cash from a customer, by not delivering the goods after the payment, (5) buyer extra charging, (6) theft while repossessing the rest of the money, (7) theft of discount coupons, (8) the transfer of goods through the cash register without scanning and (9) refund for goods that were never returned. Also, the theft within the organization can be organized or individual (Albrecht *et al.*, 1988). The impulsive theft occurs when an employee makes a one-time disposal of things or money without a plan. Organized theft occurs when an employee or group of employees alienates organizational assets by plan. Group and associated employee theft inflicts the most damage to the organization. Every individual has a role in the theft and concealment of theft. These groups often have characteristics associated to criminal organizations, making them harder to detect and suppress their activities rather than a single theft.

According Moorthy *et al.* (2013: 259), the main factors within the organization that affect the theft propensity of employees are (Figure 1): (1) compensation, (2) organizational justice, (3) organizational ethics, (4) internal control systems, and (5) laxity and punishment.

**Figure 1** Workplace factors that influence the employee's theft behaviour

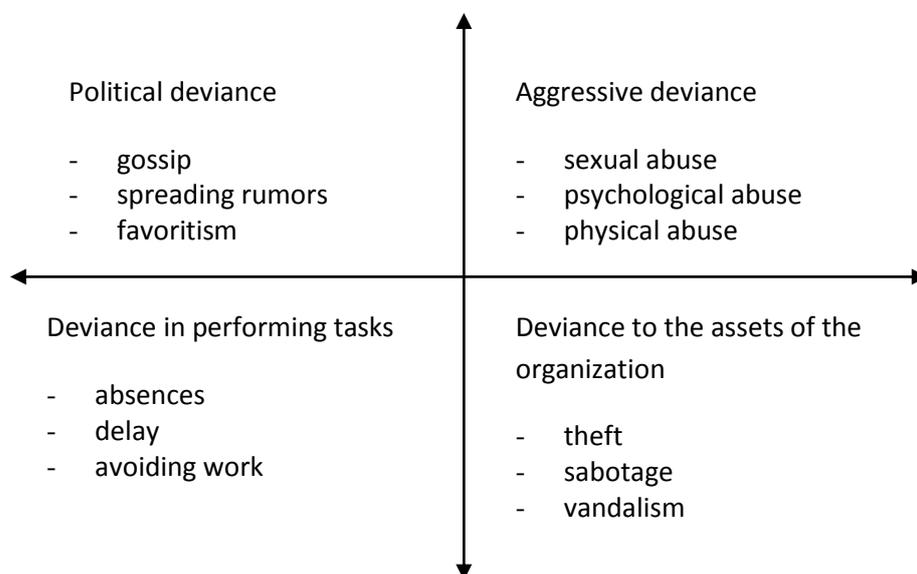


Source: Moorthy, M.K., Ng, F.C.Y., Chelliah, M.K., Yew, K.T., & Suat, L.A. (2013), pp. 259.

If a person considers himself inadequately compensated for the work, it is more prone to deviant behavior and theft. When the employee considers to be damaged by certain procedures (e.g. not receiving deserved promotion) this increases the possibility of deviant behavior. When the ethics of the whole organization is at a low level (for example, management is prone to corruption and the rest of the organization has information about such deviant behavior), the ethics of the other employees will be limited. The tendency of theft decreases by the possibility that the individual will be caught stealing by the mechanisms of internal control. Even if the theft perpetrator is caught in the act, remains the question of how to punish him. If the penalty is considerably more lenient than the potential rewards for committing theft, the tendency to theft will increase within the organization.

Harbaugh et al. (2013) research conducted on students showed that the amount of penalty is a much stronger factor in the theft abandonment than the probability of a thief to be caught. Also, research shows that men are more prone to theft than women, and that the likelihood of theft reduces as a person/employee is a resident of one area longer period. This can be correlated with the development of a stronger network of contacts in a particular area, which means a greater shame if caught during the theft. Student marks from Harbaugh et al. (2013: 396) research and the amount of money available for spending on a weekly basis had no correlation with the theft degree. Then, person with one or more brothers and/or sisters is more likely to steal than those who are the only child in the family. Especially worrying is the fact that only 5 out of 116 students never committed a theft during the experiment, while 48% of respondents committed even 13 thefts during the experiment.

**Figure 2** Typology of deviant behavior in the workplace



Source: Robinson, S.L. & Greenberg, J. (1998), pp. 1.

On the other hand, Chen and Sandino (2007) in their study point out that the likelihood of theft increases if the turnover of employees is higher. Another very important cause of employee theft that can not be avoided, according to Robinson and Greenberg (1988), is theft as an act of resistance to organization and the expression of discontent. It is possible that the tendency of employees to theft develops despite the organizational power and control. Employee finds justification for such action in inadequate financial, social or working conditions within the organization. However, theft is only one way of expressing

dissatisfaction (Figure 2); there is also psychological and physical violence against colleagues, absenteeism, gossip, sabotage and other forms of deviant behavior.

Robinson and Greenberg (1998: 1) point out that the deviant behavior in an organization can include any willful conduct that violates significant organizational norms and threatens the well-being of the organization and its members. Deviant behavior begins with provocation, which arises as a perceived difference between the current situations in the organization and imagined - an ideal situation.

Employees' fraud during customer payments is one of the most popular forms of employee theft, where an employee can damage the customer or a company. Although this type of theft exists regardless of the technology and methods of payment that company uses, the method of theft control varies considerably due to the method of payment. Modern methods of payment include more parties to the transaction and thus increase the risk of theft. Except buyer and seller other stakeholders are involved in the transaction, such as credit card companies and banks. When using the new methods of payment, such as online payment, professional fraudsters represent the greatest danger, but also employees and customers to a lesser extent. According to Braun et al. (2008), possible employee fraud related to the payment are theft or copying and later use of a customer card, database sales collected during the payment, the exploitation of fatigue and customer inattention in combination with simple tricks and so on. The trend of transition from paper to electronic forms of payment has its influence on both, customers and employees theft. Electronic forms of payment are increasingly introduced in retail and the development of new technologies for electronic payment is rapid. One of the most important parameters that must be taken into account in the development of electronic payment technology is the safety and protection from data abuse.

Due to the rapid development of technology, customers and retailers often accept poor technology and unrealistically high rates of technology application. Even greater problem in this case is the lack of customer service to introduce new payment system and prevent abuse (Verdier, 2006). Fraudsters will always seek to abuse the system, and the new payment systems especially attract them. If the new system has weaknesses, they will find a way to exploit them. Therefore, retailers need to be on a special alert when introducing new payment systems in use.

In order to protect the company from external or internal data theft, it is important to have a quality and safe information system. Employees should not have a higher level of access to data than is required for everyday tasks, and the access to the main database should be allowed only to a few employees within the company. The consequences of such errors are visible from the TJX Companies Inc. (2007) report, where 46 million records of consumers are exposed to abuse because of security vulnerabilities within the system.

Employee theft, as a very important source of losses in the retail as well as any other organization, can not be ignored. Beck et al. (2003) analyzed the shortages in the supply chain arising from the theft. They defined deficit as the loss of inventory caused by internal and external theft, damage and errors in the process. The estimated shortfall in the sector of consumer goods in 2003 amounted to 24 billion euros, of which 27% occurred due to errors in the process, 7% due to fraud, 28% due to internal theft and 38% due to external theft. In conclusion, the authors point out that employee theft participated with high 6.72 billion EUR in the overall deficit.

According to the Global Retail Theft Barometer, the total loss from the theft amounted to 119.092 million USD or 1.45% of the total retail turnover among 43 analyzed countries (Moorthy *et al.*, 2013). Out of that, 45% in the total cost of theft were customers stealing, the proportion of employee theft was 35%, and the internal error was 14%, while the suppliers' theft accounted for 6% of the total theft damage.

## **2.1. Preventing employees' theft in retail**

Effective inventory management system can timely indicate the problems with theft. Frequent theft can easily cause out-of-stock situation, considering that stocks in the information system are higher than actual situation due to theft. Therefore, additional quantities of goods can not be ordered since there is a certain amount of stocks according to data in the information system (Kok and Shang, 2007). If this situation continues, "paper" stock of goods reduces the inventory turnover rate. Because of discrepancies in physical inventory and stock in the company information system, this can lead to situations that items which recorded good sales are put up for sale and removed from the assortment.

When making decision about ordering goods at the end of the accounting period, it is necessary to have a stock balance within stores. Therefore, it is necessary to take of inventory in order to adopt the appropriate decisions. Conducting inventory will align the physical level of inventories as of inventories in the information system. Another form of control is the so-called cycle-count program, which means periodic inventory of a number of items. The frequency of inventory for a particular group of items is usually determined by the ABC methodology, according to the frequency and the value of transactions. This method can easily spot the irregularities in the information system by checking the only one item (Kok and Shang, 2007).

Koh *et al.* (2003) emphasize nine methods by which employers usually prevent theft: (1) a system of security cameras in the store and the warehouse, (2) protecting the high-value products by RFID technology, (3) detailed verification of the job candidates, (4) education of employees for the theft protection, (5) raising public awareness of the theft harmfulness, (6) raising employees awareness of the theft harmfulness, (7) design of the store interior, (8) strategies to report thefts to institutions and the community and (9) defensive products display (exposing of goods behind the counter or in locked shelves).

It is extremely important that the company has a developed system for employee theft prevention. Investing in such system is a multiple profitable. If such system does not exist, and there was employee theft in the company, it is necessary to investigate the theft, which creates a bad working atmosphere, requires money and time expenditure and, if not successful encourages theft repeat. The classical systems of internal control Chersano (2009) divided into three main groups: (1) physical access control, (2) accurate job descriptions and procedures, and (3) the accounting analysis. Physical access control is the simplest and often most effective tool for preventing theft. It consists of a control and security system, lock rooms and restricting access to unauthorized persons. This system is efficient because theft often requires physical presence of employees. In addition to helping in identifying employees who committed the theft, it also helps to identify potential thieves and discourages employees to commit theft. The system of job descriptions and procedures assumes direct responsibility of persons responsible for the area of business in which the theft was committed.

However, the problem is that the employees and management often do not adhere to the procedures in everyday tasks. Then, in the case of theft formally responsible person is in charge of the procedural part of the business, but because of non-compliance with the rules it is not possible to determine the employee responsible for the theft. In most cases the accounting analysis will determine if there is a theft, unless it is a case of false financial reporting (Chersan, 2009). The problem of this type of control is the inability to determine the details of theft, even if the theft is committed by employees or customers. Recruitment has also significant impact on the prevention of theft, but a thorough check of potential employees pays off only if the company has a large number of employees.

### **3. CONTROLLING THE PROCESSES OF SUPPLY MANAGEMENT AND EMPLOYEES' THEFT PREVENTION**

The method of stock control mechanism (Q, R) is often used in the supply management. The stock level is continuously checked and the quantity of order (Q) is sent to the supplier, in case that the sum of the quantity of products in the store and the quantity of the products ordered (not received) is less than R (Re-order point). Lead time has to be taken into account when ordering, and the reordering point is set up in such a way that there are enough stock products to satisfy the consumers' needs until the new order is received. If the re-order point is set too low, frequent out-of-stock situations will occur. If the point of ordering is set too high, the stock level of the store will be too high. Therefore, R is formulated as (Kang and Gershwin, 2004):

$$R = \text{expected demand during lead time} + \text{safety stock}$$

Safety stock depends on product demand volatility and suppliers lead time volatility. If demand and lead time are highly volatile variables, safety stock will be higher and vice versa. Safety stock model can include inventory loss, because ignoring inventory loss can lead to out-of-stock situation:

$$R = \text{expected demand during lead time} + \text{safety stock} + (\text{initial inventory record} - \text{final inventory record}) + (\text{delivered shipments} - \text{sales})$$

Stock loss percentage can be calculated using the following formula:

$$\frac{(\text{initial inventory record} - \text{final inventory record}) + (\text{delivered shipments} - \text{sales})}{\text{sales}} \times 100\%$$

Stock loss is not equally distributed across all products. This is why it is necessary to collate data on losses by stock keeping unit (SKU) or reference (ECREurope, 2001). Hart (1998) used statistical process control as a tool for efficient supply management. The most common statistical methods for demand forecasting use normal or Poisson distribution, the most efficient methods for demand forecasting in a given period. Normal distribution is used when a high demand for products exists (e.g. bread, cigarettes and other products with high turnover). Poisson distribution is used for low demand products (for example furniture, vehicles etc.). The basic problem of the aforementioned methods is ignoring sales loss caused by stock loss (Agrawal and Smith, 1996.) In case where a stock loss exists, it is better to

forecast sales, than to forecast demand. If a product is out-of-stock, the demand exists but sales do not (Lariviere and Porteus, 1999).

Statistical methods are best if they are combined with standard internal audit, that is, if integrated approach is used. If an auditor wants to test hypothesis, for example “the credit manager looked and approved the credit to the customer before shipping the goods”, he is going to take historical data about goods shipped on credit first. Afterwards, he will inspect every shipment the same way the credit manager was supposed to. He will record every irregularity, that is, the number of shipments which contained irregularities in the procedure. Every case with an irregularity, the auditor will classify as “a failure of proper credit approval”. From sampling, the auditor wants to predict the percentage of failure of proper credit approval in population (Gillett and Srivastava, 2000).

Although it is very difficult to differentiate the percentage of employees’ theft from other causes of inventory shrinkage, it is easy to set standard intervals of expected inventory shrinkage on the level of organizational unit (store). If an organizational unit significantly deviates from standard interval, it is necessary to carry out an internal control and find reasons for such deviation. Even if the reason is shoplifting or transaction error, it means that store does not invest enough in theft deterrence as other organizational units (stores). However, since the employees’ theft is usually of larger proportions, it is more likely that in these cases comes to employee theft.

Because of high losses caused by inefficient supply management, it is necessary to have a loss management strategy and to prevent losses within the organization by placing a manager who will be responsible for this area. The manager should declare an organizational policy of inventory management in collaboration with stakeholders and suppliers (ECREurope, 2001). The strategy should be based on quantitative and qualitative measuring of losses and designing system that will collect and analyze data. Quantitative measuring is better to conduct by using analytical approach, on the level of a particular unit/store and on the level of particular products or groups of products respectively. According to ECREurope (2001) research, those retailers who implemented security/loss prevention department, decreased the level of stock loss for 27%. The impact of dedicated audit departments was even more dramatic – retailers with such a function had losses 39% lower than those companies without such a department.

Internal audit of employees’ theft prevention process has a goal to detect theft and continuously improve the system of theft prevention. The success of audit in this area greatly depends on personal skills of auditor, especially on interpersonal skills and creative thinking in problem solving. Internal audit of theft prevention mechanisms is necessary because methods of prevention become known to employees. Therefore, it is necessary to continuously evaluate and revise the existing methods.

The basic methods of theft deterrence according to Albrecht and Schmolz (1988) are:

- Specialization (if an employee has a wide range of tasks and responsibilities, it creates greater opportunity for theft, since the employee understands a large number of work processes inside organization);
- Mandatory vacation (if an employee is taking vacation regularly, with help of financial analysis and inventory analysis it is possible to determine if an employee is problematic, or if theft rate is lower while certain employee is on vacation);

- Recidivism prevention (there is a probability that an employee who was already detected while stealing will try to steal again. It is necessary to quickly dismiss those employees from the organisation in order to prevent further theft and as an example to other employees).

KPMG Malaysia's research (2005) established that theft and fraud are most often detected by following methods: (1) internal control methods (43% of total detected thefts); (2) board investigation (37%); (3) internal auditor review (29%); (4) notification by employee (15%); (5) notification by customer (15%).

According to the terms of the organizational power and deviant behavior, Robinson and Greenberg (1988) developed 4 theses: (1) organizational power will lead to deviant behaviour at workplace when autonomy of the employees is significantly reduced or when the measures target people who have the need for a high level of autonomy; (2) organizational power will lead to deviant behaviour at workplace when the possibility of an employee expressing his/her social identity is significantly restricted or when the measures aim people who are significantly sensitive when it comes to protecting their social identity; (3) organizational power will lead to deviant behaviour at workplace when the perception of justice is threatened or when the measures aim people with a high level of sensitivity concerning justice; (4) possibilities of alternative expression of dissatisfaction will alleviate the need to express dissatisfaction by behaving in a deviant manner at workplace. The primary level of prevention is HR department when recruiting new and evaluating current employees. If the level of desired autonomy, social identity and justice perception is determined for every employee, one can anticipate the employee's reaction to organizational changes or avoid hiring people that will not fit into the organization.

Employee's theft is a process which also strives for continuous improvement and if the process of preventing employee's theft is not up-to-date, it will become obsolete soon. This is why continuous improvement of an efficient process of preventing employees theft is necessary. One of the options of continuous improvement is an analysis of every particular case and implementation of new procedures so that similar cases would not happen again.

#### **4. EMPIRICAL RESEARCH ON THE THEFT PERCEPTION AND METHODS FOR THEFT PREVENTION AND DETECTION**

In order to test the research instrument for the theft perception and methods for theft prevention and detection, prior to the actual survey, a pilot test has been conducted with 36 managers, retail section employees, supervisors, and security personnel of retail organisations in the Republic of Croatia. The quantitative data was collected through online questionnaire in Google Docs. The questionnaire consisted of 33 questions aiming to establish personal attitudes of the respondents towards theft, penalties for theft crimes, perception on reporting thefts, and the possible procedures for theft preventing and detecting. All questionnaire items were measured by five-point Likert scale (1 - strongly disagree, 5 - strongly agree).

The study results are shown in Tables 1-3. Table 1 shows ethical and moral questions related to theft, Table 2 analyzes the managerial perspective of theft, while Table 3 summarizes findings on the managers' perception about the motives, complaints and theft punishing.

Theft is an immoral act agrees 97,22% of respondents. It does not necessarily mean that none of them committed theft, because someone might perceive theft immoral act and continue stealing. Even 61,66% of respondents agree, and 16,67% completely agree they would report the theft to supervisor if they witnessed the theft. In this case, most people would report their testimony to the relevant person. The majority of respondents (52,77%) disagree or completely disagree with the statement that any theft should be classified equally regardless of the amount of damage. 58.34% of the respondents agree or completely agree that the employee caught stealing should be given a second chance if they express regret for the the act.

**Table 1** Ethical and moral issues

	1	2	3	4	5	Average response	Mod
Theft is an immoral act.			1 (2,78%)	4 (11,11%)	31 (86,11%)	4,83	5
Each theft should be classified equally, regardless of the amount of damage.	3 (8,33%)	16 (44,44%)	6 (16,67%)	6 (16,67%)	5 (13,89%)	2,83	2
The theft tendency depends on the ethics and morals of the person rather than on the circumstances.	2 (5,56%)	1 (2,78%)	3 (8,33%)	22 (61,11%)	8 (22,22%)	3,92	4
It is moral to hire a private detective to detect employee theft.	3 (8,33%)	6 (16,67%)	7 (19,44%)	19 (52,78%)	1 (2,78%)	3,25	4
If they express regret for the act, employee caught stealing should be given a second chance.	4 (11,11%)	3 (8,33%)	8 (22,22%)	19 (52,78%)	2 (5,56%)	3,33	4
Theft is morally justified act when injustice is made to employee.	7 (19,44%)	22 (61,11%)	5 (13,89%)	1 (2,78%)		1,94	2
Theft is a moral act if the employee is not paid for their work.	3 (8,33%)	26 (72,22%)	4 (11,11%)	2 (5,56%)	1 (2,78%)	2,22	2
The removal of the small, low value inventory of the company (pens, paper clips, rubber bands, etc.) should not be classified as theft.	4 (11,11%)	7 (19,44%)	7 (19,44%)	7 (19,44%)	11 (30,56%)	3,39	5

Note: 1- fully disagree; 5 – fully agree

Source: own work.

Majority of the respondents do not agree that theft can be morally justified act when the employee witnessed injustice or when he did not receive payment for its work. Even 83.33% of the respondents believe that the theft tendency is less dependent on the circumstances in which the person is found, but the moral and ethical attitudes of the person. That is, low level of decision-making opportunities and the specialization will not prevent the employee theft.

High percentage (83,33%) of respondents believes that the personal benefit is the primary motive of employee theft. However, 75% of respondents believe that the probability of an employee to commit theft is smaller if he has various methods of expressing discontent available. The highest percentage of respondents (91,67%) believe that Croatia's legal system

has no appropriate penalties for committing theft. This is another very important factor in deciding on how to report the theft. If the majority of people have no confidence in the legal system, it is possible to expect that they will not be afraid of the reactions of the environment but also the reaction of the person accused for theft.

More than half of the respondents (52,78%) agree or strongly agree with the statement that the cancellation of employment contract is an appropriate punishment for employees' theft. That theft may endanger the career demonstrates the percentage of respondents that would not employ a person caught stealing at previous employer (63,89%). Although the majority of respondents perceive the theft as an immoral act, 61,11% of respondents consider public disclosure of the names of persons who have committed the theft as inappropriate. This indicates that respondents are willing to provide the second chance to people who have committed the theft in the past if they express remorse for the committed act. However, a smaller proportion of respondents would not consider providing the second chance and would fire the employee who committed the theft.

**Table 2** Managerial perspective

	1	2	3	4	5	Average response	Mod
Cancellation of employment contract is an appropriate punishment for employees' theft.	1 (2,78%)	6 (16,67%)	10 (27,78%)	13 (36,11%)	6 (16,67%)	3,47	4
It is necessary to invest more resources to protect against cyber attacks and theft than from physical theft.		5 (13,89%)	8 (22,22%)	21 (58,33%)	2 (5,56%)	3,56	4
As an employer, I would have hired a person who was caught stealing at previous employer.	4 (11,11%)	19 (52,78%)	4 (11,11%)	9 (25%)		2,5	2
It is wise to invest in video surveillance to protect against theft.			5 (13,89%)	14 (38,89%)	19 (52,78%)	4,61	5
As the owner of the company, employee theft prevention would have been one of the priorities.	1 (2,78%)	2 (5,56%)	9 (25%)	11 (30,56%)	13 (36,11%)	3,92	5
For important workplace I would choose the person with less knowledge but in which I have confidence.	1 (2,78%)	8 (22,22%)	4 (11,11%)	9 (25%)	14 (38,89%)	3,75	5
In selecting employees, I would have asked a certificate of no criminal record.	1 (2,78%)	1 (2,78%)	1 (2,78%)	13 (36,11%)	20 (55,56%)	4,39	5
Employee education can prevent theft.	1 (2,78%)	3 (8,33%)	7 (19,44%)	22 (61,11%)	3 (8,33%)	3,64	4
When you are not sure which employee committed the theft, it is appropriate to allocate the damage to all employees.	20 (55,56%)	12 (33,33%)	3 (8,33%)	1 (2,78%)		1,58	1
Methods of preventing the theft must have a limit and	1 (2,78%)	1 (2,78%)	6 (16,67%)	21 (58,33%)	7 (19,44%)	3,89	4

should not encroach on the privacy of employees.							
In the larger organization it is profitable to employ a person whose primary task will be to prevent and detect theft.	1 (2,78%)	2 (5,56%)	4 (11,11%)	10 (27,78%)	19 (52,78%)	4,22	5
Recruitment is more important in the theft prevention than technical supervision system.	1 (2,78%)	3 (8,33%)	5 (13,89%)	24 (66,66%)	3 (8,33%)	3,69	4
If the employee is satisfied with the working conditions he will not commit the theft.	2 (5,56%)	4 (11,11%)	9 (25%)	19 (52,78%)	2 (5,56%)	3,41	4

Note: 1- fully disagree; 5 – fully agree

Source: own work

Even 74,99% of the respondents believe that the selection of employees (recruitment) is more important factor in theft prevention than technical supervision, although the technical supervision is also considered as important in theft prevention. Respondents believe that technology provides great help - even 91,67% of respondents believe that video surveillance is a profitable investment. This indicates that respondents are aware that theft prevention is an important factor in creating successful business.

That nepotism is not the only reason for the acquaintances employment provides the fact that 63,89% of the respondents would rather employ a person in whom they have confidence at important workplace, although has less knowledge, than extremely professional and unknown person they do not have a lot of confidence. Most private companies in the Republic of Croatia do not seek for certificate of no criminal record during employment, but 91,67% of respondents believe that seeking a certificate of impunity is useful when selecting employees. Trust in change through education show 69,44% of respondents who believe that employee education decreased the likelihood of theft. Interestingly, employee satisfaction is not considered as a crucial factor in suppressing theft - only 58,34% of the respondents believe that a happy employee is less inclined to commit theft. In conclusion, most of the respondents believe that it is possible to deter a person from theft, while others still believe that the theft tendency is “innate characteristic” of individuals that is hard to change.

77% of the respondents believe that the theft detection must respect the boundaries of employees privacy and intimacy, while 55,56% believe it is moral to hire a private detective to find out whether an employee is stealing from the company. Even 80,56% of respondents believe it is profitable to employ a person whose primary task will be to prevent and detect theft in the large organization. From these data it can be concluded that respondents support all methods of detecting and preventing theft, as long as they can not be misused and undermine the privacy of employees.

63,89% of the respondents believe that the greater the danger of cyber attacks and theft than from physical theft. Businesses and citizens are vulnerable when introducing new payment methods and operations. The methods of protection against physical theft were developed almost to perfection though thieves always find new “holes” in the system. However, protection against attacks on new methods of operations and payments is less developed, and therefore more vulnerable. The majority of respondents (83,33%) do not consider that the weaker social status is associated with theft preferences. There is a great resistance to the

equal distribution of the theft damage to all employees; 88,89% of the respondents believe that it is not a fair to divide the damage to all employees when the theft is committed. This opinion is essential, given that other employees consider this division as unfair and may become more prone to theft since they can keep stolen goods for themselves, while the damage is distributed among all members of the organization.

However, responses vary when it comes to theft within the company or theft in the store. Only 19,44% of respondents agree or strongly agree to report the colleagues theft at work, while 41,67% of the respondents are neutral. The majority or 75% of respondents agree or strongly agree with the statement that they would feel fear or discomfort when they would report the colleagues theft. Therefore, it can be assumed that a significant portion of indecisive respondents would not report colleagues' theft because of the fear of the environment reaction. Although prevails the opinion that "whistleblowers" make morally right thing, 80,55% of the respondents agree or strongly agree that there is considerable fear of the reaction of colleagues that leads to only 19,44% of respondents that would report the colleagues theft in the organization.

According to Table 3, 19,44% of employees and 25% of customers would inform about the colleagues or employees' theft. Possible reason for a higher percentage of a theft report from the perspective of the customer is less connection with the organization. In case of discomfort due to a theft report upon arrival at the sales facility, the customer can decide to change their purchasing habits, while changing the workplace is considerably heavier decision in the case of condemnation. There are also some social aspects - in organizations people create social connections that are afraid to lose in a case of theft. KPMG research shows that 15% of customers and employees have informed about the theft, confirming that they would not report the theft due to fear and discomfort – almost 40% of the respondents would have not report the theft within the organization.

**Table 3** The perception of employees about the motives, complaints and theft punishing

	1	2	3	4	5	Average response	Mod
If an employee has access to different methods of expressing dissatisfaction, it is less likely that he will commit the theft.		8 (22,22%)	5 (13,89%)	19 (52,78%)	4 (11,11%)	3,53	4
It is less likely that the employee will commit the theft if he has a low degree of autonomy and responsibility in decision-making.	5 (13,89%)	17 (47,22%)	1 (2,78%)	13 (36,11%)	1 (2,78%)	2,75	2
Public disclosure of the names of persons who have committed the theft is appropriate.	3 (8,33%)	19 (52,78%)	5 (13,89%)	7 (19,44%)	4 (11,11%)	2,89	2
As a customer, I would report the employee who committed the theft.		21 (58,33%)	6 (16,67%)	4 (11,11%)	5 (13,89%)	2,81	2
I would committ the theft if I know I'll never be caught.	26 (72,22%)	7 (19,44%)	3 (8,33%)			1,36	1
"Whistler", the person who reported the the theft, committed the right thing.			7 (19,44%)	21 (58,33%)	8 (22,22%)	4,03	4

If I would witness the colleagues' theft, I would report the event.	1 (2,78%)	13 (36,11%)	15 (41,67%)	3 (8,33%)	4 (11,11%)	2,89	3
It is more likely that people with lower income will commit the theft.	18 (50%)	12 (33,33%)	4 (11,11%)	2 (5,56%)		1,72	1
As a person who reported the theft, I would feel discomfort and fear of possible reactions of colleagues.	2 (5,56%)	2 (5,56%)	5 (13,89%)	21 (58,33%)	6 (16,67%)	3,77	4
If I would witness the theft, the same would immediately report to a competent person.		1 (2,78%)	7 (19,44%)	22 (61,11%)	6 (16,67%)	3,91	4
Personal profit is not the primary motive for employee theft.	4 (11,11%)	26 (72,22%)	10 (27,78%)	6 (16,67%)		3,06	2
Croatia's legal system has appropriate penalties for committing theft.	18 (50%)	15 (41,67%)	3 (8,33%)			1,58	1

Note: 1- fully disagree; 5 – fully agree

Source: own work

It can be concluded that the strategy of rewarding and preserving anonymity of persons reporting the theft can significantly increase the number of theft detection. Only 11,12% of respondents strongly disagree or disagree they would fear from the reaction of colleagues after reporting the theft. If organizations would provide theft reporting in complete anonymity, the assumption is that the fear of the colleagues' reaction and the environment would disappear. Consequently, the number of detected theft by the employee notification would increase. The recommendation of this research is to introduce completely anonymous system of theft report because this system would allow greater number of theft detection by employees' detection method. Creating reward system would also be encouraging, because the majority of respondents consider theft as an immoral act. The incentive to report the theft, that employee already considers unethical could have a significant impact. Half of the respondents believe that the removal of small inventory should be also classified as theft.

## 5. CONCLUSION

Generally, thefts cause large financial losses in retail organisations. Shoplifting has smaller proportion in total losses than employees' theft. The reason is the fact that employees are more familiar with the methods of theft deterrence and have better insight into organizational processes. Apart from the direct financial losses caused by theft, there are also indirect losses in terms of out-of-stock situation and other cases caused by incorrect stock level in information system.

In order to prevent employees' theft in retail, this problem deserves far more attention. For large retail organizations, it is recommended to establish an organizational department to deal precisely with this problem. Taking into consideration the causes of theft in order to prevent theft, continuous assessment is needed, which would assess the employees satisfaction with compensation, justice within the organisation and organizational ethics. Deviant behaviour, which includes theft, begins with a difference between real situation and perceived ideal situation. Education and communication with employees will reduce the difference between

the employees' real and perceived situation, which is the cause of deviant behaviour. Also, the continuous insight into new scientific developments enables a timely introduction of new and better methods of theft monitoring.

The conclusion of this empirical research is that most of the participants consider theft as an immoral act. If they would have witnessed the theft in general, most of the participants would report theft. However, the percentage of participants willing to report theft committed by a colleague at their workplace is significantly lower. After they would report the theft, the participants think they would feel anxiety caused by the reaction of other colleagues at work. Nonetheless, the empirical research has several limitations. Firstly, it is done on a rather small sample and therefore can be considered as a pilot research study. Findings are indicative and cannot be generalized for all managers or employees in retail industry. In near future the larger number of examinees should be included in the research in order to improve findings and make them more relevant for companies in the retail industry. Secondly, findings are indicative for Croatian retail market, and in future the similar research has to be done on some other markets as well in order to explain similarities and differences according to the market development. Thirdly, more sophisticated analytical methods should be applied in the future in order to test differences according to socio-demographic characteristics of respondents.

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## TRADE FACILITATION AGREEMENT TOOL TO FACILITATE AND SECURE TRADE

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### ABSTRACT

*The growing importance of trade facilitation is acknowledged with the signification of the new Agreement on Trade Facilitation at the WTO Ministerial Conference held in Bali in December 2013. Until September 2016, 94 WTO members have ratified the Protocol of Amendment in order to insert the new Trade Facilitation Agreement. The Trade Facilitation Agreement will enter into force once two-thirds of the members will have completed their domestic ratification process. All countries agree that undertaking measures in this field can be beneficial for increasing their trade and the trade of their partners.*

*The World Customs Organization has developed a methodology and software known as World Customs Organization Time Release Study (WCO TRS). WCO TRS is used to measure the time needed to release the goods and is a useful tool to identify weaknesses, risks and unsolved problems in cross border trade and international transport. Based on the negotiations that were conducted before the signing of the WTO Trade Facilitation Agreement, OECD undertook work to develop Trade Facilitation Indicators (TFIs) in order to measure their relative economic and trade impact on trade flows and trade costs in WTO member countries.*

*In this paper we are going to make an analysis and comparison of the results obtained from the methodology used by the World Customs Organization and the measures used by the Organization for Economic Cooperation and Development (OECD). The final goal of the paper should be to sum up the results from both of the studies, find eventual similarities and offer recommendations that can be used by the official authorities either in Macedonia or within the region and wider to facilitate and secure trade.*

**Keywords:** Trade Facilitation Agreement, Time Release Study, OECD Trade Facilitation Indicators, South-East Europe, trade facilitation

### 1. INTRODUCTION

In the last two decades the rules and procedures of the multilateral trading system under the World Trade Organization mainly referred to the elimination of tariffs and non-tariff barriers to trade. At the same time, it became more apparent that nowadays' actors in international trade face different types of barriers. These barriers are administrative and sometimes informal but have significant influence on the trade of goods on the international scene. The administrative barriers mainly comprise complicated customs procedures and complex documentation requirements. Realizing that these barriers slow down the trade exchange of goods and create significant increment of costs for both exporters and importers, it became obvious that trade facilitation is the field where the focus for additional liberalization should be oriented.

A research conducted by the United Nations (2003) showed that, on average, in the region of the 21 member-economies of the Asia-Pacific Economic Partnership in one trade transaction 27 to 30 actors were involved, 40 documents were prepared, 200 items of data were entered of which at least 30 data were entered 30 times and 60-70% were entered at least twice. The losses that companies suffer through delays at borders lack of transparency and predictability, complicated documentation requirements and other outdated customs procedures are estimated to exceed in many cases the costs of tariffs (Engman, 2010). Reducing the above mentioned barriers should allow further liberalization of international trade.

All countries agree that undertaking measures in this field can be beneficial for increasing their trade and the trade of their partners. The concept of trade facilitation under the auspices of the WTO refers to "...measures for expediting the movement, release and clearance of goods, including goods in transit..." (WTO, 2014).

The growing importance of trade facilitation is acknowledged with the signification of the new Agreement on Trade Facilitation at the WTO Ministerial Conference held in Bali in December 2013. In November 2014, the WTO members adopted a Protocol of Amendment to insert the new agreement in Annex 1A to the WTO Agreement. The Trade Facilitation Agreement will enter into force once two-thirds of the members will have completed their domestic ratification process. Until September 2016, 94 WTO members have ratified the Protocol of Amendment in order to insert the new Trade Facilitation Agreement.

The World Customs Organization has developed a methodology and software known as World Customs Organization Time Release Study (WCO TRS). WCO TRS is used to measure the time needed to release the goods and is a useful tool to identify weaknesses, risks and unsolved problems in cross border trade and international transport. This instrument is especially recommended by the World Trade Organization in the context of adjusting the member countries to the provisions of the new Trade Facilitation Agreement.<sup>4</sup>

Based on the negotiations that were conducted before the signing of the WTO Trade Facilitation Agreement, OECD undertook work to develop Trade Facilitation Indicators (TFIs) in order to measure their relative economic and trade impact on trade flows and trade costs in WTO member countries. The work was conducted in two phases. The first phase was conducted in 2011 by constructing twelve trade facilitation indicators for twenty five OECD members and Hong Kong, China (Moise, Orliac and Minor, 2011). The second phase of the OECD work continued in 2013 by constructing sixteen trade facilitation indicators for all WTO member countries and observers. The number of indicators increased because of the development of four transit-specific indicators for taking account of transit trade which is significant for the development of landlocked and transit countries. The analysis was conducted for one hundred and seven countries at various stages of development of which ninety-six were WTO members and eleven WTO observers (Moise and Sorescu, 2013).

In this study we are going to make an analysis and comparison of the results obtained from the methodology used by the World Customs Organization and the measures used by the Organization for Economic Cooperation and Development (OECD). The final goal of the study would be to sum up the results from both of the studies, find eventual similarities and

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<sup>4</sup> The Article 7 paragraph 6.1 of the Agreement stipulates: "Members are encouraged to measure and publish their average release time of goods periodically and in a consistent manner, using tools such as *inter alia*, the Time Release Study of the World Customs Organization."

offer recommendations that can be used by the official authorities either in Macedonia or within the region and wider.

In the first section, we explain the results from the WCO Time Release Study conducted in Macedonia in 2015. We are going to present the conclusions and recommendations offered by the Customs Administration of the Republic of Macedonia.

In the second section we explain the results obtained from research studies following the OECD trade facilitation indicators for a selected group of countries from South-Eastern Europe, i.e.: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Macedonia, Montenegro, Romania and Serbia. Several studies have been made in this domain and they provide some insight on the importance of certain trade facilitation indicators and their influence over trade and trade growth among the countries from the analyzed group.

At the end, in the third section, we plan to make a summed up analysis of the results from both of the studies. The joint conclusions should provide recommendations to be implemented as additional trade facilitation measures based upon customs modernization and electronic customs operations.

## **2. RESEARCH BASED ON THE WORLD CUSTOMS ORGANIZATION TIME RELEASE STUDY (WCO TRS)**

For optimal facilitation of legitimate trade there should be internationally agreed protocols, guidelines and customs practices that are harmonized and streamlined to the greatest extent possible. If Customs administrations can afford aligning their working methods oriented towards trade facilitation to a larger extent, there will be a greater and more beneficial consistency along the global supply chains. To support the development of global harmonization, the WCO has developed a range of comprehensive tools that include legally binding conventions (i.e. Revised Kyoto Convention, Istanbul Convention), as well as best practices tools and protocols (i.e. Data Model, Integrated Supply Chain Management Guidelines, SAFE Framework, etc.) (WCO, 2011).

In addition, many Customs administrations have introduced risk management techniques, advanced electronic information regimes and single window arrangements. More recently, a growing dialogue has been established with the trading community where Customs and traders increasingly work in partnership to deliver common solutions on these critically important trade facilitation objectives.

The WCO Time Release Study (TRS) is a unique tool and method for measuring the actual performance of Customs activities as it directly relates to trade facilitation. The Time Release Study thereby measures relevant aspects of the effectiveness of operational procedures that are carried out by Customs and other regulatory actors in the standard processing of imports, exports and in transit of goods. It seeks to accurately measure these elements of trade flows so that related decisions for improvement of such performances can be well conceived and thereby carried out (WCO, 2011).

The WCO Time Release Study provides guidance on the best way to apply this method of internal review that is to say that the WCO Time Release Study is simply a tool to measure trade facilitation performance with an aim of improving it.

The TRS also helps identifying bottlenecks in border-related procedures and improving their efficiency and effectiveness. It has increasingly become a measure by which the international trading community assesses the effectiveness of border procedures, including customs' procedures. It also assists in addressing the concerns of trade circles regarding long delays in customs clearance. It helps Customs and other related government agencies to respond to trade requirements where the operators need to plan ahead for the movement of goods across borders.

The use of TRS has also been recommended by certain members of the World Trade Organization (WTO) in their submissions for items to be negotiated within the trade facilitation negotiations of the Doha Round. Certain WTO members have proposed an obligation in the WTO negotiations "...to publish the average time for the release of goods in consistent manner on a periodic basis, based on the WCO TRS..." (WCO, 2011)

In 2015 the Customs Administration of the Republic of Macedonia, with the support of USAID, conducted a project on time measurement of clearance and release of goods according the WCO TRS. The aim of the project was to enhance the effectiveness of conducting cross-border trade and generally improve the activities of all involved actors in moving the goods across borders. The results and conclusions from this project were to identify the potential barriers in cross-border trade in order to offer corrective measures in areas where improved efficiency is needed.

The Time Release Study in the Republic of Macedonia measures the average needed time from the moment of entrance until the moment of exit of goods from the customs terminals taking into consideration the total time needed for completing all formalities. The study also measured separate average times such as the average time needed to prepare the documents for one customs procedure by the customs agents, the average time needed to complete the activities from the competent authorities (border police, inspection organs) and the average time needed to complete the procedure by the customs authorities (CARM, 2015). From the average time needed to complete the procedure by the customs authorities it is possible to measure the average time for documentary control, the average time for physical inspection of the goods, the average time to obtain license, etc.

The study was made by measuring goods transported in the road transport, as 94% of the total exchange of goods in the Republic of Macedonia is done in the road transport. It included all types of goods and the measurement was focused on time of transit and import of goods. The measurement was made in three customs terminals of which two are terminals on the border crossings of Tabanovce and Bogorodica, and one internal customs terminal - Skopje 3. The border crossing terminals of Tabanovce and Bogorodica were chosen because more than half of the loaded and empty vehicles went through these terminals in 2015 and this fact made them relevant for this type of analysis. The internal customs terminal - Skopje 3 - was chosen because it is at this terminal that the declarations for all types of customs procedures were processed and the workload was on a level sufficient to be representative for all internal terminals in the Republic of Macedonia (CARM, 2015).

The measurement was made in a period of 7 calendar days - from 00:00 on 09.11.2015 until 24:00 on 15.11.2015. This is according to the WCO recommendation that the average time should be measured in a period of 7 days. The selected time period (09-15.11.2015) was chosen by the Customs Administration as the most adequate one having on mind that the measurement should not be made during holidays, vacations etc., or in periods when there

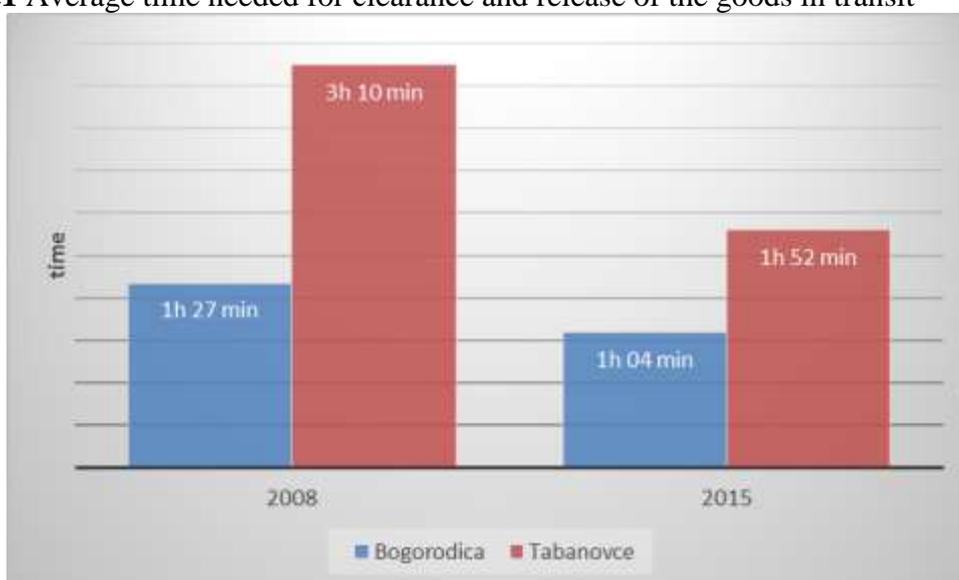
was especially small or big volume of trade. These considerations were undertaken in order to obtain sufficiently representative time period with usual volume of trade (CARM, 2015).

## 2.1. Results from the TRS measured in transit

The average time needed for clearance and release of the goods in transit is presented in Figure 1.

The measurement of the clearance and release of goods in transit was made only at the border crossing terminals of Bogorodica and Tabanovce. Since the same measurement of the transit of goods was made in 2008, in Figure 1 we presented the results from the measurements effectuated both in 2008 and 2015. The results undoubtedly confirm that all projects, measures and activities undertaken by the Customs Administration and the other involved actors in the period 2008-2015 have real impact upon reducing the time of completion of the transit procedure.

**Figure1** Average time needed for clearance and release of the goods in transit

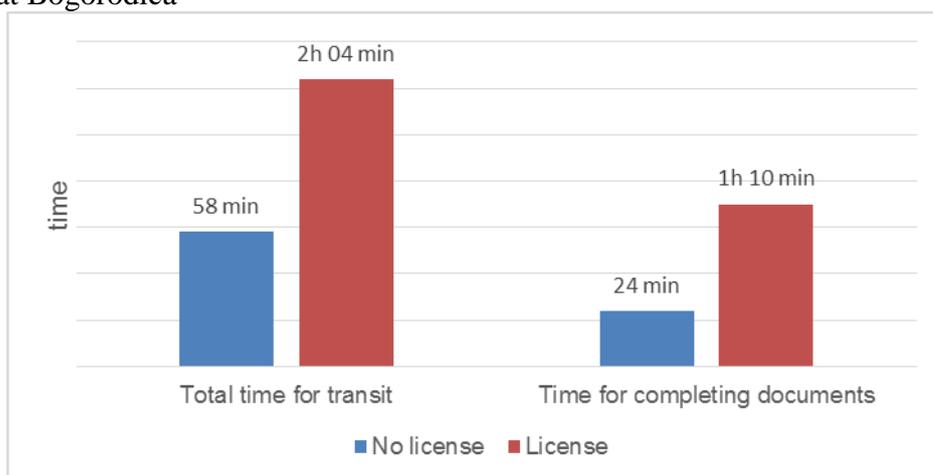


Source: CARM, 2015, p.5

If we look more into the details, from the measurement of the time of transit of goods we may confirm the following findings. At the border terminal of Bogorodica in the observed period a total of 1108 vehicles were transiting of which 117 were under the regime of license. The average time needed to complete all formalities for goods in free transit (991 vehicles) was 58 minutes. The average time needed to complete all formalities for the goods that were under the regime of a license of a certain inspection body was 2 hours and 4 minutes (Figure 2).

The license regime had also an impact upon the time needed to complete documentation for the transit procedure. For completing declarations for goods that were in free transit customs agents needed 24 minutes on average, and if they needed to obtain a license, the average time was 1 hour and 10 minutes.

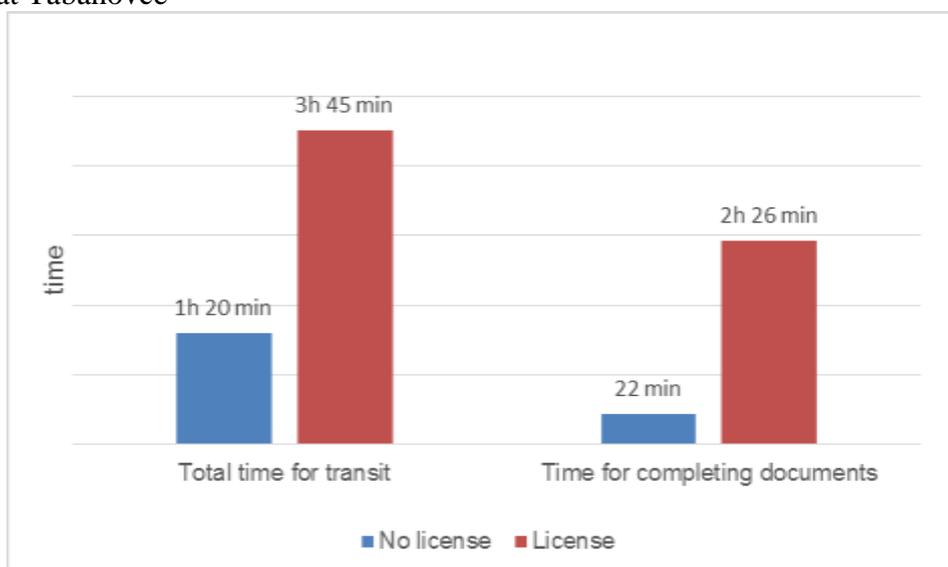
**Figure 2** TRS findings on average time needed for completion of documents for transit of the goods at Bogorodica



Source: CARM, 2015

In the observed period the terminal of Tabanovce registered a total of 2029 vehicles in transit of which 445 were under the regime of license. The average time needed for the goods that were not under the regime of a license was 1 hour and 20 minutes. The average time needed to complete all formalities for the goods that were under the regime of a license of certain inspection body was 3 hours and 45 minutes (Figure 3).

**Figure 3** TRS findings on average time needed for completion of documents for transit of the goods at Tabanovce



Source: CARM, 2015

The license regime also influenced the time needed to complete the documentation for transit. For completing transit declarations for goods that were not subdued to the regime of a license, customs agents needed 22 minutes on average, and if the license was necessary the average time was 2 hours and 26 minutes.

Data presented in Figures 2 and 3 are further aggravating the findings when looking more into details of the licensing process. If the goods were under the inspection of the Food and Veterinary Agency, the time increased significantly (11 hours 27 minutes on average at the

border terminal Bogorodica and 23 hours 23 minutes at the border terminal Tabanovce). However, it takes only 1 hour and 26 minutes at the border terminal Bogorodica and only 19 minutes at the border terminal Tabanovce from the moment when the customs agent submits the request in paper form until the moment of issuing of the license in the EXIM. Namely, inspectors were not issuing the licenses until the goods were physically presented at the terminal and, at the same time, the documents were presented in paper form (CARM, 2015).

For the shipments in transit which are subject to control of the Ministry of Agriculture, Forestry and Water Economy – State Inspectorate for Agriculture<sup>5</sup> the needed time to obtain mandatory license is on average 8 minutes at Bogorodica and 22 minutes at Tabanovce.

The transit operations in Macedonia can be done either with a TIR – carnet or with a transit declaration from the New Computerized Transit System (NCTS). NCTS is in operation since 1 March 2014 at national level, while the common transit is operational since 1 July 2015, i.e. the day when the Republic of Macedonia acceded to the Convention on a Common Transit Procedure. For the purposes of this study the transit declarations were separated as: T1 – N (New) for declarations for which the transit operation started in Macedonia and T1 – F (Foreign) for declarations created in other countries and the customs offices in the Republic of Macedonia had the role of the transit offices in the NCTS.

Data in Table 1 presents the average time needed for all separate procedures effectuated within TIR transit operations and NCTS transit operations. Although the time period from the application within the NCTS is relatively short and one may argue on the relevance of the conclusions, it is more than evident that this transit system can reduce the average needed time and thus facilitate the whole procedure.

**Table 1** TRS findings in regard of transit under TIR and NCTS

		Total time	Documents' preparation	Customs procedure	Documen. control	Physical control
Bogorodica	TIR	2h 4 min	1h 10 min	9 min	4 min	8 min
	T1-N	1h 2 min	32 min	5 min	2 min	10 min
	T1 -F	51 min	28 min	9 min	3 min	8 min
	Average	1h 4 min	29 min	6 min	2 min	24 min
Tabanovce	TIR	1h 36 min	33 min	5 min	10 min	/
	T1-N	1h 54 min	51 min	3 min	4 min	18 min
	T1 -F	1h	17 min	4 min	1 min	/
	Average	1h 52 min	50 min	4 min	4 min	/

Source: CARM, 2015

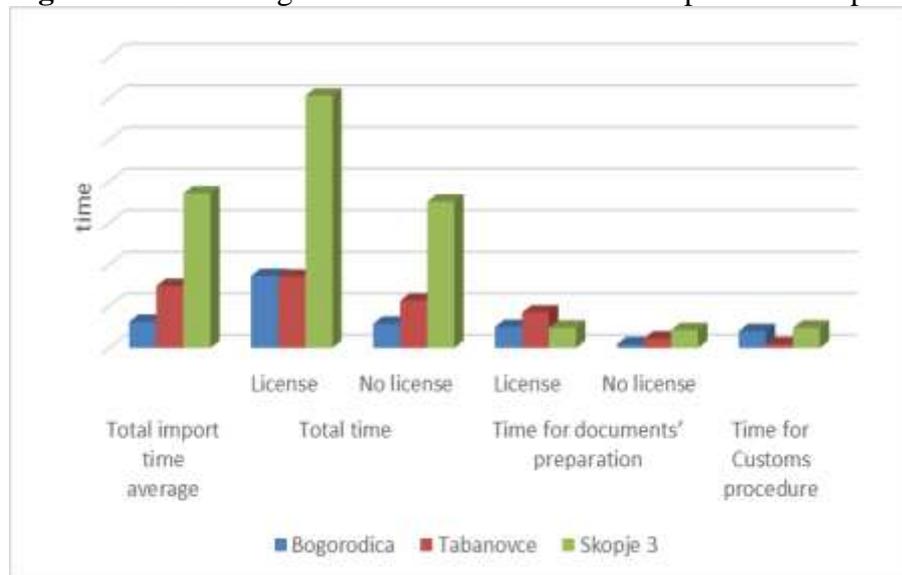
## 2.2. Results from the TRS measured in import

The average time needed for clearance and release of the goods in import is presented in Figure 4. Data in Figure 4 shows significantly longer time period for import of goods through the customs terminal Skopje 3 compared to the time for import at the other border crossing terminals. This is due to the working hours of Skopje 3 terminal, which is open from 8:30-16.30 every working day. After the end of the working hours and during weekends and

<sup>5</sup> This inspection authority does not participate in EXIM. The request is submitted in a paper form and the license is issued by the SIA with official stamp containing the reference “Approved” on the back page of the transit declaration.

holidays, vehicles with goods can enter the terminal, but have to wait to start the import procedure. This is the reason for such a prolongation of the needed time for import through this terminal.

**Figure 4** TRS findings on total time needed for completion of import procedure of goods



Source: CARM, 2015

Other noticeable argument that can be seen from this data is the difference between the importing time and the time needed for preparation of documents depending on whether the goods are under the regime of a license or not. The time is significantly increased when the goods are under the regime of a license, especially when the Food and Veterinary Agency is involved. The average time needed for electronic application for a license from the Food and Veterinary Agency in the EXIM system was 16h 20 min at Bogorodica, and 11h 54 min at Tabanovce. But when customs agents were applying for the same license in paper it took only 11 minutes at Bogorodica and 16 minutes at Tabanovce (CARM, 2015, pp.10-12). At the Skopje 3 terminal it took 1 day 16 hours and 26 minutes on average for obtaining a license from the State Sanitary and Health Inspectorate electronically through the EXIM system. From the moment of application for the same license in paper form it took only 16 minutes (CARM, 2015).

The study indicated that insignificant number of customs declarations was prepared by the customs agents before the arrival of the goods at the customs terminal and inspection of authorized state organs. At Bogorodica customs terminal only 39 customs declarations from a total of 2974 forms were prepared by customs agents before arrival of goods. At Tabanovce terminal, only 12 customs declarations from a total of 2866, and at Skopje 3 terminal only 7 customs declarations from a total 313, were prepared before arrival of goods (CARM, 2015). In most cases customs agents were starting to prepare the documentation when the vehicle entered the customs terminal and when the driver actually handed over the documents needed for the procedure.

From the conducted study and the obtained results the Customs Administration of the Republic of Macedonia drew the following conclusions and recommendations:

1. The economic operators in Macedonia are more inclined to conservative way of completing customs formalities. They should use more often electronic pre-arrival and pre-departure information and enable facilitation of customs procedures.

2. The study indicated certain incompleteness in the implementation of the single window system for obtaining import and transit licenses in the country known as EXIM. EXIM is a tool that enables electronic application for every license needed for import, export or transit of goods. Although its vision was to enhance the process of import, export and transit, its latest application pointed out that there are certain state authorities that were insisting on having documents in paper form for all procedures, thus duplicating the whole process. Those customs agents that were preparing documents for goods under the regime of license needed significantly more time than those that were preparing documents for customs clearance for goods that were not subjected to inspection oversight or control. This study showed that all state authorities who were included in the EXIM system should analyze its legal acts and bylaws in order to eliminate the need of simultaneously asking the operators for documents in paper form in order to facilitate and speed up the process of obtaining licenses in EXIM.

3. The Time Release Study also indicated that in the cases when the imported goods are subject to certain inspections by different state bodies such as the State Inspectorate on Agriculture, the State Sanitary and Health Inspectorate and the Food and Veterinary Agency, the clearance and release time is increased. The Customs authorities highly recommend that providing licenses from the agencies in charge should not be a precondition for the clearance and release of the goods. In this way the whole process can be facilitated and speeded up.

4. The results from the TRS stressed even more the urgent need to implement the new system for overall electronic processing of the customs declarations and of all needed documents for all customs procedures. The new system for processing customs declarations with qualitative and proper IT support can speed up, simplify and make cheaper the whole customs procedure.

5. The Time Release Study confirmed that the economic operators were not showing a significant endeavor in significant increment of the usage of simplified customs procedures. In 2015 the participation of the simplified customs procedures in the total import and export procedures was around 30%. On the export side, simplified customs procedures were used in about 41% of the export, and on the import side only 25% of the procedures were made with simplified procedures. For a comparison, in Slovenia, the participation of simplified customs procedures in the total export is 90% and in the total import almost 80% (CARM, 2015). The Customs Administration should promote more intensely the application of simplified customs procedures and significantly increase the number of users of simplified customs procedures. The application of simplified customs procedures is the easiest way to enhance the customs formalities and reduce most of the costs at customs terminals.

6. The final conclusion and recommendation of the Customs Administration is in the line of introducing the possibility to perform a joint Time Release Study with the neighboring customs administrations of Serbia and Greece thus enabling evaluation of the whole needed time for loaded vehicles to cross borders in the region. In this way the Customs Administration is proposing for introducing the concept of joint border controls conducted on one common agreed border crossing with each neighbor, with one stopping and single control of the passengers, goods and vehicles.

Implementation of a common border crossings is a concept that can enable higher level of harmonization of border controls and implementation of the integrated border management concept; intensify the cooperation between the authorized agencies of the neighboring countries; increase the efficiency of the fight with illegal activities; save resources and significantly reduce time and costs for border formalities and speed up and simplify the movement of goods, passengers and vehicles (CARM, 2015).

### 3. RESEARCH BASED ON THE OECD TRADE FACILITATION INDICATORS (TFIs)

Numerous trade research studies acknowledge the importance of trade facilitation measures.<sup>6</sup> Some of them indicate the benefits of trade facilitation, some measure the effects of undertaking trade facilitation measures on trade, and others measure their impact on world income. The relative inconsistency regarding the composition of trade facilitation measures indicates that one can only roughly compare the results of the studies or underlie conclusions for all countries and regions. The only clear conclusion is that undertaking trade facilitation measures is a win-win situation for every country.

In 2014 Tosevska-Trpcevska and Tevdovski have applied augmented gravity model to measure the influence of certain administrative and customs procedures in trade among a selected group of countries from South-Eastern Europe in the period from 2008-2012. The gravity model that they have used was previously used by Wilson (2010) in the framework of OECD research to measure the costs and benefits from trade facilitation.

The analysis included five countries which are currently members of the CEFTA-2006 agreement: Albania, Bosnia and Herzegovina, Macedonia, Montenegro and Serbia and four countries which are part of the same geographical region but are EU members and by some indicators are much better off than the other countries in the group: Bulgaria, Croatia, Romania and Greece. Data on variables relating to various customs and administrative costs came from the section “Trading across Borders” of the World Bank and the International Finance Corporation survey *Doing Business 2013: Smarter Regulations for Small and Medium-Size Enterprises*. They included the variables: number of documents, days at border and costs per container.

The average values of the variables for the SEE countries in the period 2008-2012 are presented in Table 2.

**Table 2** Trading across borders, averages for SEE Countries, 2008-2012

Country	Number of docum. – export	Days at the border – export	Costs per container – export	Number of docum. – import	Days at the border – import	Costs per container – import
Albania	7	19.4	742	8	18.8	731
Bosnia	8	16.6	1203	8	13.0	1145
Bulgaria	4	21.2	1541	5	17.6	1600
Croatia	7	20.0	1289	7	16.0	1157
Greece	4	19.8	1070	6	18.2	1239

<sup>6</sup> For example, OECD Trade Policy Studies (2010), Wilson, Luo and Broadman (2003), Wilson, Mann and Otsuki (2005), Hummels and Schaur (2012) and Djankov, Freund and Pham (2006).

Macedonia	6	12.6	1376	8	11.4	1377
Montenegro	6	14.0	948	5.4	14.0	991
Romania	5	13.0	1359	6	13.0	1303
Serbia	6	13.0	1416	7	16.0	1682

Source: Authors' calculations based on World Bank and International Finance Corporation (2013)

The results from the specifications of the model point out that a 10% reduction of the costs both in importer and exporter countries may lead to an approximately 10% increase in export, while a 10% reduction of time at the border both in importer and exporter countries may lead to a 5.5% increase in export. The variable number of documents has resulted as insignificant for the increase of export between these countries (Tosevska-Trpcevska and Tevdovski, 2014).

The results show another interesting point. Sharing the same border and being part of the former Yugoslav market happens to be statistically significant for the trade among these countries. This implies that the countries that share a common border and for a certain period of time shared a common history still have strong economic and trade relations. These facts should not be overlooked by the individual countries when preparing and undertaking trade facilitation measures.

In 2015, the same authors measured the impact of trade facilitation indicators developed by OECD on the bilateral trade flows for the countries in South-Eastern Europe for the same period of time (2008-2012). The countries that were analyzed were the same but the model was the one based on specifications proposed by Moise et al. (2011) and Moise and Sorescu (2013).

Data for the trade facilitation indicators was obtained electronically and directly from OECD. The construction of the trade facilitation indicators was made by reorganization of the trade facilitation measures mentioned in the twelve articles in the Draft Consolidated Negotiating Text and later included in the twelve articles of the new Agreement on Trade Facilitation. The indicators that were used in the analysis were the following:

- A. Information availability;
- B. Involvement of trade community;
- C. Advance Rulings;
- D. Appeal Procedures;
- E. Fees and charges;
- F. Formalities – Documents;
- G. Formalities – Automation;
- H. Formalities – Procedures;
- I. Border agency cooperation – internal;
- J. Border agency – external
- K. Consularization;
- L. Governance and Impartiality (Moise and Sorescu, 2013).

The indicator *Information Availability* refers to publication of trade information, including information on internet and the establishment of enquiry points. The indicator *Involvement of the Trade Community* measures the intensity of consultations between the Government and the traders. The indicator *Advance Rulings* refers to the existence of prior statements by the

administration to requests from traders concerning the classification, origin, valuation method, etc. applied to specific goods at the time of importation and to the rules and procedures applied to these statements. The next indicator, *Appeal Procedures* measures the possibility and modalities to appeal administrative decisions by border agencies. *Fees and charges* is an indicator that explains the disciplines on fees and charges that countries apply to import and export transactions. *Formalities – Documents* is the indicator that measures the simplification of trade documents, the harmonization in accordance with international standards and the acceptance of copies by separate countries. The indicator *Formalities – Automation* refers to the electronic exchange of data, the application of automated border procedures and the use of risk management techniques in the countries. The following indicator, *Formalities – Procedures* refers to applying streamlined border controls, the establishment of single windows concepts as one point for submission of all required documents for trade, the application of post-clearance audits, and the introduction of authorized economic operators programs. The indicator *Border Agency Cooperation – Internal* refers to the cooperation between various border agencies within the same country and the indicator *Border Agency Cooperation – External* refers to the cooperation between the border agencies of neighboring and third countries. The indicator *Consularization* refers to the imposition of consular transaction requirements. This indicator was abolished in the analysis of the countries of South East Europe as these countries do not impose consular transaction requirements in trade transaction and this measure was also abolished in the text of the new Agreement on Trade Facilitation. The last indicator on Governance and impartiality was added by the OECD, and is not contained in the new Agreement on Trade Facilitation. This indicator refers to customs structures and functions, to their accountability, internal system audit and ethics policy (Tosevska-Trpcevska, 2015).

In Table 3 we give an overview of the values of the trade facilitation indicators for the countries in South-East Europe.

**Table 3** Trade Facilitation Indicators (TFIs) for the countries in South-East Europe

	TFI_A	TFI_B	TFI_C	TFI_D	TFI_E	TFI_F	TFI_G	TFI_H	TFI_I	TFI_J	TFI_L
Albania	1.600	2.000	2.000	1.667	1.750	1.000	0.750	1.133	2.000	1.667	1.857
Bosnia and Herzegovina	1.111	0.500	1.833	1.200	1.750	1.500	1.000	1.154	2.000	0.000	n.a.
Bulgaria	1.800	1.500	1.857	1.500	1.250	1.500	1.000	1.467	1.500	0.667	1.714
Croatia	1.900	2.000	1.857	1.333	1.000	1.167	1.750	1.615	2.000	0.000	1.429
Greece	1.308	0.750	1.325	2.000	0.667	1.200	2.000	0.300	1.000	1.000	1.000
Macedonia	1.900	2.000	2.000	1.667	2.000	1.833	2.000	2.000	2.000	1.667	1.857
Montenegro	1.900	n.a.	1.800	1.833	2.000	2.000	1.000	n.a.	2.000	n.a.	n.a.
Romania	1.800	1.000	2.000	1.500	1.750	1.833	1.750	1.571	1.000	0.667	1.857
Serbia	1.833	0.500	n.a.	1.286	n.a.	2.000	1.667	1.250	2.000	n.a.	n.a.

Source: OECD (obtained directly by e-mail)

The scores for the indicators have been obtained by following multiple binary schemes where the top score is 2 and it corresponds to the best performance or best result. The indicators, themselves, have been computed from seventy eight (78) different variables obtained from different data sources: questionnaire from the Global Express Association (GEA) compiled in Global Express Association Customs Capabilities Report, World Trade Organization Trade Policies Reviews, Countries Customs websites and Customs Codes, data from the World Bank Doing Business indicators, section on Trading across Borders, data from World Bank Logistic Performance Index (LPI), data from the World Economic Forum (WEF) Global Competitiveness Report (GCR), Institutional Profiles Database (IPD) and other sources like OECD Directorate for Financial Affairs – Administrative Barriers Reports for CEFTA parties (Moise and Sorescu, 2013).

The gravity model specifications indicated that only 5 indicators out of 11 measured have positive influence on trade in the analyzed period. The results confirm that the indicators *Information Availability*, *Involvement of the Trade Community*, *Appeal Procedures*, *Formalities – Automation and Border Agency Cooperation – External* are statistically significant on a 10% level of export. If we look more closely into the indicators and the variables from which they are constructed, we can observe the specific trade facilitation measures that appear to have significant influence for increasing countries' export (Tosevska-Trpcevska and Tevdovski, 2015).

If we analyze the values of the trade facilitation indicators of separate countries, we can see that the countries record the best results in the TFI\_C indicator or the indicator *Advance Rulings*. All values, except one without data and the one for Greece have values of over 1.500. As for the worst indicator, we can see that the *Border Agency Cooperation – External* indicator or the TFI\_J has the lowest values. Only two of the values of this indicator are over 1.000 (the one for Albania – 1.667 and the one for Macedonia – 1.667) and one has the value of 1.000.

This implies that one area where resources should be directed is that of undertaking measures to increase the external cross-border cooperation between the customs authorities of the countries of South-Eastern Europe. According to the Preliminary Report of OECD in 2014, this can be done by signing agreements on joint customs controls with a wider range of neighboring countries in order to avoid duplication of controls between exporting and importing countries and intensify the work on developing joint work on risk management and joint risk profiling at a regional level (OECD, 2014).

As for the analysis between the countries, we can see that the best performer as far as the values of the *Empirical Results of Gravity Model* indicators are concerned is Macedonia. All indicators for Macedonia have values of over 1.500 and only 5 indicators have values less than the maximum of 2.000. On the other side, we can notice that Bosnia and Herzegovina is the worst performer. This country has only one indicator with the maximum value of 2.000 and only 2 indicators with value of over 1.500.

If we analyze the implementation of trade facilitation measures in Macedonia as a best performer more deeply, we can notice that out of 41 measures taken into account, 38 have been fully complied with, one was substantially complied with and two were not complied with at all. Substantial compliance was indicated for the measure on pre-arrival processing for import that should start to apply upon the launch of the fully automated Customs Declarations Processing System. The measures that are still not complied with refer to the non-existence of

Trade Facilitation Enquiry Point and a National Trade Facilitation Committee (USAID, 2014).

The establishment of a National Trade Facilitation Committee in these countries has been identified as the main institutional vehicle to shift from a customs-centric approach to an inclusive implementation process that will engage all government agencies relevant for trade facilitation and the private sector. The findings of the Trade Facilitation Self-Assessment Exercises for Macedonia, Albania, Kosovo and Montenegro point out that there is a high level of compliance of the region with 65% of commitments designated in Category A and 80% of the measures are fully or substantially compliant with the provisions of the Agreement. Common challenges for the countries still remain in the establishment of enquiry points, pre-arrival processing and implementation of single window for cross-border trade (USAID, 2014).

Empirical values of gravity model specifications for all eleven indicators are given in the Attachment.

#### **4. DISCUSSION**

The results from the Time Release Study conducted in Macedonia indicate that there is a low level of application of electronic pre-arrival and pre-departure information, problems with the issuance of certain licenses from the EXIM system because of duplication of the procedure and requirements for documents in paper form, prolongation of the clearance and release time when the imported goods are subject of certain inspections by different state bodies such as the State Inspectorate of Agriculture, the State Sanitary and Health Inspectorate and the Food and Veterinary Agency, and a low level of application of simplified customs procedures in comparison with EU countries. From the results of the study, the Customs Administration came to the conclusion of the importance of implementing a new system for processing customs declarations that would enable customs declarations' electronic application and of all needed documents for all customs procedures. The final conclusion of the study is summed up to the importance of introducing the concept of joint border controls conducted at one common border crossings, with one stopping and single control of the passengers, goods and vehicles.

The results obtained from the research according the OECD Trade Facilitation Indicators indicate to a few additional conclusions that should be taken into consideration when planning future trade policies of the countries in the region of South-Eastern Europe. The research points out that reducing trade costs and the time at the border might lead to an increment of export from 5.5-10% among these countries. The model specifications have shown that only 5 indicators of 11 measured have positive influence on trade in the analyzed period.

The results have shown that the indicators *Information availability*, *Involvement of the trade community*, *Appeal procedures*, *Formalities – Automation and Border Agency cooperation – External* are statistically significant on a 10% level of export. If we look more closely into the indicators and the variables from which they are constructed we can observe the specific trade facilitation measures that appear to have significant influence for increasing countries' export. The indicator *Information availability* is directly linked to the need for increased transparency of trade regulations. It is comprised from several variables like: establishment of a national Customs website, publication of rate duties, establishment of enquiry points, possibility to ask questions to Customs, information on import and export procedures, prior

publication of all border procedures, rules and examples of customs classification and agreements with third countries related to these issues and transparency of government policymaking.

The indicator Involvement of the trade community is comprised from trade facilitation measures that indicate the possible involvement of the trade community by consultations and comments and by identifying targeted stakeholders into preparing trade related laws and regulations. The other significant indicator is Appeal procedures and it refers to a number of basic characteristics of the appeal system in the countries, such as transparency, fairness, accessibility, timeliness and effectiveness of the applicable rules and of outcomes. A well-functioning appeal procedures mechanism ensures transparent application and enforcement of the legislation by the Customs administration and related agencies.

The indicator Formalities-Automation covers a series of very important dimensions of trade facilitation, including the application of automated procedures, the possibility for electronic interchange of documents and the application of risk management procedures. The last significant indicator appears to be the indicator Border Agency cooperation – External. This indicator measures the alignment of working hours of neighboring border crossings, the possibility for development and sharing of common facilities and possibility to perform joint customs controls.

## **5. CONCLUSIONS**

Based on the results from the studies done with different methodologies, one by the World Customs Organization and the other by OECD we have made comparison and came up with several conclusions which we think can be organized in three groups of recommendations for the trade policies of these countries. We have organized the recommendations in the following groups of trade facilitation measures: increased application of electronic data and information; increased transparency of trade facilitation regulation supported with the establishment of national trade facilitation committees; and increased external border agency cooperation.

1. We sum up our first recommendation referring to the need of prompt application of automated customs procedures by increased application of electronic interchange of documents and usage of pre-arrival and pre-departure information. The application of electronic documents may easily lead to the next step in this field which is establishing single window concepts in all of the countries in the region. The countries that have already established the single window concept should work on strengthening and improving its functioning by making interlinks to all other state agencies that are involved in the process of clearance and release of the goods. The customs administrations should also put more efforts into promoting simplified customs procedures and increasing their application. Simplified customs procedures have proved to be the easiest way to reduce the clearance and release time and thus are found to be not cost-demanding.

2. Increased transparency is a core principle of the whole multilateral trading system and it should be pertained especially in the field of trade facilitation. Countries which are small, import dependent and landlocked are especially vulnerable to insufficient information on import and export procedures, lack of transparency concerning all border procedures and rules, and insufficient strength of the Customs – business relationship. These aspects on increased transparency are especially important when appeals procedures are taken into account. Accessibility, timeliness and fairness of the appeal system are especially important

for this group of countries. These characteristics imply that for these countries it is more than prominent to establish national trade facilitation committees as main institutional bodies in the field of trade facilitation. The committees should take care of converging the needs and interests of all government agencies involved in the trade facilitation process thus enabling inclusive implementation of all relevant trade facilitation measures. This should be the basic step in every country because the facilitation obtained by one properly implemented trade facilitation measure can be nullified by acts of other inadequate measures or acting of other parties involved in the process of clearance and release of the goods.

3. We finalize our study by stressing the importance of improving the cooperation among the customs administrations of different countries. One country can have perfectly designed trade facilitation measures and can perfectly implement them but their effects can be nullified by the acting of other neighboring country or countries. The countries of South-Eastern Europe happen to be progressing in this field the least. They have the worst results in the indicators implying external border agency cooperation. This is why we think it is of an utmost importance to start to think and implement the concept of joint customs controls among these countries and intensify the work on developing joint risk management profiling at a regional level. The application of joint customs controls may contribute to a higher level of harmonization of border controls and improve the application of the concept on integrated border management; may strengthen the cooperation between the authorized state organs of neighboring countries (customs, police, inspection organs); may increase the efficiency of dealing with cross-border illegal activities; may save resources of authorized organs and agencies; and finally may significantly reduce time and costs for all border formalities and thus speed up and simplify the clearance and release of goods.

According to our analysis undertaking trade facilitation measures is of utmost importance for facilitating and securing trade among the countries in the region of South-East Europe.

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**ATTACHMENT - EMPIRICAL RESULTS OF GRAVITY MODEL SPECIFICATIONS**

*Table 1 Empirical Results of Gravity Model Specifications for Information Availability Trade Facilitation Indicator*

lnexp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
DISTANCE	.0021598	.0007738	2.79	0.007	.0006148	.0037048
LANG	.5911273	.7381002	0.80	0.426	-.8825374	2.064792
BORD	2.692913	.476789	5.65	0.000	1.740973	3.644853
YUM	.0570994	.5138302	0.11	0.912	-.9687957	1.082994
TFI_A	.3163777	.1825445	1.73	0.088	-.0480842	.6808396
_cons	.7529192	.8569113	0.88	0.383	-.9579595	2.463798

R-squared: 39.75%

*Table 2 Empirical Results of Gravity Model Specifications for Involvement of trade community Trade Facilitation Indicator*

lnexp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
DISTANCE	.0021656	.0007838	2.76	0.007	.0006006	.0037305
LANG	.5683696	.7468983	0.76	0.449	-.922861	2.0596
BORD	2.709494	.4826252	5.61	0.000	1.745902	3.673086
YUM	.0741058	.5201212	0.14	0.887	-.9643498	1.112561
TFI_B	.2862861	.1694508	1.69	0.096	-.0520332	.6246055
_cons	.7865199	.8513372	0.92	0.359	-.9132297	2.48627

R-squared: 41.84%

**Table 3 Empirical Results of Gravity Model Specifications for Advance Rulings Trade Facilitation Indicator**

lnexp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
DISTANCE	.0022032	.0007795	2.83	0.006	.0006468 .0037596
LANG	.5562931	.7426869	0.75	0.457	-.9265292 2.039115
BORD	2.704062	.4815319	5.62	0.000	1.742653 3.665472
YUM	.1169997	.5140906	0.23	0.821	-.9094152 1.143415
TFI_C	-1.897825	1.342017	-1.41	0.162	-4.577248 .7815987
_cons	5.027495	2.486231	2.02	0.047	.0635749 9.991415

R-squared: 38.92%

**Table 4 Empirical Results of Gravity Model Specifications for Appeal Procedures Trade Facilitation Indicator**

lnexp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
DISTANCE	.0021568	.0007751	2.78	0.007	.0006093 .0037042
LANG	.592068	.7387437	0.80	0.426	-.8828813 2.067017
BORD	2.685627	.4779494	5.62	0.000	1.73137 3.639884
YUM	.0622287	.5138929	0.12	0.904	-.9637915 1.088249
TFI_D	.4215933	.2471197	1.71	0.093	-.0717972 .9149838
_cons	.6246841	.9100057	0.69	0.495	-1.192201 2.441569

R-squared: 38.92%

**Table 5 Empirical Results of Gravity Model Specifications for Fees and charges Trade Facilitation Indicator**

lnexp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
DISTANCE	.0022361	.0007696	2.91	0.005	.0006996 .0037727
LANG	.58287	.7397594	0.79	0.434	-.8941073 2.059847
BORD	2.721625	.4760919	5.72	0.000	1.771076 3.672173
YUM	.0806967	.5135034	0.16	0.876	-.9445459 1.105939
TFI_E	.62183	.380235	1.64	0.107	-.1373336 1.380994
_cons	.3213056	1.062234	0.30	0.763	-1.799513 2.442124

R-squared: 39.68%

**Table 6** Empirical Results of Gravity Model Specifications for Formalities – Documents Trade Facilitation Indicator

lnexp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
DISTANCE	.0021968	.0007721	2.85	0.006	.0006553	.0037383
LANG	.5881676	.7393019	0.80	0.429	-.8878963	2.064232
BORD	2.703353	.4769893	5.67	0.000	1.751014	3.655693
YUM	.0719646	.5136562	0.14	0.889	-.9535832	1.097512
TFI_F	.7133445	.4270332	1.67	0.100	-.1392549	1.565944
_cons	.427064	1.00176	0.43	0.671	-1.573014	2.427142

R-squared: 39.49%

**Table 7** Empirical Results of Gravity Model Specifications for Formalities – Automation Trade Facilitation Indicator

lnexp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
DISTANCE	.0021428	.0007775	2.76	0.008	.0005904	.0036951
LANG	.5893495	.739114	0.80	0.428	-.8863393	2.065038
BORD	2.682549	.4787038	5.60	0.000	1.726786	3.638312
YUM	.0606445	.5145796	0.12	0.907	-.9667468	1.088036
TFI_G	.555311	.3301143	1.68	0.097	-.1037835	1.214406
_cons	.7323879	.8746874	0.84	0.405	-1.013982	2.478758

R-squared: 39.59%

**Table 8** Empirical Results of Gravity Model Specifications for Formalities – Procedures Trade Facilitation Indicator

lnexp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
DISTANCE	.0022617	.0007792	2.90	0.005	.0007059	.0038175
LANG	.5451319	.7490076	0.73	0.469	-.9503101	2.040574
BORD	2.763336	.4810186	5.74	0.000	1.802952	3.723721
YUM	.1056606	.5201884	0.20	0.840	-.932929	1.14425
TFI_H	.8927916	.5838372	1.53	0.131	-.272877	2.05846
_cons	.2098308	1.156995	0.18	0.857	-2.100184	2.519845

R-squared: 39.61%

**Table 9 Empirical Results of Gravity Model Specifications for Border agency cooperation – internal Trade Facilitation Indicator**

lnexp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
DISTANCE	.0022115	.0007728	2.86	0.006	.0006684	.0037545
LANG	.5790704	.7403502	0.78	0.437	-.8990865	2.057227
BORD	2.718132	.4769693	5.70	0.000	1.765832	3.670432
YUM	.0775102	.5146108	0.15	0.881	-.9499434	1.104964
TFI_I	.4225304	.2645568	1.60	0.115	-.1056744	.9507352
_cons	.501137	.9932849	0.50	0.616	-1.48202	2.484294

R-squared: 39.24%

**Table 10 Empirical Results of Gravity Model Specifications for Border agency – external Trade Facilitation Indicator**

lnexp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
DISTANCE	.0021087	.0007806	2.70	0.009	.0005502	.0036672
LANG	.5896354	.7420844	0.79	0.430	-.8919839	2.071255
BORD	2.666665	.4814639	5.54	0.000	1.705392	3.627939
YUM	.0442505	.5172599	0.09	0.932	-.9884923	1.076993
TFI_J	.2466923	.1266376	1.95	0.056	-.0061479	.4995324
_cons	.9341362	.7731515	1.21	0.231	-.6095106	2.477783

R-squared: 42.86%

**Table 11 Empirical Results of Gravity Model Specifications for Governance and Impartiality Trade Facilitation Indicator**

lnexp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
DISTANCE	.0018693	.000831	2.25	0.029	.0002039	.0035346
LANG	.5297116	.7091365	0.75	0.458	-.8914297	1.950853
BORD	2.622133	.4688531	5.59	0.000	1.68253	3.561736
YUM	-.1089462	.514085	-0.21	0.833	-1.139195	.9213031
TFI_L	1.497405	3.854831	0.39	0.699	-6.227848	9.222659
_cons	-.2217174	6.618257	-0.03	0.973	-13.485	13.04157

R-squared: 39.26%

# SECURITY AND PRIVACY ISSUES IN SHOPPING THROUGH SMARTPHONES – COMPARISON OF SHOPPERS IN CROATIA AND SERBIA

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## ABSTRACT

*Privacy and security issues are highly important in modern, digital society. Privacy issue relates to the online retailer behavior and possible the misuse of data while the problem of security relates to third party interested to violate the private data without consent of retailer. These issues are sometimes combined with the safety (of third persons, like children, of financial data) and can be crucial for the smartphone shopping. Therefore, authors have decided to research security, safety and privacy manifestations reported in academic literature and institutional reports concerning mobile (smartphone) environment.*

*Literature review was followed by primary research i.e. survey of student population in Croatia and Serbia. Total of 277 students have been surveyed in both countries. Questionnaire has included questions concerning unwanted requirements for data, surveys, sending promotional messages, personal data misuse, consumer protection, online payments, return policies etc.*

*Three main research questions have been examined in this paper. The first one states that security and privacy issues in shopping through smartphones are important for students. Although, young generation was in the focus of the research, the assumption is that they are consistent with their peers worldwide who recognize privacy and security problems. The second research question states that there are no significant differences between Serbian and Croatian smartphone shoppers' attitudes toward these issues. The assumption is that no one significant environmental factor influence differences between students in two countries. The third states that privacy issues and security are equally important for smartphone shoppers. The assumption is that, no matter who is responsible for the misuse of data, online shoppers recognize it as the threat of same significance.*

*Main findings of this paper are relevant for mobile commerce theory and should contribute to better understanding of smartphone shoppers' behavior.*

**Keywords:** smartphone, mobile, shopping, security, privacy, safety

## 1. INTRODUCTION

Smartphones has caused changes in modern economy, especially in retailing industry (Awa, Ugwo, Ukoha, 2014). Well informed shoppers, who can buy from everywhere, anytime are just some of these advantages. However, in this paper we will analyze some issues concerning smartphone usage in shopping. New security and privacy issues have arisen with e-commerce

introduction. These issues become more interesting for researchers with introduction of mobile commerce and especially with smartphone emergence.

Privacy issue relates to the online retailer behavior and possible the misuse of data while the problem of security relates to third party interested to violate the private data without consent of retailer. These issues are sometimes crucial in smartphone shopping. Therefore, authors have decided to research security and privacy issues in mobile (smartphone) environment.

Primary research has been conducted in Croatia, Poland and Serbia. However, in this analysis authors will focus only on Serbia and Croatia.

Literature review concerning privacy and security issues in smartphone shopping will be presented as well as research design, results and its discussion.

## **2. LITERATURE REVIEW**

Safety and security issues are highly important in modern, digital society. Describing contemporary market, very often authors use the VUCA acronym, standing for main descriptors of the new environment: Volatility – caused by unpredictable size of the changes; Uncertainty – inability to extrapolate former trends in the future; Complexity – related to the various causes generating changes and Ambiguity – indicating various solutions for one situation and no one single procedure to follow in some situation (Mack, Khare, 2016).

Influences of above mentioned VUCA factors are examined in diversified retailing businesses, particularly in internationalized companies (Kuznik, 2016). Following this line of analysis, it can be concluded that smartphone shopping introduces also: Volatility, as the variable level of desire to buy using the smartphone or to drop by in the nearest shop, Uncertainty that depends sometimes of Wi-Fi availability, network performances and other technological influences, Complexity, comprising individual and social factors that influence decision to buy over smartphone or in a traditional way, and Ambiguity connected with the expectation that in the very similar situations (coming back from the office), customer may decide either to go in a store or to place an order over smartphone, while traveling by public transport.

Digitalization of smartphone customers' transactions can help to develop and maintain constant relationship resulting in loyalty and in customer value. Customer value for the company denotes how much each customer is valuable to the company and what level of revenue it can generate. It needs to be in balance with the value for customer, which explains how valuable the company's offer to each of them is. It is not enough only that customer appreciate the offer, particularly if the investment in this offer overcomes the value of that customer to the company (Burgartz, Krämer, 2016).

Although different characteristics of the mobile shopping can be reconsidered from the standpoint of seller and brand owner, here focus will remain on the customer standpoint (Shankar, 2016). All the benefits of the mobile shopping can at the same time are considered as the threats to their safety and privacy.

Two I, i.e. *Interactivity and Instantaneity* enable exchange of information on shopping in real time enabling consumers to consult with the others, to reconsider the offer and take into

account new rewards offered by retailers (Wang et al., 2015). While it enables customers to make more rational shopping decisions, it also, opens doors to the retailers to interact with them, even if they are not ready for that. The survey revealed that 78% of surveyed retail directors collected while 44% used data on customers moving pattern, recognizing the customer or customers' mobile phone close to its store (The Economist, 2013, p.2). This feeling of being "under the surveillance" might be frustrating as well as the interruption caused by ads. This is why mobile applications are much better strategy of interaction with the customer than ads or campaign through the browser (Gupta, 2013).

*Mobile shopping experience* is usually connected with the downloading one of the applications. While usually 40 applications are downloaded on smartphone, only 15 of them are used regularly, while all of the applications are competing for the limited resources on the device (Shankar, 2016). Intention to acquire new experience may raise the issue of erasing some of the formerly downloaded applications. On the other side, Shankar warns that applications serves to collect different data on customer behavior using application program interfaces (APIs), which again raise the issue of privacy.

*Privacy* is one of the major issues when customer is deciding whether to do mobile shopping or not. It is important to distinguish privacy and security issues: while the issue of privacy relates to the retailer behavior and possible the misuse of data, the problem of security relates to third party (environment) interested to violate the private data without consent of retailer (Belanger et al., 2002). Major concern that appears as the result in different surveys was the loss of control over personal data, way of collection, storage and use. In a modern time, smartphones are capable to reveal even more about customer pattern of behavior during shopping: attitudes such as likes or dislikes, duration of shopping, retention, even mood and other personal notes shared over social networks (Van Zanten, 2012).

*Security* relates to the threat to the protection of data against the misuse such as "distraction, disclosure, modification, denial of service, fraud, waste and abuse" (Belanger et al., 2002). This list of traditional e-commerce risks needs to be enlarged when talking about mobile devices (Shrimali, 2014): limited capability of mobile devices, preventing better security protocols, heterogeneity of devices and their OS causing significant problems to security protocol offered by retailer, high probability of mobile device loss or theft, high possibility to "listen" the communication over mobile devices, etc. When go step further, from classic m commerce to smartphone shopping, classic problems with viruses and malware appear, indicating that iOS devices are considered to be more secure than Windows and Android based devices. In the same research, it has been proven as statistically significant that customers are less willing to enter their personal data (social security number, bank account, health data) over smartphone that over their laptop computer. This findings confirmed fears that were revealed by some other similar researches.

*Profiling of the customers* is the legacy of digitalization and deluge of data, known in modern IT environment as the big data phenomenon. Retailers were on the source of structured streams of data on their point of sales (POS), but e-commerce had for the first time digitized complete customer shopping behavior. Amazon.com started this practice, through the development of their recommendations "You may also like ...", and "Customers who looked this, also ..." (Manyika et.al, 2011, p.23). Development of customers profiling came with the concept of Customer Relationship Management, directed towards better understanding of the customers in order to develop loyalty, and even to build barriers to abandon retailer (Etheredge JE, 2003, 299). Customer Knowledge Management – CKM emerged as the result

of developing deep insight in customers. This technology is developed in order to inform retailers in real time who are and who could be their customer, what the customer expects how customer is buying and eventually, when and why one can switch to another merchant (Anderson, Elf, 2015, p .41). While it may look very helpful in certain situation when retailer is predicting customer's needs, even hidden desire, it also can become spooky, even repulsive.

### **3. RESEARCH DESIGN**

Total of 277 students have been surveyed in Serbia and Croatia. Questionnaire has consisted of 26 questions of different types: 17 one choice questions; 1 multiple choice, 8 Likert scale ranking questions. Questions were divided into several groups:

1. Socio-demographic characteristics
2. Experience in online purchasing (questions were adapted according to Ling, Chai and Piew 2010)
3. Smartphone and mobile application usage (questions were adapted according adapted according to Laudon and Traver 2007, Iacopino, Bailey and Hare 2014, Knezevic et al. 2015)
4. Impulsive vs. planned purchasing (questions were adapted according to Ling, Chai and Piew 2010)
5. Motivation and issues in mobile purchasing (questions were adapted according to Choi et al. 2008, Turban et al. 2012, Chan et al 2013, Knezevic et al 2015)
6. Usability and effectiveness of mobile purchasing (questions were adapted according to Thakur and Srivastava 2013, Yadav et al, 2016).

However, in this paper we will focus only on questions in group 5, more precisely the series of 7 questions which concerns privacy and security issues:

1. There are too many unwanted requests on mobile applications (surveys, personal data etc.)
2. Retailers send too much advertising messages via smartphones
3. Retailer will misuse my personal information
4. Legal framework concerning privacy and security consumer protection is not developed enough
5. There are often differences between delivered product and information about the product given online
6. Payment procedure in mobile commerce is not secure enough
7. Retailers need to improve significantly return policies

The first three questions are dealing with privacy issues while other four are related to security issues. Authors have applied the basic descriptive statistics methods in order to compare relative frequencies on smartphone experience and usage in Croatia and Serbia as well as t testing. The gathered poll consisted of 297 answered and validated questionnaires from Croatia and Serbia. The structure of the sample is shown in Table 1. The gender structure of the sample was in the accordance to the student population within faculties of economics and business in Serbia and Croatia. On average, there were 71.7% of female and 28.3% of male students at the sample and distribution by age is similar both countries. The largest proportion of students (77.9%) is old between 20 and 25 years, 16.4% of them have more than 25 years and only 5.4% are less than 20 years old. Nonetheless, distribution by age differs between countries.

Due to differences in average wages and in order to avoid misunderstanding among currencies, instead of typical question on incomes, we decided to ask examinees to evaluate their economic situation on scales from 1 – very bad to 5- very good.

Table 1. Characteristics of the sample

<b>Country of origin</b>	<b>N</b>	<b>%</b>
Croatia	163	54.70%
Serbia	134	45.1%
Total	297	100.0%
<b>Gender</b>	<b>N</b>	<b>%</b>
Males	84	28.3%
Females	213	71.7%
Total	297	100.0%
<b>Age</b>	<b>N</b>	<b>%</b>
less than 20	16	5.4%
20-25	232	77.9%
more than 25	49	16.4%
Total	297	100.0%
<b>Economic situation</b>	<b>N</b>	<b>%</b>
Very bad	2	0.67%
Bad	42	14.14%
Average	166	55.89%
Good	73	24.58%
Very good	14	4.71%
Total	297	100%

Source: own research

The sample represent the real situation on faculties, concerning age and gender of the students. In that respect, it provides good ground for further analysis.

Naturally, from former literature overview, three research questions aroused and have been examined. All of them are connected with the age of young people surveyed. It is already well known that young people have more sophisticated way of using Internet (Hargittai, 2008) and also, that they are more suspicious about their security and safety (Volkamer, Renaud, 2013). This leads to the first research question stating that student population is not satisfied with current situation concerning security and privacy issues in shopping through smartphones. This finding should suggest retailers and other marketers how to approach students concerning observed issues. Relevance of certain issue for this target group is a good guideline for marketing strategy formulation.

The second research question states that there are no significant differences between Serbian and Croatian smartphone shoppers' attitudes toward these issues. This question should confirm that digitalization has erased differences among young population in two countries. Young people worldwide have similar ideas about smartphones, for example considering them as a fashion issue in Italy, Norway, USA or Japan (Katz, Sugiyama, 2016). There were

many studies on the lack of security on mobile phones because of centralized distribution of applications (Mylonas A., Kastania A., Gritzalis D., 2012). However, it is also interesting to explore whether there are differences between young people grown in different environment on the security and safety on smartphones.

The third research question states that privacy issues and security are equally important for smartphone shoppers. It is interesting to check whether students more value privacy or security and to include these findings into business strategies of digital retailers. Bring your own device (BYOD) trend when everybody is coming with own smartphone and plug into the business network, raised many aspects of security of both sides (Miller, K. W., Voas J., Hurlburt, G. F., 2012). The question is whether the issues of privacy were a little bit put aside. That is why in this research, as a third question, it was explored whether smartphone shoppers are more satisfied with way of handling privacy or security issues.

#### **4. RESEARCH RESULTS AND DISCUSSION**

Out of 454 surveyed students from three countries, focus was on respondents from Croatia (163) and Serbia (134) and their reaction on questions concerning safety, security and privacy on smartphone shopping. Proportion of respondents using smartphone as the primary mobile device was very high either in Croatia (96.9%) or in Serbia (94.7%). It was reasonable to assume that both students' populations are very familiar with smartphone technology. Both Croatian and Serbian students live in the environment where deluge of information on smartphone usage circulates and where it is similar opportunity to learn about security, safety and privacy issues. This results has been expected and it is in line with omnipresent phenomenon that smartphones significantly influence lives of young people.

However, smartphone usage brings certain privacy and security issues. The results of survey concerning these issues have been shown in Table 2.

**Table 2** Privacy and security issues

<b>Research question</b>	<b>Score (1- totally disagree, 7- totally agree)</b>	<b>Type of an issue</b>
There are too many unwanted requests on mobile applications (surveys, personal data etc.)	4.88	Privacy
Retailers send too much advertising messages via smartphones	5.20	Privacy
I am afraid that retailers could misuse my personal information I gave during online shopping	4.44	Privacy
Legal framework concerning privacy and security consumer protection is not developed enough	4.70	Security
There are often differences between delivered product and information about the product given online	4.40	Security
Payment procedure in mobile commerce is not secure enough	4.39	Security
Retailers need to improve significantly return policies	5.39	Security

Source: Own research

The first question states that student population is not satisfied with current situation concerning security and privacy issues in shopping through smartphones. The average score for all 7 questions is 4.77 which is above average (4) and shows that students are not satisfied with privacy and security situation in smartphone shopping. They are especially unsatisfied with online retailers return policies and receiving too much advertising messages from online retailers.

Young online shoppers feel uncomfortable with too many questions, which is time consuming. Asking for too many personal data and time consuming surveys could motivate shopper to quit shopping. Time is very important for this category of shoppers and they want fast shopping without additional obstacles. In addition, literature review provided arguments that privacy and security issues are important for smartphone.

All the above lead to a conclusion that student population is not satisfied with current situation concerning security and privacy issues in shopping through smartphones in Croatia and Serbia.

The second question states that there are no significant differences between Serbian and Croatian smartphone shoppers' attitudes toward these issues.

Descriptive statistics with average scores per question show that there are no high differences among students' responses concerning privacy and security issues. Serbian shoppers are more concerned with payment procedures and return policies than Croatian. Croatian shoppers are more concerned with privacy issues. In order to check statistical significance of these differences, authors have run t-test. The results are as following:

**Table 3** Results by Countries.

Country		Unwanted requests	Advertising messages	Misuse of personal information	Consumer protection	Delivered product issues	Payment procedure	Retailers return policies
<b>Croatia</b>	Mean	4.89	5.23	4.54	4.62	4.45	4.27	5.28
	N	159	159	159	159	159	159	159
	Std. Deviation	1.717	1.548	1.720	1.622	1.667	1.727	1.454
<b>Serbia</b>	Mean	4.88	5.15	4.32	4.81	4.34	4.54	5.54
	N	128	128	128	128	128	128	128
	Std. Deviation	1.840	1.744	1.878	1.751	1.708	1.720	1.526
<b>Total</b>	Mean	4.88	5.20	4.44	4.70	4.40	4.39	5.39
	N	287	287	287	287	287	287	287
	Std. Deviation	1.770	1.636	1.792	1.681	1.684	1.726	1.489

Source: Own research

Serbian respondents showed slightly higher dispersion of answers: standard deviation on all seven questions about safety, security and privacy was higher in Serbian than in Croatian population. Although both groups had very similar attitude, Croatian group showed more consistency in their answers.

**Table 4** Levene's Test for Equality of Variances

Research Question		Levene's Test for Equality of Variances	
		F	Sig.
There are too many unwanted requests on mobile applications (surveys, personal data etc.)	Equal variances assumed	.601	.439
Retailers send too much advertising messages via smartphones	Equal variances assumed	.714	.399
Retailer will misuse my personal information	Equal variances assumed	3.006	.084
Legal framework concerning privacy and security consumer protection is not developed enough	Equal variances assumed	1.558	.213
There are often difference between delivered product and information about the product given online	Equal variances assumed	.003	.958
Payment procedure in mobile commerce is not secure enough	Equal variances assumed	.008	.929
Retailers need to improve significantly return policies	Equal variances assumed	.059	.808

Source: Own research

Levene's test for equality of variances has shown that we can assume that variances are equal because significance is higher than 0.05 for all questions.

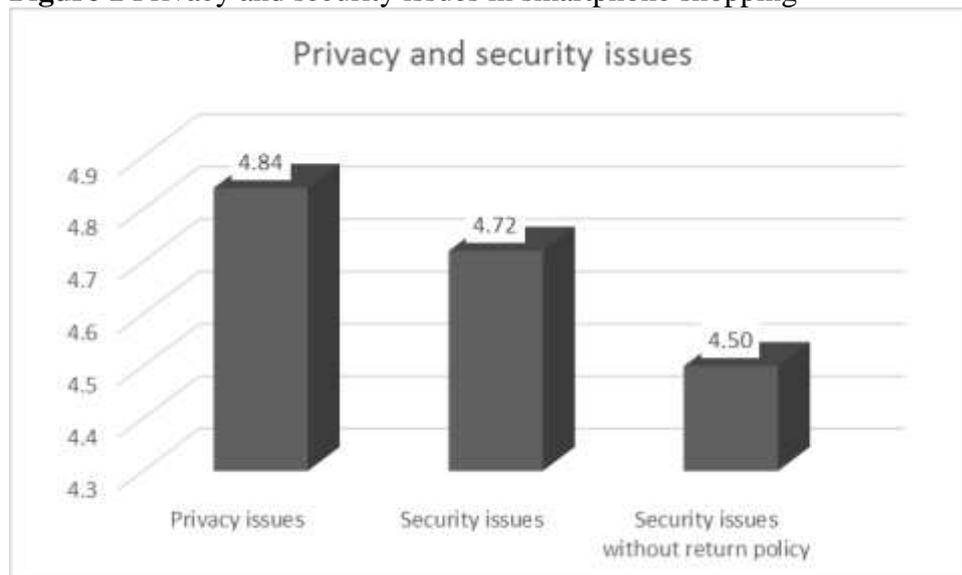
**Table 5** T-test results

Research Question	t-test for Equality of Means		
	t	df	Sig. (2-tailed)
There are too many unwanted requests on mobile applications (surveys, personal data etc.)	.056	285	.955
Retailers send too much advertising messages via smartphones	.433	285	.665
Retailer will misuse my personal information	1.036	285	.301
Legal framework concerning privacy and security consumer protection is not developed enough	-.983	285	.327
There are often difference between delivered product and information about the product given online	.553	285	.581
Payment procedure in mobile commerce is not secure enough	-1.312	285	.191
Retailers need to improve significantly return policies	-1.486	285	.138

Source: Own research

Significance is highly above 0.05 for all tested questions therefore we can accept hypothesis that there are no significant differences between Serbian and Croatian smartphone shoppers' attitudes toward privacy and security issues. The results have shown that attitudes of young population concerning online shopping issues are similar. It is expected because process of globalization is enabled by digitalization and it is much more present in online environment. This finding is important for formulating regional marketing strategies of online retailers.

The third hypothesis states that privacy and security issues are equally important for smartphone shoppers. However, respondents are more concerned about privacy issue i.e. average score concerning privacy is higher 4.84 compared to 4.72 for security issues as shown in Figure 1.

**Figure 1** Privacy and security issues in smartphone shopping

Source: Own research

Although companies usually are more concerned about security, online shoppers worry more about privacy issues. This can be also combined with their preoccupation with the safety, i.e. concern that some third party may endanger data sent online. Although Croatia and Serbia did not have so big disputes on security as, for instance in USA (Weinstein, Drake, Silverman, 2015), young generation of shoppers is much updated.

If we exclude retailers return policies the difference is significantly higher. All this shows that smartphone shopper's privacy issues have to be taken into consideration when retailers formulate their strategies. Security issues are important and they were in focus however neglecting privacy issues could cause serious customer dissatisfaction. We can conclude that there are certain differences in level of satisfaction with way of handling privacy or security issues in smartphone shopping.

## 5. CONCLUSIONS, RESEARCH LIMITATIONS AND IMPLICATIONS FOR FURTHER RESEARCHES.

There are several important conclusions of this paper. Smartphone shoppers are not satisfied with current efforts that are invested in privacy and security issues by retailers and policy makers in Serbia and Croatia. Although levels of dissatisfaction are not very high there is a significant space for improvement. It is an important guideline for online retailers that operate in this region to address these issues in its marketing strategies.

Surveyed smartphone shoppers attitudes do not differ across these two countries. This shows once more that digitalization and consequential globalization decrease or erase differences among shoppers in different countries.

Third conclusion is that online marketers have to pay more attention to privacy issues. Security issues have been addressed much more than privacy issues. This led to higher level of dissatisfaction with handling privacy issues compared to security issues. Paying more attention to privacy issues in smartphone shopping may produce significant positive effects on marketer's business results.

Several limitations arise from student sample, used in this analysis. First, it did not enable possibility to generalize conclusions. In fact, it would be very important to compare attitudes of young and mature customers towards smartphone shopping. Second, it is limited on the students from one region, and it would be necessary in the future to compare it with the attitudes of the students from different regions. Similarities revealed in this research, are for sure regional, but it is interesting to see if these may be stretched on wider student population. Third, students are very specific segment of young population, well informed in comparison with the remaining part of generation, so it is not sure if conclusions derived from this research are valid in general for young people.

Specific limitation is connected with the online nature of this research. Although in the focus were smartphone users, and it was reasonable to expect that smartphone users will be accessible online, it is necessary to understand that some part of student population was excluded from this research. However, this may be considered as the screening step, as well. Future research should include respondents from different countries as well as from different age groups. In general, it would be very interesting to have samples that would be representative on national levels. In addition, it would be interesting to examine how level of (dis)satisfaction with handling privacy and security issues affects sales and online store choice.

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# CUSTOMER DECISIONS AND LOYALTY IN RETAIL MARKET

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## ABSTRACT

*This paper focuses on the analysis of the impact of certain elements of the marketing mix of retail, as key factors in the decision making of customers. The concept of successful marketing mix includes decisions related to: target market, product range and its procurement, service and store ambiance, price, promotion and location of retailers. The authors examine the impact of most of these factors on customers in making their decisions in retail, as well as their possible impact on customer loyalty in highly competitive Croatian retail market. The paper explores the meaning of loyalty in the context of growth and business performance of retail companies, as well as the importance of loyal customers for the survival of every retail company doing business on the global market. Paper attempts to determine the factors that influence the satisfaction and loyalty of customers in the Croatian retail market. Moreover, paper tries to answer the question of how to build loyal customers and to attract and keep them in the retail market in Croatia.*

**Keywords:** customer choice, Croatian retail market, FMCG, loyalty, global competition

## 1. INTRODUCTION

Croatian retail market is characterized by internationalization, concentration and a relatively large number of retailers, who have similar deals with slight differences. Current and occasional customer satisfaction is not enough to ensure the success of retail companies. Therefore, it is essential for any retail company to create loyal customers, but also to know how to keep them. With loyal customers, many benefits can be accomplished. The loyal customers buy often, are willing to pay a higher price, are recommending the products and finally they are more cost efficient to serve. If retailers are able to provide added value to customers, they can achieve loyalty of their customers. Nowadays retail chains in Croatia face increased competition, reduced purchasing power of customers, but the customers are becoming more sophisticated and selective. In addition to product quality and excellent service, today's customers are also looking for excellent shopping experience. The goal of every retail format is the long term profitable business, which can be created by a good location, excellent product range, attractive store interior and competitive prices. In addition to previously stated, customers expect attractive service provided by friendly and professional staff. The imperative of survival is secured by creation of a growing base of loyal customers.

Customer loyalty is a feature of a retail business, which reflects the very positive attitude of customers towards specific retailer. Since satisfied customers return to buy at the same place, customer loyalty is actually a crown of success by satisfied customers and the result of generated interest and commitment of the retailer. It is well known that today's customers in retail play a more important role than they had in the past and that retail companies have to make far greater efforts to be successful in order to achieve a leading position in the market. Customers, with their buying decisions and their choice, actually decide about success or failure, existence or even disappearance of retail companies. Due to this fact, loyal customers are a crucial basis for success and future of any retail company. In view of the fact that the customers often change their behavior, the retail companies have constantly to adapt their business to the wishes and needs of customers, in order to keep existing customers and also to create loyalty to the new customers. For that reason, this paper aims to show the importance of designing a successful marketing mix in retail. The successful marketing mix in retail contains the best possible decisions related to: target market, product range and its procurement, service and store atmosphere, price, promotion and location of retail stores. Successful marketing mix has to attract buying, in order to build and to create long-term loyal relationships with customers. Due to this fact, it is extremely important for retail businesses to have the knowledge in relation to the greatest impact on customers in making their decision regarding the purchase. Therefore, the paper attempts to analyze the influence of each element of the marketing mix on customer's decision and loyalty in the Croatian retail market.

## **2. MARKETING DECISIONS IN RETAIL**

Marketing decisions in retail relating to the choice of target market determine the structure of the retail marketing mix, and therefore additionally determine the positioning of the individual retailers under the competitors. The concept of successful marketing mix in retail includes decisions related to: target market, product range and its procurement, service and store ambiance, price, promotion and location of store. The most important decision in the retail refers to the target market. Retailer cannot make consistent and meaningful decisions about product assortment, store ambiance, advertising, prices and service level, while the target market is not precisely defined and profiled, (Kotler & Keller, 2008). These optimally designed marketing activities in retail are aimed at meeting the needs of end customers in a better way than market rivals do. Consequently, any successful retail company strives to create a bigger and superior circle of profitable and loyal customers who have an acceptable purchasing power. Retail is the most dynamic subsystem in marketing system.

Retail is the most dynamic phenomena in the distribution channel (Berkowitz, et al., 1997). Decision about the target market, as an instrument of marketing mix, is one of the most important marketing decisions of all. In relation of that it is very important not to make a mistake at the start. The right decision about the target market can be reached only if the retail company is able to evaluate the most important characteristics of this retail market. This primarily refers to the total market size, market growth, market potential, the profitability of the market, and the structure of future demand in this market. Retail company can basically use one of three marketing strategies to be successful in its target market.

If it deems that it is best to ignore possible customer segments and retail company performs the targeted market with a unique marketing mix, it is the undifferentiated marketing. But often this is not the best strategy. Therefore, the retail company can decide for concentrated marketing focusing on one or a few, similar market segments, or for differentiated marketing

based on covering all segments of the target market, but with specific marketing mix for each market segment (Previšić & Ozretić Dosen, 2007).

After the retail company made a decision about the target market, it is necessary to determine what it will sell. This will be achieved by defining the range of products, which is also an instrument of marketing mix in retail. Product range has to match the expectations of the target market. In fact, it is about decisions related to better structuring of product range from the competitors. Product range, as an instrument of marketing mix in retail, has to meet costumers' expectations in the best possible way, but at the same time it has to generate a profit. The aim of retail companies is, on the basis of ideal defined range of products, creating a long-term loyal and profitable customer. Since the long-term loyal and profitable customers are the only guarantee for the survival of the retail business at the market. Abid and Ali (2014) have confirmed that most retail store selection studies have been about price, location and product where aiming to investigate key determinants of successful competition.

Each store must have an environment and atmosphere according to the target market in a way that attract and stimulate customers to buy. Only in that case ambience and service of retail outlets can be a good marketing tool. The interior of retail store should be designed in accordance with the image and retail strategy. In spite of the fact that the ratio of cost and value has to be taken into account, the interior of retail store should have a positive impact on customer habits. It must be flexible, so that retail company can quickly change the design of retail store without large expenses. The interior of retail outlets and their service can be a key factor in the differentiation from the others. Turley & Chebat (2002) have tested the influence of store ambient and found significant influence on retailer success and loyalty creation.

Price, as an instrument of marketing mix, is the only element that generates profits in marketing mix, while other elements create costs. The decision regarding the price, specially by a retail company, must be based on a comprehensive approach taking into account many factors such as: cost, technology, customers, competition, changes at the market, legislation and many other factors. Taking into account the previously mentioned pricing, retail companies must have detailed information about the cost and value of their products, in order to be able to do their optimal position on the market segment where they can offer their products with high value and low costs. Business dream of all retail companies is high turnover with high margin. But the business reality is generally familiar with retail models that characterize high margin and low turnover (specialized stores) or a low margin and high turnover (discounts). Nettet et al. (2011) have studied the influence of price, location, product quality and service in creation of loyal Norwegian customers. They found service quality and location to be less relevant in comparison to price and product but due to its significance service should still be taken into account. Chowdhury et al. (1998) argued price to have an undeniable influence on emotional satisfaction, where customers observe premium prices, price and quality ratios.

Promotion as an instrument of marketing mix in retail means that any form of communication of retail companies, whose main role is to inform, remind and persuade customers is to react in relation to the product or service (Kovač, et al., 2016). Promotional mix consists a set of different forms of marketing communications, such as advertising, sales promotion, public relations and publicity, personal selling and direct marketing. It is essential for the success of retail company to run the process of promotion well. It is necessary to make a whole series of decisions that determine this process. All possible factors, that directly or indirectly affect or

may affect the success of the product or service at retail market, need to be taken into account by creation of promotional mix for a particular product or service.

Retail companies, within the conception of their successful marketing mix, besides the decisions that are related to the target market, product range, service and store ambiance, price, promotion, have also to define the location of stores. The location of stores, as an instrument of marketing mix in retail, is very important for the effectiveness and efficiency of retail companies. As also Siropolis (1995) states, the success of the performance of commercial activities depends from three major factors: 1. location, 2. location and 3. location. Location is very important for the strategy of retail companies. Rosmimah Mohd Roslin and Herwina Rosnan (2012) have investigated the importance of location and said it is critical in determining success or failure in Malesia retail market.

With the wrong place retail enterprise risks income and funds invested in store furnishing. It is crucial for successful business development in retail to investigate suitable location systematically. Of course, the importance of location is not the same for traditional retailers, who sale in direct contact with the customers and modern retailers. In contrast to this, the business in which the seller, thanks to modern technology (Internet) sales at a distance and without a direct meeting between the seller and customer, location loses its meaning. In traditional store retail, as demonstrated in various studies, location often directly affects the customer's choice. In these studies, customers regularly put at the first-place location, as the most important reason their shopping in these stores. Location is usually an instrument of trade policy. Distinguishing between stationary and non-stationary trade determines the ratio of the trading companies by location (Segetlija, et al., 2011). Just location, as the reason for selecting the point of sale, is one of the essential elements of the empirical research in this paper.

### **3. CUSTOMER LOYALTY IN RETAIL**

Brynjolfsson et al. (2013) emphasized promotion, price, product, supply chain and location to result in satisfaction, more visits, increased budget spending and profits. Nettet et al. (2011) have studied the influence of price, location, product quality and service in creation of loyal Norwegian customers. They found service quality and location to be less relevant in comparison to price and product but due to its significance service should still be taken into account. Customer loyalty can be defined as a commitment to company or brand, which is based on a strong positive attitude, and is expressed in repeated purchases. It is very important to emphasize two essential dimensions of loyalty, behavior and attitude. Specifically, if a customer has a bad behavior and bad attitude towards the purchase of a particular brand of product, it is very clear that they will not be loyal. Thus, bad attitude means that the customer does not have the habit of buying a particular product, while bad behavior indicates that the customer performs a minor purchase (Renko & Kovač, 2015). It can be concluded that the honest loyalty occurs in a situation where the customer has the positive behavior and strongly built position on specific purchase. Customer loyalty in retail refers to the customer's willingness to visit the same store over a longer period of time. The loyal customers spend most of the money in the selected stores and for that reason they are the most important segment of the market. They buy longer period, spend more and make extra profits. Loyal customers understand and appreciate the value they received, and despite a lower price by the competition, they will not buy there. It is very important that they remain loyal specially in difficult times for the company. Loyal customers are the best marketing managers for the company, because they perform best promotion through referrals to other users. Just above

represents some of the most important reasons why the company should struggle for loyal customers (Grbac & Lončarić, 2010).

Consequently, basic marketing problem is how to keep existing customers loyal and to increase the segment of the loyal customers. Loyalty of stores varies depending on the type of store. Transformation of potential customers into actual customers is carried out in a process that begins with the identification of customers with an interest in the product and the ability to pay. Precisely such potential customers are the basis for the transformation into real customers. Companies invest human and financial efforts to transform potential into real customers who buy products (Soloman, et al., 2015).

It should be noted that the loyalty of customers is recognized everywhere as a valuable assessment of the company. The strategy towards customers must be designed in a way to keep customers with great value and customers with high growth. It is essential to determine, how to convert the customers with a negative value into profitable customers. Loyal customers like that company knows, who their loyal customers actually are. It should be mentioned that IT tools, and smart phones are just one of the possible way of communication, which allow monitoring of the degree of customer loyalty. Accordingly, telecommunications service providers know all about loyalty of their customers and they reward their loyalty with appropriate gifts (Bijakšić, et al., 2012).

Over the past decade the concept of loyalty prevailed in several industries. Membership in loyalty programs provides loyal customers with rewards and added value, making it popular among customers (Mueller & Singh, 2006). This has led to increased competition among various companies within the retail industry, they compete with each other to satisfy the same group of customers. The main consequence of this is that customers are often included in loyalty programs in a number of companies within the retail industry. As we have already mentioned customers' loyalty is a characteristic of the retail business, which reflects the attitude of customers towards the retail entity on the one hand, and the commitment and interest of retailer for its customers, on the other hand.

Customer loyalty is the result of established business relationships between customers and retailers. It should be noted that the benefits of loyalty are not instant and that loyalty entails a whole series of events that result in the growth and development of enterprises. It is often considered that dissatisfied customer will never come back, but on the contrary he will return if the situation which led to their dissatisfaction is positively resolved (Anic, et al., 2010).

To understand the relationship with customers and retailers, it is necessary to start from the basic elements of interpersonal relationships, such as socio-psychological roots of interpersonal relations. Customers and retailers establish business relationships, based on feelings and emotions. Their feelings and emotions are developed in them in the course of communication with representatives of the retail. In fact, during episodes of interaction with retail, the customer develops certain emotions regarding the action undertaken and to be undertaken by the respective retail. This fact means that emotions are developed while a business relationship is built (Kovač & Palic, 2016).

The customer is loyal if an opinion and attitude is formed in his conscience towards the retail entity and its offer and service, which will lead this person to do repeated purchases and make a major expenditure. For that reason, attitude and awareness to retail cause the creation of a

certain customer behavior. So, repeated buying is the most effective way of measuring and monitoring customer loyalty in the modern retail (Jansson-Boyd, 2010).

In retail, we encounter many types of loyalty. Monopoly loyalty is a situation where the customer does not have other alternative than shopping at a particular retail entity. In this case, there is no choice for customers and in fact, we can not even speak about a true loyalty. The customer is not able to choose a particular retail entity, which would be most appropriate. Because of that, the customer must perform the desired purchase activity exclusively in the retail entity that it is available (Brcic-Stipčević & Renko, 2005).

Loyalty based on benefits occurs when a customer forms their attitude towards certain retail entity and conducts its purchases on the basis of certain benefits that the retail entity provides. The development factor of this kind of loyalty is often recognized only by suitable location retail store. However, it is clear that loyalty can be achieved also on the basis of other elements of successfully created marketing mix in retail. This primarily refers to the attractive range of products, smart retail service, nice-looking interior in store, competitive price of the product as well as the original promotion. This is the main focus of research in this paper. The habit of shopping at certain retailers or lack of motivation to get to know products from other retailers, as well as the fear of change are the most common factors of inert loyalty (Kasolowsky, 2014).

The price loyalty is loyalty that is formed with the customers who are constantly looking for lower prices of services and products. These customers will, without much thought, "leave" his former retailers, if they elsewhere run into lower prices. Price loyalty is being developed with a large number of customers on the Croatian market. They are not able to purchase higher quality or more expensive products and services, due to the lack of purchasing power. Incentive loyalty is based on the creation and implementation of the program of rewarding customer's loyalty by retail companies. These loyalty programs are designed to allow customers to use and accumulate various privileges. Exactly for that reason many retail chains, but also small retail businesses, implement various promotional activities. So, they try to encourage the loyalty of their customers.

Emotional loyalty is the most "elusive" kind of loyalty. In fact, this type of loyalty is the most complicated and the most difficult one to build. Usually this kind of loyalty is connected to a particular brand or trademark. The study of loyalty programs discovered the five elements present in most programs: database, the accession process, added value for customers, awards and recognition from customers (Kellgren et al., 2007). It should be noted that loyalty programs allow you to create a relationship that is based on individualization and interaction with customers. Using the information gathered from the loyalty program, retailers can create individualized marketing mix for customers with minimum costs of market research. Is important that customers are satisfied, and that they come back again. Retailers try to attract and win over customers, in order to "take over" part of the business of their competitors. An integral part of the competitive struggle in literature is called "chum problem". Customers, who have gained a positive experience in the process of buying, which is the result of the implementation of activities under the loyalty scheme, will be willing to pay a higher price for the product (Sinčić & Vorkapić, 2008). There are two key steps, but also the conditions in the process of building customer loyalty, namely the customer satisfaction and customer confidence in the retail entity. Customer satisfaction is necessary, but not sufficient condition of building customer loyalty. The process of building confidence is affected by numerous factors such as customer's information, respect for their needs, and empathy of the retailers for

the customers (Sinčić & Vorkapić, 2008). It is crucial that sales staff lead customers in the retail process, inform them about the characteristics of the range, and explain them all the possibilities and benefits regarding buying certain products (Watson et al., 2015).

#### 4. RESEARCH RESULTS AND IMPLICATIONS

Results were derived from the primary data calculated on the basis of 413 respondents in FMCG retail market of Croatia. Age distribution of the respondents was in favor of young customers (18-24 years of age: 49,4%), following 25-34 years of age (34,6%) and finally 35+ years of age (16,1%) (see Table 1).

**Table 1** Age distribution of the respondents

Age	Frequency	%
18 - 24	204	49,4
25 - 34	143	34,6
35 - 44	16	3,9
45 - 54	18	4,4
55 - 64	28	6,8
65+	4	1,0

Source: own research

The level of their income was mainly in range between 0-3000kn (59,8%), following the range between 3001 – 5000kn (27,4%) and 12,8% of them had incomes 5000kn and more (see Table 2).

**Table 2** Income distribution of the respondents

Income	Frequency	Percent
0 - 3000 kn	247	59,8
3001 – 5000 kn	113	27,4
5001 - 7000 kn	40	9,7
7000+	13	3,1
<b>Total</b>	<b>413</b>	<b>100</b>

Source: own research

Aim of the paper was to test what are the most important elements influencing decision of customers in their choice of retailer in FMCG market of Croatia. Additionally, to standard marketing portfolio: price; location, promotion and assortment, respondents were also asked about the importance of store ambient in retail business of FMCG retail market. Question were designed as Likert scale ranging from 1 to 5, 1 representing the highest level of disagreement with the given statement and 5 the highest level of confirmation. Results have confirmed that the element of price is significant and the most important element in retailing

business of FMCG with average score of 3,89. Second most important and significant element in choice of the retailer was assortment (3,94). Third most important and significant element was location scoring on average 3,73. Promotion and store ambient were not considered significant in the choice of a retailer with an average score of 2,95 and 3,02 respectively (see Table 3).

**Table 3** Relevance of the marketing mix elements

	N	Mean	Std. Deviation	alpha
<b>PRICE</b>	413	3,89	1,000	,000
<b>LOCATION</b>	413	3,73	1,179	,000
<b>PROMOTION</b>	413	2,95	,932	,317
<b>ASORTIMENT</b>	413	3,94	,872	,000
<b>STORE AMBIENT</b>	413	3,02	1,206	,714

Source: own research

After determining the most important elements in the choice of a retailer special focus was put on the loyalty of customers and following hypotheses.

*H1: Price of products has a significant influence on loyalty of customers in the Croatian retail market*

*H2: Location has a significant influence on loyalty of customers in the Croatian retail market*

*H3: Promotion of products has a significant influence on loyalty of customers in the Croatian retail market*

*H4: Assortment has a significant influence on loyalty of customers in the Croatian retail market*

*H5: Store ambient of the retailer has a significant influence on loyalty of customers in the Croatian retail market*

In order to examine the underlying basis for creation of loyalty, entire sample was divided in the subgroups: loyal and non-loyal customers. It is important to emphasize that FMCG retail market in Croatia is primarily consisted of non-loyal customer (85,9%). Therefore, retailers in Croatia may still significantly benefit from efforts invested in the creation of loyal customers. For these investments to be efficient it is necessary to empirically investigate and confirm what are the underlying sources of this behavior when customers develop a retailer preference. The results show price and location to be significantly more important in customers which consider themselves loyal to a specific retailer and therefore retailers who wish to create loyalty should pay more attention towards these elements in creating their marketing mix and competitive strategy. Although, the assortment is statistically significant, its value in creating the loyal customers is less obvious in comparison to price and location (see Table 4).

**Table 4** Difference regarding marketing mix elements between loyal and non-loyal customers

		N	Mean	Std. Deviation	alpha
<b>PRICE</b>	0	355	3,85	1,005	,024
	1	58	4,16	,933	
<b>LOCATION</b>	0	355	3,67	1,187	,003
	1	58	4,14	1,050	
<b>PROMOTION</b>	0	355	2,97	,904	,568
	1	58	2,88	1,093	
<b>ASORTIMENT</b>	0	355	3,93	,852	,611
	1	58	4,00	,991	
<b>STORE AMBIENT</b>	0	355	3,01	1,180	,773
	1	58	3,07	1,362	

0: non-loyal customers; 1: loyal customers

Source: own research

Observing the Croatian FMCG retail market several conclusions can be made: customers are price sensitivity, location and assortment of the retail stores are very important, while promotion and store ambient are not crucial. Also, loyal customers are even more price and location sensitive, while there was no significant difference between loyal and non-loyal customers regarding promotion, assortment and store ambient.

## 5. CONCLUSION

It is reasonable to assume that the most important thing in business is to understand the basis for decision making of customers, especially in retail. Knowing the importance of each marketing element, managers may effectively design their strategies. In accordance with this, ambition of the paper is to explore each element of the marketing mix regarding its influence on the buying decision, as well as their possible impact on customer loyalty in the Croatian retail market. In the context of growth and business performance of retail companies, importance of loyal customers is crucial. This research has demonstrated that Croatian retail market has been characterized by high price sensitivity, importance of location and assortment, while promotion and store ambient were less important regarding their influence on decision of customers in their choice of retailer. Furthermore, research has demonstrated that loyal customers are even more price and location sensitive, while there was non-significant difference between loyal a non-loyal customer regarding promotion, assortment and store ambient. Consequently, it is viable to suppose that the source of loyalty in Croatian retail market may well result from pricing strategy and store location. Since Croatian FMCG retail market consists mostly of non-loyal customers, the data derived from this research may help in creating more efficient strategies of attracting loyal customer. The limitations of the empirical research is the relatively small sample. The loyal customers spend most of the money in the selected stores and for that reason they are the most important segment of the market. They buy longer period, spend more and make extra profits. Due to this fact, it would be useful to investigate how to keep existing customers loyal and to increase the segment of the loyal customers in the retail market in Croatia.

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## RETAIL MARKETING AND CONSUMERS LOYALTY – SOME EXPERIENCES FROM POLAND

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### ABSTRACT

*The aim of the paper is to give a retrospective view on the problem of marketing orientation development in retailing. By analogy to the general theory of marketing it is sought to distinguish four stages of the development of marketing orientation: production, selling, marketing and social marketing orientation. This concept is then tested by presenting the longitudinal case study highlighting changes in marketing strategies of retailers operating in Poland. It is found that FMCG mass merchandisers have gone through these steps and now implement marketing and social marketing. Good quality product in reasonable prices, advertising and engagement in Corporate Social Responsibility activities build trust and create consumer loyalty to the discount chain stores which now are blooming.*

**Keywords:** retailing, marketing orientation, consumer loyalty, Poland

### 1. INTRODUCTION

The idea of marketing philosophy of retailing could be traced to the emergence of trade and activity of first merchants who needed a lot of skills to sell goods. Knowledge, which was necessary to deal successfully with this business, was very well described by D. Defoe, who published his books in eighteenth century. By then, development of retail structures caused also the changes in the way retailers compete. These changes are described in several theories; one of the best known is the “Wheel of Retailing” proposed by P. McNair in 1958 year. But as far as Author knows there have not been attempts to apply general concept of marketing orientation development to the retailing. This paper tries to fill this gap.

### 2. DEVELOPMENT OF MARKETING ORIENTATION IN RETAILING

Marketing as a philosophy is the way of thinking, an attitude that sees the consumer as the supreme, though not the sole arbiter of a company fate (Churchill, 1989). This philosophy is implemented in practice by many techniques and methods of market research, market segmentation, product positioning and planning, promotion, pricing and distribution. The aim of all this affords is to gain the profits by satisfying consumers in the saturated markets. The definition of marketing which particularly fits to retailing is “...selling goods (or services which don’t come back” to the consumers who do” (Churchill, 1989).

Marketing as a philosophy of doing business in which the consumer is the main focus of company activities and the aim of the company is to develop retail patronage has been stressed for a long time in the literature devoted to retailing. In 1726 Defoe remarked that the tradesman must devote life to his business. He emphasized the fact that the clients must be

"the tradesman's idols. Therefore he must respect them and bow low to them. (...) He should not allow them to go to another shop, because they may like the other place better and never come back" (Śmigielska, 1999). One of the crucial values of every company's organizational culture is high standard of customer service, which should lead to developing long-term customer loyalty. Such long-term loyalty is considered the key to the company's long-term success in contemporary economy. In XVIII century when the market was fragmented and owner of the business personally took care of the business every individual client was important.

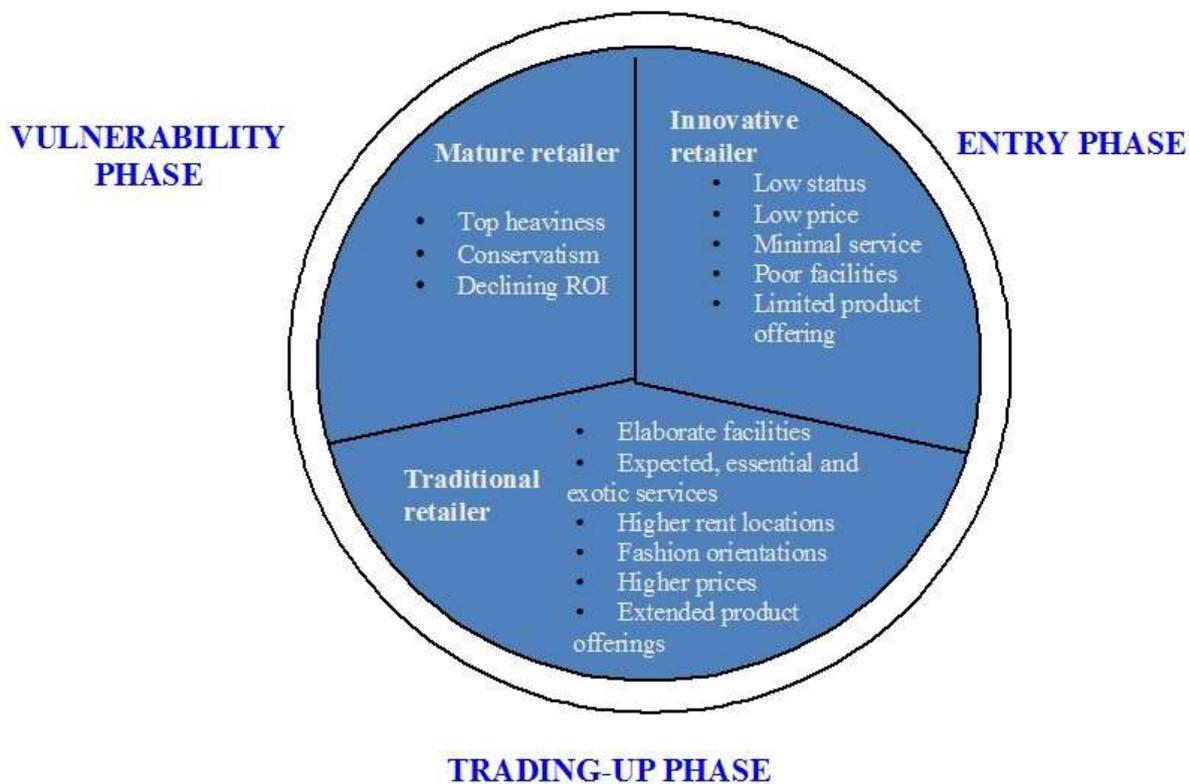
Then, in the era of industrial capitalism, mass production brought the necessity of mass distribution. Retailing responded by introducing new institutional forms, so called mass merchandisers. They had been brought to the market by the aggressive entrepreneurs looking for the supernormal profits. They found the idea to develop new types of retail institutions in environmental changes.

The development of new formats of mass merchandise in the retailing business has changed the traditional service. The face-to face contact between the owner and the customer has been substituted by the pre -selection and self - service. Therefore it has become necessary to develop new methods of building customer trust and loyalty. New elements of customer loyalty programs include warranties, return of goods, advertisement.

These institutions like: department stores, mail order, supermarkets and discounters were innovations in Schumpeter sense because each of them, when appearing on the market, started the process called creative destruction which led to the bankruptcy of traditional retailers competing directly with the innovator (Anitsal and Anistal, 2011). On the other hand the supernormal profits gained by innovator encourage competitors to copy its strategy, and as a consequence markets to stay competitive innovative retailers looked for the new ways to differentiate from the competitors which finally leads to trading up (Sorescu et al. 2011).

This process of trading –up is described in the theory of Wheel of Retailing originally developed by P. McNair (see Figure 1).

**Figure 1** The Wheel of Retailing



Source: S.C. Hollander, The Wheel of Retailing, “Journal of Marketing”, July 1960.

The wheel of retailing is a good tool for describing the changes in costs, quality of services and prices in retail formats which as innovators compete on price. Although it neglects some other aspect of retail institutions development it could contribute to explaining the idea of marketing concept development in retailing. In the first stage the retailer focuses on increasing the business productivity by reducing cost and in this way saturate the market. Historically, problems with market saturation had different reasons: it was the invention of the sewing machine and supply of clothing which the small shops were not able to distribute (department store), non saturated demand outside the big cities (mail order), after war crisis (supermarkets) and recession in fifties last century (discount stores). When demand for retail service exceeded supply consumers accepted lower service level because they could buy goods at lower prices. So in the first stage of new retail institution development it was usually characterized by the production orientation.

In the second stage of retail institutions development due to competitive pressure and growing consumer expectations the retailers make changes not only in service quality but also in merchandise for example department stores added groceries whereas supermarkets added non food products. New promotional and pricing tools like trading stamps and loss leaders to encourage clients to make shopping were introduced. This stage of retail institution development could be considered as a stage of selling orientation.

The last stage reflects the situation after several years of introducing the new retail institution. Its general form is well known so the businesses which would like to survive on the market have to be market oriented. They do not have to limit themselves to operational marketing but they should develop the marketing strategies which respond to the changes in the

environment. The last stage of this cycle is traditional retailer rather do not compete on price but rather on other characteristics.

Theory of marketing management of retail businesses were for the first time set up in 1961 r. by W. Lazer and E. J. Kelley, They identified five basic characteristics of strategic marketing management and tools of retailing mix which should be used by retail companies. These characteristics include:

1. Planning which involves identifying goals and programs of their achievement,
2. Consumer orientation in which marketing philosophy is much more important than marketing tools.
3. System approach in which the retail organization is perceived as the complex system of activities, its focus is on integration resource utilization of retail businesses to satisfy the current market needs and exploitation future opportunities.
4. Management of changes -creative adjustment of retail business to the changes which take place in turbulent environment.
5. Innovations which are crucial for business success so the attention should be drawn to the research and development.

As far as retailing mix is concerned Lazer and Kelly identified three main marketing tools: 1. Merchandise and services which include also prices, 2. Location which the physical distribution, 3. Promotion.

The importance of this concept in practice of retail enterprises management has been growing since 80. It has been stimulated by:

- Getting by the retailers the leadership position in distribution channel. The retail businesses which had been rather passive executors of producers marketing policies started to be very active market players which were able to introduce their own marketing strategies.
- The development of own brand concept and its growing market share.
- The emergence of new important for consumers values and expectations as far as merchandise and services are concerned.
- The differentiation of buyers' preferences.
- Development of the communications technologies.
- Growing competition in retail sector.
- Saturation of accessible international markets.
- Entry of most retail companies, whose development has been made on the basis of specific institutions, to the stage described as "traditional" or "mature" in "the wheel of retailing". These stages are characterized by the growing importance of elements beyond price competition, remaining in close connection with the marketing orientation and differentiation advantage.

It was reflected in publication focused in retail marketing and its instruments (Bilińska Reformat 2015, p. 57- 58).

This time marketing orientation has been completed by social marketing dimension. According to this concept company should consider wishes and long term interest of consumer as well as well-being of the company and long term social welfare (Kotler et al., p. 96). It means that, company when taking marketing decision, should:

- be responsible for the results of its operations,

- communicate with the internal and external environment in the fair way,
- protect the environment,
- fulfill contracts and commitments.

This orientation could become also the source of supernormal profits.

Development of marketing orientation has been fostered by the progress in communications techniques. Now the retail companies not only could inform the consumer about sales promotions by SMS or e-mails but they could implement whole marketing mix via ICT (Information and Communications Technologies). In this way the concept of direct marketing has expanded (Depta and Śmigielska 2013). Development of ICT facilitates also the bilateral communication with the clients what in practice means that they could express their opinions and comment companies' activities. Special role in this process have social media. As a result clients' competences started to be used to develop the retailers' competencies and their marketing advantages (Prahalad and Ramaswamy, 2000).

K. Bilińska Reformat (2015, p. 59) suggests that contemporary marketing –mix compositions (e.g. Sullivan and Adcock, 2003) indicate that retailers now implement rather relationship marketing than transaction marketing, so they strive to develop long term relations with their clients. Such companies use consumer services and PR tools for building consumers' loyalty. Store image is one of the most important in this process (Śmigielska, 2008; Stefańska, 2013). This switch towards relationship marketing is also visible in growing importance of CRM (Consumer Relationship Marketing) systems in retailing. They deliver information which makes process of creating long term relationships with the clients more efficient but they have also many limitations. So they are useful tool but only one of many.

To sum up, the development of mass merchandisers which strive towards cost reduction and compete on price could be considered as a production orientation. The next stage (sales orientation) started when retailers found out the new forms of sales promotion like loss leaders, trading stamps, followed by the loyalty programs, and expanded their use. As a consequence of growing role of self service and pre-selection the role of personal selling in marketing, has diminished. Contemporary mass retailers seem to realize how important personal contact with the clients is and include activities related to personal selling in the planned marketing activities. These activities include: market research, market segmentation, positioning and composition of retailing-mix. These efforts aimed at the development of image which reflects retail chain positioning at the market and long term clients' loyalty to the retail brand. This goal could be reached only if the consumers' needs are satisfied. It means the knowledge about these needs is crucial for the retailer success.

### **3. DEVELOPMENT OF MARKETING ORIENTATION OF FMCG MASS MERCHANDISERS IN POLAND**

After the socio-political reforms in 1989 year the retail market in Poland turn out to be not saturated. The existing stores were not able to distribute the merchandise and in this way satisfy the demand so a lot of small stores were founded. But the real process of changes started in the mid. nineties last century when the first hypermarket Hit was opened. It was very successful so the other mass merchandisers like, chains like Carrefour, Tesco and Auchan entered Poland. It was the beginning of the fast internationalization of Polish retailing. In the first period of FMCG retailing (1995-2002) mainly hypermarkets had been

opened whereas late, when the market for hypermarkets become saturated), discount stores and supermarkets started their fast growth.

Until the end of the 20th century, most mass merchandisers applied the production concept and the selling concept (because the demand for selling services extended its supply) by opening new stores, diversifying their activity (e.g. petrol stations) and attracting shoppers by new promotion programs which have become very popular. Private brands positioned on price become an important instrument of competition. It was communicated to the clients by the slogans e.g. “Lidl is cheap”, or “Everything and cheap in Tesco”. At the same time, small shops tried to defend their position not only by pressing on introducing laws favoring them, but also using their strengths (like personal selling or offering quality fresh products) for acquiring loyal consumers. But because on FMCG market most consumers compare prices many small retailers were not able to survive and they went bankrupt. The sources of market advantage of foreign retailers according to the research conveyed by the Instytut Rynku Wewnętrznego i Konsumpcji w Warszawie, were as follows:

- Wide assortment.
- Aggressive price policy, what in practice meant advertising low prices and intensive using of sales promotion instruments.
- Store arrangement, according to the rules of merchandising.
- Using marketing-mix instruments to position the retail chain, mostly on low prices.

The first decade of the 21st century was characterized by an increased concentration and market saturation with hypermarkets in the cities (Kłosiewicz-Górecka, 2009). Opening new big stores was restricted by law. There was a considerable wave of integration of small shops offering FMCG under franchise systems, mostly operated by wholesalers (Orzeł, 2014). Some Polish retailers were able to differentiate from mass merchandisers and become successful by offering rich assortment of good quality products in the format called “delikatesy”, e.g. the Alma chain. It has drawn the attention of foreign mass merchandisers to the market segments which were neglected - consumer looking for the good quality, fresh food and ready to pay to it. Foreign FMCG retailers who become market leaders, like Carrefour, Tesco, Biedronka (discount chain operated by Jeronimo Martins) have tried to answer environmental changes by introducing new marketing strategies addressed to the new market segments, or just changing the positioning. Some examples include:

- Introducing a new format, the so called “compact hypermarket” (2000-3000 m<sup>2</sup>) in the small cities, e.g. Tesco.
- Launching chains of small format store e.g. franchise chain Carrefour Express – shops located in the settlements.
- Positioning by the other benefits than price, Tesco stresses wide choice and good quality, Biedronka that it offers high quality products on low prices.
- Starting the new formats positioned higher, e.g. in 2011 Tesco has started the new supermarket format which offers more fresh food.

These processes were accompanied by the development of private brands addressed to the different market segments and corporate social responsibility activities (Kłosiewicz-Górecka, 2014). For example Tesco offers four different brands: Tesco Value, Tesco Finest, Tesco Organic and Technika (<https://www.tesco.pl/marki-i-uslugi/produkty-tesco>) dedicated to different markets segments. It is also very active as far as CSR programs are concerned what resulted in reward has given by the Forum Odpowiedzialnego Biznesu - the biggest nongovernmental institution dealing with the problems of CSR. Also the other retail chains

engage in CSR and apply instruments of social marketing in practice (Oczkowska, Śmigielska 2009).

The retail chains in Poland spend also a lot of money on advertising. The most active is Lidl which spends much more than whole Metro Group. It seems that Biedronka (its main competitor) wants to keep pace. Hypermarket chains like Carrefour, Tesco, Kaufland spend much less although still considerably sums of money on advertising. The main aim of these efforts was to develop image which reflects retail positioning and positive image to build long terms consumer loyalty. The stages of development of FMCG retailers' marketing orientation is shown on the table 1.

**Table 1** The stages of marketing orientation of FMCG retailers

Stages of marketing orientation	Market characteristics	Type of market orientation
I stage 1989- 1995	FMCG market is fragmented, Cooperative "Społem" is the one big retailer but it goes through the process of changes.	As the competition is growing small retailers try to develop the client patronage .
II stage 1995- 2004	Mass merchandisers develop very fast. Market for their offer is not saturated.	Production and selling orientation. Mass merchandisers sell what they have, do not try to adjust their offer the consumers needs. Development of private brands, competing on price.
III stage 2005-2010	The competition is growing. On the FMCG the demand for hypermarkets seems to be saturated, the chains of discounters and supermarkets start to grow, as well as franchise systems.	The beginning of marketing orientation. Retailers try to adjust their offer to customer's needs not only by introducing new retail forms but also private brands addressed to different market segments
IV stage 2010-now	Market saturation, the chains of hypermarkets, supermarkets and discounters compete heavily.	Development of social marketing concept. Retailers have stressed their CSR activities and try to develop positive image.

Source: Developed by the Author

As a result of these changes all big FMCG retail chains apply similar strategies. Interesting thing is that the biggest discount retailers do not have the lowest prices on the market.

The crucial resource for the development of the long term consumer loyalty, as it was noticed before, is image. According to the research conveyed in Poland the best image have discounters: Biedronka, Lidl and Kaufland (Kozak, 2016). The same brands are indicated by the respondents as the most trustful. It justifies their market success and predicts further, sustainable growth.

#### 4. CONCLUSION

The theory of the development of marketing orientation could be applied to retailing. Most of the retail forms, when emerging on the market, compete on price. Along with market

saturation their strategies have changed to involve the other characteristics than price to get the stage of social marketing. It was very well observed in Poland, where in 1989 year the market for retail services was not saturated.

Now, in Poland, the fast growing retailers Biedronka and Lidl are only called discounters. In the stores, which are very nice arranged, their offer an assortment of good quality products, services like payment by credit cards, not to say about promotion in which they invest a lot of money. It pays off because have been able to create the big groups of loyal client which do not change the brand in spite of the fact that the level of prices is growing.

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# A NEW APPROACH TO CUSTOMER LOYALTY PROGRAMS IN THE ERA OF DIGITALIZATION: THE EXAMPLE OF THE FREEBEE LOYALTY TECHNOLOGY PLATFORM

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## ABSTRACT

*Technological advances are rapidly changing the nature and scope of loyalty strategies and programs. Traditional customer loyalty programs based on plastic cards scanned on payment, or coupons and offers received through the mail and by email, have been standard solutions in loyalty marketing for many years. However, the growing popularity of smartphones and other new communication technologies, has transformed the loyalty playing field. Many customers expect better integration across channels and want a different experience from their loyalty programs, based on relationship and belonging, and offering more personal, bespoke and frequent rewards. Thus, more and more companies are trying to rethink the traditional rewards program, and with the support of a new technology, turn them into more customized, better integrated and dynamic solutions, ensuring the best end user experience and enhancing customer engagement.*

*The aim of this paper is to analyze and evaluate factors that drive the change in the area of customer loyalty marketing and to show how customized loyalty programs, supported by new technologies, are planned and implemented. It also identifies the main advantages of digital loyalty programs for companies and their customers. The analysis is based on the example of marketing activity of Freebee - a Polish company, which became one of the Europe's leading loyalty technology platform. The research methodology includes a literature review, statistical data analysis regarding customers participation in traditional versus "new" loyalty programs as well as the case study research method.*

**Keywords:** loyalty programs, digitalization, loyalty technology platform, customization

## 1. INTRODUCTION

Technological advances are rapidly changing the loyalty strategies and programs. Traditional customer loyalty programs based on plastic cards scanned on payment, or coupons and offers received through the mail and by email, have been standard solutions in loyalty marketing for many years. However, the growing popularity of smartphones and other new communication technologies has transformed the loyalty playing field. Many customers expect seamless integration across channels and want a different experience from their loyalty programs, based on relationship and belonging, and offering more personal, bespoke and frequent rewards.

Thus, more and more companies are trying to rethink their traditional rewards programs, and with the support of a new technology, turn them into more customized, better integrated and dynamic solutions, ensuring the best end user experience and enhancing customer engagement. In order to proactively lead rather than follow customers on their digital "journeys", some companies have started to use loyalty platforms which integrate transactions and interaction thus enabling to better understand and appeal to customers.

One of the loyalty services which quickly responded to the megatrend towards digitalization and customization in relationship marketing is Freebee - a Polish loyalty agency, which operates one of the Europe's biggest digital loyalty platform. The aim of this article is to analyze factors that drive the change in the area of customer loyalty marketing and to show how bespoke loyalty programs, supported by new technologies, are planned and implemented. The analysis is based on the example of Freebee's customer loyalty services.

## **2. THE NATURE, IMPORTANCE AND IMPLICATIONS OF CUSTOMERS LOYALTY**

In their attempts to define customer loyalty, most of theorists agree that it is about much more than repeat purchases (Reichheld, 2003; Otto, 2001; Kumar and Reinartz, 2012). Customer loyalty means that customers are committed to purchasing products and services from a specific organization, and will resist the activities of competitors attempting to attract their patronage (Brink and Berndt, 2008). Someone who buys again and again from the same company may not necessarily be loyal to that provider, but instead may be trapped in his choices by inertia, indifference, or market circumstances, including exit barriers erected by the company or market. Reversely, a loyal customer may not make frequent repeat purchases because of a reduced need for a product or service (Reichheld, 2003). Loyalty means the commitment to the support of a relationship (Baran *et al*, 2008). Repeatability of purchases is largely a result of price incentives, and so you can buy it, when loyalty is a process of deepening relations, which a company develops over the years, and is not to be acquired (Otto, 2001; Schrage, 2015). Loyal customers stick with a supplier who gives them good value in the long term even if the supplier does not offer the best price in a particular transaction. In times of intense competition customer loyalty can create an important entry barrier to the industry that protects against disruptive newcomers, trying to get between existing businesses and their customers.

Companies in their activities strive to maintain their existing customers and attract new ones by "stealing" them from numerous competitors. The benefit of customer loyalty for the company is a higher profitability as it typically reduces company's customer acquisition and maintenance costs and is a source of company's growth through sales intensification. Customers who are truly loyal tend to buy more over time, as their incomes grow or they devote a larger share of their income to a company they are committed to. The techniques of upgrading and cross-selling aimed at enhancing total sales are much easier to be applied within the group of truly loyal customers. A person with a longer history of purchasing from a certain source is a client who is very familiar with and appreciate the company's offer, as well as the principles of the company's sales. As a result, maintenance costs of the client are significantly reduced because he is sufficiently informed and requires much less information on shopping (Pazio, 2015). The emotional bond with the customer who is satisfied with the offered services and goods, can also lead to greater profits through price premium, because the customer will be more willing to accept a higher price than what is offered by the unproven competitor.

Another important issue is the impact of loyalty on shaping the image of the company. A satisfied consumer promotes the brand and the company's reputation in the market. Truly loyal customers recommend the company to their friends, family, and colleagues. In fact, such a recommendation is one of the best indicators of loyalty. When customers act as references,

they do more than indicate that they've received good economic value from a company; they put their own reputations on the line. And they are ready to make this personal sacrifice only if they feel intense loyalty. The tendency of loyal customers to bring in new customers is particularly beneficial as a company grows, especially if it operates in a mature industry. In such a case, the tremendous marketing costs of acquiring a new customer through various forms of promotion make it hard to grow profitably. In fact, the only path to significant growth may lie in a company's ability to turn its loyal customers to become brand advocates, who are engaged in word-of-mouth marketing at no direct charge to the company (Reichheld, 2003). Moreover, market success is now largely determined upon acquiring and continuously deepening information about customers. Loyal customers are ready to reveal more detailed and intimate information about themselves. Thus, loyalty programs provide a source for extensive and current knowledge about customers' preferences, tastes, purchasing behavior, etc.

For a consumer, participation in a loyalty program allows to enter in a close interaction with their favorite brands. Customers expect to receive concrete benefits (cheaper shopping, highly personalized offers), and in addition they want to be exceptionally and more and more individually treated (Griffin, 2002). Nowadays, only well designed, personalized, attractive programs, providing a dynamic experience, which makes shopping more enjoyable, can bring full benefits for a company. Thus, businesses should not consider their loyalty activities only in terms of better sales results, but should orientate them towards building a strong relationship with a given brand. Taking it into account, it is important to see loyalty programs as a "long-term marketing activities aimed at building and maintaining a relation with the customers".

It should be also emphasized that nowadays, for many off-line businesses, possessing an effective loyalty program is not a matter of choice but rather a question of "to be or not to be". First, due to the fact that competition from e-commerce is becoming stronger (in some market segments such as consumer electronics, e-commerce accounts for more than 20% of total sales). An important factor is also the fact that e-commerce gives the automatic access to the analysis of customer behavior and the possibility of direct communication with them, through e-mails and SMS etc. Thus, it is crucial for off-line businesses to use loyalty programs as a tool of communication with customers that can help brands to create generated content campaigns in order to boost their relevance to customers and find a way to their hearts and wallets (Monod-Gayraud, 2016).

Loyalty tools, especially loyalty programs, are often used to build a marketing alliance with another company or companies, in which members co-operate in achieving promotional goals, sharing in the same reward program. In such cases, consumers can benefit from the marketing potential of both partners. For businesses such a co-operation in the field of loyalty helps among others to reach out to a new customer bases and/or benefit from the rapid transfer of a positive image, ideas and acceptance from one brand to another, thus strengthening marketing impact of their offers and enhancing their market competitiveness. However, it must be taken into account that the success in achieving a group competitive advantage depends on proper selection of partners that should be matched to each other, in terms of values, segment, organizational culture, benefits etc.

### 3. TECHNOLOGICAL DEVELOPMENT AND THE CHANGES IN LOYALTY PROGRAMS

Technological advances are rapidly changing the loyalty playing field. The development of e-commerce and progressive smartphonization of the society creates new opportunities and challenges for building relationship with customers. As it was stated by Wyman (2015): “The right technology used in the right way can help meet customer needs in a new and innovative way”.

Traditional tools to boost customer loyalty are reward programs based on physical plastic cards, scanned on payment. Most consumers join programs hoping to save money through paying with collected points for their purchases, or receive discounted products or other rewards. Over time, improved and advanced forms of physical cards have been released to the market. A generation of so called “smart” loyalty card is no longer equipped with a simple magnetic stripe, but with the microprocessor, so that the card has a lot more opportunities to record and store information about customers, their tastes and habits of consumption, as well as the frequency and volume of purchases, etc. (Otto, 2001).

However, with many businesses offering different loyalty cards, for a customer it can result in possessing too many extra cards. More and more competitors offer their loyalty programs to customers, in the attempt to challenge the market status quo. As a result of proliferation of loyalty programs and cards, many customers find it difficult to keep track of the points they have accumulated and in particular to assign a value to the point and then link that point with the reward. They may begin to doubt if the potential reward is worth the effort of acquiring and keeping it in a physical wallet.

In terms of portability, such technical novelties as mobile applications have obvious advantages for customers and businesses over traditional plastic cards. An application eliminates the inconvenience of using traditional cards which can be misplaced or lost, by enabling consumers to have immediate access to digital loyalty reward programs that work with mobile devices. The second major advantage for the customer of having the business loyalty card on the phone is that the link between the offer and the reward is transparent - on the phone customers can always see how far away they are from receiving a reward. This higher level of transparency can be a big motivating factor that gets the customer engaged in the program. Moreover, some of the apps give businesses a chance to make offers based on geolocation and customer activity, or microsegment. Real time or time-limited offers are becoming much more common. Using Big Data analysis to comprehend users’ preferences over time, the app can calculate and make suggestions to help customers decide. They offer many other possibilities, ie. access to information about the company, its current offer, current business events etc. Still, the proliferation of loyalty apps also exists. There are so many loyalty-card apps on the market that it is hard for consumers to decide which ones to use and why. So, in solving the problem of too many loyalty cards, apps can create (and in some countries have already created) another: Now there are just too many loyalty-card apps.

Until recently, experts of the loyalty marketing in Poland seemed not to notice the problem of the proliferation of cards (or apps) and the growing confusion of customers, as they have been relying to a big extend on statistical data. According to statistics, in the United States, an average customer participates on average in twenty four cards rebate programs, compared to only eight in Poland, so there is still space to expand traditional loyalty activities. According to the results of the latest study conducted by the ARC Rynek i Opinia Institute less than half

of Poles (41% in 2016) declare participation in loyalty programs. The proportion of consumer participation in loyalty programs in Western countries tends to be much higher, in 2014 in USA it was 74%, and Canada - 90% (Monod-Gayraud, 2016). This suggests that in the coming years, a big increase in this sector in Poland may be expected. However, over the past few years, a stagnation, and recently even a decline, in consumer participation in loyalty programs has been seen. In 2014, the share of Poles declaring membership in such programs exceeded 50%, in 2015 – 47% and in 2016 decreased by 6 p.p. year-to-year to 41%. This happened despite the fact that in the same period, a lot of new loyalty programs have been launched into the Polish market, which should make them more popular. Meanwhile the share of active customers (who know their status, specified by number of points and always try to use the program) rose from 29% in 2014 to 38% in 2015 but then decreased to 37% in 2016.

According to experts the main reason for the decline in the overall number of participants in loyalty programs is simply the fact that most of the programs available on the market are not attractive to consumers – they are inadequately adapted to their changing needs (Harvard Business Review, 2011). This can be partly the result of too complicated rules which often give the feeling that the program actually offers little to its participants. Too long time between the moment of interaction and a reward can be also problematic, as it can make people lose interest in the program. The value of points may be just too low and the reward for points ‘too expensive’. Another problem of loyalty programs is offering unsophisticated awards (often non-brand), and not adequately adapted to the demands of the modern consumers who are more aware and educated smart shoppers, and much more easily and freely make purchasing decisions (Kociszewski, 2015).

Wyman (2015) states that it’s not just that customers nowadays want more rewards; they want a different kind of relationship with the businesses they choose to interact with. As such, loyalty programs are changing from transaction-based exchanges between a retailer and a customer to an ongoing relationship with the customer at the center. He points out some crucial differences between old, traditional and modern loyalty programs (table 1).

**Table 1** Main characteristics of traditional and modern loyalty programs

Element of the program	Traditional reward programs	Modern affinity programs
Foundation	Formulaic Deal	Relationship and belonging
Assessment	Transparent criteria, with no discretion	Role for serendipity and judgment
Time horizon	Present and future	Recognition of the past
Program language	Points, statements, terms and conditions	Symbols of belonging (without overstepping the mark)
Identification	Plastic card	Crosses all channels and platforms
Customer benefits	Economic	Broader
Feeling	Entitlement	Appreciation

Source: Wyman, O. (2015), p.4

He also identifies some important trends in loyalty programs which respond to changing customer expectations:

- Increasing use of exclusive promotions and a move away from points;

- Non-monetary rewards and symbols of belonging;
- Charity-based rewards and points,;
- Services to improve the shopping experience (apps that incorporates shopping, blogging, events, and loyalty points management etc.)
- Broader lifestyle applications.

On one hand, since most customers nowadays are always connected to Internet and the online and physical worlds are being merged, so they are expecting seamless integration across channels. It is important for a company to provide multichannel communication with customers (Wyman, 2015). For example, since social media is now a key communication channel for many young people, so they should have a possibility to access a discount or try to resolve a problem with a product on Facebook. On the other hand, customers are prepared to share more information with the company and allow more intimate analysis of their habits not because they are getting points in return, but because they are being rewarded or helped in other ways.

Technology is at the heart of the changes in modern reinvented loyalty programs (Paharia, 2013). Increased availability of data, the efficiency of data processing and high throughput of new channels allows for more personalized customer communication, which can improve transactional results of loyalty programs. However, “new” loyalty programs should be much more than a technological novelty. Managers must ensure their programs are structured to support and enable the technological innovations necessary to deliver loyalty programs of the future (Wyman, 2015). Focusing only on sales results will not bring a real qualitative change. Company’s loyalty actions which rely only on price reductions (resulting from lower profit margins) are not enough to create a long-term relationship with the customer. Only using the loyalty program as a tool of brand management, and a long-term investment, allows a company to accomplish the objectives of the program, i.e. to establish and maintain customer’s relation with the brand and motivate clients to a greater frequency, and regularity of transactions. “Newly” shaped loyalty programs should be more closely connected to brand management and should adapt to today's consumers, and not vice versa (Kociszewski, 2015).

The paper further examines how Freebee loyalty agency, having expertise on new trends in customer loyalty and using new technological solutions, is supporting companies in their efforts to create exceptional, original, and effective loyalty programs.

#### **4. THE LOYALTY MARKETING OF FREEBEE**

Freebee is a customer loyalty agency with a strong focus on strategies that help companies to strengthen the relationship with customers. The company operates one of the Europe's biggest digital loyalty platforms designed to simplify the use of loyalty programs and make them more personalized. Freebee was launched in April 2012 as the first technology solution in Poland that combined the advantages of multi-partner loyalty programs platform with mobile technology. Originally it operated as a mobile application that allowed users of smartphones to collect points and receive rewards in loyalty programs offered by partners of Freebee.

In response to market needs, the company New Media Ventures Ltd.– the creator of Freebee - decided to adjust platform so that it is now available to all their customers, not just smartphone users. It enables customers to participate in hundreds of loyalty programs throughout the country simply with one card or mobile application. Each partner carries out

its own, fully autonomous program on the Freebee platform. The agency helps partners to make earning rewards fun for their clients and turn loyalty programs into an interactive experience to increase customer engagement at every level of interaction. As a result, partners receive a powerful tool to stimulate buying behavior of their customers and - in return - the information about current behaviors, which enables optimization of their offerings.

At the end of November 2013, Polkomtel, which is Poland's leading mobile network operator, the owner of the Plus mobile network, belonging to the capital group Grupa Cyfrowy Polsat (GCP), invested in Freebee. That gave the Freebee an access to the technological infrastructure, which allowed to broaden coverage of their loyalty services in Poland. The access to the platform is possible in many favorite user locations throughout Poland. The partnership with GCP can boost the company's growth, making it one of the strongest brands in the loyalty sector in Poland or even in Europe. However, the company's key asset are people: the group of creative thinkers whose ideas turn into new loyalty concepts. The main features of Freebee's modern approach to the challenges in the field of to loyalty are presented below.

#### **4.1. The process of building customer loyalty in Freebee**

Freebee provides a personalized approach to each brand - taking into account its characteristics, current market position, expected trends and the specificity of its customers. Bespoke loyalty programs, created as one-of-a-kind and "tailor-made" – is what differentiates Freebee offer from the competitors'. Freebee helps to prepare dynamic programs, moderated with the open formula - based on continuous interaction with participants. The individual programs for particular brands have a common foundation – they are based on the original technology infrastructure of the Freebee platform. That gives their business partners the possibility of using Freebee database not only to reach the existing customers with their communications but also to attract new ones. They also save costs as they don't need to create such platforms themselves.

**Figure 1** The main stages in building customer loyalty



Source: Own elaboration based on: <https://blog.freebee.pl>, (07.07.2016)

Only synergies created through a series of well-planned, integrated steps can bring the expected results in the field of building and maintaining customers loyalty. As it is showed on the Fig.1, the company starts with formulating an individual strategy which is based on a thorough analysis of the current position of the brand and its customers.

The next step – within the framework of an individual strategy, a loyalty program on the Freebee platform is created. The objectives of such program can be diverse– including the collection of high quality data, building brand image, providing a permeable channel of personalized communications, activation of participants' purchases - and each of them is worth to be taken into account. But Freebee programs unlike the standardized solutions (“one fits all”) which dominate on the market, are bespoke loyalty programs that are individual and tailor-made. That is main quality that makes Freebee's offer unique.

The actions are diverse - preferential conditions of the brand offer use, special offers, limited promotions, exclusive events, sweepstakes, contests, etc. Promotional tools such as points, vouchers, and discounts are an integral part of loyalty programs. They allow to provide the customer with tangible, measurable benefits. However, Freebee handles them as the element of much larger, complex, and dynamic structure, rather than as a separate entity. The company considers promotions as a necessary condition for the project to get attention and appreciation of customers, but definitely not sufficient. To take advantage of all the opportunities they provide, they must be complemented by a dynamic, inspiring and multichannel dialog with a customer. The list of possible loyalty activities within the programs can be long. It is important to ensure that they include both regular actions (specified by program's rules), as well as the elements unpredictable for the participant - nice surprises which provide the dynamics of the program. A well-designed program will offer the rational advantages - causing reaction "it pays off" and the emotional - causing reaction "this is cool". Proper configuration of the elements in the program will make customers more willing to join it, and taking part in it, maintain high level of activity and constant contact with the brand. Freebee creating a strategy tries to apply the so called "entertain-help-build community principle". Through play it provides positive emotions and experiences to the customers with the aim to make customer feel positive and remain loyal to the company. Gamification is one of the new trends in loyalty marketing that can make a contact with the brand more fun. Gamification in loyalty marketing is the concept of applying game mechanics and game design techniques used to engage and motivate customers. It offers a new fresh approach, based on the interaction with the customer in the form of play, which gives a lot of fun, but also some potential advantages to players. It can create positive results for businesses, although the strength of the impact of such solutions is limited by the specificity of participants and duration of operations. The example of using gamification techniques are fitness apps that track users' movement, rewarding them with points the more that they exercise. These points can be then exchanged for gift cards; users can also compete against friends and co-workers. There are also story-based running apps, allowing users to play a certain role and fill fictitious missions to make training much more fun.

Another element of the "entertain-help-build community" principle are helpful gestures offered to a customer that can wake up in him the need for reciprocity and in the future he may feel obliged to help the company, when some problem or limitation will occur. To achieve this goal a company should create a customer service policy ensuring that all customer concerns are answered in a timely manner with a friendly and personal response. However the idea of "support" can be defined much broader. Nowadays people are becoming increasingly concerned about the way that companies create and market their products, and the effect that their strategy has on broader society and the environment. One way of taking advantage of this trend by a company is offering rewards for positive customer behavior, such as for habits of recycling used materials (office paper, cartridge, clothes etc.). Another way is donating a portion of every sale to charity. In a sense, this acts as a "reward" for the consumer who, alongside being given their chosen product, has the satisfaction of knowing that they have done something good.

If a business can build a community around the brand it is likely that customers will not want to lose contact with the brand and be excluded from the group. Moreover, customers that are in communities associated with a business spend more money than those that aren't. Building a community, whether it's through a forum or a third-party group like Facebook, can bring significant benefits.

And when a company invites customers to co-create the brand it can count on greater loyalty - creators are reluctant to abandon their work. Looking from the perspective of brand management loyalty programs are defined by Freebee as a sequence of (respectively) frequent, regular activities, inviting customers to play; supporting them, which help to build community; providing information about the intentions of the brand; inviting customers to contribute to brand building.

Proper implementation of the strategy loyalty involves the entire organization and all levels of its structure. Taking into account the needs of business and resources of the company Freebee offers assistance in putting the strategy into effect. As the first in Poland, Freebee provides a single platform to build and operate strategic loyalty programs for many businesses in the market. It supports leaders in their respective industries (Polkomtel, 5-10-15), but among the customers are many small and medium-sized businesses that have previously lacked the resources and capabilities to implement cohesive rewards programs. The company has implemented so far approx. 500 programs in 1000 locations.

Loyalty programs designed by Freebee are subject to a continuous optimization process. According Freebee's approach a loyalty program must be dynamic and must undergo constant changes, adapting to customer expectations and market conditions. On the basis of knowledge about customers the company is looking for new activities that will be a nice surprise for participants and encourage further interaction with the brand. So, a loyalty program is not a machine for customers gratification working according to one scheme. It is rather a process of continuous proposing of new activities, in which a monitoring and optimization play a crucial role.

#### **4.2. Customization of loyalty strategies and programs**

In the process of planning a loyalty strategy a company should take into account each of the business areas, which may have an impact on customer loyalty.

An individual loyalty strategy integrates knowledge and solutions from the three key areas: customer experience strategy, customer engagement strategy and knowledge about customers' characteristics, needs and preferences (customer intelligence) - all of them are oriented toward delivering genuine, mutually beneficial and stable relations with customers. Since the strategy is designed to increase customer value in order to contribute to the core financial objectives of the business, therefore the implemented loyalty programs must be dynamic, and moderated with the open formula - based on continuous interactions with participants. The programs based on such concept of loyalty allow both achieving sales intensification as well as the performing the tasks of brand management.

**Figure 2** Key areas of loyalty strategy



Source: <https://blog.freebee.pl>, (07.07.2016)

### **Customer engagement strategy**

In the area of customer engagement management, mutually agreed solutions are implemented on Freebee's digital platform, which provides partners with ready tools for managing relations with customers through analyses and communication.

Involved clients are highly valuable to a company, because they have great potential to become brand advocates. Building customer engagement is a continuous dialogue, which Freebee helps to establish, carry on and measure. In building a dialog the most effective channels of communication for specific business may include: SMS, email, mobile application, screens at point of sale etc.

The indicator of customer engagement is responsiveness both to messages sent by the company, as well as to measures addressed to clients. In order to strengthen customer engagement a company should not only use permanent channels of communication, but also introduce concrete measures of appreciating and surprising nature. This is consistent with the principle that the commitment is built largely in the emotional layer. Additional value in this area can arise from the opportunity to measure the potential impact that the proposed activities have on customers and business. The first test should be carried out at the beginning, to clearly define the starting point - how customers evaluate the relationship with the brand and what they expect. The tests are then repeated in the course of implementing its strategy by using tools available on the Freebee platform.

### **Experience strategy**

Within loyalty programs, it is possible to launch a new customer experience strategy. Each customers' contact with the product or company creates for him some experience. The sum of all these experiences, in the long run, affects the purchasing decisions. Freebee platform enables to create a map of customer's "journey", taking into account all the contact points, which can be a base for formulating consumer insights and finally contribute to improving customer satisfaction.

The memory of a nice experience accompanies a customer for a long time, but the feeling of frustration usually leaves a deeper and stronger trail. Bespoke strategies are developed to determine the proper directions of actions and within personalized loyalty programs provide the tools at every stage in the purchasing process and throughout the duration of the relationship to ensure that the contacts with the brand provide maximum satisfaction and reduce bad experience.

Managing customer experience is a complex and long-term process, which includes numerous channels, products or services, as well as many points of contact, which must operate in an integrated manner. This process, carried out with the support of Freebee, begins with workshops that serve to sketch the outline of customers' travel and all points of contact: the client-business. Then customer data from all channels are analyzed, derived by the method of the focus groups, analysis of customer data from their mobile application or CRM. Development of the so-called consumer insight enables understanding of customer behaviour and what is particularly important for him. As a result a map of customer's "journey" is drawn. Then it is possible to create a customer experience strategy that indicates where and how to improve the journey and make it more satisfying for customers. The services of Freebee include also providing companies with tools and processes that are necessary to implement the new strategy. Freebee offers training to the companies' staff to provide comprehensive implementation of the experience strategy

### **Knowledge about customers**

All these above mentioned activities are based on a thorough analysis of customer data regarding the customer characteristics, behavior, needs, motivations etc. Freebee Platform (web, mobile application, POS, loyalty card) integrates different types of data: transactional, marketing, showing the way of customer behavior in the network and how they communicate through all available channels. The continuous stream of data is analyzed in real time using the cluster platform and a multi-stage processing. The use of the latest technologies in the field of Big Data and Machine Learning makes it possible to efficiently integrate and transform data into information and further knowledge about the needs of participants in loyalty programs. Automatic building of behavior profiles and dynamic scoring enables to identify essential market segments. Technology plays a crucial role in preparing and executing all the components of a loyalty strategy, but in acquiring a thorough knowledge about customers is particularly useful.

Each customer leaves behind some trace. Data collected by the Freebee platform are analyzed in real time, which increases their usefulness. Within Big Data, all transactional data of platform users are collected and Freebee analyzes their buying behavior. Every single transaction is recorded in Cassandra. Cassandra is fault-tolerant and of high performance NoSQL type of database. It is a leader in solutions for NoSQL, considered to be the fastest database in the world, with its throughput being increased linearly. It allows analysts to meet the challenges posed by the vast scale of the data, while ensuring the reliability and flexibility of solutions. Data from the database will serve as a source for the Spark model. Based on the data sources and mathematical models Freebee can recognize the user's behavior and prepare personalized offers.

### **4.3. Present and future directions in loyalty services of Freebee**

So far, the company's operations focused mainly on small and medium-sized enterprises. Their goal was to create the best solution for partners representing offline businesses, helping them in building long-term relations with their customers.

In Freebee use of mobile applications is on the same level as the use of plastic cards. At the moment the application itself does not give adequate market coverage and availability. Although more and more Poles have smartphones, most are still tied to their existing behavior, such as using plastic loyalty cards. One of the most important lessons for Freebee was to understand that in the area of building relationships between customers and brands technology cannot be a goal in itself, but rather a tool to facilitate its implementation. Therefore, Freebee offers different tools, which can be used as an ID in loyalty programs: the application (which includes also an electronic card) or a plastic card. Both apps and cards are versatile and can be used in all the programs served by Freebee. Such an approach enables to reach different customers, even these Poles who do not use mobile technology, on the market undergoing substantial changes. On the other hand, it is believed that, in accordance with the global trends, the number of users of the application in Poland will be rising and the cards will be steadily replaced by apps.

At the same time, Freebee looks for new applications of Big Data technologies. Responding to the emergence of new market opportunities, the company is currently preparing a new offer addressed to all Poles. A new technology solution developed by Freebee will allow the company to offer a unique benefit - the ability to reduce customer's monthly fixed costs (eg. electricity, telephone, television). This product itself assumes reaching customers individually and combining 3 sides of transaction: the owners of large databases B2C, their customers who pay fixed monthly fees and retailers who want to reach valuable consumers. The concept itself is very unique and can extend company's service activity into a new area, thus strengthening its competitive position. However, helping companies in building strong long-term relations: customer-brand through tailored loyalty tools will remain a company's priority.

## **5. CONCLUSION**

Technological novelties, such as Big data and mobile applications are at the heart of changing loyalty playing field. Increased availability of data, the efficiency of processing and emerging of new channels allows for more personalized customer communication, which can improve transactional results of loyalty programs. However, "new" loyalty programs should be much more than a technological advances. Managers must ensure that their programs are structured to support and enable the technological innovations necessary to deliver bespoke loyalty programs, which go far beyond the transactional points-based schemes toward more varied, flexible customer engagement system.

For Freebee company which operates one of the Europe's leading digital loyalty platform, the technology is integrated with the other elements of the process of creating its partners' customers engagement. It provides data to create and then launch and monitor individual, tailored loyalty programs, ensuring a dynamic, inspiring and multichannel dialog with a customer. Freebee helps partners to make earning rewards fun for their clients and turning it into an interactive experience to increase customer engagement at every level of interaction. Loyalty programs are used first of all as a tool of brand management, thus helping to build strong long-term relationship between brands and their customers.

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# DRIVERS OF CUSTOMER LOYALTY IN FOOTWEAR RETAIL

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## ABSTRACT

*The purpose of this paper is to explore attitude towards specific Croatian shoes and accessories retail chain as well as assess the hypothetical loyalty program. This study identifies the drivers of customer loyalty which are more relevant to customers in the footwear retail setting. Primary research was conducted on the sample of 150 Croatian consumers through an online questionnaire. Research results emphasize the importance of the possible ways of payments and general store appearance as the most important store attributes affecting customer satisfaction. On the other hand, location and diverse products brand offer are perceived as the general factors that affect customer satisfaction. The findings highlight high price sensitivity of Croatian consumers and higher positive perception towards retailers that offer deeper and more frequent price discounts. Further on, the study reveals the justification of the introduction of hypothetical loyalty program and the most important factors which affect customer loyalty.*

**Keywords:** customer loyalty, loyalty program, footwear retail, survey research, Croatia

## 1. INTRODUCTION

In order to achieve success and competitiveness on the market, retailers need to analyze, understand and meet the needs of customers with the final aim of creating loyal customers. Today customers are well informed and globally oriented in solving their demands and seeking added value. Customer loyalty is more than having customers make repeat visits to a retailer and being satisfied with their experience. Customer loyalty to a retailer means that customers are committed to purchasing merchandise and services from the retailer and will resist the activities of competitors attempting to attract their patronage (Levy and Weitz, 2009). Typically, customer loyalty programs offer financial and relationship rewards to customers and in some instances benefits also accrue to the third parties, such as charities (Uncles *et al.*, 2003).

The aim of this paper is to explore customer behavior characteristics of customer loyalty in footwear retail. The paper is structured as follows. The introduction is followed by literature review on the customer loyalty, with special emphasis put on the previous research undertaken on the footwear market. Afterwards, research methodology, sample characteristics and results analysis is explained in detail. Paper ends with concluding remarks, as it overall gives an important implications for the analyzed company, so that it can help develop the loyalty program better.

## 2. LITERATURE REVIEW

Saha *et al.* (2010) conducted a research study on the factors affecting consumer buying behaviour of shoes in Kolkata (India). In their research authors applied the marketing mix

(4Ps) framework to classify and evaluate the importance level of various sub-variables which they have investigated such as: brand, design, cash discount, store location, advertising. Also the influence of gender and income level on buying behaviour of shoes was also tested. Research results show that the factors to be considered by shoe manufacturers and marketers are quality, durability, right pricing, after sale service, and convenient location of the retail shops. On the other side, consumers prefer buying shoes in the specialised shoe shops, not in the conventional retail. Male and female are found to have similar opinion regarding the importance of above mentioned factors. The difference among men and female are only found in case of product warranty, convenient store location, TV advertising. The decision regarding the design, pricing, cash discount, and the availability of variety of models in the shops should also consider consumer's income as one of the critical decisive factor, since significant relationship was found to exist between the income and those factors. Bloemer and Odekerken-Schröder (2002) argue that the consumer relationship process as well as store image as well as positive effect have a positive impact on store satisfaction. Moreover, they have found that satisfaction positively impacts trust which in turn leads to the commitment and finally to increased word-of-mouth, purchase intentions and price insensitivity.

Similar research was conducted by Theodoridis and Chatzipanagiotou (2009), who had analysed store image attributes and customer satisfaction across different customer profiles within the supermarket sector. DeMatos and Rossi (2008) emphasize that satisfied customer will spread good word-of-mouth. This satisfaction then leads on to the loyalty and overall success on the market. Previous research has proven the positive link between customer satisfaction and customer loyalty (Bloemer and Odekerken-Schröder, 2002; Ibrahim and Najjar, 2008). Providing value to the customer leads to the creation of the loyal customers which purchase more and are loyal to their store (Rust *et al.*, 2004). Yu-Te *et al.* (2013) stress out that customer loyalty is multidimensional concept that includes high-quality service, quality product, personal experience of consumers, and prices of products/services.

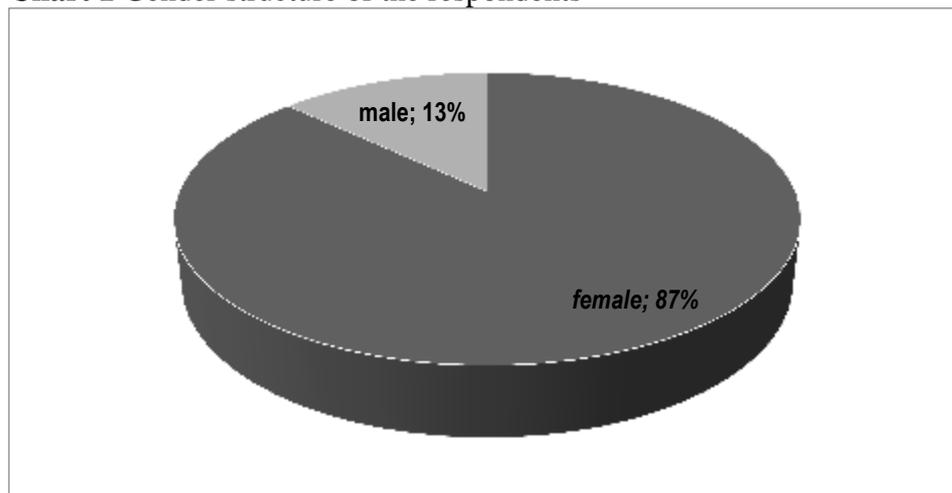
### **3. RESEARCH METHODOLOGY**

For the purpose of this paper a primary research was conducted among Croatian consumers as to identify key factors that affect their buying decision and eventually lead to loyalty towards shoes retailers. The research was conducted in September 2015 through an online questionnaire. A total of 150 answers were collected. The questionnaire was constructed as a mixture of close-ended questions and assessment items ranked on a 1 to 5 Likert scale where 1 stands for „completely disagree“ and 5 for „completely agree“.

#### **3.1. Sample characteristics**

Charts 1 to 5 show demographic characteristics of respondents in our sample. A total of 150 valid responses were collected. As it can be seen from chart 1 majority of respondents were women (87%).

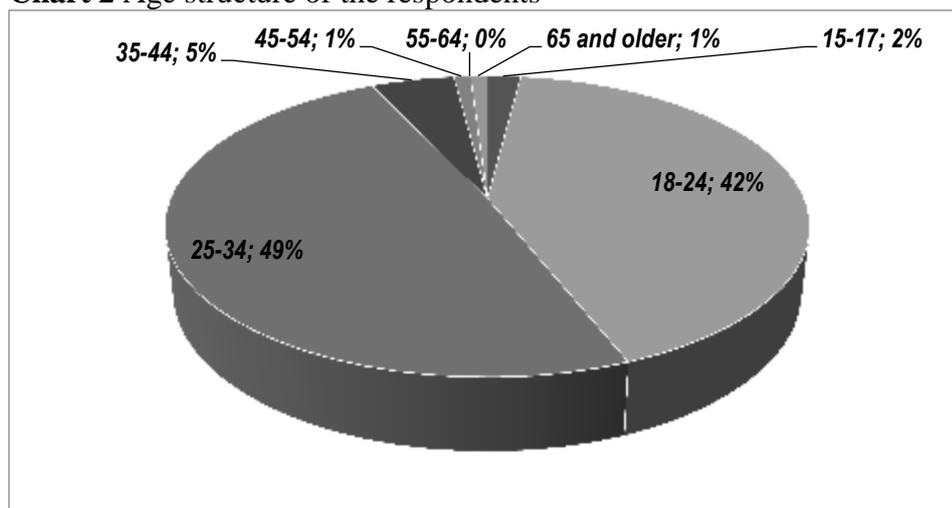
**Chart 1** Gender structure of the respondents



Source: own research

Chart 2 shows age structure of the respondents. It can be seen that majority of respondents are young consumers of age 18-24 (42%) and 25-34 (49%).

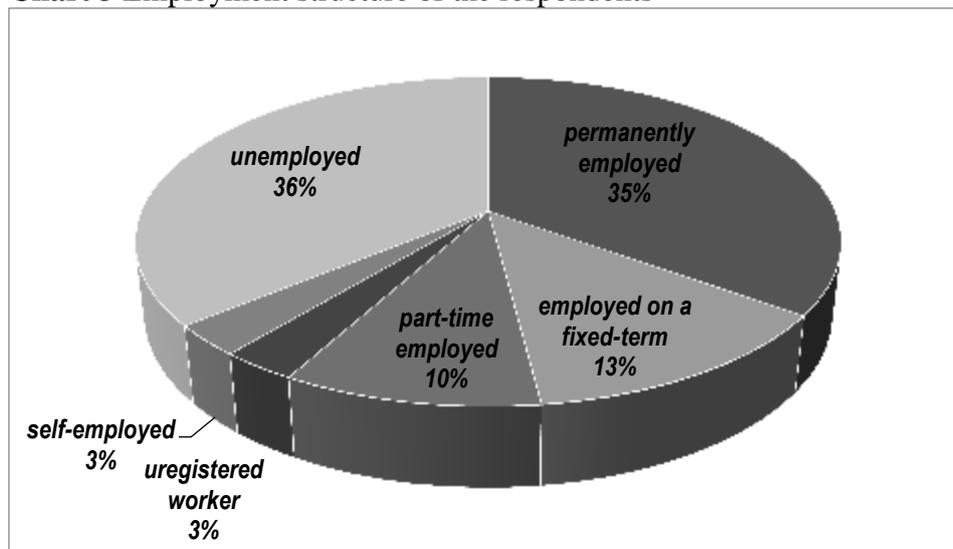
**Chart 2** Age structure of the respondents



Source: own research

Chart 3 shows the employment structure of the respondents. Majority of respondents are permanently employed (35%).

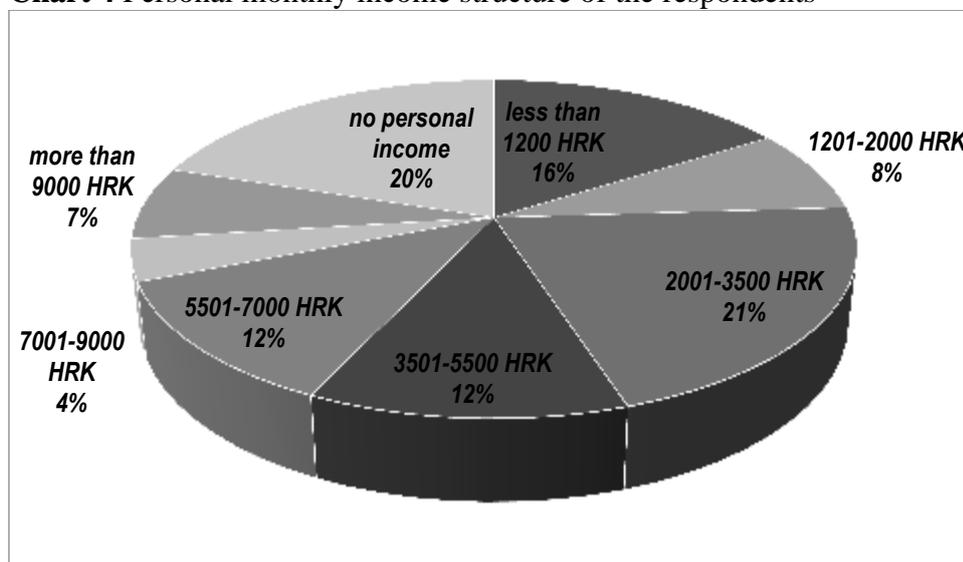
**Chart 3** Employment structure of the respondents



Source: own research

Chart 4 shows personal monthly income structure of the respondents. Majority of respondents have on their disposal an average monthly income in the range from 2,001 to 3,500 HRK (21%) which is approximately 260 to 460 EUR. It is alarming, however, that 20% of respondents do not have any personal income at all, meaning that all of their buying decisions are dependent on the will of their fosterers. Such results can be explained by the fact that majority of respondents are of young age, still studying.

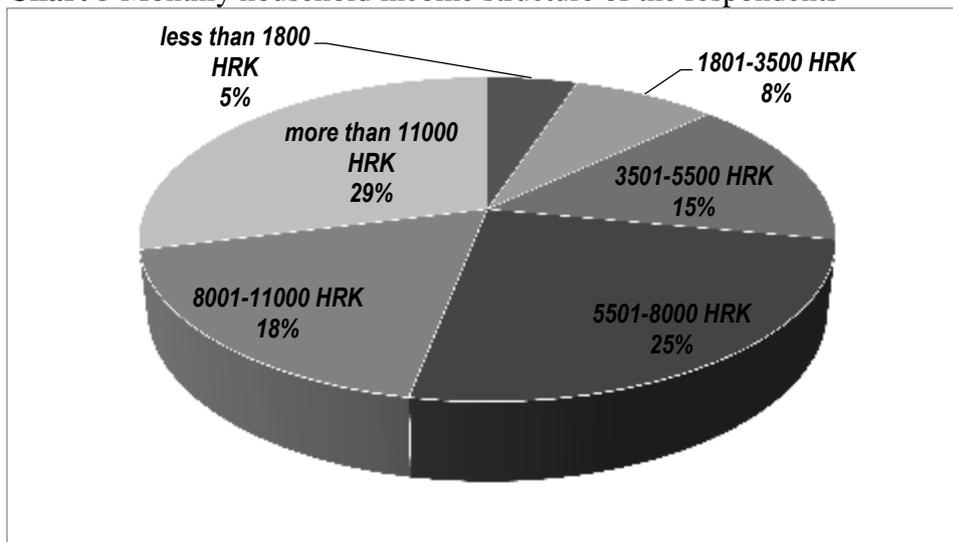
**Chart 4** Personal monthly income structure of the respondents



Source: own research

Chart 5 shows monthly household income structure of the respondents. Majority of respondents live in a household with quite high average income; more than 11,000 HRK (29%).

**Chart 5** Monthly household income structure of the respondents



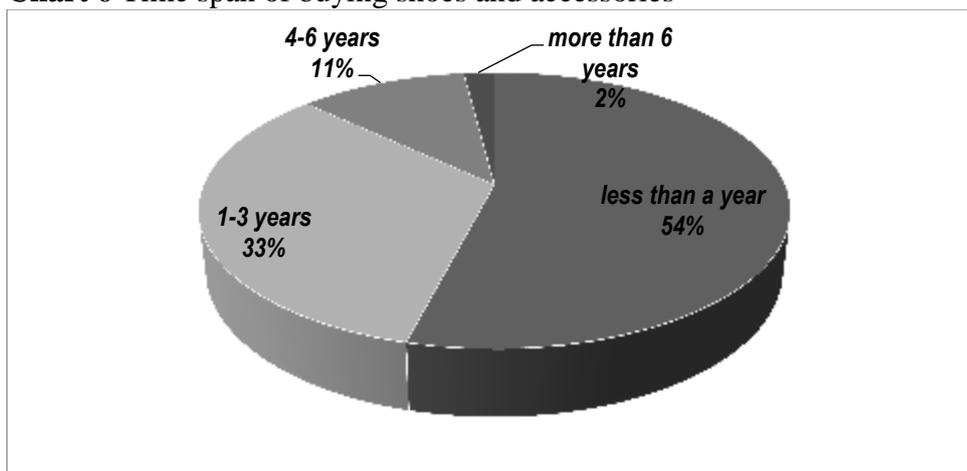
Source: own research

### 3.2. Results analysis

Following results apply to respondents' attitudes towards specific Croatian shoes and accessories retail chain. The survey was conducted on the example of this specific shoe retailer because its stores are widely geographically dispersed along large Croatian cities and are well known among Croatian consumers due to heavy advertising and celebrity endorsements.

Respondents were first asked for how long have they been buying from the shoe retailer. Results are presented by the chart 6. It can be seen that majority of respondents have been buying for less than a year (54%) whereas some have been buying for more than six years now (2%).

**Chart 6** Time span of buying shoes and accessories

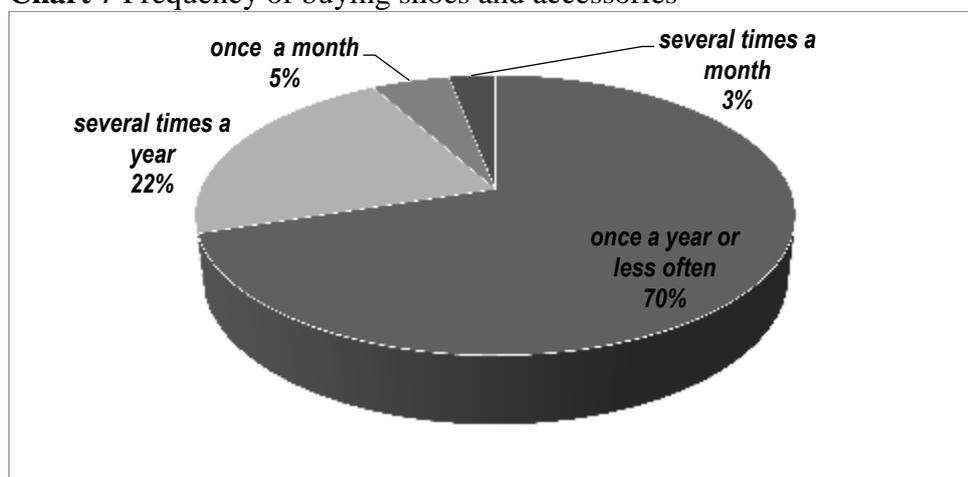


Source: own research

Next, respondents were asked how frequently they buy shoes and accessories from the retailer. Results are presented by chart 7. It can be seen that majority of respondents buy shoes

and accessories only once a year or even less often (70%) which can be explained by poor personal income structure of the respondents.

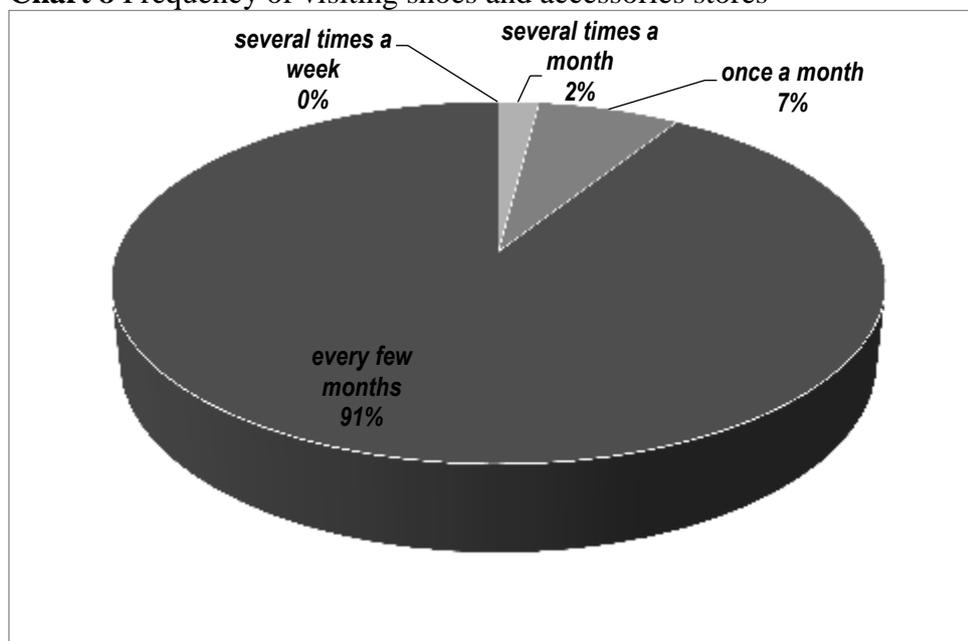
**Chart 7** Frequency of buying shoes and accessories



Source: own research

However, when asked about frequency of visiting the retailer's stores, answers are quite different (chart 8). Comparing results presented by charts 7 and 8 it can be seen that respondents tend to visit shoe stores and browse their offerings quite more often than they actually tend to purchase. Such results can be again explained by the sample demographics since majority of respondents are of young age. Since young consumers tend to be more fashion forward it does not come as a surprise that they browse stores more often.

**Chart 8** Frequency of visiting shoes and accessories stores

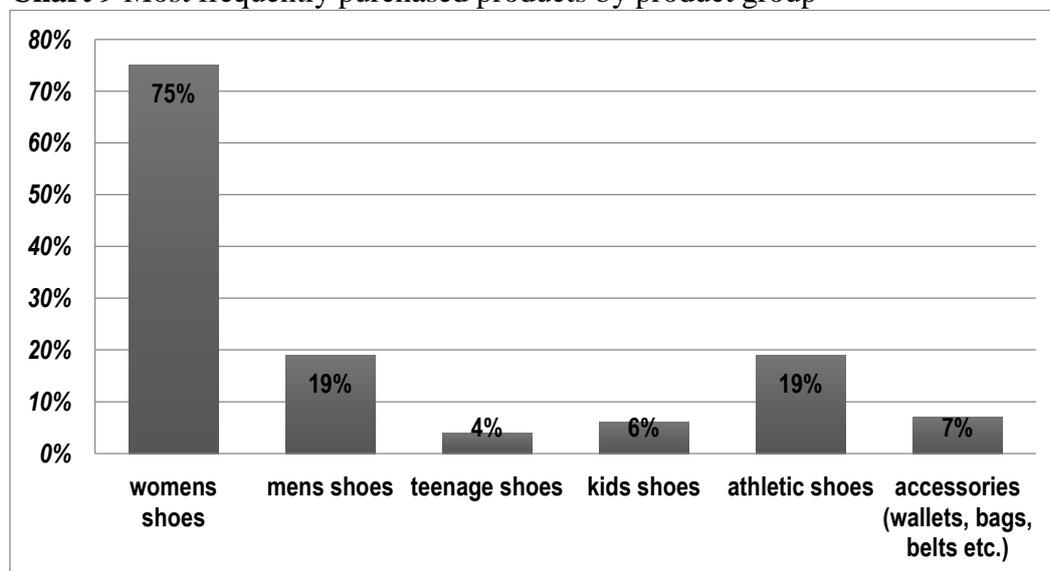


Source: own research

The retailer offers both national brands and private labels. Majority of respondents prefer to buy athletic and fashion national brands such as Replay, Nike, Adidas, Tamaris, etc. (79%) whereas only 21% of respondents buy private label owned by the shoe and accessories retailer.

Next, respondents were asked which product groups they prefer to buy (multiple answers were allowed). Responses are given in chart 9. It can be seen that most frequently purchased product category are women’s shoes (74.7%) followed by athletic shoes (19.3%) and men’s shoes (18.7%). Such results are in line with majority of respondents being females. Shoes for kids and teenagers are least frequently purchased group which can be explained by the fact that majority of respondents are young consumers, presumably without children.

**Chart 9** Most frequently purchased products by product group

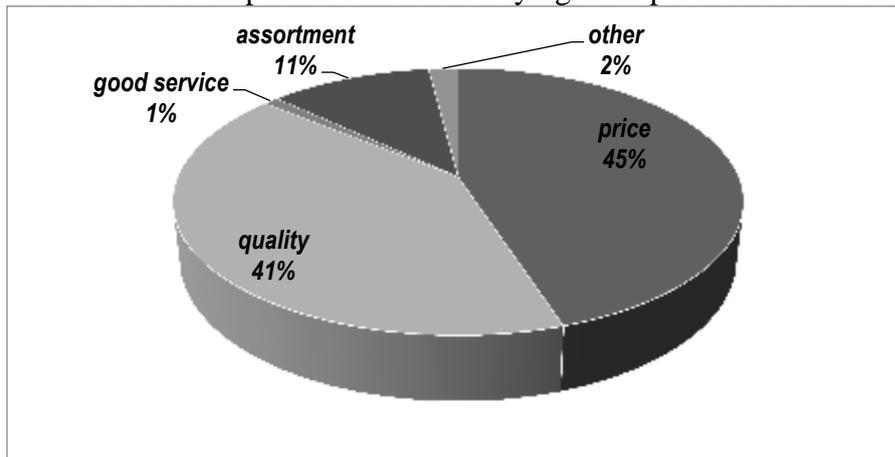


Source: own research

Majority of respondents shop in particular shoes and accessories stores for their own needs (85%) whereas only small percentage of respondents buys for other people as well (15%), such as friends and family members.

When asked about reasons why they buy from particular shoe retailer, majority of respondents cite price (45%) and product quality (41%). Full results are presented by chart 10. Some small percentage of respondents comes to stores because of the assortment itself (11%) and only 1% of respondents cite good service as a main reason to buy from particular retailer. Not one respondent mentioned store design as a factor of buying decision.

**Chart 10** Most important reason for buying from particular shoes and accessories retailer



Source: own research

Word-of-mouth advertising showed not to be important to make a buying decision since somewhat similar percentage of respondents take (46%) and do not take (54%) recommendations of friends and family members into consideration. However, majority of respondents can be characterised as regular buyers since 85% of them have already or plan to repeat their purchase.

Next, respondents were asked to assess their level of agreement with several statements regarding their satisfaction and loyalty on a 1 to 5 Likert scale where 1 stands for “completely disagree”, 2 for “disagree”, 3 for “nor agree nor disagree”, 4 for “agree” and 5 for “completely agree”.

Chart 11 shows mean assessments of store attributes affecting customer satisfaction. It can be concluded that among surveyed store attributes, “possible ways of payments” (M=3.87) and “general store appearance” (M=3.76) prove to be most important to our respondents. However, what needs to be emphasised is that all store attributes got a mean assessment higher than an average, meaning that neither can be excluded when creating retail strategy.

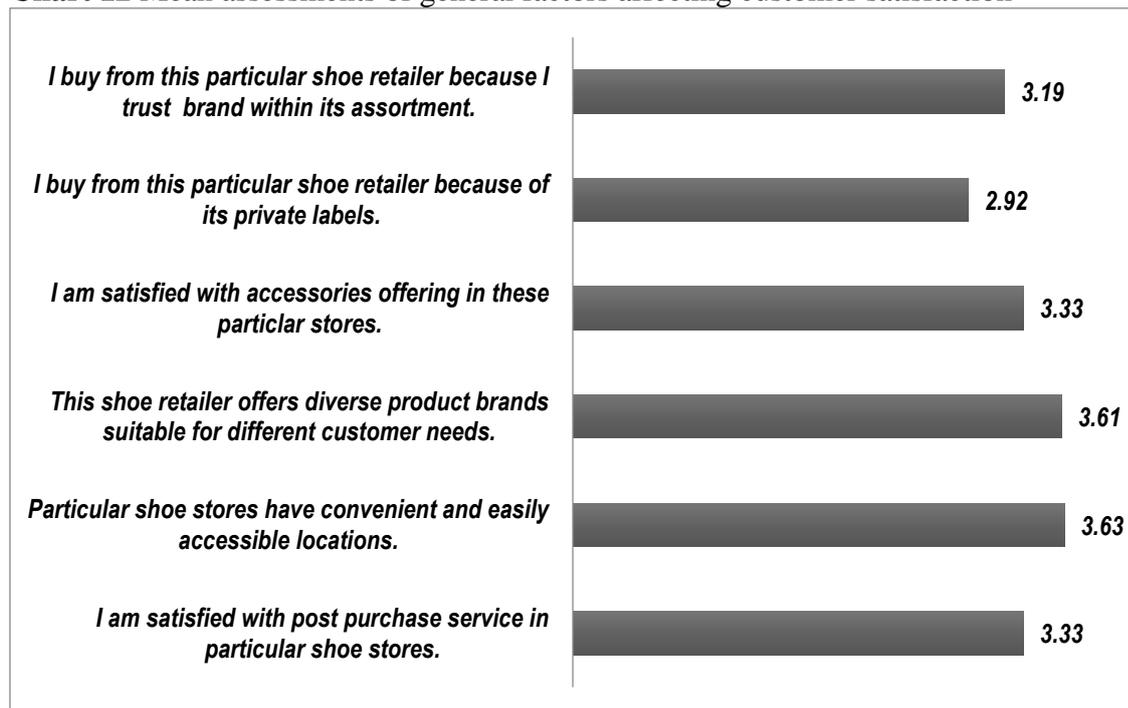
**Chart 11** Mean assessments of store attributes affecting customer satisfaction



Source: own research

Chart 12 shows mean assessments of general factors affecting customer satisfaction such as post purchase service, location, diverse assortment, accessories and private labels. It can be seen that location (M=3.63) and diverse product brands offer (M=3.61) are most important factors for our respondents. On the other hand, private label products, even though often cited as strategic sources of customer loyalty and sustainable competitive advantage, prove not to be as important when it comes to shoes and accessories product category (M=2.92).

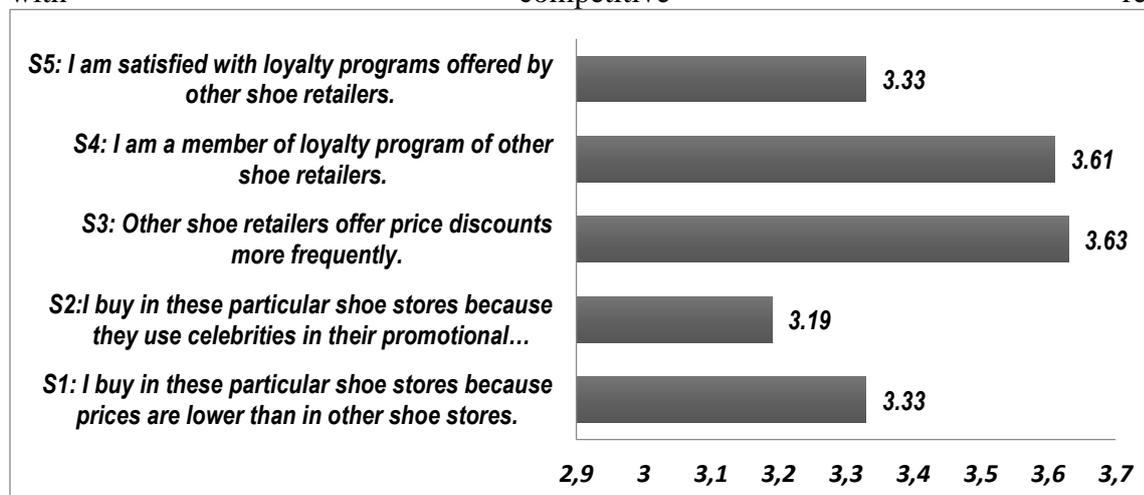
**Chart 12** Mean assessments of general factors affecting customer satisfaction



Source: own research

Chart 13 shows mean assessments of statements regarding comparison of particular shoes and accessories retailer with competitive retailers. Statements S1 and S2 are positively worded towards this particular shoes and accessories retailer, whereas statements S3, S4 and S5 are reversely worded, i.e. towards competitive retailers. It can be seen from the chart that statements favouring competitors got greater mean assessments than the statements favouring this particular retailer. In both groups, statement regarding prices got the highest assessments; S1 (M= 3.33) and S3 (M=3.63). Based on such results it can be concluded that Croatian consumers are still quite price sensitive and favour those retailer that offer deeper and more frequent price discounts.

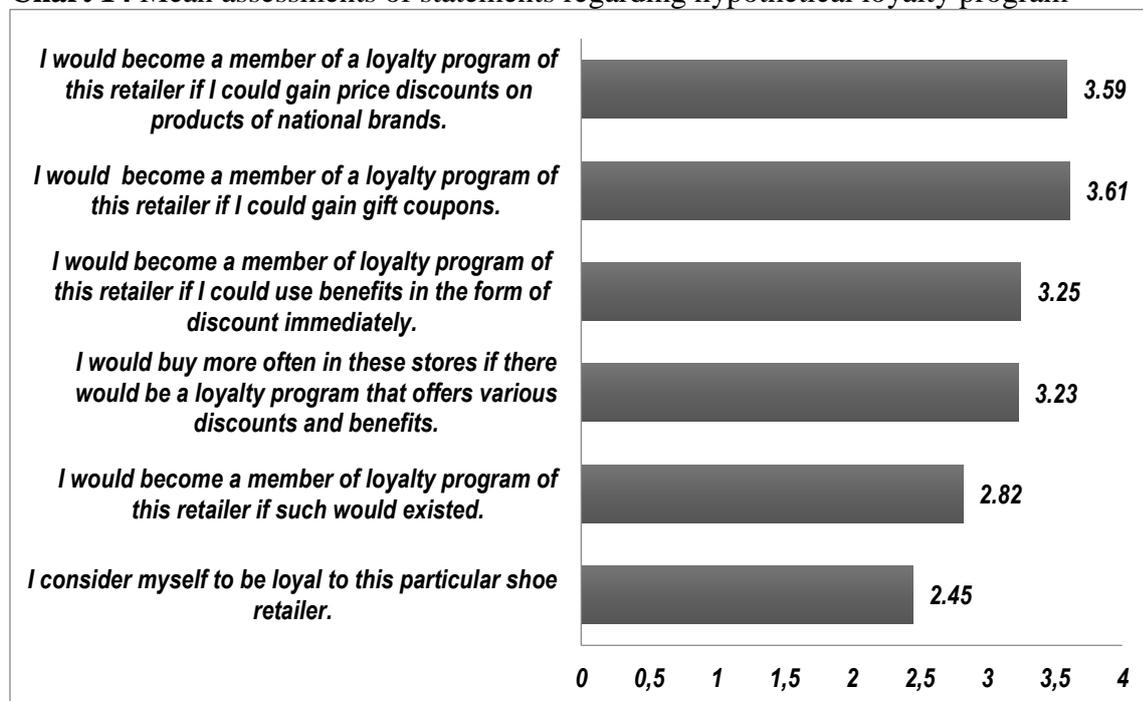
**Chart 13** Mean assessments of statements regarding comparison of particular shoe retailer with competitive retailers



Source: own research

This particular shoe retailer does not offer yet a loyalty program. Given that previous research results emphasise the importance of loyalty programs, a series of statement were designed as to study the importance of hypothetical loyalty program of particular retailer for our respondents. Chart 14 shows mean assessments of statements regarding hypothetical loyalty program.

**Chart 14** Mean assessments of statements regarding hypothetical loyalty program



Source: own research

It can be seen that lowest assessment was given to the statement regarding current loyalty level to the retailer (M=2.45) which implies that immediate actions aimed at gaining customer loyalty are needed, even though it is about a product category that is bought only once to several times a year. Further on, general statement regarding joining loyalty program, without specifying exact benefits customers would gain by joining, got somewhat higher but still rather low assessment as well (M=2.82). Such result stresses out the need for retailer, not only to create an alluring loyalty program, but to effectively communicate its benefits with the customers as well. Loyalty program should be easy to understand and use, offering those benefits for the customers that they actually want to use. Since Croatian consumers are quite price sensitive, best form of loyalty program benefits would be through various price discounts. Reviewing other statements regarding hypothetical loyalty program it can be seen that gift coupons (M=3.61) and price discounts on national brands (M=3.59) are the most important to our respondents.

Based on the presented mean assessments in charts 11, 12, 13 and 14, most important factors affecting customer loyalty are stressed out. Table 1 shows mean assessment of these most important loyalty factors by gender. It can be concluded that males tend to assess studied loyalty factors generally higher than women, exception being only post purchase service. Further on, males value possible means of payment (M=4.26), store location (M=3.95) and store appearance (M=3.79) as the most important loyalty factors whereas women value possible means of payment (M=3.81), store appearance (M=3.75) and diverse assortment

(M=3.60) as the most important loyalty factors. Least important loyalty factors for both males and females are celebrity endorsement, private labels and discounts and promotions.

**Table 1** Mean assessment of most important loyalty factors by gender

Loyalty factors	Male		Female	
	Mean	Standard deviation	Mean	Standard deviation
Good service	3.73	1.09	3.50	1.43
Price quality ratio	3.42	1.36	3.12	1.24
Product quality and durability	3.58	1.59	3.28	1.20
Store appearance	3.79	1.06	3.75	1.39
Product placement within the store	3.74	1.09	3.46	1.55
Means of payment	4.26	1.20	3.81	1.49
Post purchase service	3.21	1.29	3.34	1.23
Store location	3.95	1.05	3.58	1.24
Diverse assortment	3.63	1.69	3.60	1.33
Private labels	2.95	1.94	2.92	1.23
Trust in offered brands	3.42	1.37	3.15	1.21
Discounts and promotions	3.21	1.84	3.09	1.61
Celebrity endorsement	2.47	2.37	1.90	1.30

Source: own research

#### 4. CONCLUSION

Retailers operate in a competitive environment facing constant changes in customer needs. In such competitive environment, customers which are committed to purchasing merchandise and service from retailer are considered loyal customers. Customer loyalty is directly related to the level of satisfaction and customer pleasure with certain factors that are crucial in order to achieve it. The factors that most influence consumer loyalty are the quality and durability of footwear, obtained value for the price paid, location and after buying services. All these factors have a positive impact on loyalty. The aim of the conducted research was to explore customer loyalty in footwear retail by assessing the customer decision-making when buying shoes, as well as the hypothetical loyalty program. Research results explain store attributes which are affecting customer satisfaction, general factors which are affecting customer satisfaction, customer perception and comparison of shoe retailers, introduction of the hypothetical loyalty program.

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# THE IMPORTANCE OF TOURISM GREEN ORIENTATION FOR THE CUSTOMER LOYALTY

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## ABSTRACT

*Tourism is a big and complex system which incorporates large number of subjects (private and public) that offer a wide range of products and services for different segments of tourists. Besides organizations directly included in the tourism industry (hotels, restaurants, tourist agencies, etc.) tourism development is very important for many organizations from different industries in the region. In such a way tourism brings lot of positive effects to tourism destination, but at the same time, it makes large environmental footprint. Therefore, to be more sustainable, tourism industry needs to find and to apply actions which make it more environmentally friendly. Thus, sustainable tourism development becomes a paradigm with green orientation as a way to achieve that. This paper is focused on green orientation in tourism and its relationship with trade in this process. The purpose of this paper is to explain the importance of green orientation in tourism for tourist's loyalty and to investigate how this trend of going green affects other industries, particularly trade industry. The paper begins with the theoretical background with the explanation of the concept of green orientation and its relationship with sustainable tourism development. Section that follows gives an insight into tourist loyalty based on green orientation. Finally, the paper discusses the theoretical and managerial implications.*

**Keywords:** sustainable tourism development, green orientation, green hotels, tourist's loyalty, trade

## 1. INTRODUCTION

Tourism is one of the most propulsive global sectors and the main driver of GDP growth in most countries. At the national and global level, tourism is developed and conducted in a highly competitive environment (Reig and Perry 2000). It incorporates a large number of subjects (private and public) that offer a wide range of products and services for different tourist segments. Besides the organizations that are directly included in the tourism industry (hotels, restaurants, tourist agencies, etc.) tourism development is very important for many organizations from different industries in the region. Nowadays tourism has experienced a growing trend of sustainability and “going green” which has affected customer loyalty, employee retention, awards and recognition, risk management, increased brand value, etc. as well as the tourism relationship with other branches of the economy. The purpose of this paper is to explain the importance of a green orientation in tourism and how it affects tourist loyalty and to investigate how this trend of going green affects other industries, particularly the trade industry.

There are many studies that have highlighted the importance of tourism and trade. They mostly relate to peculiar components of both sectors (Assaker et al., 2011; Blazevic, 2007; Thomas and Thomas, 2006; etc.). In such a way, trade has been explored in the areas of retailing, distributive trade, etc., while tourism has been explored as a socio-cultural phenomenon and as the most important part of the overall economic system (focusing on its relationships with other economic subsystems) and the economic effects of tourism spending, etc. Both tourism and trade are heterogeneous and their developments are related to investment in other sectors of the economy. The relationship between trade and tourism is evident in many areas, such as: in the increasingly importance of shopping as a travel activity and its significant contribution to retail trade in tourist markets; in the local production of goods and services; in the opportunities for the employment of local people; in the supply of tourism entities; and in providing logistical support for the tourism industry, etc. More than ever, entities in the tourism industry are trying to attract tourists and to meet their requirements. Tourist satisfaction is considered one of the prime variables in sustaining competitive business in the tourist industry because it affects the consumption of goods and services, the choice of destinations and, generally, the loyalty to a tourist destination (Frangos et al., 2015). However, tourists have become more concerned about environmental issues while traveling and staying in hotels, forcing tourism workers to carefully plan in a sustainable way. Thus, at the same time, the industry needs to think about the investment returns and also about the sustainability of resources for the constant influx of tourists (Dewailly; 2006). In order to achieve sustainable growth the tourism industry has adopted green practices. The fact is that the hotel industry has been adopting green practices since the beginning of the 1990s and many hotels have started to apply corporate social responsibility (Fukey et al., 2014). Following this introduction, the paper begins with a theoretical background with an explanation of the concept of a green orientation and its relationship with sustainable tourism development. The section that follows gives an insight into tourist loyalty based on a green orientation. Finally, the paper discusses the theoretical and managerial implications.

## **2. SUSTAINABLE TOURISM DEVELOPMENT AS A BASIS FOR A GREEN ORIENTATION IN TOURISM**

Tourism is a large, complex system that is not as simple as the process of exchanging goods and services between providers and tourists. However, this can very often lead to a conflict between the economic and social prospects of tourism development (e.g. increasing the number of tourists, nights, revenue, capacity, employment, involvement of the local population) and the development of tourism from the environmental perspective (e.g. protection of natural, cultural, historical and other resources). Since the 1990s there has been growth in the understanding of all the positive and negative impacts of tourism on the environment, and for these reasons, tourism has tried to find ways to achieve its sustainability.

The first time environmental protection received its global frameworks was in 1972 (UN Conference in Stockholm) and in 1992 (Conference on the Protection of Environment, Rio de Janeiro). A fundamental document about environmental protection is an action plan for the 21st Century, known as Agenda 21 (Global Programme of Action on Sustainable Development), where it is stated that environmental protection is a global issue. Agenda 21 stresses the unification of developmental interests and interests in environmental protection, as well as respecting them both. This can improve the living standards of people, achieve higher yields and, at the same time, achieve greater protection of ecosystems and thus ensure

the future of humanity (UN, 1992). Development priorities are defined in Agenda 21 for the Tourism & Travel Industry, namely: assessment of the capacity of the existing regulatory, economic and voluntary frameworks in order to achieve sustainable development; assessment of the implications of the organisational activities on the economic, social and ecological environment; professional training, education and raising public awareness; planning for sustainable development; easing the exchange of information, skills and technologies on sustainable tourism between developed and developing countries; enabling the participation of all sectors of society; designing tourist products that are sustainable at its core; measuring progress in achieving sustainability, and creating partnerships for sustainable development (see WTO, 1996).

Based on the ideas presented in Agenda 21, in 2001 the UNWTO implemented a fundamental document which promotes sustainable tourism, "Global Code of Ethics for Tourism - For Responsible Tourism" (WTO, 2001). This is supported by the fact that the local population is becoming more aware of the problems of unsustainable tourism, while tourists require increasingly higher standards when it comes to environmental issues (see WTO, 2002). Therefore, the UNWTO has also created a document called "The Responsible Tourist and Traveller", in which the role of a tourist is defined in support of responsible and sustainable tourism created by different actors (governments, businesses, local communities). It is suggested that tourists should support existing initiatives respecting the following tips (UNWTO, 2005): open minded to other cultures and traditions, respect human rights, help in the preservation of the natural environment, respect cultural heritage, buy local products and help the local economy, find out about the health situation at the destination, learn as much as possible about the destination (customs, norms and traditions), and familiarize yourself with the laws of the destination. For the purpose of this paper, we consider the UNWTO definition of sustainable tourism crucial in this process: "Sustainable tourism development meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future. It is envisaged as leading to the management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, and biological diversity and life support systems" (GTZ, 1999). Various instruments are available in order to accomplish this, such as: legislative measures - rules, regulations, penalties; market instruments – taxes; financial aid for positive experiences; codes of conduct; and information, education and research (UNCSD NGO, 1999).

But all those international and government initiatives will not provide results and achieve the desired goals if their service users, in this particular case, tourists, do not start behaving the same way, or do not require such a relationship towards development. Specifically, the achievement of sustainability implies a change in the behaviour of all participants involved in tourism: tourists, tour operators and the hotel business (Bučar et al., 2010).

### **3. GREEN ORIENTATION IN TOURISM**

Each year the global tourism market records an increase in the number of international tourists whose demands are higher and more specific. This trend in the tourism market could very often lead to the negative impacts that have appeared specifically as air pollution and waste, ecosystem destruction, land erosion, the exploitation and wasting of natural resources, etc. (Yuan, 2013). Therefore, the tourism industry needs to adapt to these new demands and trends in the tourism market and at the same time should change their approaches of working

in order to achieve the principles of sustainable tourism development. The concepts of sustainability and sustainable development involve all the sectors of the economy and have become a great challenge for all stakeholders, which should both make a profit and take into account the public interest in a broader sense. The literature on sustainable tourism development encompasses a number of areas and highlights sustainability as the idea of environmental, economic and social progress balance, all within the limits of the world's natural resources.

Environmental practices can be defined as actions taken by service providers which are friendly to the environment and this kind of green orientation ensuring the quality of the environment in the long term (Yosof et al., 2015). The World Travel & Tourism Council (WTTC) has a vision of how the tourism industry can achieve sustainable development and under its Environment Initiative promotes a greener hospitality industry. Namely, in 1992, the International Hotels Environment Initiative was developed when a number of leading international hotel companies realized that they had a lot to gain from working together (Petrić, et al., 2009). The hotel sector could make a positive contribution to the environment by taking some measures in the directions of a green orientation in the tourism industry (Fukey et al., 2014). Green hotels are environmentally-friendly properties whose managers are eager to institute programs that save water, save energy and reduce solid waste, while saving money and protecting the Earth (Hays et al., 2014). An environmentally responsible hotel is the one that carries out activities for reducing its impact on the environment and is achieved when all hotel employees participate and their own pro-environmental behaviour will encourage the environmental responsibility of their guests (Janković et al., 2014).

The Green Hotels Association (GHA) is the first and the oldest hotel association in the world which encourages, promotes and supports the greening of the lodging industry. The Association was established in 1993 in the USA with a purpose of bringing together hotels interested in environmental issues. It represents hotels that are environmentally-friendly properties, whose managers are eager to institute programs that save water, save energy and reduce solid waste, while saving money (Singer, 2012). The Green Hotels Association doesn't give, recommend or support any kind of certification but instead helps its members by giving them guidelines with ideas and techniques that reveal how to reduce costs as well as the hotel's impact on the environment in their tourism destination by water saving, energy saving and solid waste reduction ideas that apply to the hospitality industry (GHA, 2016).

As the level of environmental awareness has increased, hotel businesses are expected to conduct business in ways that are deemed environmentally or ecologically responsible (Pianroj, 2012). Therefore, voluntary guidelines and examples of best practices were established in the industry followed by the introduction of eco-labels and certification procedures (Sloan et al., 2013). The primary objective of ecolabels and other recognition schemes is to stimulate environmental concern both from the perspective of the producer as well as the consumer, by providing reliable environmental information to the consumer and thereby influencing his/her preferences and choices when acquiring goods and services (Bohdanowicz et al., 2004). Green brands address customers who perceive ecological problems as important and customers that do not expect green brands to be perfect but authentic (Hays et al., 2014).

Table. 1. Green Certificates in the Hotel Sector

Certificate	Year Ecolabel est.	Members	Place	Description	Web address
<b>Green Key Eco-Rating Program</b>	1997		Canada, United States	The Green Key Eco-Rating Program is a graduated rating system designed to recognize lodging facilities that are committed to improving their fiscal and environmental performance. Based on the results of a comprehensive environmental audit, hotels are awarded a 1-5 Green Key rating and given guidance on how to reduce operating costs and environmental impacts through reduced utility consumption, employee training, and supply chain management.	<a href="http://greenkeyglobal.com/">http://greenkeyglobal.com/</a>
<b>EcoLabel Luxembourg</b>	1999	37 hotels	Luxembourg	All of them have to meet a compulsory and rigorous set of criteria focusing on energy and water efficiency (e.g. efficiency of lighting and heating, use of renewable energies, insulation, purchase of energy efficient devices, low-consumption appliances), waste prevention and waste management, sustainable purchasing of office supplies (e.g. recycled paper), use of organic, locally grown and fair trade produce, support of public transport and cycle hire options for their guests, use of eco-cleaners etc.	<a href="http://mouvement.oeko.lu">http://mouvement.oeko.lu</a>
<b>BIO Hotels</b>	2001	nearly 100	Austria, Germany, Italy, Switzerland, Slovenia, Greece, Spain	This certification covers organic and regional products in Hotels. BIO Hotels uses only organic certified products that meet the standard of Bioland or similar ecolabels.	<a href="http://www.biohotels.info">http://www.biohotels.info</a>
<b>Vitality Leaf</b>	2001		Russian Federation	Criteria for certification are developed using lifecycle approach, according to ISO 14024 standards. Main objectives are: 1. To encourage the demand for and supply of environmentally preferable products and services. 2. Contributing to reduce environmental impacts of producers. 3. To improve the quality of the environment and to encourage the sustainable management of resources.	<a href="http://ecounion.ru">http://ecounion.ru</a>

<b>ECO certification</b>	2002	22 hotels	Malta	ECO certification is an ecolabel given out by the Malta Tourism Authority to hotels on the islands of Malta. To participate, hotels must comply with a number of criteria all aimed at improving their environmental performance and increasing environmental awareness amongst employees.	<a href="http://www.mta.com.mt/eco-certification">http://www.mta.com.mt/eco-certification</a>
<b>Green Star Hotel (GSH)</b>	2007	58	Egypt	GSH is a national certification and capacity building programme developed under the patronage of the Egyptian Ministry of Tourism to support hotels and resorts interested in improving their environmental performance and social standards. This customized certification distinguishes hotels that demonstrate sustainable environmental management through compliance with a carefully designed standard.	<a href="http://www.greenstarhotel.org">http://www.greenstarhotel.org</a>
<b>Eco Hotels Certified</b>	2010	65 hotels	Italy, Germany, Austria, Greece, Switzerland	This certification stands for more ecology, more sustainability and more regionality in a business. It is certification of sustainably operating tourism businesses and takes account of their total resource use.	<a href="http://www.ehc-hotels.com">http://www.ehc-hotels.com</a>
<b>Sustainable Hotel Certificate</b>	2015	41 hotels	Croatia	This certificate have been issued by the Association of Employers in Croatian Hospitality (UPUHH). The strategic goal of the project of awarding certificates is to introduce green business practices, and achieving a balance of economic progress, as well as concern for the environment they can raise and motivating employees and creating better communication with guests.	<a href="http://www.upuhh.hr/hr">http://www.upuhh.hr/hr</a>

Source: <http://www.ecolabelindex.com/>

According to Ecolabelindex, there are 465 ecolabels in 199 countries in 25 industry sectors and 16 of them are ecolabels matching for 'tourism'. One of them is the Green Globe Certificate developed specifically for the tourism industry and it's a structured assessment of the sustainability performance of travel and tourism businesses and their supply chain partners, but it has not managed to reach the market (Petrić et. al., 2009). From Table 1. it can be seen that there are 8 ecolabels which refer to the hotel sector, and a green orientation is evident in three main areas, such as: (1) the demand from hotels to improve their environmental performance, the environment and to encourage the sustainable management of resources; (2) an emphasis on employee training and increasing the environmental awareness among employees in hotels as a basis for a green orientation; (3) the use of sustainable purchasing of office supplies (e.g. recycled paper), use of organic, locally grown and fair trade production.

Batić et al. (2011) stressed that ecolabels attract tourists with a higher level of ecological motivation. Also, this contributes to higher perception of all attributes referring to service quality and investment in the eco-label will probably improve the attractiveness and competitiveness in the tourist market. Thus, from one side we have costumers who demand hotel facilities become more environmentally friendly and from the other side there has been an increase in environmental regulations at all jurisdictional levels, which make hotel companies concerned about business ethics and socially responsible business practices (Pianroj, 2012). Therefore, about 80 per cent of European hoteliers are involved in some kind of activity oriented toward the environment (Sloan et al., 2013). One example is the joint action between the International Tourism Partnership (ITP) and 12 major hotel chains including Hilton, Hyatt, Marriott and Starwood, launched the Hotel Carbon Measurement Initiative, which aims to help hotels reduce, measure and communicate their carbon footprints (Singer, 2012). The green initiatives and programs undertaken by the hotels may be used as a very powerful marketing mechanism and many hotels have benefited from green management such as enhanced reputation and more excellent customers. (Fukey et al., 2104). A strong green hotel image does not only satisfy customers, but also encourages the attainment of loyal customers (Pianroj, 2012). The degree of tourists' loyalty to a destination is reflected in their intentions to revisit the destination and their recommendation to others (Bastić et al., 2011).

#### **4. TOURIST LOYALTY BASED ON A GREEN ORIENTATION**

The development of tourism in a tourist destination depends on the existence and amount of potential natural and anthropogenic resources which are attractive enough to draw the attention of potential tourists and finally results in their visit. According to Choi (Choi et al., 2011) people with a higher level of tourism loyalty are likely to have a long-term relationship with the destination and be engaged in tourism-related issues.

Boniface et al. (2001) add that a tourist destination usually has attractions which may not be found in generating areas. However, tourist and economic evaluation of some tourism resources also depend on the preferences of potential tourist socio-economic factors (such as the amount of available resources, available free time, demographics which result from the characteristics of individuals...) and socio-psychological factors (habits, political and religious orientation, level of education...) (Bilen et al., 2004). Clearly, as every potential tourist is an individual, each of the above factors affects the individual differently and his decision about the destination of his tourist travel. Moreover, these factors also affect the person's selection of the activities to be undertaken during the stay. George (2011) considers that a tourist destination image is a result of personal beliefs, ideas, feelings and impressions, and he states that a tourist destination image is based on the destination's geographical features, the climate, natural resources and the local population's standard of living. A destination image represents the set of beliefs and impressions that tourists have about the destination (Kotler et. al, 2002).

The fact is that environmental awareness and the availability of information of consumers has been improved through the media. In many developed and developing countries consumers' environmental awareness becomes one of the important determinants of purchasing behaviour (Renko et al., 2010). Rules of conduct in tourism are largely created as a response to ethical dilemmas (more about the ethical principles in the rules of conduct in Malloy and Fennell, 1998) and perceived negative consequences of tourism. Most often there is a wish to generate more desirable and beneficial behaviour among key stakeholders, namely to minimize

conflicts with the aim of reducing the negative impacts of tourism (Fennell and Malloy, 2007, cited in Mason, 2008). “A code is a set of expectations, behaviours or rules written by industry members (often interchangeably) with an emphasis on accreditation of operators” (Persbury et al., 2010). Therefore, the term “code of conduct” does not have an authorized definition but the emphasis is on the principles, values, standards, or rules of behaviour that guide the decisions and its part of comprehensive compliance and ethics program that should be part of values-based organisation and culture (IFAC, 2007). Regardless of the fact of who created them or who their target group is, well-developed rules of conduct have certain characteristics. The rules must be clear, easily understandable and comprehensive so their use helps in addressing specific situations, but also should make it clear which set behaviour is expected (Payne and Dimanche, 1996). Thus, code of conducts should ensure a certain quality of tourist services and Shangri-La Hotels and Resorts (Hong Kong based hotel group, that operates globally), in 2009 lunched a code of conduct for their 150 top suppliers to control employee wages and conditions, health and safety, management systems and environmental practices (Sloan et al., 2013). Perceived service quality and image are important factors in increasing customer satisfaction which may in turn result in loyal customers (Pianroj, 2012). Europe is identified by the UNWTO (2016) as the most visited tourist region in the world with 608 million international tourist arrivals and with a share of 51 per cent of the total international tourist arrivals. Thus, this number of tourist arrivals caused a lot of positive effects in the economic sector and in the social component as well, however it will represent a large, and very often, negative influence on the environment. Therefore, in order for Europe to keep its position as a top frequently visited region, it needs to find a way to keep the “old” and to attract “new” tourists and to preserve environment at the same time. An orientation on green practices in hospitality could assure this and work in the long term on the basis of sustainability.

Croatia has a long tradition of tourism and according to the figures from the Croatian Bureau of Statistics in 2015 Croatia recorded 14,3 million tourist arrivals and 71,6 million tourist overnight stays. But, 94 per cent of all those touristic overnights were located in costal touristic regions of Croatia and 85,9 per cent were made in the summer months. These kinds of tourism market characteristics in Croatia have a huge influence on the environment in a short period of time and only take place in one territorial part of the country as well. Therefore, a green orientation in the hotel sector in Croatia becomes more and more important.

For gaining a better understanding of the level of ecological awareness of the tourist and the relationship between tourism and trade, research was conducted from June-October 2015 among hotel guests in Croatia. The research was based on face-to-face interviews with a structured questionnaire which contained 24 statements about their perception of green practices in hotels. The questionnaire was adapted from Hirschl et al. (2003) and used a five-point Likert-type scale in Croatia (from «5=strongly agree» to «1=strongly disagree») to investigate the attitudes of respondents related to each statement. At the end of the research period there were some questions about demographic characteristics of the surveyed sample, 1855 guests' altogether. The findings show that the interviewed guests mostly like to choose hotels that incorporate green orientation practices (agree and strongly agree are 40 per cent) but their willingness to pay for such green services or products were a little bit lower (36,1 per cent). A very similar result can be seen on the question about natural authentic food preferences in hotel restaurants, where almost 50 per cent of the guests strongly agreed with the statement but only half of them agreed that they were willing to pay extra for such food.

**Table 2** Attitudes towards green practices in tourism

	SHARE %				
	1	2	3	4	5
I am willing to pay premium price for green services/products	11,1	13,1	39,6	21,8	14,3
I chose hotels with green practices to feel that I have contributed sustainable practices	11,8	12,6	35,3	19,4	20,6
I prefer local natural authentic food in a hotel restaurant	2,8	4,7	20,1	23,5	49,3
I am willing to pay premium price for local natural food in a hotel restaurant	6,9	8,4	29,7	27,6	27,4

Source: authors' research

Tsai and Tsai (2008) conducted research which shows that resorts which implement environmentally friendly practices are unable to attract repeat visitors and that the price and quality of the hotel remain to be the overriding factors that influence tourists' decisions to revisit. In 2010, Deloitte added that hospitality is a sector with large environmental footprints and that current consumer behaviour suggests that location and price remain the most important selection criteria. However, that is changing and in the future the strategy and operations that are considered environmental friendly will make an increasing prevalence in the process of choosing a hotel.

Tourists with environmentally friendly attitudes tend to demonstrate loyalty and those hotels which use green branding and implement green practices are more able to convince guests to revisit, pay extra and provide positive recommendations to their relatives and friends (Yousf et. al, 2015). Customers definitely are attracted to discounts, offers and loyalty programs and if they are rewarded for using a green hotel over a normal hotel by receiving benefits such as hotel reward points and discounts, it's a human tendency that they would visit such green hotels (Fukey et al., 2104). Loyalty measures a consumers' strength of affection towards a brand or product, as well as explains an additional portion of unexplained variance that behavioural approaches do not address and tourists may have a favourable attitude toward a particular product or destination, and express their intention to purchase the product or visit the destination (Bastić et al.,2011).

## 5. CONCLUSION

Tourism is a large, complex system and one of the most propulsive economic sectors as well. Each year the global tourism market records increasing numbers of international tourist arrivals and by prediction these numbers will continue to increase. Tourism brings a lot of positive effects to tourist destinations but at the same time it makes large environmental footprints. Therefore, tourism needs to find a way to maximize its positive impacts and reduce the negative ones. At the same time, the tourism market is very dynamic and those changes force the tourism industry to adapt. Nowadays tourism has experienced a growing trend of sustainability and "going green" and is adjusting to tourists new preferences for green hotels. A lot of hotels in the tourism market have accepted this trend and applied some kind of activity oriented towards the environment (use of renewable energies, waste management, sustainable purchasing of supplies and the use of locally grown produce, etc.). Withal, eight

ecolabels which provide tourists with assurance that a hotel has been verified as environmentally friendly can be found in the hotel sector and this affects customer loyalty. However, in hospitality we have costumers who demand hotel facilities be more environmental friendly and they like to choose these hotels but tourists are still not ready to pay more for this kind of service. Price, location and service continue to be the most important factors for choosing a hotel. But, for sure in the future, operations that are considered as environmental friendly will make a difference in the process of choosing a tourist destination and hence increase the loyalty of tourists.

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## AN INSIGHT INTO LOYALTY PROGRAMS IN CROATIA

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### **Abstract**

*The economic crisis which began in 2008, led to the change of the habits in consumer behaviour. There are also some other important issues which had an influence on changing consumer behaviour such as increased competition between retailers, increased competition between producers, higher diversity of products and products brands. Consumers are increasingly looking for so-called “value for money”. Contemporary retailers have to deal with the fact that today’s consumers are not strongly loyal to them, to their private labels or specific product brands. They are trying to deal with this fact by applying different types of loyalty programs in their businesses.*

*In order to previously mentioned, this paper first of all will give a theoretical framework of loyalty and loyalty programmes in retail. Further, paper will analyse the consumers behaviour by focusing on loyalty and loyalty programmes applied by the most successful Croatian retailers. Top 10 loyalty programs in Croatia will be outlined and some indicators will be shown.*

**Keywords:** consumers, retail, retailers, loyalty, loyalty programs, Croatia

### **1. INTRODUCTION**

On a turbulent market, for retailers it is particularly important to ensure their consumer loyalty and retention in a long run. Business success is achieved by those companies that in the long run succeeded to keep their customers. In order to better linking of theory and analysed results obtained from researches conducted on Croatian market on subject of loyalty, theoretical framework of loyalty, loyalty programs and retail will be explained at first. Secondly, paper analysed the sales capacities in retail trade in the period 2004 – 2014 such as total sales area, average size of stores, number of stores per thousand inhabitants, number of inhabitants per one store, average sales area of the stores per one inhabitants and total number of stores. Retailers in Croatia follow the latest trends, as evidenced by the construction and design of modern retail network. Furthermore, this paper analyses consumer behaviour in Croatia under the impact of the crisis. Position and acceptance of private labels on Croatian market is described and it is pointed out which of them are the most popular.

## 2. LOYALTY AND RETAIL THEORETICAL FRAMEWORK

Within the European Commission's industry standard classification system (NACE 2010), commerce is classified statistically as Section G - distributive trades: Division G45 covers wholesaling and retailing of motor vehicles and motorcycles; Division G46 covers all other wholesale trade; Division G47 covers all other retail trade. This report focuses on the characteristics of the wholesale and retail trade (Divisions G46 & G47), but excludes motor vehicle sale and repair. The same classification is according Croatian national classification (NKD, 2007).

According to Reynolds and Cuthbertson (2014, p. 11-12) retailing is one of any economy's most visible activities. Retailing refers to the sale of goods or services from companies to individual end-consumers. A retailer's competitive capabilities derive from their ability to procure the range of goods that consumers will want to buy, and offer them in the right way, in the right location and at the right price. Retailers usually buy their products in larger quantities from manufacturers or wholesalers and sell them in smaller quantities to their customers (Reynolds, Cuthbertson, 2014, p. 11-12)

Retailers represent the culmination of the marketing process and the contact point between consumers and manufactured products. While retailing has long set buying decisions as its highest priority and was very focused on the product assortment, it now follows a more holistic approach to management and marketing and is seizing the opportunity to be consumer oriented, engage in the personal contact with customers, gather information on consumer behavior and exploit insights into consumer behavior and preferences (Zentes, 2007).

Retailers are classified according to types of sales outlets, as follows: specialized food stores, factory food stores, shops, minimarket, superette, hypermarkets, cash and carry stores, discount food stores, stores at the gas stations, specialized non-food stores, specialized department stores, factory non-food stores, pharmacy, non-specialized predominantly non-food stores, universal department stores and discount food stores (Segetlija et.al., 2011, p. 82-90). Categorisation is very important, especially for collecting the data and making empirical analysis.

Loyalty refers to a deeply held commitment to rebuy or repatronize a preferred product or service consistently in the future, thereby causing same-brand or same organization purchasing, despite influences and marketing efforts having the potential to cause switching (Oliver, 1999). Loyalty is, after all, the best measure of quality shopping marketing and of a good shopping experience (Bogetić, 2015).

On the highly competitive market for retailers has become increasingly difficult to achieve customer retention. There are three fundamental ways in which retailers raise the level of perceived value and retain customers those are: loyalty programs, customers clubs, and sales improvement techniques. During accounting period accomplished sale is recording for customer, and at the end of accounting period customer is rewarded with discounts or products, depends on its realized consumption (Knežević, 2015).

Loyalty programs "create a reluctance to defect" by rewarding the customer for repurchasing from the organization (Duffy, 1998).

By definition, customer loyalty programs should increase customer happiness and retention. A successful loyalty program has to be designed in the consideration of the following rules (Clark, 2010):

1. Acquire customers that are likely to repurchase.
2. Recognize which customers are unlikely to repurchase and limit the marketing spend for this segment accordingly.
3. Focus the marketing budget on those who exhibit the same profile as existing repurchases but have yet to buy a second time.

Loyalty programs are offered by both retailers and manufacturers to stimulate continued patronage among consumers through discounts, cash, free goods, or special services (such as free magazines on specialized topics of interest to loyalty program members). While retail cooperatives pioneered loyalty programs through giving members allowances based on their annual purchases, the more modern use of loyalty programs began with Raleigh cigarette coupons and with stamp-based programs such as the S&H Green Stamp Company (which offered consumers points based on purchases; these points were redeemable for a broad selection of merchandise). The most current form of customer loyalty programs started in the 1980s with the introduction of frequent flier programs by airlines.

### **3. THE ANALYSIS OF SALES CAPACITIES IN RETAIL TRADE IN THE PERIOD 2004 – 2014**

Loyalty is linked with retailers and retail sector, and because of that in continuation main indicators of sales capacities will be described. According the data from Croatian Bureau of Statistics in Table 1 are shown main indicators of sales capacities in Croatian retail in period 2004-2014, such as total sales area, average size of store, number of stores per thousand inhabitants, number of inhabitants per one store, average sales area of the stores per one inhabitants and total number. Analysis of sales capacities in retail trade in that period tells that in 2014 Croatia retail trade had 31,000 stores at its disposal with the total sales area of 4.5 million square meters. As it is shown in Table 1, in the observed ten years, total sales area in Croatian retail trade grew by 1 million square meters, while the number of stores was reduced for 7793 stores. In 2014 year the average size of stores was 143.5 square meters while in 2004 year the average size of stores was square meters. In 2014 year in Croatia were 7 stores per thousand inhabitants or were 136 inhabitants per store, while in 2004 year there were 9 stores per thousand inhabitants or were 111 inhabitants per store. On average, today in Croatia, every Croatian citizen has 1 square meters of sales area of stores. It is important to point out that still there is a trend of reducing the number of stores while increasing sales area (see Table 1).

**Table 1** Sales capacities in retail trade in 2004, 2009 and 2014 – main indicators

	2004	2009	2014
<b>Total sales area</b>	3,5 million m <sup>2</sup>	4,4 million m <sup>2</sup>	4,5 million m <sup>2</sup>
<b>Average size of store</b>	87,8 m <sup>2</sup>	121,2 m <sup>2</sup>	143,5 m <sup>2</sup>
<b>Number of stores per thousand inhabitants</b>	9 stores	8 stores	7 stores
<b>Number of inhabitants per one store</b>	111 inhabitants	122 inhabitants	136 inhabitants
<b>Average sales area of the stores per one inhabitant</b>	0,79 m <sup>2</sup>	1 m <sup>2</sup>	1m <sup>2</sup>
<b>Total number of stores</b>	38.893 stores	36.300 stores	31.100 stores

Source: Croatian Bureau of Statistics, First Release – Sales capacities in retail trade, 2014

It should be noted that the largest number of stores and of sales area are situated in the most populated counties in Croatia. Thus, for example, 48,5% of stores and 55% of sales area are situated in the five most populated counties (51% population of Croatia there live) – the City of Zagreb, the County of Zagreb, the County of Split-Dalmatia, the County of Osijek-Baranja and County of Primorje-Gorski kotar (Croatian Bureau of Statistics, 2014). On the other side in five county of Continental Croatia - County of Lika – Senj, County of Požega – Slavonija, County of Virovitica – Podravina, County of Bjelovar- Bilogora, County of Koprivnica – Križevci are situated the smallest number of stores and sales area in Croatia. In this area lives only 10, 20% population of Croatia (Croatian Bureau of Statistics, 2014)

Concentration changes retail structure and directly increase competition between large retailers (Knežević et.al, 2014), especially in the most populated areas. In case of increased consumption it is even harder to retain customers and to build their loyalty.

#### 4. LOYALTY PROGRAMS IN CROATIA

It is extremely difficult to predict behaviour of consumers and their reaction to certain products, different brands or different marketing activities. According to that main question is, whether customers, if they accept a certain product remains faithful to that product in a long run. In this context, the question arises, are today's customers really loyal. Loyalty is increasingly difficult to achieve and it is infrequent, which is particularly evident in times of crisis. Customers in times of crisis are more price sensitive (Anić, 2010), they change retailers more frequently; they tend to buy at discounts, to buy private labels and to look for a variety of different benefits. In this sense, it is even harder to build customer loyalty.

Some retailers are adapting to this challenging situation throughout application of private brands. According the GFK research of private label (Instore Magazine, 2016), private label brands have managed to snatch a 22% share of the Croatian retail market. Depending on product category, private labels take a different position and market share in grocery sales in Croatia. The product categories with the highest value of shares in private label are: salty snacks, instant coffee, fruit syrups, cereal and toilet soaps. Generally speaking, there are almost no retail chains in Croatia, with perhaps the exception of KTC – Croatian retailer, where private label brands do not make for at least 25% of sales (Instore Magazine, 2016). This is not a Croatian market specific, in the last ten years private label increased market share around the world.

However, during this period the highest growth rates are recorded in the markets of Eastern Europe. According to GFK research of private labels, in 2015 year has been a trend of slowing growth of shares of private labels in most countries of Central and Eastern Europe especially in the Czech Republic, Slovakia, Romania and Croatia. It is interesting to point out that in Croatia in last ten year the share of private label grew from 5% to 22% (Instore Magazine, 2016). The growth was stopped in 2015 year. Recently, Croatian retailers have started competing for customer loyalty by introducing new premium private label variants. More and more the retailer's premium private label line includes Croatian local products such as sausage from Slavonia, truffle from Istria, ham from Dalmatia and Istria and other delicacies with designation of origin.

#### **4.1. Types of loyalty programs in Croatia**

According to literature, there are many types of loyalty programs. Magatef and Tomalieh, (2015) highlight loyalty programs, as follows:

1. Points system,
2. Tier system,
3. Charge an Upfront Fee for VIP Benefits,
4. Non-Monetary Programs around Your Customer's Values: Providing value to customers in other ways than discount and dollars rewards,
5. Partner with another Company to Provide All-Inclusive Offers,
6. Loyalty card program,
7. Frequent Buyer Program,
8. Gift Card or Certificates,
9. Return Policy for Loyal Customer,
10. Payback money to loyal customers,
11. Discount over time or volume of goods,
12. Bundle goods

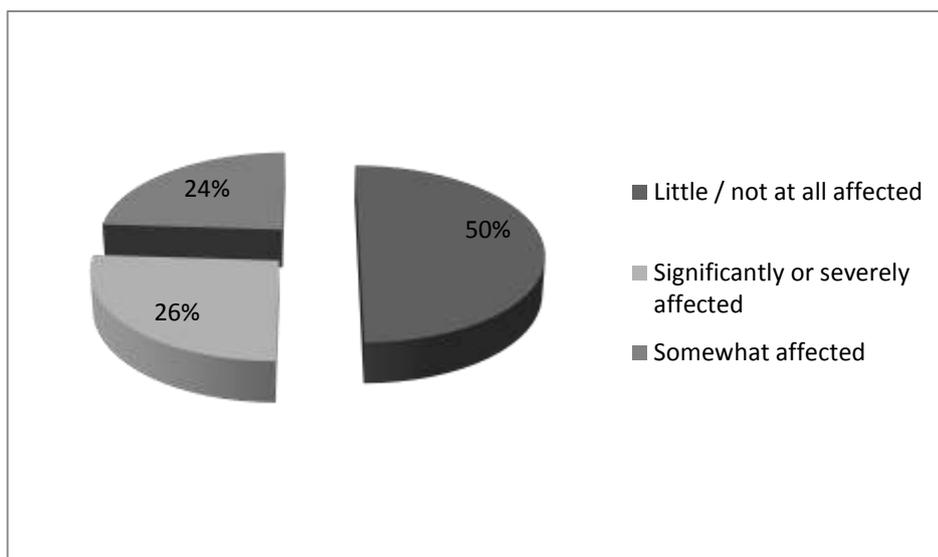
Most used type of loyalty program in Croatia is loyalty card program. According conducted research about loyalty in Croatia (Knežević 2015) interesting fact is that respondents find out for loyalty programs from the sales staff (60% of cases), followed by promotional leaflets (15%) and friends and family members (over 10%). The media was not shown as relevant for encouraging promotion of loyalty programs. Also, more than 45% of respondents would like to get prizes in cash, while around 35% prefers products and the rest of them (20%) would be satisfied with any type of prizes, even with additional services.

Other research shows that on average 62% of the Croatian population over the age of 18 has been used or uses at least one loyalty program. It is interesting to point out that in Croatia three quarters of all users of loyalty program are women (Valicon, 2016).

Users of loyalty programs are mostly employed and highly educated, with an average age between 35 and 44 years and they are residents of Zagreb (especially). Research shows that 40% of all users of loyalty programs use one loyalty program, further 40% of customer use two or three loyalty program, and only 8% of all users use 6 or more loyalty program (Valicon, 2016). The most common subcategories of loyalty program is that of FMCG (fast moving consumers good) retailers, their loyalty programs used 85% of all users of the loyalty program. The data shows that 53% of total users of loyalty programs use loyalty programs of pharmacies and drug stores (Valicon, 2016).

Numerous independent studies have shown that the two best known loyalty programs in Croatia are MultiPlusCard and DM active beauty card. However, according to research by Valicon agency (See Chart 1) even 50% of users of loyalty programs points out that this kind of program do not affect to their purchase. According to the same research only one of fourth users of loyalty program says that can be influenced by these programs and it may affects to their decision to purchase. This type of data should be considered in the context of the psychology of consumers, who are generally not willing to admit the impact of direct marketing activities on their purchase.

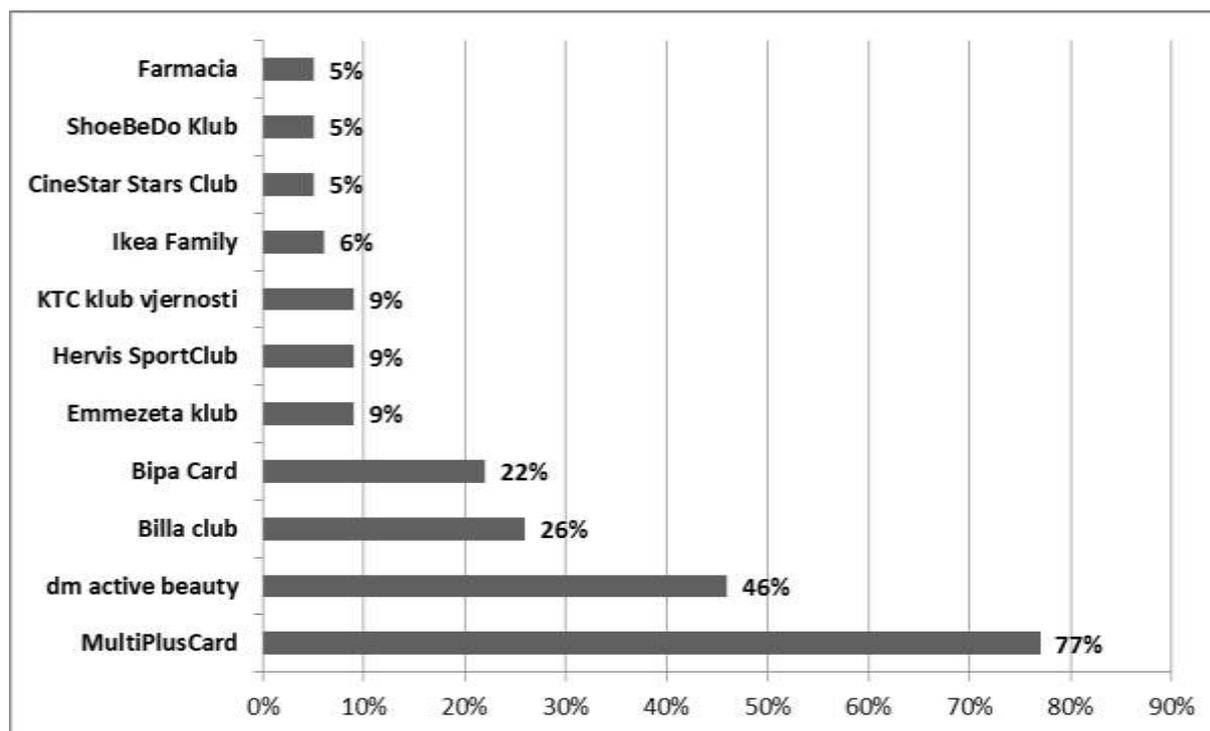
**Chart 1** The impact of loyalty programs to consumers when choosing a retailer



Source: Valicon, 2016, CATI research of loyalty programs in Croatia in Ja Trgovac

#### **4.2. Top 10 loyalty cards programs in Croatia**

Valicon research of loyalty cards programs in Croatia have shown (see Chart 2.) that two best known loyalty cards programs in Croatia are MultiPlusCard and DM active beauty card. Thus, 77% of all users of loyalty programs in Croatia used MultiPlusCard loyalty program. Then, with 46% of the users DM active beauty card is the second-leading loyalty program which is used by consumers in Croatia. Followed then Billa card loyalty program with a share of 26%, then Bipa Card loyalty program with a share of 22%. Emmezeta klub, Hervis SportClub and KTC klub vjernosti loyalty programs have a shares of 9%. Ikea Family loyalty programs use 6% of all users of loyalty programs in Croatia. In the end 5% of all users of loyalty programs in Croatia use CineStar Stars Club, ShoeBeDo klub and Farmacia loyalty programs.

**Chart 2** Top 10 used the loyalty program in Croatia in the population of 18 +

Source: Valicon, 2016, CATI research of loyalty programs in Croatia

Nonetheless, we have to emphasise that MultiplusCard program is joint loyalty i.e. it integrates several corporate participants. Partner in this network are Konzum – the leading retailer, Zagrebacka banka – bank, Hrvatski Telekom - telecommunications company, Allianz – insurance company, Atlas – travel agency, Pevec - retailer, Kozmo – drugstore retailer, Tisak- retailer, Intersport- sports retailer, Modiana, - sport and fashion retailer, F & F - fashion retailer and Abracadabra – e- commerce retailer. Besides the group benefits for the members of MultiPlusCard program, every partner in this loyalty scheme additionally rewards customer in their specific niche through various programs ([www.multipluscard.hr](http://www.multipluscard.hr)).

MultiplusCard loyalty program continuously invests in improvement of its customers rewarding programs for their loyalty. Thus, recently, MultiPlusCard issues lifestyle magazine called "Plus za mene". On the 100 pages of content customers may find many useful tips, such as recipes and shopping sites with recommendations for a good purchase. The latest news is that Konzum in all its stores starting from 6<sup>th</sup> October 2016 for all MultiPlusCard members introduces a lower prices for 1,000 premium domestic and foreign products ([www.konzum.hr](http://www.konzum.hr)).

With 46% of the users DM active beauty card is the second leading loyalty program which is used by consumers in Croatia. DM active beauty card is loyalty program of DM one of the largest drugstore in Central and Southeast Europe. They communicate with their customers through catalogues, newsletters, web pages, smart phone applications and personalized discount coupons. DM active beauty card program continuously invests in improvement of its programs rewarding customers for their loyalty and all relevant information is available at [www.dm-drogeriemarkt.hr](http://www.dm-drogeriemarkt.hr).

## 5. CONCLUSION

In compliance with European and international practice Croatian retail seeks to respond as effectively and efficiently as possible to wishes and it is of its customers. In condition of increased competition and in combination with crisis, customers have become more rational and more sensitive to the price, and they want to get “value for money”. In such situation retailers offered private labels and loyalty cards to their customers. On average 62% of the Croatian population over the age of 18 has been used or uses at least one loyalty program. The two best known loyalty programs in Croatia are MultiPlusCard and DM active beauty card. Some research studies show that half of consumers claim that loyalty programs do not affect their buying decisions. Therefore, This fact rises a question are investments in loyalty programs justified. This topic should be researched in future research studies.

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## DECIDING ON INTRODUCING A NEW PRODUCT UNDER THE RETAIL BRAND

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### ABSTRACT

*The main objective of this paper is to theoretically and practically explore the process of deciding on the introduction of new products under the retail brand. Two fundamental determinants of market positioning of branded products are price and quality. In practice it is common that products under the retail brand have lower prices and lower quality, which in case of fierce price competition between manufacturers and retailers requires dynamic price policy of branded products. As implementation of new products under the retail brand requires certain investments it is necessary to analyse the demand for these products, potential sales volume and potential production capacity, the cost that guarantees the highest volume of income and the highest profit, and only then, based on this collected data should a decision about introduction of new products under the retail brand or its sale exclusively under the manufacturer brand. This paper is dedicated to simulation models in terms of competition systems. Findings of this study should represent real-life situations, and provide a realistic way that leads to the optimal decision about introducing a product under the private label.*

**Keywords:** retail brand, manufacturer brand, product, price, costs

### 1. INTRODUCTION

Private labels are gaining increasing importance in retail industry. Private labels help retailers differentiate themselves from competitors and often provide superior economics—an extra eight to 10 points of gross margin is typical in many categories. And retailers have grown big enough to invest in data and facilities needed to build their own brands. There is a clear link between organized retail consolidation and private-label penetration: in Switzerland, the top five retailers have more than 70 percent share-and private labels have approximately 45 percent penetration. In France, top retailers account for more than 60 percent of sales; private labels have more than 30 percent penetration. In comparison, Russia's relatively low rate of consolidation-around 20 percent-translates to less than 5 percent private label penetration (Gruver, Meacham & Tager, 2011,3). The share of retail brands on Croatian market and the rest of the region (excluding Slovenia) is estimated at around 18% (Vecernji list, 2016).

Retailers all over the world are increasing their investment in owned brands, and consumers are routinely buying them. Even before the recent recession hit, private labels' mounting success in many regions provided evidence that the growth of these brands was no longer a cyclical reaction to economic downturns, but instead a structural change in the consumer product landscape. Three most famous retail brands on Croatian market are Clever from Billa, K-Classic from Kaufland and Konzum's K plus. Clever is also the first retail brand that appeared on the Croatian market. Currently there are more than 300 products under the Clever brand, K-Classic has more than 700 and K-plus more than 1,200 - and their number is

constantly increasing. To determine which products would appear under the private label it is necessary to monitor the needs of consumers and market trends. When choosing a manufacturer to produce goods for private label, decisive factors are manufacturer's reputation, the ratio of price and quality, and compliance with standards of quality.

When retailers develop trust and loyalty of consumers with their own cheaper private labels, they decide to invest in their own premium higher priced private label products. Further internationalization and consolidation of the retail market, greater purchasing power and more specific habits and needs of customers for bio or organic, ecological, fair trade and similar products, make retailers decide on further investment in private labels, which become real brands, both in the field of innovation, and the area of proactive interaction with customers, squeezing out the less powerful manufacturing brands. But, this is also an opportunity for small manufacturers who produce quality products according to traditional recipes to make their way on the shelves of retail chains. Accordingly, this paper explores the decision-making process of retail businesses on introducing products under the brand name. This decision-making, although specific, since retailers buy everything that sells, shares many similarities with decision-making of the manufacturer on the production or purchase of individual components. The make-or-buy decision distinguishes between what firm wants to produce and what it wants to purchase. In the retail business the make-or-buy decision distinguishes between what a retailer wants to sell under private label and what would be sold under the manufactures brand.

## **2. THEORETICAL AND METHODOLOGICAL FRAMEWORK**

Shuttle (1969) defined retail brands as products that are branded and owned by companies with a main purpose of selling these products through distribution. Sudhir and Talukdar (2004) mentioned that private label branding started in the middle of the 1960's. Retail brands appear to have an advantage in competing with the national brands in terms of value for money. Baltas (2003) studies have shown that retail brands have increased, especially in European countries. First retail brands on Croatian market emerged in the late nineties of the 20th century. At first they appeared in the categories of assets for personal care and food products. Current retail brands on Croatian market are present in a number of categories from food products, soft drinks and hot beverages, hygiene products, cleaning products, pet products, and so on. The market share of retail brands in Croatia is low compared to the developed countries of the EU, but their continued growth is noticeable. Total fall in consumption actually has been beneficial to private labels. Consumers affected by the crisis, have recently become suspicious and careful while buying and more attentive to the value for money. They are much more prone to consolidation of their purchases and searching for cheaper products (Anic, 2010, 145). In the period from 2004 to 2014 such attentive purchasing has increased from 5.4% to 22%.

Development of products and brands is a complex and demanding task. Market oriented companies gain a differential advantage achieved by evaluating many issues related to the product and consistently adhering to the company goals. The heart of reliable production strategies is usually based on needs and desires of customers. Through branding, customers can be more loyal to retail brands since there is a stronger relationship between customers and products.

The company should manage a number of brands or a strong and carefully nurtured corporate

brand. The choice of brand planning is a complex process. When handling a brand name, it's up to retailers to develop a design and brand name, find manufacturers to produce goods which will be assigned to this brand, develop awareness of the brand name among consumers and build a favourable brand image. Private labels have brought marketing communications on to a higher level. Owning a brand offers the following advantages: promotion of the retail chain, better image, lower prices and thus higher profits. Private label brand products are increasingly becoming popular since consumers' loyalty toward a certain retail shop is higher than their loyalty to brands (Abdulah, et. al., 2013, 174). Through branding, customer could be more loyal to retail brands since there is a stronger relationship between customers and products. Accordingly, more frequently the question arises whether manufacturer brands ("A brands") are able to fight quality retail brands.

Since it is extremely important for retail businesses that products included under private brands are of better quality, choosing such products requires good knowledge of the decision-making process. A good decision is based on logic and consider all available data and possible alternatives. It also follows these six steps (Heizer & Render, 640): 1) Clearly define the problem and the factors that influence it; 2) Develop specific and measurable objectives; 3) Develop a model - that is, the relationship between objectives and variables (which are measurable quantities); 4) Evaluate each alternative solution based on its merits and drawbacks; 5) Select the best alternative; 6) Implement the decision and set a timetable for completion.

The decision on the introduction of new products under the brand name goes through four stages. The sequence of decisions is as follows (Gomez-Arias & Bello-Acebron, 2008, 278): Stage 1: Manufacturers exogenously determine their brand quality levels and the retailer decides the quality of its private label (also exogenously). Stage 2: The retailer chooses a manufacturer for its private label. Stage 3: Manufacturers choose wholesale prices to maximize profits. Stage 4: Retailer chooses retail prices to maximize overall category profits. As introduction of new products under the brand name requires certain investments it is necessary to analyse the demand for these products, potential sales volume and potential production capacity, variable costs of production per unit, variable costs of procurement per unit of product if sold under the manufacturer brand name, the price that guarantees the highest volume of revenue and the highest profit, so that the final decision is based on this collected data. Solving this type of problem will rely on the mathematical method, microeconomic analysis and simulation method. Computer simulation of business problems will be done through an Excel spreadsheet. Spreadsheet software such as Excel is a very effective tool in developing simulations quickly and easily.

### **3. RESEARCH RESULTS AND DISCUSION**

Total revenue of the company based on production and / or sale of a product is determined by the relation between its quantity and price. On assumption of the existing link between the quantity of a product sold and demand for that product, the total income can be expressed in the form  $R = p \times q$ , respectively

$$R = p \times f(p) \quad (1)$$

where R stands for the total revenue, p for price, f (p) for the function of demand of the product in question. Thus, the total revenue can be expressed as a function of price, wherein

the function of the total revenue is defined for all values of price with the corresponding function of demand.

As for each function of demand the corresponding inverse function can be expressed in the form  $p = \varphi(q)$ , the total revenue can be expressed as a function of the quantity of demand, ie

$$R = q \times \varphi(q) \quad (2)$$

Accordingly, examination of movement of total revenue, based on the known function of demand can be made with respect to the price of the observed product, as well as in relation to the movement of demand. That can be an alternative way of observing movements of the total revenue.

In order to research the movement of total revenue when function of demand is known, designating and testing marginal revenue is particularly important. Marginal revenue, which shows the increase in total revenue when there's an increase in price (demand) per unit, is examined and reported through the corresponding function of the marginal revenue. Assuming that the function of the total revenue is a continuous function of price (demand) in the interval (a, b), the function of marginal revenue can be expressed in the form retracted from the function of total revenue (Backović & Vuleta, 2002,32). If the total revenue is expressed as a function of price, or

$$R = p \times f(p)$$

function of the marginal revenue is  $R' = \frac{dR}{dp}$

and if  $R = q \times \varphi(q)$ , marginal revenue is defined thus:  $R' = \frac{dR}{dq}$ .

When the mark of the first copy is identified, or the positivity (negativity) of the marginal revenues, changes in total revenue may be determined, and expressed as the change in price of the observed product. Thus

$\frac{dR}{dp} > 0$  total revenue grows when the price is increased

$\frac{dR}{dp} = 0$  extreme value (maximum) of the total revenue is examined

$\frac{dR}{dp} < 0$  total revenue drops when the price is increased.

Let us assume that the demand for the product in one segment of the market which retailer plans to include in a private label can be defined in the form of the following function

$$q = -52p + 7725$$

After insertion of this function into the function of total revenue (1):

$$R = p \times (-52p + 7725)$$

$$R = -52p^2 + 7725p$$

Function of the marginal revenue is

$$R' = -104p + 7725$$

Maximum total revenue is achieved when

$$R' = 0 \text{ i } R'' < 0$$

Which in this example is conditioned by the following:

$$-104p + 7725 = 0$$

That is

$$104p = 7725$$

$$p = 74,28$$

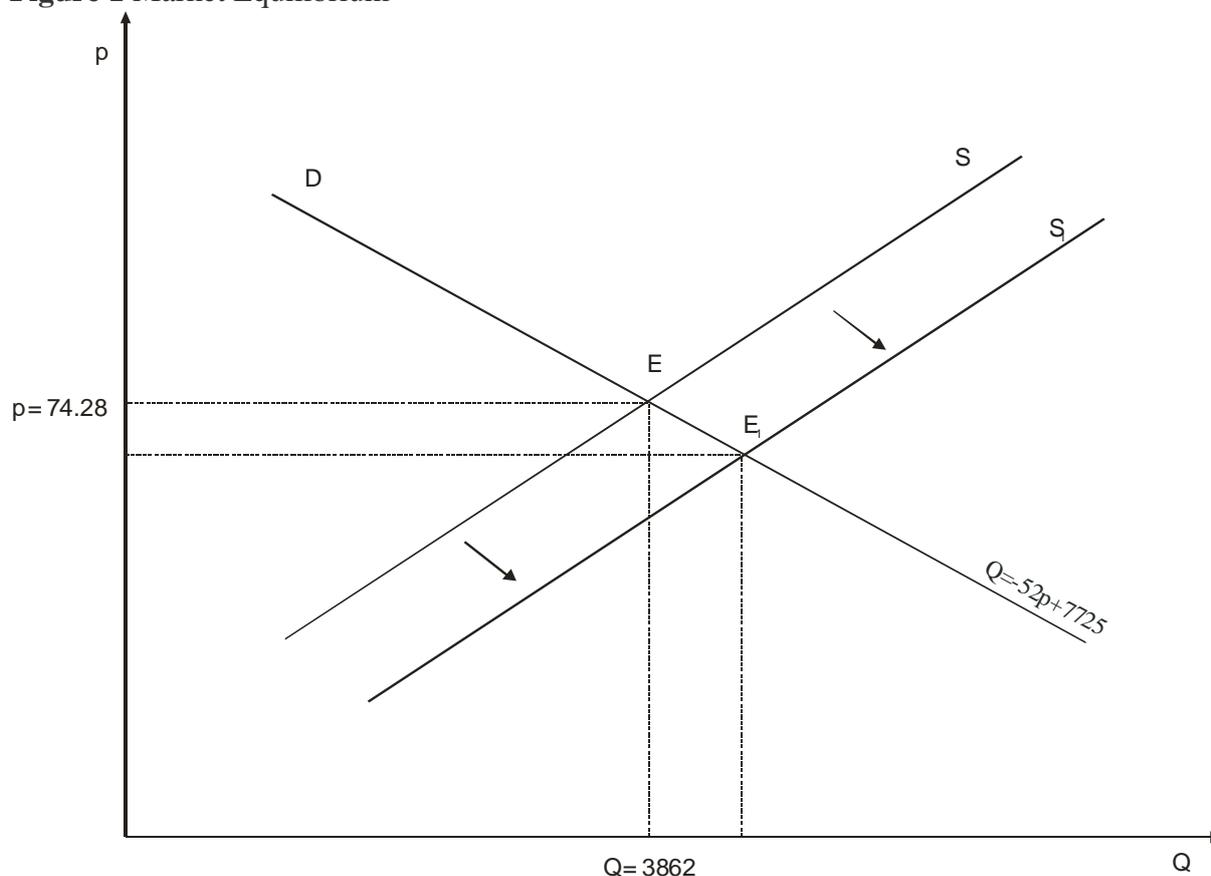
Because  $R'' = -104p$ , the price  $p = 74,28$  is the price by which the maximum total revenue would be achieved, and maximum is calculated by replacing this value in the function of total revenue, so that we get

$$R_{\max} = R(74,28) = -52(74,28)^2 + 7725 \times 74,28$$

$$R_{\max} = 286902,04$$

This can be graphically illustrated as follows (Cf. Figure 1)

**Figure 1** Market Equilibrium



Source: own work.

The equilibrium price  $p = 74.28$  HRK is the price for which the amount of supply and demand are equal ( $Q = 3862$ ). It is a stable price which is achieved market stability. Hence the market price of the product that trade company plans to introduce under private label when sold under the manufacturer brand name is 74.28 HRK. Trading company is aware of the fact that in competition with leading manufacturers that price cannot be achieved, so it must be sold at a significantly lower price. This will result in changes to the supply side and the demand side, ie prices and quantities tend to another equilibrium. In this case, the supply curve will produce a new market balance. The supply curve will move to the right and down to produce a new equilibrium point southeast of the original ( $E_1$ ). The decision of the commercial company to introduce a particular product under the private label will force manufacturers to conduct an active policy of price.

Potential week demand for the product after its introduction under private label is defined by the function that has the following format:

$$q_1 = -6,5p + 655.$$

Each subsequent function is based on the previous function, while the parameter of the function shows a downward trend of 20.

$$q_2 = -6,5p + 635$$

$$q_3 = -6,5p + 615$$

...

$$q_{15} = -6,5p + 375$$

Based on the function of demand the calculated price for the first week is 50.38 HRK, which would achieve the maximum weekly total revenue of 16,499.45 HRK. As functions of demand for each consecutive week suggest the need for constant lowering of price, trading companies, in practice, most often choose a lower price which guarantees the highest revenue in the first week, and this price is taken as a constant throughout the sales period. This price is far lower than the price of the product under the manufacturer brand and guarantees the sale of product under private label while achieving adequate profits. This claim is proved by solving a practical example using the model set in the following Excel spreadsheet (cf. Table 1 & 2).

**Table 1** The problem of pricing which would achieve the maximum net profit

	A	B	C	D	E	F	G
1	Retail.xls						
2							
3							
4	Initial Inventory			2000			
5	Demand Slope			6,5		Capacity	10000
6	Demand Intercept for Week 1			655		Invest	0
7	Salvage Value			\$ 25,00		Make	0
8	Inventory Cost			\$ 1,00		Buy	0
9	Intercept Trend			20			
10	Variable Production Cost			\$30			
11	Variable Purchase cost			\$40			
12	Investment Fixed cost			\$20.000			
13							
14	Week	Price	Intercept	Demand	Sales	End Inv	
15	0					0	
16	1	\$ -	655,0	655,0	0,0	0,0	
17	2	\$ -	635,0	635,0	0,0	0,0	
18	3	\$ -	615,0	615,0	0,0	0,0	
19	4	\$ -	595,0	595,0	0,0	0,0	
20	5	\$ -	575,0	575,0	0,0	0,0	
21	6	\$ -	555,0	555,0	0,0	0,0	
22	7	\$ -	535,0	535,0	0,0	0,0	
23	8	\$ -	515,0	515,0	0,0	0,0	
24	9	\$ -	495,0	495,0	0,0	0,0	
25	10	\$ -	475,0	475,0	0,0	0,0	
26	11	\$ -	455,0	455,0	0,0	0,0	
27	12	\$ -	435,0	435,0	0,0	0,0	
28	13	\$ -	415,0	415,0	0,0	0,0	
29	14	\$ -	395,0	395,0	0,0	0,0	
30	15	\$ -	375,0	375,0	0,0	0,0	
31							
32		Revenue from sales				\$0,00	
33		Revenue from salvaged units				\$0,00	
34		Inventory Cost				\$0,00	
35		Procurement cost				\$0,00	
36							
37		Net Profit				\$0,00	

Source: own work.

Table 1 is fed data on the initial inventory, function of demand for product under private label, costs of holding inventories, trending of parameter function, variable production costs - costs of producing by the selected manufacturer under private label, variable purchase cost - costs of purchasing the product under the manufacturer brand name and investment fixed cost - marketing costs (upper part of the table). Decision variables are the prices and quantities of product sold. Decision variables are also investments made for private label or for production under manufacturer brand name. Selected manufacturer can produce a maximum of 10,000 pieces of products for a private retail label. Total revenues, costs of stock, procurement cost and net revenue are shown in the lower part of the table.

The model defined in Solver is as follows:

Set Target Cell: \$K\$ 37

Equal To: maximize

By Changing Cells: \$B\$16:\$B\$30;\$E\$16:\$E\$30;\$G\$6:\$G\$8

Subject to the Constrains:

Quantity of sold oil cannot exceed the demand. \$E\$16:\$E\$30 ≤ \$D\$16:\$D\$30

Quantity of sold oil cannot exceed the stock. \$E\$16:\$E\$30 ≤ \$F\$15:\$D\$29

\$G\$6 = binary

\$G\$7 ≤ \$G\$6 × \$G\$5

\$B\$16:\$B\$30 = 50,38

In order to obtain an optimal solution the formula = SUMPRODUCT (B16: B30, E16: E30) is typed in the address field F32 which calculates the total revenue, the address field F33 has the formula = D7 \* F30 which calculates the total revenue from salvaged units, for the address field F34 the formula is = D8 \* SUM (F16: F30) which calculates the costs of holding stock, the address field F35 has the formula = D12 \* G6 + SUMPRODUCT (D10: D11; G7: G8) which calculates the costs of purchasing, the address field F37 has the formula = F32 + F33- F34-F35, which calculates the net profit. Having thus formulated the model in the Solver Parameters, the Solve button calculates the value of decision variables and the address sequence \$B\$16:\$B\$30; \$E\$16:\$E\$30. Decision variables define optimal solutions of the problem, that is maximum net revenues. Table 2 shows the optimal solution for constant price of 50.38 using the MS Excel spreadsheet.

**Table 2** The optimal solution to the problem for constant price of 50,38 HRK

	A	B	C	D	E	F	G
1	Retail.xls						
2							
3							
4	Initial Inventory			2000			
5	Demand Slope			6,5		Capacity	10000
6	Demand Intercept for Week 1			655		Invest	1
7	Salvage Value			\$ 25,00		Make	2812,95
8	Inventory Cost			\$ 1,00		Buy	0
9	Intercept Trend			20			
10	Variable Production Cost			\$30			
11	Variable Purchase cost			\$40			
12	Investment Fixed cost			\$20.000			
13							
14	Week	Price	Intercept	Demand	Sales	End Inv	
15	0					2812,95	
16	1	\$ 50,38	655,0	327,5	327,5	2485,4	
17	2	\$ 50,38	635,0	307,5	307,5	2177,9	
18	3	\$ 50,38	615,0	287,5	287,5	1890,4	
19	4	\$ 50,38	595,0	267,5	267,5	1622,8	
20	5	\$ 50,38	575,0	247,5	247,5	1375,3	
21	6	\$ 50,38	555,0	227,5	227,5	1147,8	
22	7	\$ 50,38	535,0	207,5	207,5	940,2	
23	8	\$ 50,38	515,0	187,5	187,5	752,7	
24	9	\$ 50,38	495,0	167,5	167,5	585,2	
25	10	\$ 50,38	475,0	147,5	147,5	437,7	
26	11	\$ 50,38	455,0	127,5	127,5	310,1	
27	12	\$ 50,38	435,0	107,5	107,5	202,6	
28	13	\$ 50,38	415,0	87,5	87,5	115,1	
29	14	\$ 50,38	395,0	67,5	67,5	47,5	
30	15	\$ 50,38	375,0	47,5	47,5	0,0	
31							
32		Revenue from sales				\$141.716,42	
33		Revenue from salvaged units				\$0,00	
34		Inventory Cost				\$14.090,65	
35		Procurement cost				\$104.388,50	
36							
37		Net Profit				\$23.237,27	

Source: own work.

Data in Table 2 shows that the trading company decides to introduce products under private label and this in the amount of 2813 products. During a period of 15 weeks, the stated amount will be fully sold and will make a profit of 23.237.27 HRK. However, as manufacturers are led by an active pricing policy, which includes a policy of minimum prices, discount sales, competitive prices and permanently low prices (Pupavac, 2016, 120), it seems more appropriate that the trading companies will follow such pricing policy for products sold under their private label. Accordingly, this study is considering the possibility of a trading company

deciding on a policy of dynamic price for a product introduced under the private label (cf. table 3) instead of selling the product at a fixed price of 50.38 HRK. The method of calculation is the same, except that this model does not need constraints for constant price (\$B\$16:\$B\$30 = 50.38).

**Table 3** The optimal solution to the problem of dynamic pricing

	A	B	C	D	E	F	G
1	Retail.xls						
2							
3							
4	Initial Inventory			2000			
5	Demand Slope			6,5		Capacity	10000
6	Demand Intercept for Week 1			655		Invest	1
7	Salvage Value			\$ 25,00		Make	2058,75
8	Inventory Cost			\$ 1,00		Buy	0
9	Intercept Trend			20			
10	Variable Production Cost			\$30			
11	Variable Purchase cost			\$40			
12	Investment Fixed cost			\$20.000			
13							
14	Week	Price	Intercept	Demand	Sales	End Inv	
15	0					2058,749995	
16	1	\$ 65,38	655,0	230,0	230,0	1828,7	
17	2	\$ 64,35	635,0	216,8	216,8	1612,0	
18	3	\$ 63,31	615,0	203,5	203,5	1408,5	
19	4	\$ 62,27	595,0	190,2	190,2	1218,2	
20	5	\$ 61,23	575,0	177,0	177,0	1041,2	
21	6	\$ 60,19	555,0	163,8	163,8	877,5	
22	7	\$ 59,15	535,0	150,5	150,5	727,0	
23	8	\$ 58,12	515,0	137,3	137,3	589,7	
24	9	\$ 57,08	495,0	124,0	124,0	465,7	
25	10	\$ 56,04	475,0	110,7	110,7	355,0	
26	11	\$ 55,00	455,0	97,5	97,5	257,5	
27	12	\$ 53,96	435,0	84,3	84,3	173,2	
28	13	\$ 52,92	415,0	71,0	71,0	102,2	
29	14	\$ 51,88	395,0	57,8	57,8	44,5	
30	15	\$ 50,85	375,0	44,5	44,5	0,0	
31							
32		Revenue from sales				\$123.497,74	
33		Revenue from salvaged units				\$0,00	
34		Inventory Cost				\$10.701,25	
35		Procurement cost				\$81.762,50	
36							
37		Net Profit				\$31.033,99	

Source: own work.

Based on data from Table 3, it is evident that the policy of dynamic price for a product under the private label affects the amount of the sold and ordered product from the manufacturer and this beneficial to the profit of the trading company. Operating a dynamic pricing policy for a product under the brand name, trading company will achieve higher profits with lower sales volumes and the products ordered. The trading company in this example will order 2059 pieces of product, or 28.6% less than in the previous example and will achieve profits in the amount of HRK 31,033.99 or 33.55% more.

The proposed model allows trading companies to simulate a number of other situations such as the decision-making when the height of fixed and variable costs is changed. Thus, Table 4 shows optimal solutions for different heights of variable production costs that can directly and substantially affect the decision on (not) introducing new products under the private label. If, for instance, variable costs of production would amount to 35 HRK then the introduction of this product under the private label would pay off only on condition that the product is sold by

application of dynamic price policy. If the amount of variable costs of production would be 38 HRK, introducing the product under the private label would not be worth the cost. In this case, a better option would be to sell the product under the manufacturer brand name (by decision).

**Table 4** Comparison of results obtained by different variable production costs and different pricing policies (in HRK)

Variable production cost	Variable purchase cost	Investment fixed cost	Price	Quantity	Total revenue	Stock costs	Procurement cost	Net revenue	Make or by decision
30	40	20000	50,38	2812,95	141716,42	14090,65	104388,50	23237,27	make
30	40	20000	Dynamic prices	2058,75	123497,74	10701,25	81762,50	31033,99	make
35	40	20000	50,38	2502,83	126092,58	10314,	100113,20	15665,23	buy
35	40	20000	Dynamic prices	1815	113869,62	8995,00	83525,00	21349,62	make
38	40	20000	Dynamic prices	1571,25	103022,74	7288,75	62850,00	32883,99	buy

Source: own work.

#### 4. CONCLUSION

The process of deciding on introduction of new products under the private label is a complex one. Demand for these products, potential sales volume and potential sales capacity, the cost that guarantees the highest volume of revenue and the highest profit - all of these factors should be taken into consideration and analysed. As seen in this study, the process of decision-making can be simplified using computer simulation and prediction. The examples given here have shown that deciding on a dynamic price policy for products introduced under the private label, instead of selling them at a fixed price, would achieve higher profits for the company, but with lower sales and less products ordered. Also, it is shown how the proposed model of simulation can be used in different, real situations. The model gives answers to what would happen if fixed and variable production costs or variable purchase costs changed.

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# SAFETY ISSUES OF LOW ENERGY MICRO-LOCATION TECHNOLOGY IN RETAILING

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## ABSTRACT

*Micro-location low energy technology is technology that has big possibilities of its application in retail industry. On the one hand, it provides consumers with new buying experience, augmented reality, more transparent purchase and more precise personalized treatment. On the other hand, it gives retailers more quality information about consumers, makes analysis of consumer buying behaviour in the store easier and communication with consumers simpler and less expensive. The application of micro-location enabling technology and services is supposed to make things easier for all subjects involved, however there are certain challenges such as privacy and security. The aim of this paper is to give an insight into micro-location technology, highlight some of the challenges that micro-location is currently facing with and to understand the level of knowledge of Croatian consumers and retailers attitudes and beliefs towards this type of technology. For this purpose, qualitative and quantitative research methodological approaches were used. Findings indicate that both consumers and retailers have recognized advantageous associated with using micro-location low energy technology. However, both consumers and retailers think that Croatian market is still very sceptical towards its using due to the problem of protecting the privacy.*

**Keywords:** micro-location low energy technology, retailing, safety, Croatia

## 1. INTRODUCTION

The competitive advantage of a company presents its ability to outperform its competitors. A few decades ago, we could talk about the access to natural resources, highly skilled labour, geographic location, high entry barriers, etc. as key elements of a company's competitive advantage. However, today, in an era of the generation which considers mobile technology a basic necessity with its lifestyle, access to new technology can be considered as a direct impact on the achievement of a company's competitive advantage.

According to Dion (Lipow, 2016), technology innovations help retailers stay competitive in four key categories: convenience, price, size and speed. The same source states that retailers' dependence on technological solutions is evident at the operational as well as executive level. In the first case, technology helps balance inventory assortments, manage ordering and track pricing in stores. Customer tracking tools increase customer satisfaction and promote loyalty by enhancing shoppers' in-store experience. On the executive level, technology improves planning and decision making. Various data-mining software help make stocking, pricing and marketing decisions, as well as improve product design and development.

Lai and Chuah (2010) argue about a huge number of "contactless technologies" emerging as the most promising way of supporting the retail process, from mobile point of sale (Rouse and

McLaughlin, 2014), Handheld Self Barcode Scanner ([www.tesco.com/scan-as-you-shop](http://www.tesco.com/scan-as-you-shop)), SmartOrder technology (Aruba Networks, 2012), Personal Digital Shopping Assistant (Setiabudi and Tjahyana, 2011), to interactive mirrors (Campbell, 2015) and self-scanning checkouts (Rouse et al., 2005). Such technology creates a completely new relationship between customers and staff members, because customers do not have to be only in face-to-face interactions with staff members, rather with a retailer's web page, virtual screens and aisles, virtual mirrors–fitting rooms, digital signage, intelligent self-service kiosks, vending machines and dynamic menus.

Nowadays, there is an increasing number of consumers that are using mobile technology for services based on geographic positioning. They are searching for instructions how to get to their destination, restaurants and other facilities in their neighbourhood, or just sharing their current geographic position with their friends, or simply collecting information about their current location. Such an emerging trend enables the development of location based retail services. The topic of this paper is mobile technology which produces new solutions for navigation and positioning in a narrow or indoor location changing customers' complete shopping experience and offering security in their transactions. It is about a new navigation area with a considerably smaller geographical zone, a so called micro-location. Zafari et al. (2015) describe micro-location as the process of locating any entity with high accuracy (possibly in centimetres). In this paper, we present an insight into micro-location technology which is one of the most interesting technical developments in the customer experience innovation space and which provides the ability for a mobile application to tell exactly where someone is and respond accordingly.

The paper is structured as follows: the first section or Introduction is followed by a section which provides the basic description of micro-location technologies in retailing. Then, a section with Methodology is given followed by results and discussion. Finally, the conclusion of the paper together with future research directions, as well as the limitations of the paper, are presented.

## **2. THEORETICAL FRAMEWORK ON MICRO-LOCATION TECHNOLOGY IN RETAILING**

Micro-location technology, which provides the ability for a mobile application to identify exactly where someone is and to respond accordingly, is one of the most interesting technical developments in the customer experience innovation space. Some of the most prominent micro-location technologies are (Zafari et al., 2015): Bluetooth Low Energy based Beacons/iBeacons, Ultra-Wideband Based Micro-location, Wireless Positioning Systems, Magnetic Field Mapping, and Radio Frequency Identification.

Micro-location technology works on the low energy Bluetooth standard in a way that a transmitter sends data to adjacent smart mobile devices with information where it is and what there is to see. Thus, the two main concepts of micro location technology are micro location and interaction, where micro location refers to the in-door navigation and interaction refers to informative and entertaining content closely related to certain location and objects in its vicinity.

## 2.1. Types of Micro-location Technology

In this paper we are focused on Bluetooth Low Energy (BLE) or Bluetooth Smart technology with the low energy consumption and BLE based Beacons/iBeacons technology. iBeacon technology is less than three years old, but beacons have already transformed the retail landscape. They are named according to their producer, and thus we have Apple iBeacons, and Google Inc. Eddystone iBeacons.

Beacons are making micro-location a reality, creating timely, specific and relevant interaction with customers based on their location, down to the inch. Unlike a Quick Response (QR) code, beacons don't require any action on the user's behalf once they've opted in (Dobush, 2014). If they use the corresponding application, shoppers will automatically get the content the retailer has set up. For example, using a combination of Apple iBeacons and other positioning technologies to allow retailers to send highly personalized and targeted messages to phones of shoppers are very precise in the store (Treadgold and Reynolds, 2016).

### 2.1.1. Bluetooth Low Energy (BLE) Technology

In 2010, the Bluetooth Special Interest Group (SIG) proposed Bluetooth Low Energy (BLE) or Bluetooth Smart that is also known as Version 4 of the Bluetooth Technology (Siekinen et al., 2012). It differs from the classic Bluetooth which can handle a lot of data, but consumes battery life very quickly and costs a lot more. BLE is used for applications that do not need to exchange large amounts of data, and can therefore run on battery power for years at a cheaper cost (Townsend et al., 2014).

The Bluetooth Developer Portal points out (2016) the key features of Bluetooth with low energy:

- Industry-standard wireless protocol that allows for multi-vendor interoperability
- Ultra-low peak, average and idle mode power consumption that gives the ability to run for month(s) on standard coin-cell batteries
- Standardized application development architecture that leads to low development and operational costs
- Allows for some of the tightest security in the industry with 128-bit AES data encryption

### 2.1.2. BLE based Beacons/iBeacons Technology

There are different definitions of iBeacon technology. Fard et al (2015, p. 159) describe this technology as newly introduced technology which provides a higher level of location awareness utilizing BLE for indoor location based services. According to Burzacca et al. (2014, p. 159) iBeacon is a system of internal positioning that apple calls "a new class of low-powered, low cost transmitters that can notify nearby IOS 7 devices of their presence". Varsamou and Antonakopoulos (2014, p. 288) point out that 'BLE-based indoor proximity technology, called "iBeacon", allows a mobile device to understand its position by knowing how close it is to low-complexity, low-cost, wireless transmitters called "hardware iBeacons" (or just "iBeacons")'. Köhne and Sieck (2014, p. 315) suggest that iBeacons are a new way to interact with hardware. An iBeacon is a Bluetooth Low Energy device that only sends a signal in a specific format. In his 'Beacon Bible' Cavallini (2015, p. 9) simply describes that 'iBeacon' is the name Apple chose for a particular technology that allows Mobile Apps

(running on millions of recent iPhones, iPads, etc.) to know how close they are to tiny, low-cost, wireless transmitters called “hardware iBeacons” (or just “iBeacons”).’

There are two key concepts of iBeacon technology (Cavallini, 2015, p. 10) are:

- Micro-location, and
- Interaction, engagement, and context.

*Micro-location* relates to the precise geo-location where the mobile device is able to understand its position, even in indoor locations where smartphones or tablets are not able to pick up GPS signals from satellites overhead.

*Interaction, engagement, and context.* The iBeacons signals enable interaction with Mobile Apps, for example triggering some App functionality to perform a specific action on a specific Mobile device – at the exact specific time and in a specific location.

### 2.1.3. Eddystone Technology

Eddystone technology is a new Bluetooth LE technology introduced by Google in 2015. It is an open BLE beacon format that takes the primary capability of beacons – their ability to broadcast a unique number via short-range Bluetooth signals – and extends it to a greater degree (Malik, 2015).

Eddystone technology is similar to Quick Response (QR) code technology which currently requires a user to scan it in order to preview the message or advertisement (Cajide, 2016). Since Eddystone is an open source and offers cross-platform support for both iOS and Android, it has an edge over iBeacon, which works only with select compatible iDevices (Passary, 2015). This basically means that the iBeacon has limitations since only a small percentage of smartphone users in the U.S. and worldwide will be able to use iBeacon.

## 2.2. Advantages and Limitations of Micro-location Technology

There are some advantages of this technology that are common for all Bluetooth Low Energy technologies:

- the extremely low-power communication requirements, expected to operate for years on a coin-sized battery (Varsamou and Antonakopoulos, 2014),
- the flexibility of transmitter positioning due to powered by coin-cell batteries,
- increased range of signal in comparison with classical Bluetooth,
- allowing Mobile devices to understand their positions, even in indoor locations where smartphones or tablets are not able to pick up GPS signals from satellites overhead (Cavallini, 2015),
- new buying experiences, augmenting reality for consumers,
- an easy way to get information about the objects or products consumers are seeing and to be timely notified of pertinent events, sessions, workshops, etc.’ (Cavallini, 2015),
- the ability to simultaneously collect first-party data at scale with location-based data (Maycotte, 2014).

There are some emerging benefits for retailers (Cavallini, 2015) in a way that micro-location technology allows retailers to convey specific, customized deals to shoppers based on the specific time period, which aisle they’re in, their purchase history, their loyalty profile, etc. Retailers are able to monitor customer behaviour (store visits, walking-paths, etc.) and they

have real knowledge about the time the customer has been standing in front of a specific display; sensing second-by-second a customer's (inferred) interest about a specific product, and the system can supply additional information such as online reviews and – talking about fashion – other available styles or colours. Micro-location technology provides effective multichannel retailing, i.e. integration of online and offline shopping (for example a customer may shop in a retailer's store and pick up the items purchased the evening before on the retailer's ecommerce site). iBeacon can change the whole shopping experience in a shopping centre. It starts at the entrance of the parking lots, guiding a customer to the stores he/she wants to visit, even pushing him/her a coupon for the favourite store (Köhne and Sieck, 2014). When consumers have finished shopping the application remembers the parking lot and navigates the consumer along the fastest way, and even allows the consumer to pay a parking fee directly from the application at the exit.

Townsend et al. (2014) consider no security or privacy provisions as major limitations of broadcasting, when compared to a regular connection, because any observer device is able to receive the data being broadcasted. Moreover, since the data broadcasted by an iBeacon is public, anyone could pick up the signal and use it within an “unofficial” Mobile Application. Retailers don't want third-party mobile applications to trigger actions on their customer's mobile devices once they are in their stores. Thus, retailers are faced with the problem of „hijacking“. There is also the problem of consumers' privacy, because they may not be pleased about the fact of being monitored by retailers at every step in the store and have the right to know how their location information (and any other data) is being used.

### **3. METHODOLOGY**

To give an insight into micro-location technology in retailing and the perception about its ability to provide security in retailers' transactions, research based on a qualitative and quantitative approach was conducted.

The qualitative approach of the study includes face-to-face interviews with four managers of different retail types (supermarket, do-it-yourself store, special stores) focused on the advantages and disadvantages of low energy micro-location technology for retail companies, and the opportunities this technology provides for success in the Croatian market.

The quantitative approach contained a survey on the sample of 142 Croatian consumers in order to understand the level of Croatian consumers' knowledge as well as their attitudes and beliefs towards this technology. The method used in this study was an online questionnaire. The questionnaire consists of the following major sections. Similar to Pantano and Priporas (2016), the first section consists of questions related to their using of smartphone applications, and the micro-location application. The second section includes questions about the specific micro-location technology consumers' experience. This section also includes a video which shortly explains low energy micro-location technology, followed by questions related to the consumers' attitude towards this type of technology. The third section is devoted to demographics of the sample (results are shown in Table 1).

**Table 1** Demographics of sample (Total sample=142 respondents)

Item	Percentage
1	
<i>Gender</i>	
Female	65.6
Male	34.4
<i>Age (Years)</i>	
18-24	82.8
25-34	13.9
35-44	3.3
45+	0
<i>Occupation/Employment status</i>	
Employed	17.3
Unemployed	2.1
Pupil	5.3
Student	75.3

Source: survey

Table 1 portrays the demographic profiles of the respondents. The sample is made up of 34.4 percent males and 65.6 percent females. The sample mostly consists of students (75.3 percent) and employed persons (17.3 percent). Almost the whole sample is younger than 35 years.

#### 4. RESULTS AND DISCUSSION

Using the research methods described, the analysis first deals with the qualitative study among retail managers, then with the study on the sample of Croatian consumers. This is followed by a brief discussion of the investigated themes and interpretation.

##### 4.1. The Qualitative Study among Retail Managers

In general, respondents agree about the importance of micro-location technology for the effectiveness of their business. Taking into consideration the increasing number of consumers who own smartphones, retailers point out the necessity of the implementation of micro-location technology in their retail formats. At the same time, they suggest that there is no sense in implementing this technology into small stores with a low number of visitors.

Respondents differed in answering the questions about the opportunity of micro-location technology in the Croatian market. Similar to the findings of Zafari et al. (2015), two respondents think that the Croatian market is still not ready for such technology due to privacy and safety concerns of Croatian consumers. One retail manager argued that a large amount of data about consumers is required by retailers today, and pointed out the increasing use of smartphone devices by Croatian consumers is the main argument for the Croatian market's readiness for this technology. He stated: *"The implementation of micro-location technology in a retail company could result in more insights into consumer's loyalty. Namely, if a consumer is a really loyal one, then he believes his retailer and he allows location tracking at their favourite store. He believes that this technology could make the relationship with the retailer more personal."*

The fourth respondent is the owner of a retail company which has started the implementation of technology similar to micro-location technology. He stated that the Croatian market was ready for the micro-location technology. However, he pointed out not only consumers' resistance due to privacy issues, but also employees' resistance due to their inexperience in using new technology.

Among the advantages of this technology respondents pointed out: significant savings in the advertising of goods and services, easy access to a large amount of consumers' data, more personalized communication with consumers, etc. However, they also recognized limitations of the adoption of this technology as follows: this technology is unacceptable for all consumers (for example, older consumers are not attracted by smartphone applications and retailers cannot have complete information about the situation in his market), privacy and safety concerns of Croatian consumers.

#### **4.2. The Quantitative Study on the Sample of Croatian Consumers**

The purpose of the first section of the questionnaire was to eliminate respondents who do not use smartphone applications. In such a way, 95 respondents were left for the further analysis. Among them, the largest percentage of respondents (69.8 percent) use micro-location applications only if they need to, and 15.6 percent of them do not use those applications at all.

Most respondents (89.13 percent) appreciate system suggestions made on the basis of their geographical position and an easy access to qualitative information (70.65 percent of respondents). However, there is still a high percentage of respondents (68.48 percent) who think that such applications and technology include a high level of risks, such as privacy and security concerns.

In the last question, respondents had to express their attitude towards micro-location technology. It is positive that more than a half of the sample thinks that this technology provides a better shopping experience for consumers, and that 34 percent of respondents have the intention to use it in the future.

### **5. CONCLUSION**

Micro-location technology, particularly those working on the low energy Bluetooth standard, has been an important field of study in the last few years from the retailers' and from the consumers' point of view. From the retailers' point of view, micro-location technology allows them to convey specific, customized deals to shoppers based on a specific time period, their purchase history, their loyalty profile, etc. Retailers are able to monitor customer behaviour and create more personalized marketing strategies. From the consumers' point of view, micro-location technology allows them to understand their position, even in indoor locations, to get information about the objects or products they are seeing and to be timely notified of pertinent events, sessions, workshops, etc. into micro-location technology, highlight some of the challenges that micro-location is currently faced with and to understand the level of knowledge of Croatian consumers and retailers attitudes and beliefs towards this type of technology. In this paper an insight into the basis of low energy micro-location technology in the context of the retail industry was given. Besides the theoretical explanation of the advantages and limitations of this technology, the paper provided empirical evidence supporting the positive and negative attitudes towards the adoption of this technology in the

Croatian market. The results of the study among Croatian consumers showed that respondents believe that this technology would enhance their shopping experience and their effectiveness in purchasing products. The results of the qualitative study among retailers confirmed their awareness of the importance of micro-location technology for the effectiveness of their business. The most important findings of this study are that in both cases of retailers and consumers, privacy and safety concerns in adopting and using micro-location technology present the main challenges for its wider application. It is hoped that the present paper will stimulate other researchers to extend the knowledge about the potentials and importance of this technology.

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# EFFECTS OF MAJOR RETAILERS FORCE MANIFESTATION ON OTHER PARTICIPANTS IN MARKETING CHANNELS

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## ABSTRACT

*Retail revolution changes the relationship between members of the marketing channel in developed market economies fundamentally. Large retail chains are developing intensively and getting stronger in the global market. They are taking the lead in vertically integrated supply chains. The dominance of large international retail chains in particular is reflected in the structure of markets and the creation of conditions of effective competition between the participants in marketing channels. The need for research of intensive changes in marketing channel structure, especially in the sphere of retailing and new relationships that are established between all participants in the market today, is more and more emphasized. Strengthening the power of retailers in marketing channels and a higher level of concentration of retailing is in positive correlation with the level of economic development and the potential market area. Large retailers contribute to increase the market role of large and well known producers, and thus weaken the position of small producers. The concentration and strengthening the power of retailers is in the interest of the final consumer on the contemporary retail market. The size of specific participants, the organization of channel, as well as a variety of circumstances, create specific market conditions for the establishment of relations between individual members of the marketing channel. In this regard we are looking at the effects of expression of the power of large retailers on the other participants in marketing channels.*

**Keywords:** globalization, internationalization, concentration, marketing channels, retail

## 1. INTRODUCTION

The structure of retailing in the modern world markets, and in increasingly emerging markets, has transformed from domination of large number of small and independent retailers to the situation of dominant role of strong national and multinational retailers. Retailers have developed rapidly in recent decades. The concentration of retail market has increased by strengthening retailer's market share and strength. Now a huge share of the market belongs to a small number of very large retailers who become, without a doubt "gatekeepers" for access to consumers (Dobson et al., 2003). The decreasing number of large retailers in all markets, controls access to consumers and thus fundamentally changes the relationship between members of the marketing channels.

The dominance of large retail chains is reflected in the structure of markets and the creation of conditions of effective competition between the participants in marketing channels. Restructuring processes, application of modern technological innovation in retailing, intense internationalization of business and the like, have led to retailers in most commodity groups, measured by the volume of traffic, assets or share capital, being significantly higher than the producers today.

They begin to dictate conditions even to the world's largest producers whose huge part of the production sells through global retail giants. They become more demanding towards their suppliers, in order to rationalize purchasing and logistics activities and hoard their purchasing power; they are looking for a smaller number of larger suppliers who they can cooperate with (Hingley, 2005). Retailers attempt to exercise control and supremacy in the horizontal and vertical dimensions of marketing channel intensively (Thomas and Wilkinson, 2011), becoming the primary initiators of the

process of vertical integration and cooperation. Intensive processes of vertical cooperation and integration in marketing channels are affecting the shortening of marketing channels' length through the creation of strategic groups run by large retail chains.

In such conditions, the bargaining position of producers and wholesalers weakens and they become increasingly dependent on retailers. These retailers are continuing to grow and strengthen the force, but also the retail sector at the national level and in the global market, is becoming stronger. Strengthened retail sector assumes many functions of marketing that had been traditionally performed by their suppliers, wholesalers and producers. It takes a leading role in the development of relations with consumers, and therefore dominant position in the marketing channels. At the same time, as a result, many of the participants in marketing channels become redundant.

These processes are largely manifested in selling food and other products of everyday purchases and consumption, where the position of retailers is the strongest. In such circumstances, with no doubt, comes the significance of effects on adding new value to consumers. However, changes affect a large number of stakeholders and very intensively reflect on the activities of all other market participants: producers, wholesale, retailers themselves, but also state institutions.

At the beginning of these revolutionary changes in trade, many of authors had only negative aspect of the accumulated power of large retail chains in their focus of observation. They assumed that those who possess the power, exclusively, use it with purpose to endeavor and achieve behavior change of partners using forced influential strategy. However, later, the attitudes that power could be useful in the event that creates a natural division of activities and coordination between marketing channel members begin to dominate. The latest research suggests that "in marketing channels power could be strategically used, and strategic uses of power could make differences in inter firm relationships and distribution efficiency" (Zhuang et al., 2006).

Today, market participants expect "to use power as an effective tool for supply chain management" (Belaya and Hanf, 2009) creating an atmosphere of fairness and improving the effectiveness of the overall market in which they operate. In line with this, the power is widely accepted not only in academic circles but also in the practice of the participants in the market. The importance of strong retailers becomes more and more evident and with the aforementioned trends the overall theory and practice of marketing change.

However, the question whether the growth of retailers, with no doubt, benefits to other participants in the channel, and finally and most importantly, to consumers themselves still stands. When it comes to accumulation and application of power of large retail chains, especially in the field of food and other products of everyday purchases and consumption, there is still a lot of disagreement and controversy. Issues of possible imposition of restrictions and constraints in the vertical dimensions of channels and endangering the survival of other participants in marketing channels: endangering the position of producers, wholesalers and small and medium-sized retailers, higher prices for consumers, creating a barrier to entry into the retail market and similar are particularly highlighted.

More power means possibility of greater influence on its own position and its partners, but also the possibility of expressing selfish interest. Stronger asymmetry in strength means fewer benefits for weaker side, but also the possibilities of application of sanctions and coercion by those with more power. However, "for many companies, the lure of partnering with a mega-distributor is irresistible" (Thomas and Wilkinson, 2011), and "acceptance of power-imbalance is a key first-step to successful relationship building" (Hingley, 2005).

However, it is necessary to bear in mind that the power of large retail chains is located in all business activities in which they participate, and that there is always the danger of abuse of power and position of the weaker partners. Taking into account that power has its positive and constructive, but also negative and somehow destructive side, strong retail chains take on a huge responsibility in terms of creating and using an effective mix of mechanisms of power. On the modern market today,

undoubtedly, the attitude is that although there are concerns “whatever the problems concerning the concentration of buying power, retailers need to be monitored as long as they compete fairly for market share and pass resulting benefits on to consumers” (Fels, 2009).

Considering the advantages brought by cooperation with large retail chains, their partners, producers and wholesalers are primarily trying to become necessary suppliers. They are aware that in these modern marketing channels sustainable position can be built only on the foundations of long-term cooperation and partnership in the relation of interdependent members. They are aware that the level and form of interdependence “it defines power relations between channel members; and, it is also the seed of potential channel conflict” (Li and Dant, 2001).

Producers and wholesalers are very powerful and thoughtfully devoted to fostering the development and management of long-term relationships with large retailers. Such long-term relationships develop mutually beneficial outcomes and are characterized by mutual trust, open communication, common goals, commitment to mutual gain, and organizational support (Bradford and Weitz, 2009). Success in this effort could be a prerequisite for survival of producers, especially those weaker ones, in the current conditions of high concentrations of forces and the polarization of relations. As economic developments are becoming less and less predictable “long-term relationships between distribution channel partners becomes an increasingly more important part of the company’s long-term strategy” (Black, 2010). If we succeed in these intentions, the benefits for manufacturers and wholesalers are multiple.

Proactive manufacturers and wholesale trade brokers in more developed markets, and increasingly those in emerging markets, are finding ways today to help the situation they find themselves in by turning to their advantage and benefit from all the advantages offered by business with large retail chains. They do not view more powerful retailers as a threat, but as someone who provides tremendous opportunities for business development.

Especially significant contribution to large retail chains provides improvement of the position of consumers. In this sense, there are many positive effects of strengthening the power of retailers. First of all, on the basis of realized lower prices in procurement and increasing the efficiency, the retail giants offer lower prices to their customers. It is vital to do so by providing a higher level of service than offered by other competitors.

Retailers with an extremely strong position in the supply and sales market have the opportunity to distance themselves from consumers significantly and ignore their needs. However, “competition strengthening in creases efficiency, encourages innovation and initiatives for the differentiation and quality improvement of products and services offered on the market” (Končar and Stanković, 2012).

Retailers today, in accordance with the modern definition which says that retailing is “set of business activities that adds value to the products and services sold to consumers for their personal or family use” (Levy and Weitz, 2012) want to afford everything, and more importantly, to obtain the value to consumers. Retailers today must differentiate themselves by meeting the needs of their customers better than the competition (Dabholkar et al., 1996). To strengthen relationships and increase customer loyalty they tend to go to meet the different needs and buying patterns, conscious that “it is essential to build a long-term and stable relationship with customers in today’s competitive society” (Yuen and Chan, 2010). Contemporary retailers by “understanding and responding cognitive and emotional expectations serve as the core for developing, nurturing and sustaining lifelong relationships with customers”(Jain and Bagdare, 2011).

Large retail chains are aware that, without any doubt, main priority of consumers’ concern today is food safety and security in general. In this sense, they have an irreplaceable role in today’s market and make strenuous efforts to meet the demands of the modern market.

## 2. PRODUCERS AND WHOLESALERS SATISFACTION WITH COOPERATION WITH LARGE RETAIL CHAINS

Producers and wholesalers throughout the negotiations between them as a supplier and representative of procurement of modern retailers are faced with four key and required aspects (Skytte and Blunch, 2005):

- sufficient quantities to the whole chain;
- supplier interested in long-term relationship with the retailer;
- possibility of traceability back to the primary producer; and
- supplier presence, in one way or another, on the chain's market.

After that, suppliers are inevitably faced with the pressure of these very powerful buyers who seek to minimize the seller's price and lower the maximum value of the transaction in order to, first of all, have their own room for charging higher price when selling in the next phase of distribution. Producers and wholesalers are relenting ability to ruthlessly and heartlessly down the purchase price on low, uneconomic level, which often means a threat to the very survival of the suppliers. It is assumed that in this situation "supplier will participate in the supply chain channel as long as his profit is non-negative" (Ertek and Griffin, 2002).

Suppliers, primarily smaller ones, are often complaining that the management category of retailer favors only certain suppliers and usually favors the largest of them. They are concerned because they believe that the management of product categories in this way results in reduction of categories to a few brands and that therefore other suppliers are in constant danger that their products could be delisted from the assortment. Category management is often seen as a barrier to entry in an assortment of especially secondary and tertiary brands.

In addition, closely related to the management of product categories, the introduction of products with the private label in the retail assortment meant that "retailers are no longer only agents selling manufacturers' brands: they are now also their competitors" (Amrouche and Zaccour, 2009). This phenomenon in the analysis of the position of producers in terms of strengthening the power of retailers cannot be ignored. Products with the private label today strongly compete for a place on the shelves of retailers, and in these conditions the struggle from the perspective of the producers' brands does not seem fair at all. Competition for place on the shelves has become so debilitating that many suppliers with right experience it as the most expensive real estate in the world.

Also, what does not go in favor of wholesalers is the fact that not (Desai et al., 2004.) there is a high level of understanding within all market participants that, unless the participant makes any special contributions and lower costs, adding another level in the marketing channel would inevitably increase inefficiencies and reduce profitability within the marketing channel. That nobody wants, especially retailers with a huge market and negotiating power. Accordingly, they gradually take on the tasks of distribution and number of functions that were traditionally performed by wholesalers and producers in the past, so it often raises the question of which of the participants retain the authority to perform a sufficient number of functions that makes sense to its membership and the role of intermediary in the marketing channel (Rossenbloom, 2013).

As for the producers themselves, the changes forced wholesalers through a significant transformation and to finding various strategies to strengthen their position in modern marketing channels for many of them followed radical changes in their marketing behavior, as a prerequisite for survival on the market. Their main advantages become specialization and focus on the services they perform, and strengthening of their position by finding new and innovative ways for the implementation of that (Rosenbloom, 2007).

Many market participants are becoming increasingly aware of the fact that the way of distributing goods through marketing channel with several wholesale levels may be the least expensive way of

marketing products to consumers (Flath and Tatsuhiko, 2008). Today, with the usual wholesale trade services, institutional wholesalers offer, even to the largest retailers, support in knowledge, and above all, the information flow between supply and demand sides in the market. They are aware of different situations, and that large information gap between producers and retailers encourages mediation among wholesalers so as to be able to bridge it, which makes marketing channels longer, while, in contrast, small information gap due to the development of producer brands and the presence of a large retailers makes distribution channels shorter and does not leave much room for the participation of intermediaries (Torii and Nariu, 2004).

Accordingly wholesalers seek their place in marketing channels. Perhaps the most striking example of "outsourcing" of management of certain categories is when powerful retailers left that activity to the leading suppliers in the area. The practice known as "category captainship" means that wholesalers, captains of category, usually conducted analysis on retailer category and it provides a detailed plan that includes recommendations on which brands are to be included in that category, in order to define the price of each product individually, how much space to give to each brand and where to position each of the brands on the shelves (Kurtuluş and Toktay, 2011).

Large retailers undoubtedly contribute to the growth of the market and the role of major producers and wholesalers, which, unfortunately, weakens the position of those small producers and wholesalers who have not had the opportunity and ability to adapt to the demands of the modern market. Those who have succeeded in that, by getting closer to the demands and needs of large retailers, have potential opportunities to increase profitability in cooperation with the dominant retailer.

It becomes obvious that producers and wholesalers are showing a higher level of satisfaction with cooperation with large retail chains. The aforementioned is also confirmed by another survey conducted in 2013 in the Serbian market which included 30 producers and 15 wholesalers. All examined market participants in their focus had food and other products of everyday purchases and consumption. An adequate geographical representation, the size of the economic entities measured by number of employees and turnover, as well as the product group that has highest participation in the turnover of selected producers was taken into account when defining the sample. The basic method used to obtain the response is a direct personal interview.

Higher level of satisfaction with producers in business with large retail chains is confirmed with the producers who gave specific answers to the asked questions related to their attitudes towards business with large, small, and medium-sized retailers. The results are presented in the following table (Stanković, 2014):

**Table 1** Producers' specific answers to questions about the business with large, small, and medium-sized retailers

Question	Answer	
Do you prefer doing business with large, modern retailers or small and medium-sized, traditional retailers (which partner would you prefer)?	with large, modern, retailers	small and medium-sized, traditional retailers
	86.70%	13.30%
Do you think that the development of large retail chains is in your personal and interest of other producers?	Yes	No
	70.00 %	30.00%

Source of the table: Stanković (2014), p. 250.

The answers finally confirmed that producers prefer doing business with large, modern retailers to doing business with small and medium-sized, traditional retailers. Specifically,

86.7% of the surveyed producers chose modern, powerful, retail chains for a partner. With small and medium-sized, traditional retailers prefer to cooperate in 13.3% of the cases. When asked whether they thought that the development of large retail chains is in their interest, and other producers 70% of them answered yes, 30% did not consider the development of large retail chains was in their interest.

Specific answers of wholesalers to precise questions related to their attitudes towards business with large and small and medium-sized retailers, complementing picture of the situation in Serbia in 2013 (Stanković, 2014):

**Table 2** Wholesalers’ specific answers to questions about the business with large, small, and medium-sized retailers

Question	Answer	
Do you prefer doing business with large, modern retailers or small and medium-sized, traditional retailers (which partner prefer to choose)?	with large, modern, retailers	small and medium-sized, traditional retailers
	40.00%	60.00%
Do you think that the development of large retail chains is in your personal and interest of other producers?	Yes	No
	27.00 %	73.00%

Source of the table: Stanković (2014), p. 284.

Despite a very challenging situation in which they find themselves, 40% of wholesalers replied that they would choose large, modern retailers partner in 2013. In addition, 27% thought that the development of large retail chains was in their interest and in the interest of other wholesalers. However, 73% of wholesalers believe the opposite. The results showed that, even at the time when the research was conducted, a significant part of the wholesalers was aware of the benefit that brings them the development of large retail chains and the need to adapt to its modernization and development of the market.

The ultimate goal of each of these is, of course, the realization of a dominant position in the market, significant market and negotiation power, which would make opportunities that would enable achieving competitive advantage. Today, strengthening the position of large retail chains contributes to strengthening the position of total retail sector and its importance in marketing channels with continuous weakening of the position of the producers.

### 2.1. Benefits realized by producers in cooperation with large retail chains

Analysis of the effects of power manifestation of large retailers on producers and their position in the marketing channels points out to the benefits realized by producers in cooperation with large retail chains. Analyzing the specific existing relationships of producers with large retailers we perceive their very significant and strong sides. However, present situation aside, expectations they should have in terms of future opportunities that bring their mutual business relationship are very important for the position of producers. The following tables prove that (Stanković, 2014):

**Table 3** Strengths of the current relationship of producers with large retailers

The current attitude of producers with large retailers
Strengths
<ul style="list-style-type: none"> <li>▪ The possibility of a wider and more intensive coverage of the market by the producer through cooperation with a smaller number of large retailers;</li> <li>▪ Bypassing intervention of wholesalers through direct business with retailers and thus reducing costs and increasing profitability;</li> <li>▪ Large volumes of sales with the expected lower distribution costs and secure billing can provide a higher level of profitability;</li> </ul>

<ul style="list-style-type: none"> <li>▪ The advantages brought by producers' brands large retailers must have (that 'must have' in their assortment), which include a stable cooperation of producers with a large retailer, widespread position on the market and significant sales, and selling of other products;</li> <li>▪ Easier international expansion of sales for producers by means of sales of products through retail network by the retailer in other markets</li> <li>▪ Exchange of information with retailers with the goal to have better production planning and sales and meet the competitive pressures in a better way;</li> <li>▪ The benefits of the ability to produce products with private label of a large international retailer;</li> <li>▪ The ability of producers to take care of presentation in assortment and stock in retail; and</li> <li>▪ Exchange of information with retailers for better planning and adequate response to competitive pressure; it is in their mutual economic interest.</li> </ul>
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Source of the table: Stanković (2014), p. 252.

**Table 4** Chances of future relationship of producers with large retailers

Future (expected) relationship of producers with large retailers
Chances
<ul style="list-style-type: none"> <li>▪ Expanding retail network of existing and, for the market, new retailers and accordingly broader and more intensive coverage of the market development of business with these major producers with large retailers;</li> <li>▪ In parallel with the development of large retailers increases producers' sale, realization of lower distribution costs and higher profit rates and, in general, the larger amount of profits;</li> <li>▪ More intensive development of cooperation with retailers without the mediation of wholesalers;</li> <li>▪ The possibility of development of production of products with private label from a large, international retailer;</li> <li>▪ Export of wide assortment of own products through the retailer in order to sell in its retail outlets abroad (or partner's retail network) and growth in exports along with the intensification of the process of internationalization of retail activity (along with their growth on foreign markets);</li> <li>▪ The arrival of new retailers in the market and the beginning of working with them, in terms of sales on domestic market or export to other markets in which they operate;</li> <li>▪ Effective investment in the development of its own brands through cooperation with producers to retailers' implementation of marketing programs for producers, improving the position of their products;</li> <li>▪ Developing long-term partnerships ie. establishing long-term partnerships with retail chains in terms of increased tendency of retailers to shortening marketing channels when they appear as holders of creating a vertically integrated strategic groups that have a unique approach to the market;</li> <li>▪ The advantages that bring producers intensive development of electronic forms of communication between the partners and the requirements of large retailers for their implementation;</li> <li>▪ Obtaining benefits by contracting restrictions that retailer "does not buy from competition" and that in its retail product assortment does not include the brands of competing producers (exclusive procurement) or contracting to only one retailer in a specific market area carries the producer's distribution of products (exclusive sales) when "the producer does not sell its products to retailer's competition";</li> <li>▪ The weakening of the position of small producers from retailers and strengthening barriers to their entry into the market and the retail network, which leads to the possibility of an increase in market share of strong producers with branded products; and</li> <li>▪ The benefits that certain producers endeavor brings retailers to focus on a smaller number of suppliers.</li> </ul>

Source of the table: Stanković (2014), p. 252.

## **2.2. Benefits realized by wholesalers in modern marketing channels**

Analysis of the effects of the manifestation of power of large retailers to wholesalers and their position in the marketing channels allow assessment of the strengths of the position in which wholesalers currently are, as well as future opportunities for their survival and strengthening the role of the marketing channels. It should be taken into account that, although significantly different from the characteristics of the relationship of wholesalers with large retailers, the relationship of wholesalers and small retailers has its own strengths in the present, as well as the chances that the future can bring.

As for producers, and wholesalers, in terms of highly concentrated market and the dominant role of strong retail giants, it is very important to devote significant attention to analyzing the opportunities provided by cooperation with small retailers. The following table provides the analysis of the basic

current strengths and future opportunities that could be expected in terms of the position of wholesalers in modern marketing channels (Stanković, 2014).

**Table 5** Strengths of the current position of wholesalers in marketing channels

The current position of wholesalers in marketing channels
Strength
<ul style="list-style-type: none"> <li>▪ Wholesaler in its intervention can bring cost savings, reduce risk, help in creating adequate assortment, propose business strategies and are an essential source of knowledge and experience, often without which no global retail giant can operate;</li> <li>▪ Have the ability to focus on participation in the marketing channels that include multiple levels of wholesaling and marketing of products to consumers who are willing to pay more for the convenience of shopping in small shops in the neighborhood;</li> <li>▪ The great importance of wholesalers in pooling of deliveries of certain suppliers to retail stores, with fewest number of receipts of the goods during the day supplemented with one more segment of the assortment;</li> <li>▪ Could offer satisfactory, often superior level of efficiency and effectiveness in carrying out the distribution operations;</li> <li>▪ Provide assistance to producers and use advertising and carrying out promotional activities, carry out prompt payment, and newly introduced products, conduct marketing research, provide information about foreign (other) markets, take large amounts, provide sincere and quality business advice, conduct training of employees, assist in policy cost and the like; and</li> <li>▪ Many wholesalers have adequate capacity to adapt to changes occurring in the market.</li> </ul>

Source of the table: Stanković (2014), p. 286.

**Table 6** Chances of future (expected) positions of wholesalers in marketing channels

Future (expected) positions of wholesalers in marketing channels
Chances
<ul style="list-style-type: none"> <li>▪ Offering superior service quality and lower cost than those that the other participants in the channel can offer;</li> <li>▪ Intensive changing in accordance with the dynamic transformation of marketing channel and intensive changes in the requirements on the part of their partners (focusing on continuously adapt to changes, enhancing flexibility and innovation, development of commercial capacities ...);</li> <li>▪ Finding different strategies to strengthen its position in modern marketing channels and the introduction of new models of operation wholesalers in accordance with the changes;</li> <li>▪ Orientation to the supply of small and medium-sized retailers and the imposition of its role as "exclusive suppliers" ( "full line") when the retailer selects the exclusive wholesaler to perform all the functions of wholesale trade for him;</li> <li>▪ Strategic orientation to supplying their buyers (small retailers) with a key strategy through unified purchasing power of buyers enables creating better conditions of supply and greater efficiency in the purchasing process;</li> <li>▪ Performing the role of "super broker" for large retail chains (particularly present in the categories of agricultural and food products) when the wholesaler becomes a preferred supplier for a given category and a focal point of communication between a large number of primary producers, intermediaries and retailers, but assumes all responsibility to implement all necessary activities, and ultimately, business success for whole categories of products for which this assumes the primary role;</li> <li>▪ The development of modern wholesale trade, with more complete service, wider assortment, modern distribution capacity and broader market coverage that would follow an intensive expansion of network of retailers;</li> <li>▪ Being in parallel with the diversification of products and shortening their lifespan, but also increased uncertainty in forecasting demand, providing necessary support in knowledge (primarily information on the specific market trends of supply and demand on it), thus inflicting the role of wholesalers as unavoidable intermediaries;</li> <li>▪ The imposition of intensive coordination between the suppliers (wholesalers) and retailers when the wholesaler becomes an irreplaceable source of necessary knowledge and experience (especially during the conquest of new international markets by retailers);</li> <li>▪ Development of "on line" sales, which is of great importance, precisely, to gather information); and</li> <li>▪ Taking a key role in the effort to internationalize operations of producers and penetrate foreign markets.</li> </ul>

Source of the table: Stanković (2014), p. 287.

### 3. CONTRIBUTION OF LARGE RETAIL CHAINS IN THE POSITION OF CONSUMER AND FOOD SAFETY

There is a particular interest in the effects of the development of retail chains and strengthening of their position of power to consumers. Today's consumers are becoming more individualized and specific in their increasingly sophisticated demands which impose modern retailers need for the development of numerous activities of micro-marketing. Competitive position of retailers is increasingly dependent on a whole range of services, creating a new value to consumers taking place in relation to a number of strategic areas: macro and micro location of stores, development of retail formats and electronic forms of commerce, a variety of support services, the range of goods and development private label, price, technology and level of integration in the supply chain. The key battle will be fought on the ground for permanent consumers. Retail format, personnel, service and presentation are becoming the critical elements of retail marketing (Constantinides 2006). Also, today it is common that the value of consumer basket was significantly lower in the stores of large retail chains than other retail outlets owned small and medium-sized retailers.

All in all, large retailers undoubtedly show a high level of interest in the needs and demands of its consumers, aware that firms that can obtain privileged information about customer needs by making use of the firm-customer relationship provide more satisfactory offerings than their competitors (Yuen and Chan, 2010). What is important is that today's requirements in terms of food safety and security in general, without any doubt, represent a priority to consumers. Today's consumers are primarily concerned about what kind of food they eat. Food safety issues are top of mind for today's consumers, who are more likely to report an issue with food than ever before. In this sense, large retail chains have an irreplaceable role and significance.

Consumers today are as never before informed and educated about where it is the safest to buy food and what happens on its way from "fields (farms) to the table". It gives considerable contribution to state governments, which is very intense in regulation of numerous activities within the food supply chain (food supply chain) as well as the withdrawal of the goods that do not meet the criteria from the market.

Large retail chains are making great efforts to meet the new legal and cultural requirements. They develop systems and methods for quality implementation of modern laws that respond to changing consumer demands, and in particular to protect their own products with the private label of adverse events, the threat of withdrawal from the market and the collapse of trust and reputation. In that sense, retailer tries to behave in appropriate way and act, positioned in the market as a responsible and proactive leader who prevents and manages risk (mitigating risk).

Large retail chains pay great attention to monitoring the traceability of each product and at all times have in possession accurate records related to it. This leads to greater efficiency when it comes to the need of the withdrawal of dangerous products from the shelves. Regarding that, they are much more efficient than other retailers, thanks to their software systems and effective internal communication among other things. They devote adequate attention to the treatment of food products at all stages and thus significantly reduce the possibility of occurrence of harmful consequences and illnesses among consumers caused by a variety of pollution products.

Also, there is very strong consumer demand for a natural, healthy, food (natural foods movement) at the present time. Consumers are looking for fresh vegetables, fruits, meat, dairy products, either from local or distant markets. Large retail chains are able to offer, thanks to great agility and flawless, functioning of the supply chain. It is not a problem for them to change their procurement plans every day which is what enables them to buy today what they will distribute through its retail outlets tomorrow.

In the supply chain, partners promote and implement technology designed to improve communication, which lowers the possibility of food contamination, reducing environmental pollution and, in fact, deliver higher quality food to consumers. Improved supply chain technology improves food security and helps ensure that all partners in the chain introduce innovative faster and better production and distribution of food. Although food security will not always be complete, the adoption of advanced technology leads to a reduction of concerns for food safety, which also leads to lower costs and a higher level of health and safety for consumers.

Thanks to vertically integrated supply chain, which is stimulated by the creation of large retail chains, large retailers have accurate information about all the ingredients that make certain products. Knowing how and where the product components are produced guarantees the ability to counter the threat of possible consequences on health.

Adequate storage and transportation capacity are critical to product quality and to the safety, health and consumer confidence, as well. Business philosophy of major retail chains means corporate responsibility with a very strong emphasis on environmental protection and high quality food. Today, consumers are willing to spend more money if they know that the products are manufactured and distributed by respecting the requirements of sustainability, such as organic and similar products.

In addition, large retail chains conduct adequate labeling to products offered to consumers. Consumers today want and need to know detailed information about raw materials, ingredients, allergens, country of origin, nutritional information, GMO or non-GMO. Also, large retail chains provide adequate packaging of products. Packaging is not just pandering to a certain lifestyle of consumers, but more importantly, contributes to food safety and quality. From the first moment of food packaging to the consumer table, food is vulnerable to a large number of pollutants due to the storage, transport and handling. Taking this into account the large retail chains accept a variety of standard packages (such as standards of Global Food Safety Initiative) to ensure that their products are protected from contamination.

#### **4. CONCLUSION**

There are many positive effects to manifest the power of large retailers on the other participants in marketing channels. The phenomenon of dominance of large retail chains is extensively reflected in the overall structure of the market and the creation of conditions of effective competition between all participants in marketing channels. Producers and wholesalers, who are in a position to cooperate with large retail giants, expressed high levels of satisfaction with this cooperation. Also, those who have failed to find a way to found and/or maintain such cooperation are intensively trying to do so.

Numerous questions of theoretical and practical nature are raised in the expressed views. This emphasizes the need for research, intensive changes in the structures of channel marketing, primarily in the sphere of retail and new relationships that are established between all market participants. Undoubtedly, strengthening of the power of retailers in marketing channels and a higher level of concentration of the retail sector is in positive correlation with the level of economic development and potential of market share.

In addition, it certainly confirms that the development of large retail chains is in the real interest of consumers. Those in this situation show much higher levels of satisfaction towards the large retailers with predominantly large and modern retail outlets, in comparison to small and medium-sized, traditional retailers, with mainly small and traditional shops. Products with private label, which are

often globally distributed, and carry high levels of consumer confidence, make the greatest contribution.

It is clear that large retail chains have a special role in the life of modern consumers, primarily related to the field of food safety. They contribute strongly to the fact that all those who participate in marketing channels in the food sector, from primary production to retail, are adequately trained and aware of their responsibilities. Powerful retailers, to press demands for increasing their own efficiency and profitability, successfully encouraged a culture of innovation and continuous improvement of existing systems and processes that take place within their own organizations as well as partners. They integrate their authority and coordinate tasks in marketing channels, allocating activities to partners with the best dispositions in terms of resources and opportunities supplying efficient and effective execution of tasks. The aim is to achieve better results and a higher level of satisfaction of all participants in the channel marketing, and above all security and safety of consumers.

Production and distribution of chemically correct, safe and affordable, healthy and cheaper food is a basic imperative of large retail chains that operate in the field of food products. Consumers are aware of their success in this and every day they show their trust.

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# QUALITY MANAGEMENT SYSTEM FOR THE DEVELOPMENT OF TRADE

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## ABSTRACT

*In modern business conditions, the issue of quality is important not only for economic development, but also society as a whole. Quality is today seen as the best investment for increasing competitiveness on the domestic and foreign markets. The issue of quality, in terms of globalization and internationalization of business, has especially risen in importance in the field of trade. Specifically, major part of commodity production is realized through trade. In achieving its intermediary role, trade is exposed to demands of millions of consumers. Each act of forgetfulness of trade in relation to customers, whether in terms of range, quality, or services, stands for an anti-marketing act. In order for products from the trading company's range to be accepted by customers, they must, in addition to design and price, meet quality requirements. Bearing these facts in mind, the aim of this paper is to analyze the role of quality management system in the creation of business performance of trading companies. The initial hypothesis is that quality management system has a positive impact on business performance of trading companies. This hypothesis will be analyzed based on a sample of 32 most successful trading companies operating on the Serbian market. For this purpose, multiple regression method will be used. The observation period will include the interval from 2011 to 2015.*

**Keywords:** quality, quality system, trade, business performance, market

## 1. INTRODUCTION

Quality development has experienced its full expansion at the turn of the millennium. Marketing managers struggling with dramatic increase in the complexity of market, technological, organizational, and social problems could hardly understand modern trends in the development of management systems, based on the concept of total quality. The emergence of ISO 9000 standard and the excellence model has led to the mass use of this concept: on the one hand, as a market barrier, which managers certainly see, and, on the other hand, as a superior method for improving competitiveness and efficiency, cost reduction, and long-term sustainable development of the organization. Improvement of the quality management system has become imperative for the development and survival of companies from different economic sectors, including trade. The question that arises is whether introduction and implementation of quality systems can improve business performance of trading companies. This question has served as a stimulus for testing zero and alternative hypotheses in this work, based on which application of quality systems in trading companies in Serbia has or does not have a positive impact on the dynamics of business activities. Before

testing these hypotheses, the paper gives a theoretical background of the importance of quality and quality management system based on ISO 9000 and ISO 14000 standards. In addition, the focus is on the application of TQM concept, as well as the problems and improvement of quality systems in Serbia. What follows is the testing of zero and alternative hypotheses, based on a sample of 32 trading companies. The aim is to, through the use of multiple regression method, based on data obtained from official financial statements and official web sites, determine how application of quality systems affects business performance of the analyzed companies.

## **2. QUALITY AND QUALITY SYSTEM IN TRADE – REVIEW OF LITERATURE**

Quality is one of the goals of production and one of the areas of responsibility for decision making in the company. In order to achieve the desired level of quality, it is important to manage all aspects of quality, i.e. all dimensions of quality, particularly quality of design and quality of processes (Ćuzović and Ivanović, 2010).

The developed world has long realized the importance of quality for the overall development of not only the economy, but also society as a whole. It has become widely accepted that quality is the best investment to boost competitiveness on domestic and foreign markets. The process of development of new market philosophy is well under way, which is characterized by innovation of everything that serves man. This means that quality represents the overall ability of the company to reduce operating costs, use technology rationally, and successfully innovate production lines, all with the aim of satisfying the needs of customers. The word *quality* comes from the word *qualitas*, which means that something has good properties, features, and value.

When one talks about quality, one often first thinks of Juran's quality concept, according to which consumers are drivers of quality. Quality management begins and ends with them. His definition of quality refers to "fitness for use" (Juran, 1992). Quality concept and its manifestation in practice have experienced long evolutionary development. History of quality points to various aspects of quality, especially quality and safety of products. Basically, it is the relationship of the one who creates and the one who receives, as a result of fulfilling the needs or demands (Arsovski, 2015).

Defining quality of products began with the appearance of the product itself. According to the American author, Juran, quality is defined "as a set of activities to achieve fitness of the product for use" (Juran, 1997). Crosby defines quality as "compliance with the requirements" (Crosby, 1995). According to the international standard ISO 8402, "quality is the set of characteristics of an entity relating to its ability to meet the expressed needs and requirements that are implicit" (JUS ISO 8402, 1996).

According to a group of authors of the study entitled "Basis of preparation of quality improvement program", quality of a good is its feature that makes it sufficient for its use. The same paper gives another definition, based on which "product quality is a complex set of characteristics that determine the degree of suitability of a product for its purpose" (Ćuzović and Sokolov Mladenović, 2010).

When asked "what is quality", Ristić answers: "Everyone has their own opinion, which is most commonly expressed as: I like it, there are no problems with its use, I trust the

manufacturer because it is a well-known company...” (Ćuzović and Ivanović, 2010). Given that quality means different things for different people, perception of quality according to this author has become confusing, so the prevailing opinion is that quality is very difficult to achieve. However, it is not so, simply because the answer to the question what quality is is the following: ”Quality is the fulfillment of clearly agreed and settled demands with our customers”. European Organization for Quality (EQOC), based on a specific approach to quality problems, has adopted the definition of quality: “Quality is the degree to which the product meets the needs of the user – consumer”. In the given definitions, the following is implied:

- Customer is the one who determines quality, not the manufacturer,
- Orientation to customer points to the marketing concept of quality,
- Quality is a set of properties (reliability, fitness for use, and safety),
- Quality can be analyzed in terms of dimensional and functional characteristics, qualities perceived by senses, reliability, and safety.

The three basic elements in the definition of quality are quality of products, quality of services, and quality of working and living environment. A company that successfully combines these three interrelated elements ensures market trust, as confirmed by the appropriate quality mark and the name of “Recognised producer – trade” (Ćuzović and Sokolov Mladenović, 2013). Quality has always been a topical issue for manufacturers, as well as trade and consumers. Quality of products and services determines company reputation on the market and success of realization. Therefore, the company, as a buyer of materials or finished products, when it comes to trade, must not leave the issue of quality to chance.

For customer-oriented companies, customer satisfaction is the goal and the main factor of success. Therefore, quality is one of the essential elements of both purchase and sales policy of the company. Provisions on quality were, even in the earliest days of economic activities, basic clauses of purchase and sale agreements. This process was accompanied by the growing diversification of consumption, and on that basis, product innovation. The most developed countries caught the virus of consumption, which opened a large number of economic and organizational problems related to quality, such as: procurement of raw materials of adequate quality, organization of product quality control service along with the requirements for the preservation of man’s working and living environment, care for the quality of products that can be recycled, monitoring the quality of products and services of competitors, etc.

These numerous and varied quality issues could less and less be solved on the basis of empirical data. Therefore, in parallel with the development of business, scientific thought on quality sharpened. Although quality problems began to attract the attention of theoreticians and practitioners a long time ago, the study of quality is one of the relatively young disciplines (Ćuzović, 2010). The global evolution of business orientation of economic operators towards quality shows a similar pattern, but different calendar. While some countries are at the stage of quality control, others are in the process of total quality management (TQM) (Maletič et al., 2014). There are differences in terms of development of quality management in individual industries and companies.

By focusing on the customer, managers of Japanese companies look at quality as a means of gaining competitive advantage through increased value for customers, owners, business partners, employees, and society as a whole. The aim is to achieve business excellence in the company on the basis of the strategy of continuous quality system improvement, with the participation of all employees. Japanese term for a strategy of continuous quality

improvement and productivity is known in literature as “Kaizen”. As a predecessor of TQM, this concept implies that total quality management performance is based on the following elements:

1. Quality is what the customer perceives,
2. Quality should be understood as a philosophy, strategy, and process,
3. Quality is number one priority,
4. Quality is oriented to the improvement of the overall company operations,
5. Quality system improvement is continuous and is carried out step by step,
6. All employees must be involved in the realization of the concept,
7. Quality is based on facts, which means that it “talks through data”,
8. It is a long-term process,
9. Management is responsible for the motivation and performance of all employees in implementing the policy of continuous improvement of the quality system (Dean and Bowen, 1999).

In late 2008, Serbia was visited by Masaki Imai, creator of “Kaizen” business philosophy. On that occasion, he gave a lecture to the management and employees in the factory “Japan Tobacco”, presenting data that employees in this factory, by using Kaizen philosophy, increased productivity by 50%, whereas waste in production due to poor quality fell by 46%. Long-term improvement in the quality management system is possible if implemented step by step, patiently, ranging from management to all employees. Masaki Imai also stressed the interdependence of the global economic crisis and “Kaizen” business philosophy of continuous quality improvement. He explained the impact of “Kaizen” model on mitigating the economic crisis in an answer to the question: “Have you noticed that, at the time of the automotive crisis, only Toyota did not seek help from the state? All the major companies in that field have already asked for government intervention, and it is true that we feel the crisis too, but I am sure that Toyota will find an easier way out of the problem than General Motors, which works closely with it, but does not apply “Kaizen” model”. He is sure that the tobacco factory in Senta will in several years be awarded with the blessings of “Kaizen”, where he also recommends the “5S” model. It has such a name because all activities of continuous improvement of business performance begin with the letter “S”: sort, set in order, shine, standardize, sustain. It can be noted that the basis of TQM concept is the customer, whose demands and needs the management relies on to create vision and mission of quality improvement strategy of overall company operations. This results in increased customer satisfaction both in terms of functional and aesthetic product characteristics, service quality, delivery, distribution, and servicing, which contributes to market expansion. Armand V, Feingenbaum, world-known by the concept of total quality management, emphasizes: “What we call ‘leadership 2000’ is to create additional value for customers. According to our data, probability that fully satisfied customer will repurchase is 80% - 90%. When the customer is fully satisfied with the product, he will tell that to six people. If customers are only moderately happy or unhappy, they will tell that to twenty-two”. Feingenbaum symbolically presents his model as the “golden rule of quality”, which means that total quality management measures its performance in quality policy by increasing value for customers and increasing value for owners and employees. He especially emphasized traits that management must have to fulfill the requirements of this golden rule, namely passion, discipline, and accessibility (Hietschold et al., 2014).

In further analysis of the evolution of TQM, in addition to “Kaizen” and Feingenbaum models, literature states Deming’s and Juran’s model of total quality management, as well as model Just-in-time. Deming, the founder of PDCA (Plan – Do – Check – Act) management

model, known in the literature as the Deming cycle, is considered the founding father of the first official TQM concept. Unlike the traditional concept of quality management, Deming's model brings innovation in this field. It represents a new business philosophy of management that aims to satisfy customers, shareholders, business partners, employees, and society as a whole, through continuous improvement of the quality level of the overall reproduction process with the active participation of all employees.

It should be noted that Japan, in terms of total quality management, is not an isolated example. Other countries begin to think about TQM, though a bit later. It is interesting to note that the United States of the 1960s and 1970s faced a decline of competitive advantage and leadership on the market, and realized that management philosophy should be changed. They were especially confused by already noted leadership tendency of Japanese companies in the field of quality. This was the reason for a lot of research in this area. Special centers have been developed for the study of the theory and practice of functioning of Japanese management. They organized numerous study visits and projects that dealt with research into economic and organizational problems of Japanese management. On the basis of them, they came to the conclusion that the key to the success of Japanese companies lies in quality. It is an entirely new management philosophy that relies on continuous quality improvement in all processes of reproduction chain with the active participation of all employees, with one sole purpose, to meet the wishes and requirements of consumers and surpass competitors. This philosophy confirmed its validity in theory and practice of American management during the 1980s, under the name of TQM (Ćuzović, 2010).

### **3. PRINCIPLES AND ELEMENTS OF QUALITY MANAGEMENT SYSTEM IN TRADE**

Development and implementation of quality management system should not be seen outside of time and space. All discussions on this topic fail if they are not based on knowledge of the current and future needs of customers, measuring their satisfaction, and taking corrective action towards continuous improvement. Therefore, it is said that quality management system stands for organizational learning of consumers' desires and ways of their implementation through marketing management strategy of the company. Experience from countries with developed markets shows that there can be no effective and efficient quality management system without adequate training of staff for that system. Peter J. Drucker, the "father" of modern management, used to say that the greatest competitive advantage of organizations is their ability to learn and to transform knowledge into action. Therefore, managers who are successful today, and want to be successful in the future, must be willing to learn.

Principles of quality management system should be seen as a milestone in the work of marketing management and employees, as a kind of general directives and instructions (Garza-Reyes et al., 2015; Rogala, 2016).

#### *Principle 1: Organization focused on creating value for consumers*

In order to beat the competition, a company must be oriented towards customers and provide them with superior value in comparison to its competitors. Adapting to the demands of consumers regarding quality, trade management should create a "package deal", combining: quality of products, providing services, installation, servicing, and maintenance.

*Principle 2: Leadership*

Quality management system implies the existence of recognizable leaders, who devise vision, mission, and strategy to achieve objectives. As a rule, top management is expected to create strategic directions of business policy, including quality management system. Combining the instruments of marketing mix, leaders balance internal possibilities of the company and turbulent environment, thereby maximizing internal productivity and customer satisfaction.

*Principle 3: Employees must be involved in the QMS*

Employees at all levels must be involved in job number 1, called quality. Each act of forgetfulness about employees by top management regarding the involvement in the quality system is “punished” by the lack of motivation for the success of the organization.

*Principle 4: Quality management system is based on the process approach*

Quality management system is based on the identified demands of external and internal users. This is followed by the creation of a marketing program in order to allocate resources and achieve the set goals. Personnel, equipment, tools, and financial resources are allocated to identified groups of processes, process management, maintenance, and control of documented processes.

*Principle 5: System approach to implementation management*

Quality management system bases its strategy and goal implementation policy on interconnected marketing process: identifying consumer needs, establishment of documented processes, allocation of resources in process activities, with the aim of improving the effectiveness and efficiency of business processes.

*Principle 6: Continuous improvement*

Quality management system is a continuous process, carried out step by step. Certified QMS does not mean quality “deed” for all times. Continuous improvement of qualitative performance of the business system, management review, internal and external audit, and corrective and preventive measures are the sign that the quality is the organization’s ability to learn and implement consumer wishes.

*Principle 7: Making decisions in QMS is based on facts*

This principle is supported by the Japanese strategy model of continuous quality and productivity improvement, known as “Kaizen” model. Based on this model, quality is based on facts, which means that it “talks through data”. Data is obtained from the quality marketing information system.

*Principle 8: Marketing partnership – an integrated value chain of various stakeholders in QMS*

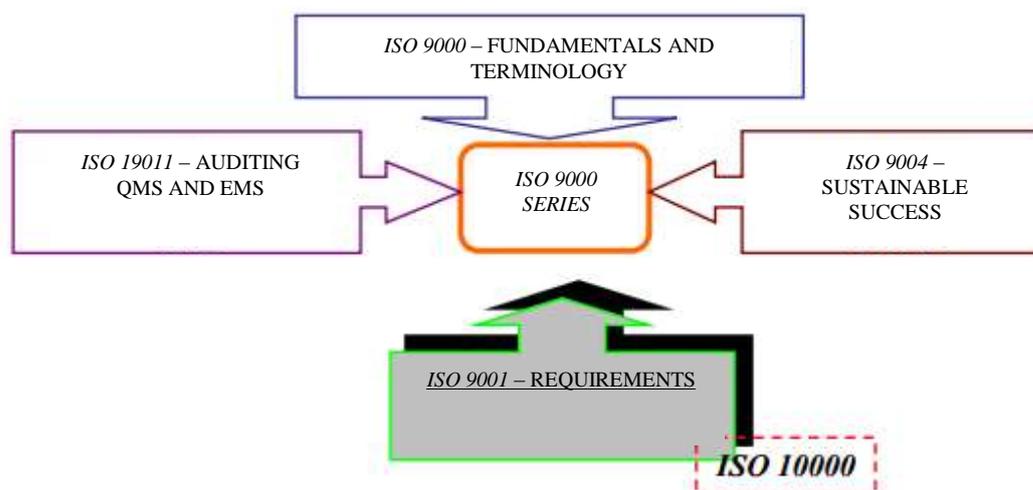
Quality management system is an integrated value chain of various stakeholders. The final company and other participants in the reproduction chain are legally independent entities, but related in marketing terms. The establishment of marketing partnership between producers, trade, and supporting entities in the production-trade chain results in the creation of added value for consumers. In such circumstances, business performance of the company as a whole is improved. On this basis, participants in the creation of qualitatively distinctive “package deals” are eligible for the title of “recognized producer” “recognized trade”.

ISO 9000 standards are made to assist organizations of all types and sizes to implement and operate effective quality management systems (QMS). Those are (Rajković, 2010):

- ISO 9000:2005 (SRPS ISO 9000:2007) describes the fundamentals of quality management systems (QMS) and determines terminology for quality management systems,
- ISO 9001:2008 (SRPS ISO 9001: 2008) specifies the requirements relating to the QMS (“the only one used for certification”),
- ISO 9004:2009 (SRPS ISO 9004:2009) makes recommendations for achieving sustainable success of an organization – quality management approach,
- ISO 9001:2015 are generic and are intended to be applicable to any organization, regardless of its type or size, or the products and services it provides, and
- ISO 19011:2002 provides guidance on auditing quality management systems and environmental management systems (EMS).

Together, these standards make a harmonized set of standards in the field of quality management system, to facilitate mutual understanding in national and international trade (Figure 1).

**Figure 1** Elements of ISO 9000 standard



Source: Rajković, D., 2010, p. 29.

#### **4. PROBLEMS AND WAYS TO IMPROVE THE QUALITY SYSTEM IN REPUBLIC OF SERBIA**

The issue of standards and technical regulations is a topical issue in the process of Serbian accession to the European Union and membership in the World Trade Organization. Specifically, candidate countries must adopt measures to ensure the free flow of goods, i.e. trade without unnecessary technical barriers. On the other hand, it requires a huge commitment in terms of product safety and quality with a focus on the removal of technical barriers to trade. A prerequisite for the realization of this objective is the establishment of an efficient national system of quality infrastructure. The national quality infrastructure system is a highly integrated network of institutions and organizations in the field of standardization, metrology, accreditation, and assessment of conformity with the requirements of technical

regulations and standards (including product testing, inspection, and certification) (Strategy for the improvement of quality infrastructure system in the Republic of Serbia for the period 2015-2020, Official Gazette of RS, 93/15).

Due to the mismatch of technical regulations of Serbia with the European Union, as well as falling behind in terms of the number of standards, in late 2015 the Strategy for the improvement of quality infrastructure was adopted in Serbia, which was the first step in a dynamic and comprehensive process of standardization of all elements of quality infrastructure. This document should help equalize the quality infrastructure with the European Union level, as well as the level in other developed countries.

Through the realization of the objectives set out in this document, the Republic of Serbia has the opportunity to take big steps closer to Europe, and thus obtain the following benefits:

- Businessmen will be able to produce, import, and export products without technical barriers,
- Domestic consumers will consume high-quality and safe products,
- State administration bodies will be able to more easily and more efficiently conduct supervision over the implementation of technical regulations,
- There will be a higher level of innovation and competitiveness of the economy, and
- Conditions will be created for sustainable economic development and environmental protection.

Thus, a significant step in terms of improving quality systems, standardization, and technical regulations has been made with the adoption of the Strategy for the improvement of quality infrastructure system in the Republic of Serbia for the period 2015-2020. Starting from the requirement to eliminate technical barriers to trade, a significant role in the quality system belongs to the process of standardization and certification of products, with an important place occupied by the Institute for Standardization, which is permanently working on the introduction of European standards and harmonized documents into Serbian standardization system. In this regard, by the end of 2014 the Institute for Standardization took over 95% of European, i.e. around 97% of European harmonized standards.

Closely linked to the standardization process is the issue of product certification, which assesses and certifies that the product conforms to technical requirements. According to research conducted by ISO (International Standard Organization) in 2013 ([http://www.iso.org/iso/home/standards/management-standards/iso\\_9000.htm](http://www.iso.org/iso/home/standards/management-standards/iso_9000.htm)), certification of management systems in the Republic of Serbia is increasing (Table 1).

**Table 1** Number of issued certificates in the Republic of Serbia, by year

Standard	2008	2009	2010	2011	2012	2013
SRPS ISO 9001 (Quality Management System –QMS)	2091	2733	1790	3228	2750	2366
SRPS ISO 14001 (Environmental Management System – EMS)	176	298	318	573	736	762
SRPS EN ISO 22000 (Food Safety Management System)	17	26	116	145	172	193
SRPS ISO/TS 16949 (Application of ISO 9001 standard in the automotive industry)	10	10	11	15	18	26
SRPS ISO/IEC 27001 (Information Security Management System)	-	3	8	9	25	43

Source: Strategy for the improvement of quality infrastructure system in the Republic of Serbia for the period 2015-2020, Official Gazette of RS, 93/15

The table shows that until 2012 the most common certification was according to ISO 9001, followed by a slight decline. Certification of environmental management systems is less present in the number of issued certificates, and similar situation is with SRPS EN ISO 22000, as well as other standards. However, what constitutes a standard feature of all is that there is continued growth. It points to the improvement of quality infrastructure in the Republic of Serbia in the period from 2008 to 2013. These facts, as well as improvement of the institutional framework, are an incentive for future work in the field of quality systems, standards, and technical regulations, as an important segment of the trading policy of the Republic of Serbia.

Through the adoption of such a long-term document (covering the period 2015-2020), Serbia abandoned the negative practice of making annual plans, finishing before their implementation really starts. Consequently, this strategy is expected to support the development of all sectors of the economy. This document presents the basis of product safety and quality in all stages, from design, through production, to market placement, i.e. use.

Very soon after the adoption of this strategy, the new Consumer Protection Act was adopted (Consumer Protection Act, Official Gazette of RS, Nos. 62/2014 and 6/2016). This law basically does not differ too much from the previous one, but contains two new directives for strengthening the institutional framework in which the law is implemented. Newly integrated legal solutions should bring stronger and more effective consumer protection. This is primarily relevant in the field of realization of sale agreements. In particular, the law increases consumer rights in cases where the buyer does not deliver goods within the specified period. One of the solutions of the new law provides for greater powers of market inspection, which now has the ability to sanction the behavior of traders.

Completely new chapter in the law aims to include consumer protection policy in the curricula of primary and secondary education, in order to, in cooperation with consumer protection stakeholders, obtain new system solutions towards prevention and raising awareness of consumers of all ages.

Through the adoption and implementation of such specific decisions, the Republic of Serbia demonstrates a decisive stand to standardize the area of trade and to clearly define the rights of buyers and sellers and quality levels which products and services must meet. It is for sure that something like should have been implemented much earlier, but it is never too late to bring domestic trade scene closer to trading economies that have much earlier realized all this.

## 5. RESEARCH METHODOLOGY

### 5.1. Hypotheses, data, and methodology

Starting from previous theoretical positions, research question that arises in this paper is whether it is possible to construct an econometric model, which links application of quality system (based on ISO 9000 and ISO 14000 standards) in the business of trading companies and their business performance? In line with this, the work will test zero and alternative hypotheses. The zero hypothesis is  $H_0$ : Application of quality systems in trading companies in Serbia does not have a positive impact on the dynamics of business activities. Alternative hypothesis  $H_1$ : Application of quality systems in trading companies in Serbia has a positive impact on the dynamics of business activities.

In order to test these hypotheses, the paper defines the sample, the time frame of observation, research methods, and variables to be observed. Operations of trading companies will be analyzed during the period from 2011 to 2015. This five-year period is long enough for valid observations, but also represents a period characterized by expansion and contraction of the level of economic activity. The selected research method is multiple regression. The research sample consists of 32 trading companies, selected among the top 200, which have the highest realized revenue. The selection criterion will be the uniform value of fixed assets to equity ratio. More specifically, the selected trading companies are the ones whose assets are financed by equity, i.e. companies with adequate long-term financial balance. In this way, an attempt was made to exclude from the analysis potential negative financial impacts on operations.

Parameters to be observed in a defined time interval are adjusted to the hypotheses. In this regard, dynamics of business activity is monitored by operating revenue per employee in millions of RSD. This value is the dependent variable. On the other hand, the independent variable will be the one that points to the application of quality systems in operations. Thus, in the years in which the trading companies applied quality system, the value of dummy variable was 1, while in other years, when there was no application, the value of this variable was 0. All data is taken from the official financial statements ([www.apr.gov.rs](http://www.apr.gov.rs)) and official web sites.

As pointed out, multiple regression model is used to analyze 32 trading companies, so the number of companies is  $i = 1, \dots, 32$ . These companies are observed over a period of 5 years,  $t = 1, \dots, 5$ . The regression model, which follows, will use panel data:

$$y_{it} = \alpha + x'_{it}\beta + c_i + u_{it} \quad (1)$$

where:  $y_{it}$  is the dependent variable,  $\alpha$  is constant,  $x'_{it}$  is row vector relating to independent variable,  $\beta$  is column vector of parameters relating to independent variable,  $c_i$  is effect of specificity of the observed company, and  $u_{it}$  is 1. If one takes into account the fact that the number of years to be observed is 5, then  $T = 5$ , so all observations for each company can be summarized by the following matrix:

Dependent variable  $y_i$  is displayed using the matrix:

$$y_i = \begin{bmatrix} y_{i1} \\ \cdot \\ \cdot \\ y_{i3} \\ \cdot \\ \cdot \\ y_{i5} \end{bmatrix}, y_i = [5 \times 1].$$

For the independent variable  $X_i$ , the matrix would be :  $X_i = \begin{bmatrix} x_{i1} \\ \cdot \\ \cdot \\ x_{i3} \\ \cdot \\ \cdot \\ x_{i5} \end{bmatrix}$ ,  $X_i = [5 \times 1]$ , and this is so

because 1 independent variable is observed in the regression model.

The matrix of residual in the analyzed model would be:  $u_i = \begin{bmatrix} u_{i1} \\ \cdot \\ \cdot \\ u_{i3} \\ \cdot \\ \cdot \\ u_{i5} \end{bmatrix}$ ,  $u_i = [5 \times 1]$ .

If the last analyzed company  $i$  in a series is marked as  $N$ ,  $a$  ( $N = 32$ ) and the last analyzed year  $t$  as  $T$ ,  $a$  ( $T = 5$ ), then  $NT$  can be all observations in all companies over the observation period, as follows:

Dependent variable  $y$  is represented as a matrix:  $y = \begin{bmatrix} y_1 \\ \cdot \\ \cdot \\ y_i \\ \cdot \\ \cdot \\ y_{32} \end{bmatrix}$ ,  $\text{reda } y = [NT \times 1]$ .

Independent variable  $X$  is displayed as a matrix:  $X = \begin{bmatrix} X_1 \\ \cdot \\ \cdot \\ X_i \\ \cdot \\ \cdot \\ X_{32} \end{bmatrix}$ ,  $\text{reda } X = [NT \times 1]$ .

Residual  $u_i$  is represented by a matrix:  $u = \begin{bmatrix} u_1 \\ \cdot \\ \cdot \\ u_i \\ \cdot \\ \cdot \\ u_5 \end{bmatrix}$ ,  $\text{reda } u = [5 \times 1]$ .

The question that arises in the model shown in equation (1) is whether there is a correlation between the residual  $u_{it}$  (which contains specific effect of the observed company  $c_i$ ), on the one hand, and the independent variable, on the other hand. Mathematically speaking, is  $E = (u_{it}|X_i, c_i) = 0$ , when there is no correlation, or is  $E = (u_{it}|X_i, c_i) \neq 0$ , when correlation exists?

In theoretical terms, this is a multiple regression model with random or fixed effect (Schmidheiny, 2015). Multiple model with random effect in this particular case would imply that the specificity of the observed company,  $c_i$ , is not correlated with the independent variable, and that it changes over time independently, from company to company. This is an extremely rigorous assumption, which is very rarely applied by economists in such research.

Multiple model with fixed effect means that the specificity of the observed company can be correlated with the independent variable, and that it does not change with the passage of time, i.e. that it reflects specificity characteristic for each company individually. This assumption is much more realistic and more prevalent in economic research. In this study, a multiple regression model with fixed effect was selected, in order to implement adequate statistical tests to check its validity in relation to the model with random effect.

## 5.2. Results and discussion

The results of the selected research method, multiple regression with fixed effects, are shown in Table 2.

**Table 2** Multiple regression model with fixed effect

Fixed-effects (within) regression		Number of obs	160
R-sq: within	=0.2582	Number of groups	= 32
between	=0.1308	Obs per group: min=	5
overall	=0.2289	avg=	5.0
		max=	5
		F (1,127)	7.85
corr (u <sub>i</sub> , Xb)	= -0.0309	Prob > F	= 0.0059

Operating revenue per employee in mil. of RSD	Coef.	Std. Err.	t	P >  t	[95% Conf. Interval
Dummy (Quality system application)	3.57	1.27	2.80	0.006	1.047 6.086
_cons	1.65	.91	1.81	0.050	- .151 3.459
sigma_u	8.162				
sigma_e	7.019				
rho	.574	(fraction of variation due to u <sub>i</sub> )			

F test that all u<sub>i</sub>=0: F (31, 127) = 6.75 Prob > F = 0.0000

Source: Authors' calculation

The results obtained in Table 2 show that the independent variable in the model has statistical significance. In other words, with a probability of 99.6%, the hypothesis that the independent variable (the application of quality systems in the analyzed trading companies) is determinant of the dependent variable (operating revenue per employee in mil. RSD) is accepted. F test statistics has an adequate level of probability, indicating that all the coefficients in the variables are different from zero and have an impact on the dependent variable (in this case, operating revenue per employee). It should be noted also that the correlation between the independent variable and the residual is different from zero, in this case -0.0309. Its negative value indicates that variables are properly included in the constructed model. More

specifically, if the independent variable effectively determines the value of the dependent variable, then the value of residual (statistical error) is lower.

Based on the above, it can be concluded that there is an adequate econometric model, which reads:

$$\begin{aligned} (\text{Operating revenue per employee in mil. RSD})_{it} = & 3.57 (\text{Dummy (quality system application)})_{it} \\ & + 1,65 + c_i + u_{it} \end{aligned} \quad (2)$$

The results of the model shown in equation 2 indicate that, by applying *ceteris paribus* clause (other circumstances unchanged), if a trading company in one year applies the quality system, it causes the growth of operating revenue per employee by 3.57 million dinars. The present model is in line with the presented theoretical postulates and alternative hypothesis. The presented model has a coefficient of determination  $R = 0.258$ , meaning that it is valid in 25.8% of observations in 32 companies in the period from 2011 to 2015. The relatively low level of the coefficient of determination does not diminish the importance of proving the alternative hypothesis  $H_1$ , which is that the application of quality systems in trading in Serbia has a positive impact on the dynamics of business activities.

### 5.3. Hausman endogeneity test model

The constructed multiple regression model started from the assumption that there is a correlation between the residual  $u_{it}$  (containing specific effect of the observed trading company  $c_i$ ), on the one hand, and the independent variable, on the other hand. Mathematically speaking,  $E = (u_{it}|X_i, c_i) \neq 0$ . More specifically, multiple regression model with fixed effects is designed. This means that the specificity of the observed companies has an endogenous character, i.e. represent the internal determinant of operating revenue per employee and is correlated with the independent variable.

**Table 3** Regression model with random effect

Random-effects GLS regression	Number of obs	160
Group variable: Company	Number of groups	= 32
R-sq: within =0.258	Obs per group:	5
	min=	
between =0.162	avg=	5.0
overall =0.218	max=	5
	Wald chi2 (1)	7.82
corr (u <sub>i</sub> , X <sub>i</sub> ) = 0 (assumed)	Prob > chi2	= 0.0052

Operating revenue per employee in mil. of RSD	Coef.	Std. Err.	z	P >  z	[95% Conf. Interval]	
Dummy (Quality system application)	3.477	1.243	2.80	0.005	1.039 5.915	
_cons	1.704	1.621	1.05	0.293	-1.473 4.882	
sigma_u	7.659					
sigma_e	7.019					
rho	.5434	(fraction of variation due to u <sub>i</sub> )				

Source: Authors' calculation

To confirm the validity of this assumption, and, therefore, the validity of the constructed econometric model, Hausman test is carried out. The zero hypothesis in this test is that there is no correlation between the residual  $u_{it}$  (which contains the specific effect of the observed trading company  $c_i$ ), on the one hand, and the independent variable, on the other hand. In other words, random-effect model should be used. An alternative hypothesis is that the correlation does exist and that a fixed-effect model is adequate. For this purpose, a model with random effect (Table 3) is constructed, and test results are shown in Table 4 below.

**Table 4** Results of the Hausman test

	- Coefficients -			
	(b) fixed	(B) random	(b-B) Difference	Sqrt (diag (V_b- V_B)) S.E.
Dummy (Quality system application)	3.567049	3.477758	.0892906	.2715568

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b = consistent under Ho and Ha; obtained from xtreg  
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg  
 Test: Ho: difference in coefficients not systematic  

$$\chi^2(3) = (b-B)' [(V_b - V_B)^{-1}] (b-B)$$

$$= 0.99$$
 Prob>chi2 = 0.098  
 ( V\_b-V\_B is positive definite )

---

Source: Authors' calculation

Hausman test result with a probability of 91.2% rejects the zero hypothesis that the model with random effects is more appropriate. This clearly suggests that the alternative hypothesis is proven. More specifically, there is a correlation between the residual  $u_{it}$  (which contains the specific effect of the observed company  $c_i$ ), on the one hand, and the independent variable, on the other hand. Mathematically speaking,  $E = (u_{it}|X_i, c_i) \neq 0$ . This means that the constructed multiple regression model with a fixed effect is entirely acceptable.

In this way, the hypothesis that the application of the quality system (based on ISO 9000 and ISO 14000 standards) in trading companies has a positive impact on the operating revenue per employee has been tested and proven. The constructed multiple regression model clearly shows that, with clause *ceteris paribus*, in a selected group of trading companies in the analyzed period, the implementation of quality systems in one year affects the intensification of operating revenues per employee in the same year.

## 6. CONCLUSION

Starting from the scientific and professional opinion that quality is the best investment for gaining competitive advantage on the domestic and foreign market, a large number of companies use this strategy to attract and retain consumers. On the other hand, the current statutory and legal regulations require companies that want their place on the EU market to work on the implementation of quality standards (ISO 9000, ISO 14000). All this indicates that the issue of quality and its application in trade is rather topical and subject to the process of permanent change. Standards are now indispensable part of business and play a key role in trade. They are constantly being improved and developed, following the demands of customers and adapting to their requirements and needs. Therefore, companies invest a lot of effort and resources to discover increasingly complex demands of modern consumers and develop their products and services accordingly. Bearing these facts in mind, the goal of the study was to point to the importance of application of quality systems in trade. In this regard, the first part of the paper provided theoretical background on the use of quality systems in trade through the prism of the latest quality standards. It pointed to the problems in the implementation of quality systems in Serbia and measures to improve the quality system. In the second part, based on a selected sample of 32 trading companies, the zero and alternative

hypotheses about the impact of quality system on business performance of the analyzed companies were tested over a period of five years. The applied method of multiple regression confirmed the hypothesis that the implementation of quality systems in trading companies affects the increase in operating revenue per employee.

As in many other studies, especially those relying on empirical research about effects of implementation of quality management system in trade, analyses presented in this paper have certain research limitations. This primarily refers to the size research sample, observation period, as well as the applied research methodology. A more detailed analysis implies a larger number of observations, i.e. larger number of trading companies, as well as a longer period of analysis.

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# ISSUE OF PRODUCT QUALITY IN DIVERSIFICATION OF THE RURAL ECONOMY

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## ABSTRACT

*Diversification of the rural economy in the European Union is reflected in the objectives of rural development policy, through an increase of competitiveness in agriculture. Due to that quality question arises for itself. The importance of product quality in the supply chain for realization of added value within the wider rural economy, mobilization of the local endogenous capacities and resources in rural areas, advancement of economic activities and creation of employment opportunities for the rural population are the objectives that support the concept of diversification in the EU rural development policy and its orientation towards the multi-sectoral approach.*

*The quality and safety of agricultural food products, the preservation of natural resources and ecosystem, the desire to produce quality products and creation of a system of diversified agricultural food products in the supply chain, and an increasing interdependence of rural and urban are challenges in the rural economy that create opportunity for life quality in rural areas.*

*The aim of this paper is to determine the possibilities of high quality diversified products in the rural economy of Bosnia and Herzegovina, given that B&H has good preconditions for development of rural economy through diversification of activities on the farm and production of quality and health safety agriculture products in general in the supply chain.*

*The survey was conducted of farms in B&H that have or expect to have a quality diversified activities on the farm. Results from the survey have showed that agriculture, environment and supply chain for diversified products in B&H have a number of weaknesses, and indicated that are not able to compete both on domestic and foreign markets.*

**Keywords:** product quality, supply chain, diversification, rural economy

## 1. INTRODUCTION

Diversification of the rural economy means acquiring additional income at the farm holding or outside of it aiming at an improvement of the living standard, reduction in vulnerability of the farm household in terms of income, i.e. engagement in additional activities that could be or may not be connected with production or manufacturing of food on the farm. Previous experience of many countries shows that the mainstay of the rural economy can no longer be

just agriculture, but also a wide spectrum of activities based just on the inactivated potentials of rural areas (Bogdanov, 2007).

Diversification of the rural economy in the European Union is reflected in the objectives of rural development policy, through an increase of competitiveness in agriculture, further through the protection of the environment and rural areas, up to an improvement of the life quality in rural areas. In the EU the agricultural sector has gone through a process of modernization and specialization, by which it has become more automated and less demanding in terms of labour. This has resulted in the increasing importance of industry and services in the economy, and thus agriculture has lost its significance in terms of source for creating the jobs in rural areas. In such situation, farmers have to look for ways to increase their income from sources other than primary agricultural production. As an opportunity to be increased an income of the farm household, it is an initiative for economic diversification, which is directly linked to the farm.

A special place in these processes has marketing as a philosophy and the business function of economic entities and farms that are located in rural areas, and which want to use their comparative advantages over the competition (Cvijanović *et al.*, 2013a).

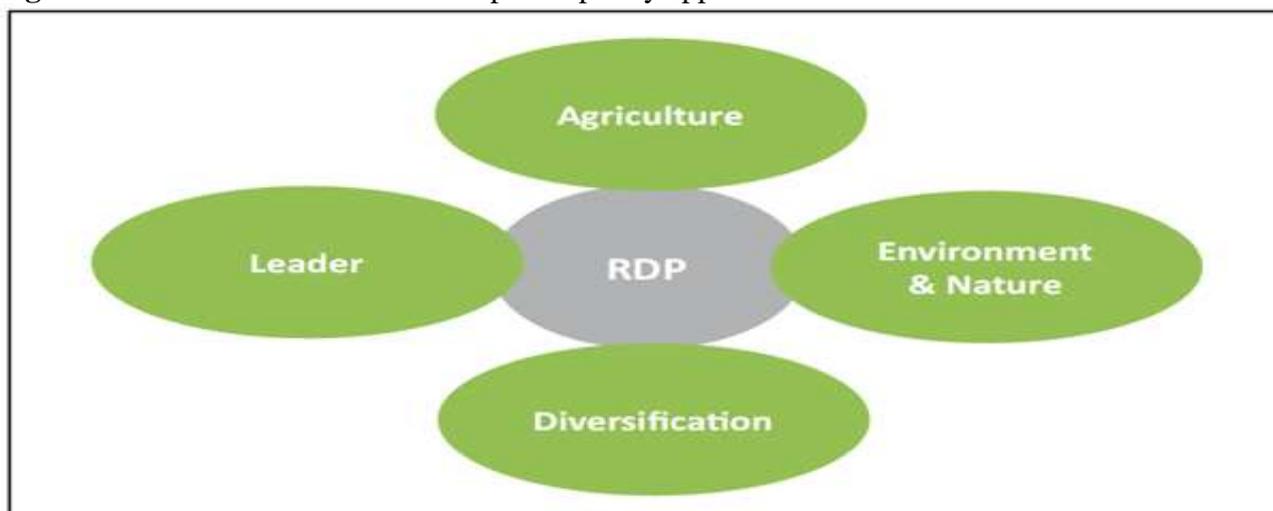
The above mentioned trend has resulted in gradual changes in the farm business operations, while diversification of rural economy is increasingly gaining in importance.

The environmental management is a component of rural development aiming at strengthening the rural sustainability, so as to ensure a basis for appropriate use of natural advantages and resources of rural areas. A large portion of these resources can be used more effectively in accordance with improvement of the rural communities' capacities, in order that they should manage the rural environmental resources in a better way, and thus provide basis for improvement their chances to secure better livelihoods in rural areas.

The environmental management and protection in the development and use of environmental resources and advantages are based on the principle that the land managers who have adequate skills and motivation, can adequately utilize well protected natural wealth and resources, which are managed appropriately, and thus provide the basis to improve opportunities for better earnings in the rural areas.

## **2. DIVERSIFICATION AND MEASURES OF THE RURAL ECONOMY**

In the rural economy diversification a very important place has the value chain as well, both for the wider rural economy, mobilization of local endogenous capacities and resources for rural areas, and for the advancement of economic activities as well as creation of employment opportunities for the rural population. All mentioned support the concept of the rural economy diversification, including the emphasis on the territorial aspect based on the principle of the LEADER approach. Figure 1 illustrates the areas of the EU rural development policy (RDP) application.

**Figure 1** Areas of the EU rural development policy application

Source: FAO, (2012), Analysis of economic diversification in Bosnia and Herzegovina - Preparation of IPARD Sector Analyses in Bosnia and Herzegovina, FAO Regional Office for Europe and Central Asia Food and Agriculture Organization of the United Nations, p. 24.

As it can be seen in Figure 1, the Leader approach is integrated in the rural development policy. The Leader is different from other rural development measures as it is both an approach and method, which proved to be useful in other projects of the rural economy diversification.

The importance of economic activities' diversification in rural areas is high, especially diversification of the farms, whose transformation over time can be observed through the revenue structure and synthetic indicators. Agriculture as an activity in global and rural economies of developed countries has lost importance it once had. However, it still has a big impact on the economy and development of rural areas in these countries, regardless of the small proportion of the rural population. Despite the impact agriculture still has, a large number of farms cannot provide a satisfactory level of quality of life only from the agricultural revenues, so they are in a situation where they have to diversify their activities and revenues (Cvijanović *et al.*, 2013b). The importance of agriculture for rural areas is reflected primarily in the food production and designing the rural-natural areas, as well as in its impact on the way of life in rural areas, but also in the activities which are directly or indirectly related to agriculture. In any case, a large part of the rural area includes arable land which is used by agriculture that further implies the importance of land, forests and water, as a natural, but also an economic resource. This further indicates the indispensable importance of property (land and other) relations, which can largely profile appropriate development tendencies in rural areas. It is not surprising that due to the effect of these factors, as well as the modernization of agriculture, the rural development has still represented an important segment of consideration in relation to the farms and their development, as well as their direct or indirect impact on the rural economy (composed of agricultural and non-agricultural activities) and rural-natural environment as one of the most important resources of rural areas (Janković *et al.*, 2014).

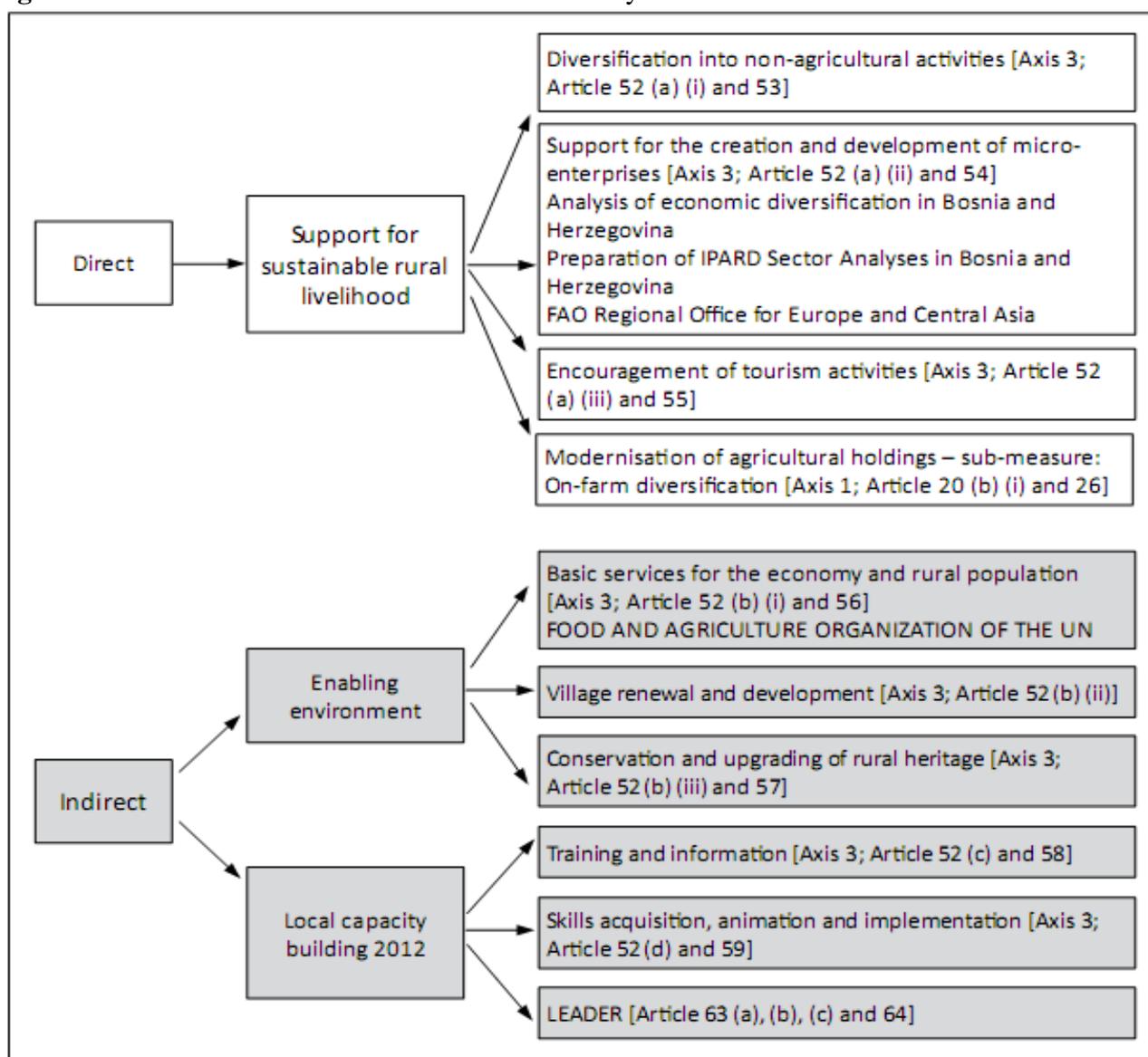
If things are viewed more broadly, in the context of agricultural modernization, the diversification has to be seen as a form of rural development (observed at the farm level), which has its various forms and practices, and which incurred as a result of different

strategies, definitions and goals' operationalization that farms placed themselves within the same or similar structural conditions (Janković and Novakov, 2014).

The modernization, market and technological match (so-called "technological mill"), caused the pressure on farms, which from the aspect of modernization need to increase the volume of production, technical efficiency, as well as to adopt rapidly new technologies and to adjust the marketing strategies and farm management strategies (Janković *et al.*, 2014).

Some authors have a broad understanding of the farms' diversification concept and they equate it with multifunctionality. This includes the revenue activities on the farm and outside the farm. In contrast, there are opinions that diversification includes only non-agricultural activities on the farm (Delgado and Siamwalla, 1997).

**Figure 2** Measures for diversification of rural economy



Source: Ludvig *et al.* (2010), A Concept for Rural Economy Diversification and short Review of its Experience in Europe, FAO.

The EU rural development policy includes several measures aimed at economic diversification in rural areas. Those measures are relating to the farms, but also to the micro

and small rural entrepreneurs. In general, the measures of the rural economy diversification can be divided into two categories, depending on their effects, as can be seen in Figure 2 (Ludvig *et al.*, 2010). The first group includes the measures that *directly* support economic diversification, e.g. encouraging entrepreneurship, improving the position of micro-enterprises and the development of trade and tourism. Also, they provide the ability to the farms to increase the value added through processing of agricultural products produced on the farm.

The second group contains the measures that *indirectly* support economic diversification. Those measures are grouped around the "capacity building" in the sense of preserving traditional skills, training of youth and women in different skills, creating the preconditions for starting jobs, the development of natural and cultural heritage, as well as creating the basis for improving the quality of life, but also for diversification of rural economy. Also, this includes measures such as improvement of spatial planning in rural areas, the establishment of public meeting places for community, encouraging local initiatives, strengthening the identities of local communities, etc.

### **3. PRODUCT QUALITY**

The issue of product quality is a primarily question in sustainable food supply chain. The current crises of the questionability of products quality is the results of overproduction or production without certification of origin. According to analysis of EuroCommerce and the messages they sent to all member of supply chain are (EuroCommerce, 2016):

- Food supply chain is increasingly sophisticated,
- It is necessary to take a holistic view on the functioning of entire supply chain;
- It is needed a stronger cooperation and organization of farmers;
- Full price transparency;
- Freedom of contracting and negotiation as a key principle;
- Initiatives like Supply Chain Initiative as a mechanism of fair practice;
- Sharing information through building structured supply chain.

Product quality is also or according to Libery and Kneafsey (1998) an important instrument of rural development in the lagging regions of the EU. The same statement can be transferred to current situation in B&H. in rural economy and its development, sustainable competitive advantage differs from others more industrial economies. In rural economy quality of products is at the forefront, more than performance standards or perception of products. (Jansson and Waxell, 2011)

Collaboration of all members included in to food supply chain (farmers, manufactures, retailers, different organizations, government administrative) is crucial in achieving and raising standards of quality in agriculture practice.

Smith (2008) in his paper quotes The UK Sustainable Development Commission defining elements of sustainable food supply chain which can be applied for issue of food quality standards:

- Production of safe and healthy products;
- Support of the viability and diversity of rural economies ;
- Operate and respect the biological limits of natural resources (especially soil, water and biodiversity).

- Achieving consistently high standards of environmental performance;
- Achieve consistently high standards of animal health and welfare;
- Except where alternative land uses are essential to meet other needs of society.

In past ten years agriculture has become demand-driven sector. Due to that the quality of products is in focus and has been imposed by the increasing number of consumers who seek healthier, fresher and less processed products. Rural economy must implement new standards and consumers demand into their agricultural production so that they deliver products that are competitive on the market.

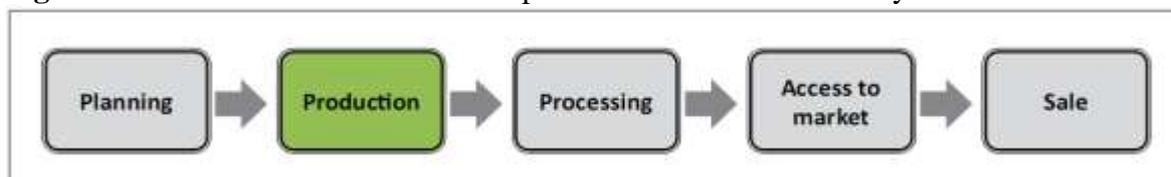
#### 4. DIVERSIFIED PRODUCTS IN THE VALUE CHAIN OF THE RURAL ECONOMY

The value chain of a product includes a whole range of activities that are needed to bring the product from the production, through transportation, processing, retailing, to the consumer. The value chain of a product has been increased by the range of combinations that include engagement of equipment, labour force, knowledge and skills, as well as inputs for production of agricultural products.

The value chain is a series of several primary and supporting activities which adds value to products or services, i.e. it has been connected the supply side with the demand side of business. That is why the creation of profitable value chain requires the harmonization between the desires of the consumers, i.e. between the demand chain and what is created in the supply chain. In order the supply chains achieve maximum value, it is necessary to align the supply flow with the consumers' value flow, due to rapid changes in their tastes, desires and requirements (Perkov and Ćosić, 2012).

The value chain of diversified products in the rural economy is specific and has certain specifics for each product individually. It is common for all diversified products that the value chain starts with planning, followed by production and processing of products. The product is then distributed to the retail sale, where it is available to the consumers. The value chain of diversified products in the rural economy is shown in Figure 3.

**Figure 3** The value chain of diversified products in the rural economy



Source: FAO, (2012), Analysis of economic diversification in Bosnia and Herzegovina - Preparation of IPARD Sector Analyses in Bosnia and Herzegovina, FAO Regional Office for Europe and Central Asia Food and Agriculture Organization of the United Nations, p. 55.

Through the analysis of the diversified products' value chain in rural economy of Bosnia and Herzegovina it could be concluded that it should be paid attention to elimination of weaknesses in the value chain, in a way that the available opportunities should be used in order that the latent natural and human resources of rural areas in B&H should be turned into

the concrete advantages on the basis of which there can be built and developed the rural economy and rural communities.

#### **4.1. The research results activities of the rural economy in Bosnia and Herzegovina**

It is important to point out that the family is very important for most businesses in rural areas, as economic activity starts by the family owned assets with an emphasis on the economic activities carried out in order to be provided an additional income. Some economic activities subsequently expanded and they employ other labour or seasonal workers, developing in this way into the small enterprises in the rural areas.

Entrepreneurship in rural areas of Bosnia and Herzegovina has great potential, while challenges are reflected in diversification of economic activities. The problems that are challenging the diversified economic activities in B&H are the sources of financing those activities as well as insufficient knowledge on doing business. Just in those areas there have been identified the key problems of business, which needs to be solved by education, planning and conducting business operations in rural areas through diversification of economic activities.

Diversification of economic activities can be also considered as an income activity which does not involve agricultural work, but which is directly connected with the farm. Activities of this type include tourism, handicraft production, processing of products that are produced on-farm (such as e.g. processed fruit and vegetables, or dairy products, as well as the meat processing and production of meat products), aquaculture etc. (Cvijanović and Vuković, 2014).

There is an interesting concept of multifunctionality which is related to the management of the farm, which means the existence of other income activities for the farmers which are not connected with the farm.

What can be regarded as an economic activity related to the farm, inter alia, it is the expansion of primary or conventional agricultural production, or the production of new and high-value crops and animal husbandry, organic production, the production of energy crops, then an increase of production with higher added value (e.g. the food processing), the production of regional products (products with protected geographical origin).

Economic diversification which is not directly linked to agricultural production, includes agro-tourism, catering, services related to the sports, cultural and other recreational activities, craft activities linked to the production of handicrafts, therapeutic activity on the farm, agricultural services etc. These economic activities result in creation of jobs in the mini-enterprises and service activities in rural areas, including daily, seasonal or annual migration of workers. By diversification of economic activities in rural areas it is encouraging the self-employment, both in the small and medium entrepreneurship. All cited statements create good opportunities for development of rural areas in Bosnia and Herzegovina.

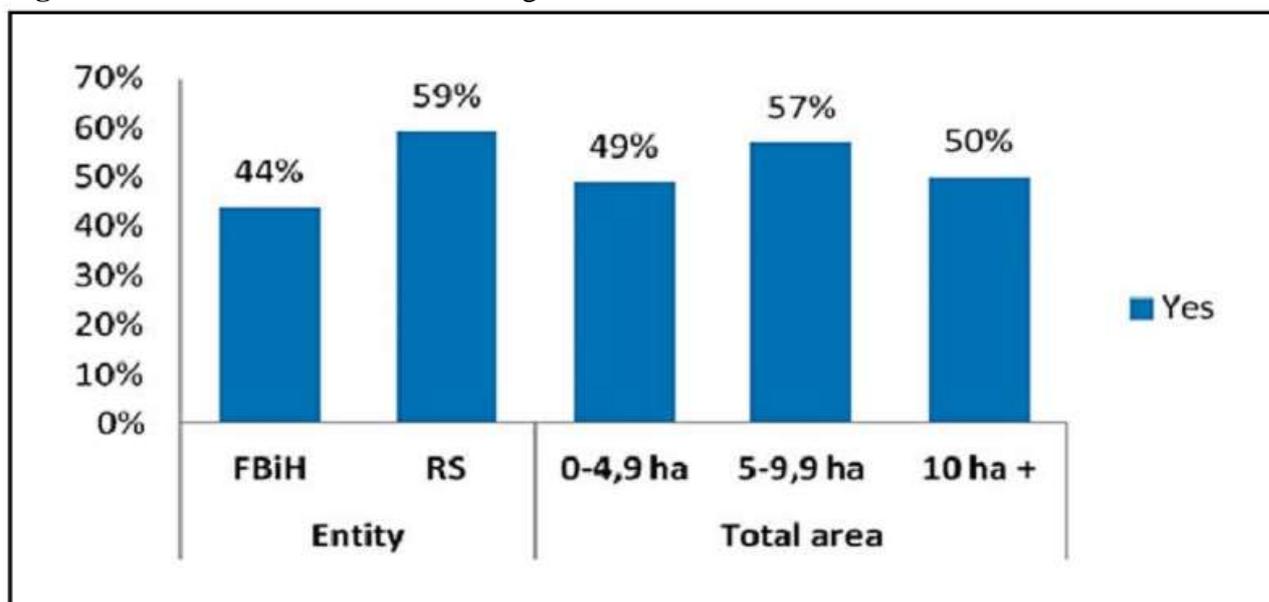
Processing and finishing of diversified products as a part of the value chain is reflected in the establishment of mini processing capacities. The processing of products, among other things, includes mushrooms, where there are good potentials in B&H and demand in the market. In Bosnia and Herzegovina there is also a tradition in production and processing of medicinal

and aromatic plants. What can be also considered as diversified products are various processed products of fruits and vegetables, as well as the dairy and meat products?

The main objective of the rural economy diversification is to make additional income for the farm and rural family. According to the results of research presented in the FAO study, over 51% of the farmers have additional income activity beside agriculture, which can be seen in Figure 4 (FAO, 2012).

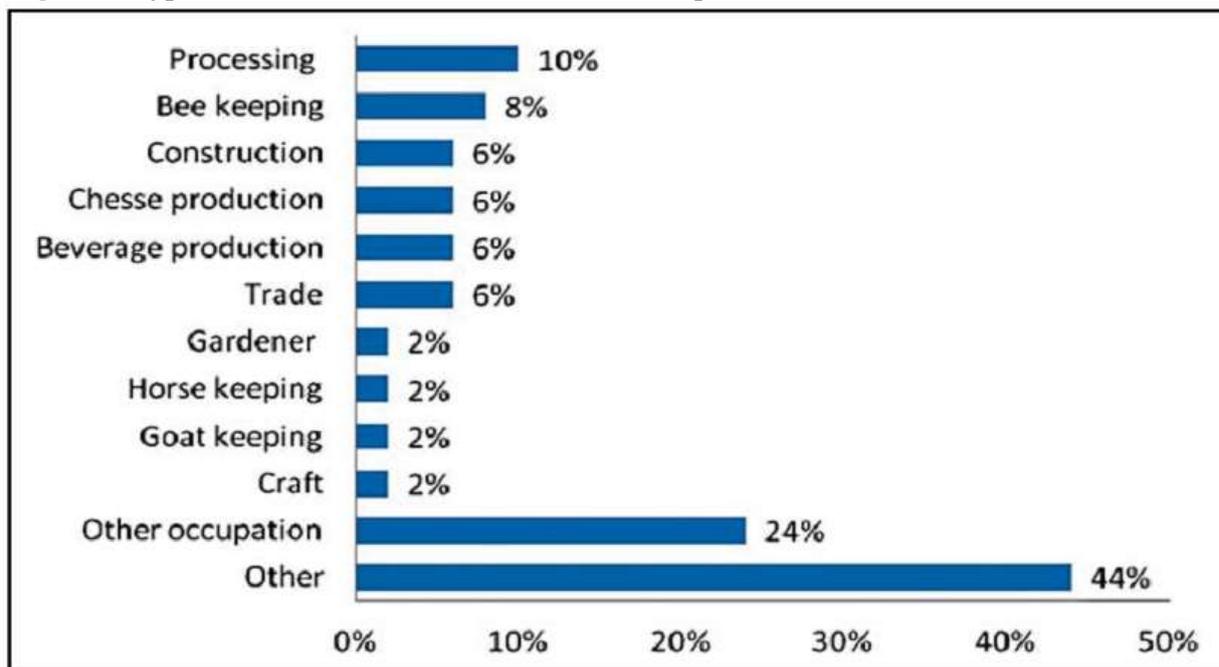
The research results show that in the Republic of Srpska there is a higher additional income from non-agricultural activities (59%) than in the FB&H (44%).

**Figure 4** Additional income from non-agricultural activities in B&H



Source: FAO, (2012), Analysis of economic diversification in Bosnia and Herzegovina - Preparation of IPARD Sector Analyses in Bosnia and Herzegovina, FAO Regional Office for Europe and Central Asia Food and Agriculture Organization of the United Nations, p. 61.

**Figure 5** Type of additional income from diversified products in B&H



*Note: In the questionnaire it was given the possibility of giving several answers so that the sum of percentages may not be 100%.*

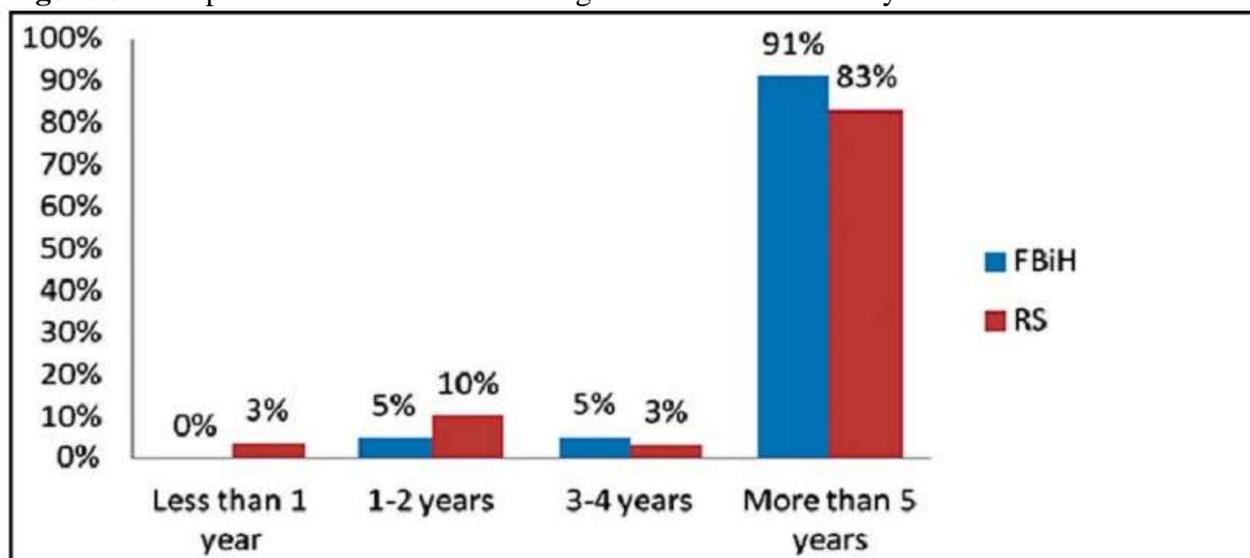
Source: FAO, (2012), Analysis of economic diversification in Bosnia and Herzegovina - Preparation of IPARD Sector Analyses in Bosnia and Herzegovina, FAO Regional Office for Europe and Central Asia Food and Agriculture Organization of the United Nations, p. 63.

Farms that have additional income from diversified activities consume a large share of its labour on this activity. According to the research results presented in the FAO study, the most of these farmers pay more than 30% of their total working time onto diversified activities (FAO, 2012).

When there have been analysed the types and sources of additional income, it can be concluded that 10% of the farmers who participated in the survey on fruit and vegetables generate the non-agricultural income in the processing of products produced on the farm, 8% of the farmers are engaged in beekeeping, while 6% of them are dealing with construction activities, cheese production, beverage production or trade. Only 2% of farmers are engaged in goats' breeding (Figure 5).

According to survey results, 44% of farmers have cited the answer "Other" or they gave a description of the activity they are dealing with by their own words, which were not listed as an item in the questionnaire. There are 4% of farmers indicated that they are retired, while other responses were very different, e.g. they generate additional revenue from the production of jams, catering, physiotherapy services, etc. (FAO, 2012).

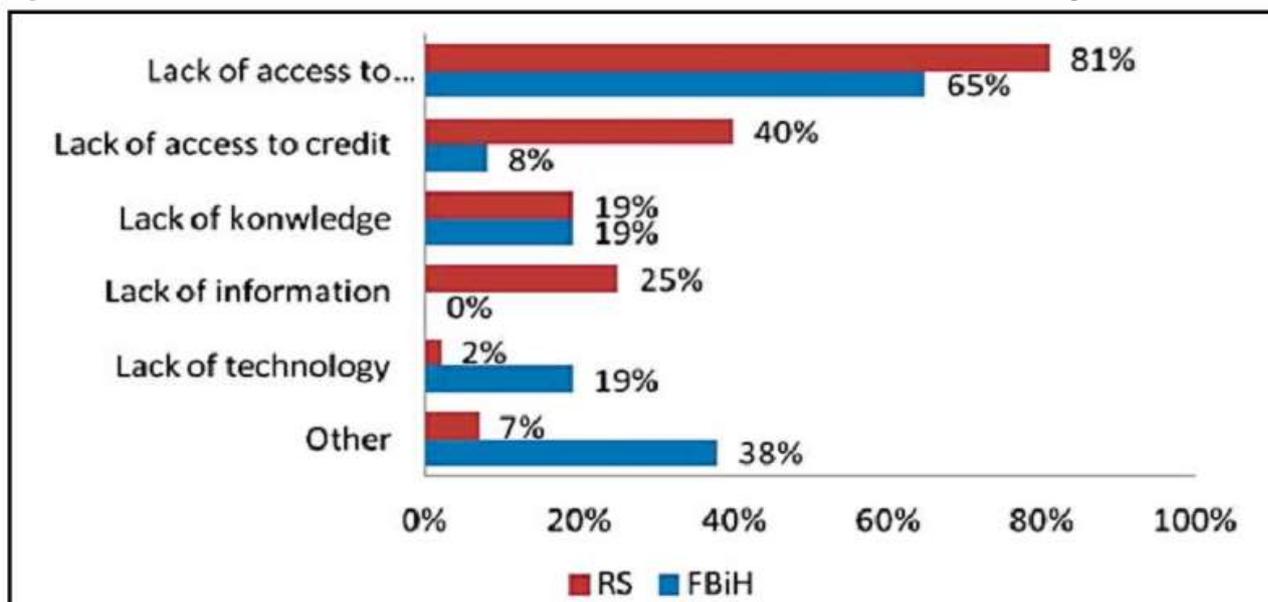
**Figure 6** Time period the farmers are dealing with additional activity



Source: FAO, (2012), Analysis of economic diversification in Bosnia and Herzegovina - Preparation of IPARD Sector Analyses in Bosnia and Herzegovina, FAO Regional Office for Europe and Central Asia Food and Agriculture Organization of the United Nations, p. 63.

Most farmers with additional revenue activities are dealing with certain additional activity in a longer period of time. The research results show that 86% of respondents have been engaged in such activities for more than five years, and only 2% of them are dealing less than one year, which can be seen from Figure 6.

Concerning the barriers that occur at the start of additional revenue activities in the rural economy of Bosnia and Herzegovina, it can be concluded that they are mainly of economic nature. According to the research results, 81% of the farmers dealing with fruit and vegetable production generally cite a lack of access to the financial resources as a major obstacle. Another big obstacle is the impossibility of securing loans, which also represents a major obstacle to farmers to deal with diversification of economic activities in rural areas of Bosnia and Herzegovina. The answers of farmers concerning the obstacles for diversification of economic activities in rural areas of B&H are shown in Figure 7 (FAO, 2012).

**Figure 7** Barriers to launch diversified activities in rural areas of Bosnia and Herzegovina

Note: In the questionnaire it was given the possibility of giving several answers so that the sum of percentages may not be 100%.

Source: FAO, (2012), Analysis of economic diversification in Bosnia and Herzegovina - Preparation of IPARD Sector Analyses in Bosnia and Herzegovina, FAO Regional Office for Europe and Central Asia Food and Agriculture Organization of the United Nations, p. 65.

Lack of information does not represent a particular obstacle for farmers in Bosnia and Herzegovina in diversification of economic activities. The respondents who have chosen the answer "Other" specified that they have problem with age, or too big risk or lack of business partners.

## 5. CONCLUSION

Diversification of economic activities in rural areas can be defined as the process by which one farm holding is gradually reducing its dependence on agricultural activities. Diversification can absorb a part of the surplus labour force and enable the growth of agricultural productivity as well. In addition, it contributes to the achievement of additional income of the farm holdings. Diversification of the rural economy has a direct connection to the farm, but does not include the work in the agricultural production activities on the farm.

Diversification of rural economy and income of the rural population can affect overall economic growth and the necessary preservation of rural areas and their functions. The measures of the rural economy diversification that support economic diversification in rural areas are divided into direct and indirect ones.

The value chain of diversified products in the rural economy has specific features and it depends on the product itself. Generally, the value chain starts with planning, going over the production and processing of products, to distribution, and finally comes to retail and consumers.

The research presented in this paper was found that entrepreneurship in rural areas of Bosnia and Herzegovina has good potentials through diversification of economic activities. However, the research has also showed that agriculture, environment and value chain for diversified products in B&H have a number of weaknesses, as they are not able to compete both on domestic and foreign markets. The consequence of these weaknesses is the lack of competitiveness for the B&H producers, as well as of their production capacities, which should meet the needs of the modern market.

It is important that diversification of economic activities should be seen as a source of additional income for the farm holdings that do not involve agricultural activities.

By diversification of economic activities in the farm holding it can be also considered the expansion of primary or conventional agricultural production, i.e. the production of new and high-value plant and animal products (enlargement of the value chain), organic production, the production of energy crops, then an increase of production with higher added value (e.g. the food processing), the production of regional products (products with protected geographical origin).

Diversification of economic activities in rural areas as a consequence has an encouraging of the employment both in the small and medium entrepreneurship, but self-employment as well.

The research has shown that the rural population in B&H has the desire to improve and/or expand its main source of income (agriculture), which is an important starting point for the development of diversified rural economy. It has been increasingly recognized the importance of creating new jobs and income opportunities in rural areas from sources that are not primarily linked with agriculture. However, the research has also shown that there is no systematic approach to the implementation of programs in Bosnia and Herzegovina, which could support the diversification of economic activities in rural areas.

Quality agriculture and quality of products in rural economy seek for reorganization of farms and farms production shifting production to more innovative approach. Seeking to capture the final value of products that will be delivered to end consumers. The agriculture sector in rural economy of B&H is facing many challenges like: low level of education, price instability, aging farms, acceleration of innovations, change in consumer demand, etc.

Through this research, it was realized the necessity of investments into the rural infrastructure (roads, sewage system, IT facilities, etc.), as well as enabling the easier access to the rural areas, which can be considered as the basic requirements that have to be fulfilled in order to support economic diversification in rural areas.

An important part in development of diversified rural economy in Bosnia and Herzegovina is the process of education and advising, not only for the rural population, but also for entrepreneurs in rural areas aiming at better understanding of the economic diversification of the rural economy concept, as well as how to start it and how to develop it.

One of the problems is also the low level of social capital in terms of mutual distrust and lack of confidence in institutions and the authorities in Bosnia and Herzegovina. This lack obstructs the development of the economy in general, but also of economic diversification in rural areas. Characteristically for Bosnia and Herzegovina regarding economic diversification in rural areas is also the unregulated market, the emergence of small and fragmented farms, as

well as a lack of trust in institutions from the micro to the macro level. All those results in poor cooperation between producers and other participants in the value chain of diversified products in rural areas.

The specificity of economic activities in rural areas of Bosnia and Herzegovina is also a large share of the farm production which serves for own consumption and for the local market, which is usually small.

Research has shown that it was done the differentiations of producers in rural areas of Bosnia and Herzegovina, to those who have the ambition to expand production of diversified products and willingness to export them, then to those who have ideas about the expansion of economic activity in rural areas and finally to those who mostly produce for their own consumption.

It should be noted that all participants in the value chain of diversified products in the rural economy of Bosnia and Herzegovina have to strengthen the efforts and acquire skills in promoting this kind of economic activity.

Concerning the measures for environmental protection in B&H rural areas, it is necessary to emphasize that there is no clear and precise curriculum and program of those measures, although there is declarative discussion on these matters. It should be borne in mind that through the environmental measures there will be tested the production systems as well, such as the "integrated" production systems, as well as the protection of the concrete environmental resources.

It is necessary to emphasize that the improved environmental protection and a higher awareness will result in integration with other rural development measures, aiming at improvement of environmental resources and successful implementation of rural development programs. It should be particularly stressed that in the framework of the environmental protection measures it is important to improve the land management and thus to use adequately the well protected natural wealth and resources. In that way there should be created the prerequisites for the creation of additional income in rural areas of Bosnia and Herzegovina.

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# VERBAL COMMUNICATION IN THE EXPORT OF SERVICES IN THE REPUBLIC OF CROATIA

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## ABSTRACT

*The main objective of the research is to identify the importance of verbal communication within the context of the hotel business operations in Croatia. Excellent verbal communication skills of hotel companies' professionals make the guests feel more trustful and safe, what in turn "de facto" increases the revenues resulting from the export of services.*

*The methodology is based on the primary research of a group of accommodation capacities within a hotel company located in the Republic of Croatia, in years 2015 and 2016. The research results confirm that possession of excellent verbal communication skills, along with the preparation and conduct of hotel companies' business activities increase the efficiency of the negotiations and as a result increase the client's feelings of trust and safety, leading to a higher export of services.*

**Keywords:** export of services, international business operations, tourism, negotiations

## 1. INTRODUCTION

Since 1991, the tourism in Croatia has faced a variety of challenges in the sphere of economic and social development of the country. The inherited and inefficient business platform, the consequences of war, instances of failed privatization had serious repercussions on the development of Croatian tourism. On the other hand, the growing demand of foreign markets, competitive advantages viewed through the unique natural attractions, climate and favourable geographical position of the Republic of Croatia have systematically strengthened Croatian tourism and made it more resilient to adverse external influences.

According to the authors of the tourism development strategy until 2020 (2016), tourism has significantly raised its operating results, particularly after the year 2000 and during the global economic crisis over the past few years it has showed a high resistance, which was confirmed by growth rates higher than achieved by the competitor countries (Mediterranean). In the 21<sup>st</sup> century the Republic of Croatia is seen as a tourist destination with a very high potential that follows the value system of sustainable development and the EU competitiveness strategy in the area of tourism. This is supported by data issued by the Croatian Ministry of Tourism (2016), according to which an increase in the number of accommodation capacities by approximately 13% and an increase in the number of tourists by 45% has been shown in the period from 2010 to 2015. The average number of overnight stays per bed has increased by 13% in the period from 2010 to 2015.

Following the private accommodation and campsites, hotel companies include the largest number of beds with the growing trend of about 1% in the period from 2014 to 2015. In 2015, the number of hotel companies' beds accounted for 13% of the total accommodation capacity in the Republic of Croatia. Within the framework of this research, a special attention was paid to the business activities (exports of services) of hotel companies in the Republic of Croatia.

Tourism as an economic activity, more than any other industry, depends also on safety. In this day and age that is strongly imbued with different economic and political crises, religious conflicts and wars in the Middle East, Africa, Asia and South America, safety is one of the most important elements that affect the decision of tourists where to travel and where to spend the holidays. Countries that have a low level of security, a high crime and corruption rate, radical political authorities spreading xenophobia, racial, religious or sexual intolerance, will not attract any tourists regardless of their natural beauties, good hotels, traffic connections and low prices (Mišević et al., 2014).

Therefore, one of the crucial factors of competitiveness of each company is the productivity and efficiency of human resources, which is most often projected through non-material added value. Such an added value includes: trust, professionalism, considerateness, security, discretion, which are all presented through effective verbal communication as important psychological aspects. Consequently, the research problem has been defined, relating to the insufficient knowledge of verbal communication in the hotel company's business operations, which can relatively downgrade the company's competitive positioning or reduce the future revenues originating from the export of services.

Therefore, a good knowledge of verbal communication and its rules is a must-have skill for every employee and manager in order to successfully communicate. Verbal communication preparation is positively reflected in the more successful communication and negotiation, security and privacy protection, what maximizes the hotel customer's satisfaction.

The study is based on the several key assumptions, as follows: that employees of hotel companies with a higher level of education are more acquainted with the verbal communication rules in business as compared to the employees with lower education. On the other hand, it can be assumed that employees with lower levels of education, but with larger business experience in conducting negotiations are better acquainted with the verbal communication rules than the employees without such an experience. Viewed through the prism of negotiations, managers and employees who invest more in the preparation have more success in business in relation to managers and employees who do not.

The structure of the work consists of five interrelated units. After the introduction, the second part of the work presents the importance of verbal communication in the preparation of staff and operations of hotel companies. The third part includes the research methodology. The fourth section, entitled "Results", presents the results of the conducted primary research. In the fifth part of the research, conclusions are reached and guidelines for improving the efficiency of workers and the competitive position of hotel companies in the Republic of Croatia are adopted.

## 2. THE IMPORTANCE OF VERBAL COMMUNICATION IN THE EXPORT OF SERVICES

### 2.1. Verbal communication and export of services

A successful communication in sales results in the generation of power and influence, which form the basis for sale and achievement of the desired results (Bezić et al., 2015). The importance of verbal communication can be viewed through two perspectives; relations between employees (hotel staff) and the relationship between the customer and the hotel staff. A special attention should be paid to the vertical communication in the framework of verbal communication between employees.

The role of vertical communication in the good preparation can be explained through the following example. During the unfolding of the negotiation process of procuring new hotel XY's staff uniforms from a company producing staff garments, it is important to know which garments are considered the best by the staff wearing it. Hereby it is not hinted that the employees are smarter than the management.

However, the management can in good faith order the best and the highest quality product for their hotel or the workers or to book inadequate uniform because of certain limitations. A situation where the procurement manager has commissioned uniforms for the entire hotel company should be taken as an example. He should have the work experience at the reception, whether the receptionist is standing or sitting, what kind of material must be ordered, whether the material gets creased easily etc.

Furthermore, with regard to the uniform worn by the chambermaids of the hotel company - whether the material of their uniform is light and airy enough, because they are doing a hard physical work, whether the material is easily washable since it can easily get dirty and so on. Through this example it can be concluded that the best solution would be to use vertical bottom-up communication approach, where the employee could vocalize the possible improvements in comparison to the previously used uniforms. The decision on the design details and the fabrics quality and price remains to be finally decided by the management. In this process, the management does not lose any authority but only performs consultations with the sector which is directly affected by the choice of uniforms.

Sometimes the managers refuse to participate in the vertical communication because they believe they know best, but the truth is that they do not have to know best and it is not expected from them. It can happen that after a discussion with the hotel housekeeping manager and the chambermaids, a conclusion will be reached that a more airy material should be ordered, which will be cheaper than the original, the more expensive and higher quality material and in turn this will enable savings to the company. The employee will also be given importance to participate in the selection. The employee will then feel validated, they will be more efficient in their workplace, which ultimately will affect the profitability and export of the hotel company's services.

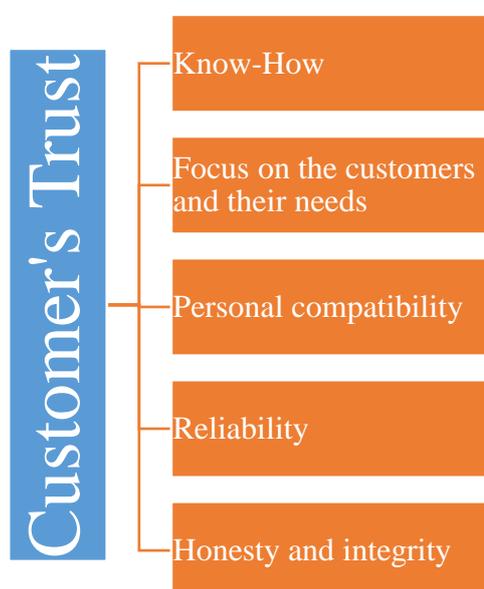
In any tourist facility a special attention in the context of the business process is given to the security and protection of business and personal data. All employees who work with business, personal or confidential data should undergo continuing training, thus ensuring the protection of business processes, guaranteeing the business reputation of the company and ensuring discretion of every customer's stay, regardless of their public or social status. Unauthorized disclosure of business or personal information causes immeasurable damage to the reputation

of the hotel, resulting in the loss of confidence of customers, loss of financial revenues and even puts the company's survival on the market in question (Mišević et. al., 2014).

Furthermore, verbal communication with the customers is the most important factor in the service industry. Verbal communication in tourism is taught and viewed as the employee's trained skill. Verbal communication with the customers is based on norms, rules of conduct and an interview where it has been prescribed in advance how and in which manner the customers should be treated. Fox (2006) interpreted that the direct communication in tourism is a determining factor of its quality.

Pizam (1999: 342) predicts that by 2050 the leading criterion of employment, remuneration system and advancement of staff will be just their communication skills with the customers. Figure 1 shows the characteristics of a successful verbal communication, i.e. the best ways to win the customer's trust.

**Figure 1** Gaining trust in the employee-customer relations



Source of the figure: Ingram, T. N., LaForge, R. W., Avila, R. A., Williams, M.R. (2006), p.33

It is of the utmost importance for the customers to do business with people whom they can trust. Each of the displayed items is important to gain confidence, starting from the focus on clients and their needs. If the customer notices that the employee does not pay enough attention and that they do not listen with full focus, the customer will not want to communicate any more with such a person. Also, if they notice that the employee is not honest, the trust will be lost.

Furthermore, if the employee promises the client that a specific problem to solve and in the end do not make a promise, lost confidence. The essential and personal compatibility with the customers. Customers who feel the connection with the employee (e.g. by sharing the similar worldview) and thereby create a quality personal relationship, will create a long-term relationship of trust in the further usage of hotel company's services. If the customer notices that an employee does not dispose of enough knowledge about work / product / topic that is

discussed with him or if the employee is unprofessional, the client will lose confidence in that employee and will not want to do business with him.

If the relationship between the administrative staff and a partner company / customer is viewed, the hotel company's procurement and sales sector should be stressed out. The importance of the abovementioned sectors' role is evident in the fact that the phone negotiating makes a significant share in the overall hotel companies' negotiations. The usual way that the Procurement Sector negotiates in order to obtain offers by different suppliers via e-mail and after taking into consideration the further negotiation with them is done by phone for faster negotiation. Only after the agreed ratio of prices and quantities, the final offer is then sent back electronically in order to stay documented as an evidence of agreement.

In the Sales Sector, the sales clerks in the company on a daily basis are in contact with the telephone negotiations. They receive a booking customers for the hotel company and negotiate rates with the customer. Prices are already pre-agreed and fixed, or sales clerks have permission to negotiate with the customer in certain seasonal periods and approve a certain discount to the days of stay. They do not have to approve a discount to every customer in this period, but if the customer complains that it is too expensive, has doubts about visiting and at that time the company has underutilized capacities, the customer may be granted a discount.

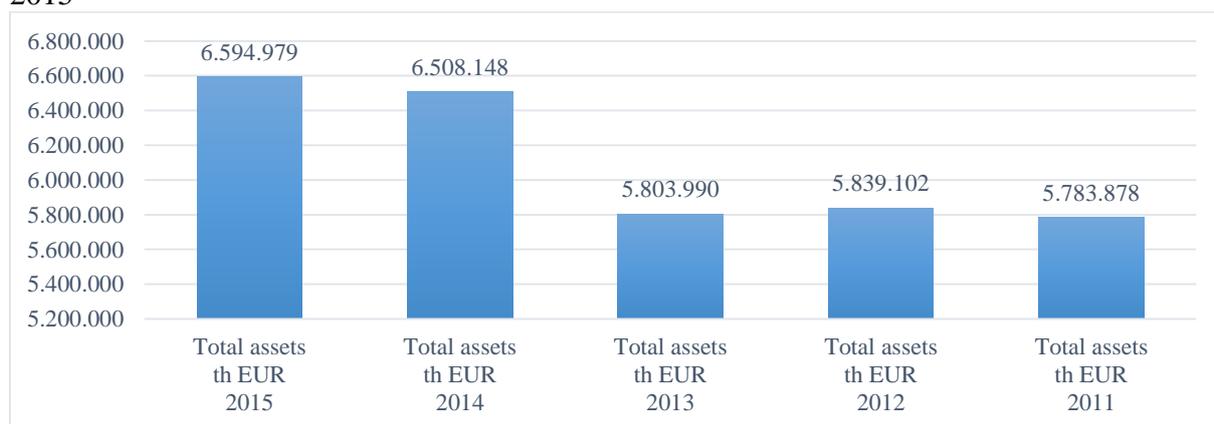
Investment in the preparation for negotiation, verbal communication with the customers is a key priority for the hotel company. This advantage is manifested in improved productivity and efficiency of employees of the hotel which consequently affects the growth of exports of services and the profitability of the hotel business.

## **2.2. Analysis of accommodation capacities' business operations in the Republic of Croatia in the export of services**

An overview of the business activities of accommodation facilities in the Republic of Croatia in the period from 2011 to 2015 is given in the following text. Assets, number of employees, revenues and average costs of employees working in 962 accommodation facilities in the Republic of Croatia will be analysed. The accommodation facilities were selected in accordance with NACE rev. 2 Group 551 - hotels and similar accommodation. The following Figure 2 shows movement of hotel companies' property in the Republic of Croatia.

A growing trend in the accommodation property in the Republic of Croatia is visible from the overview. It should be mentioned that the growth has been particularly visible in 2014 and 2015. In those years a preference to invest in property was evident, which has confirmed that Croatia is an attractive tourist destination for investors. One of the reasons for the expansion of property can be found in the existence of political tensions on the territory of North Africa, but also the culmination of the economic crisis in Greece.

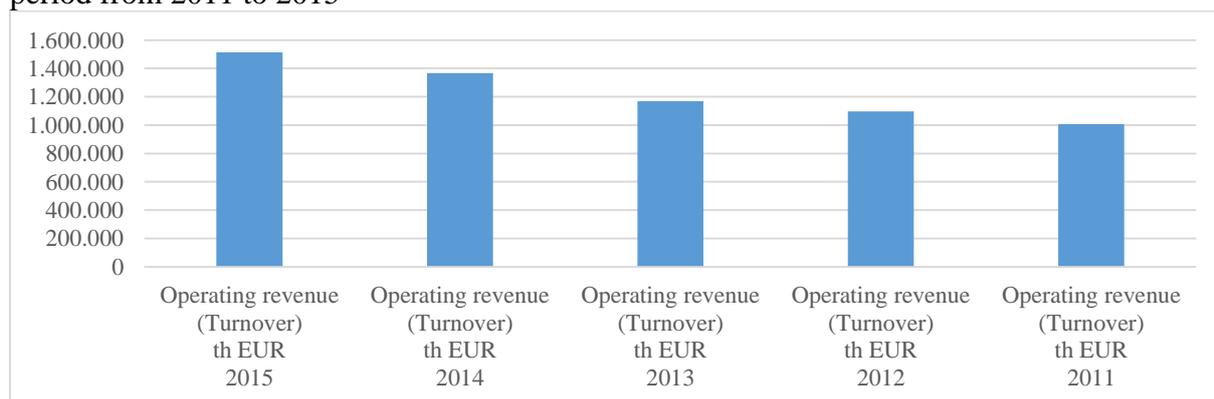
**Figure 2** Assets of hotel companies in the Republic of Croatia in the period from 2011 to 2015



Source of the figure: Prepared by the author according to the Amadeus database (2016)

In the following text, we shall analyse the trends of revenues realized within the framework of accommodation capacities of the tourism sector in the Republic of Croatia.

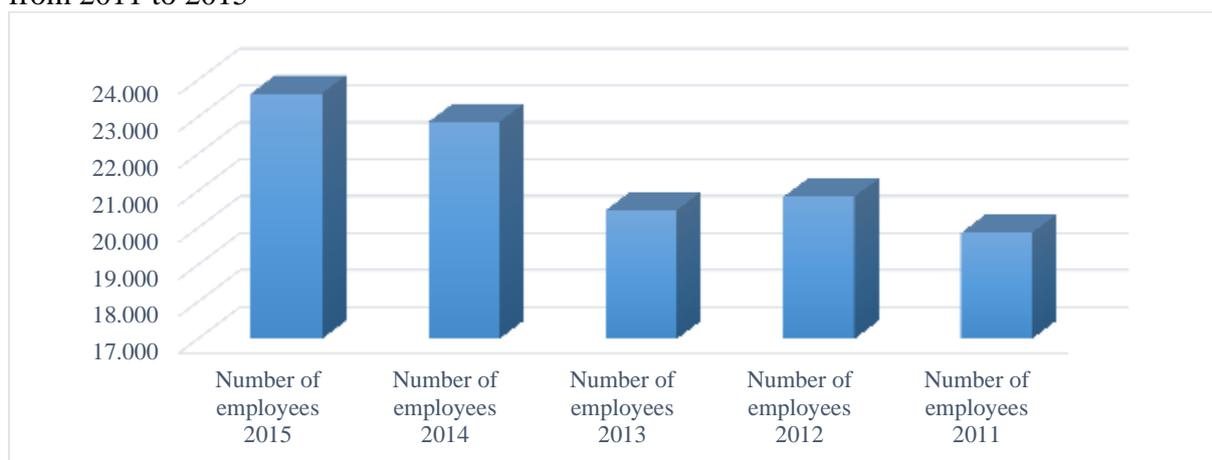
**Figure 3** Fluctuation of accommodation capacities' revenues in the Republic of Croatia in the period from 2011 to 2015



Source of the figure: Prepared by the author according to the Amadeus database (2016)

Figure 3 confirms the exponential growth of revenues in the viewed period. The largest revenue from accommodation capacities of the Republic of Croatia was achieved in 2015. The increase of revenue is a product of constantly rising demand for accommodation facilities in the Republic of Croatia.

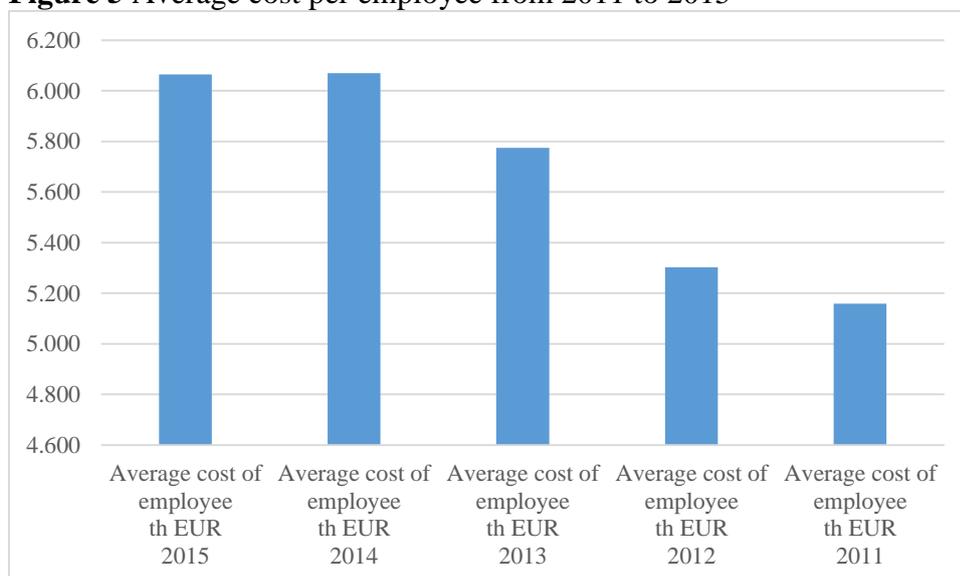
**Figure 4** The number of employees in accommodation facilities of the Republic of Croatia from 2011 to 2015



Source of the figure: Prepared by the author according to the Amadeus database (2016)

Figure 4 shows the growth of employment in the tourism sector of the Republic of Croatia. The growth in the number of employees is a result of an increasing demand, revenue and profitability of the company. It is necessary to add that we are dealing here with the majority of seasonal workers who are cheaper for accommodation offer in Croatia. The year 2015 was the record year in the number of employees in accommodation facilities of the Republic of Croatia.

**Figure 5** Average cost per employee from 2011 to 2015



Source of the figure: Prepared by the author according to the Amadeus database (2016)

The upward trend is present in the context of the average cost for employees in accommodation facilities of the Republic of Croatia. The highest costs per employee are typical for the year 2014. The growth in demand for accommodation has resulted in an increased profitability and a parallel increase in wages for employees. We should not ignore the impact of tax policy, which is an important factor in the competitiveness of Croatian tourism.

### 3. METHODOLOGY

The aim of the study was to confirm the importance of preparation in verbal communication, negotiating, conflict resolution and the importance of the education level of hotel company employees. Research results show the effect of verbal communication and negotiation preparations to the hotel business. It is the primary research conducted on the territory of the Republic of Croatia.

A bigger hotel company (joint stock company) with a long tradition in the hotel business and employing at least five hundred workers (Hotel company's internal data, 2016) was selected as a sample. Hotel company disposes of a variety of accommodation capacities, and the research object were several hotels owned by the hotel company. The identity of the hotel company is protected in order to protect the business interests and to achieve sales milestones.

The survey covered one fifth of employees i.e. 93 employees who in their scope of work have contact with business negotiations as well as employees who are in direct contact with employees. The testing covered different jobs within the company; directors of hotels within the group, heads of reception, reception staff, halls and entertainment managers, wellness managers, director of administration, legal department staff, human resources, procurement, hotel activities departments, technical support staff and Marketing and Sales Department's employees. It should be noted that 28% of the sample works within the hotel company's management, while the other 72% are responsible for other business activities within the tested hotel company. The data were collected through a survey of employees at the selected hotel company.

The survey was conducted within the first half of 2016. The survey was sent electronically to the particular group of employees, while other staff members had been interviewed through an interview. Results were manually entered into the table. Survey questions concerned the experience and training, business negotiations, conflict resolution and verbal communication within the hotel business activities i.e. export of services.

This section presents the results of a survey conducted in a Croatian hotel company. Results refer to the educational level, their position within the hotel, work experience, preparation before the negotiations, negotiation methods, negotiation results, conflict management methods within the context of verbal communication and others. It should be noted that these results can be used by business decision makers in order to increase awareness of the importance of the hotel companies' employees and thereby to improve the employees' efficiency in verbal communication.

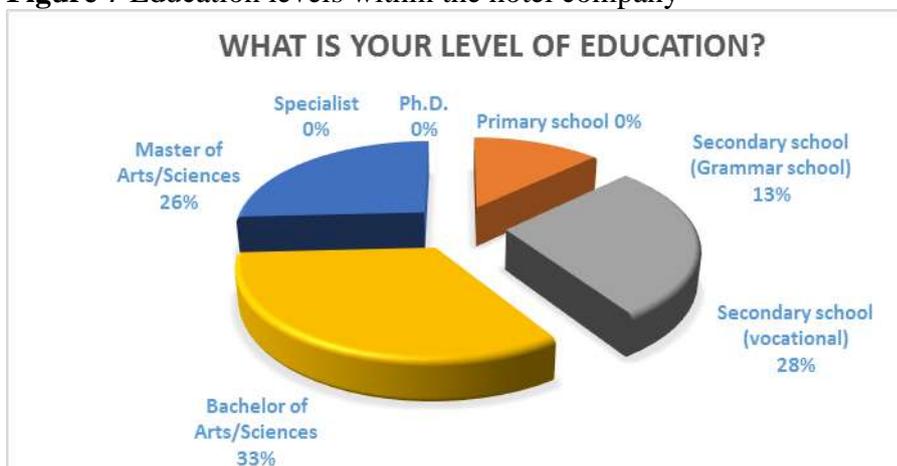
**Figure 6** Position the hotel company



Source: Prepared by the author

Figure 6 shows the positions in which the majority of the hotel company staff members dealing with negotiations is employed. The research conclusion is that out of the respondents who took up the survey, the largest number belongs in the group of sales officers and receptionists - 58%, followed by the low-level managers (sales managers, heads of reception, wellness heads, etc.) - 26%. They are followed by facilities' directors or management with 13% and lawyers in the company who make up only about 3% of the total number of employees.

**Figure 7** Education levels within the hotel company



Source of the figure: Prepared by the author

Figure 7 illustrates the level of education of surveyed employees within the company. The largest number of them are bachelors of arts/sciences, predominantly bachelors of economics. They are followed by employees with finished secondary vocational school - as much as 28%, and then the master of arts/sciences with 26%. Employees who have completed only high school education make up 13% of total respondents. It is interesting that in the entire hotel company there is not a single employee who has completed specialist or doctoral studies.

**Figure 8** Work experience in the hotel company



Source: Prepared by the author

Figure 8 shows the work experience in the hotel company. It turned out that most employees have up to three years' work experience - even 64% of respondents, while only 11% of employees has more than three years of experience. Mostly permanent employees and elderly managers belong to this group.

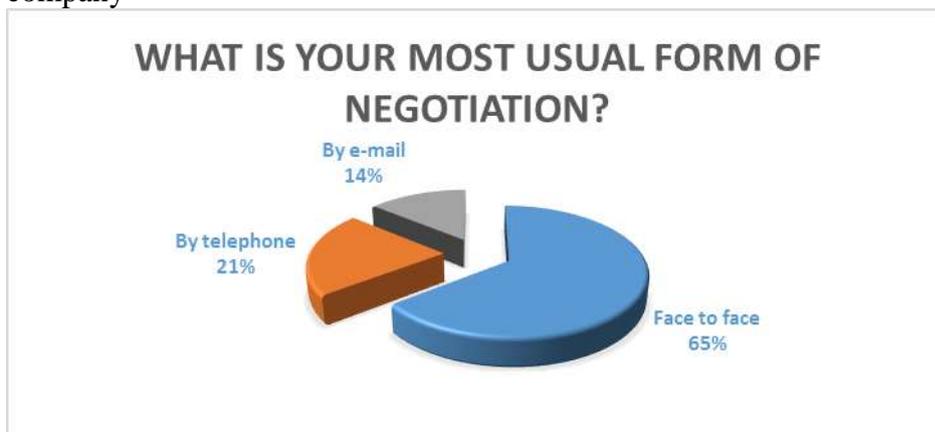
**Figure 9** Planning of negotiations in the hotel company



Source: Prepared by the author

Within the framework of Figure 8, it was examined how much do the employees of the company prepare for negotiations. The survey results show that in most cases they do not prepare. This answer was given by even 48% of respondents, what makes up for almost a half of the respondents. 38% of respondents said yes, while 13% answered that they prepare for negotiations only occasionally. Insufficient preparation for negotiations / verbal communication with customers could result in adverse financial effects for the company. An affirmative reply in the survey was mostly given by the leaders of the hotel companies (directors) while a negative answer was mostly given by receptionists, sales staff and lower levels of management, along with the comments that they do not have to prepare in advance in order to successfully complete negotiations. In order to achieve a higher hotel company's productivity, it is necessary to establish a mechanism that will prepare employees for effective verbal communication / negotiations with the client.

**Figure 10** The most common communication method in negotiations held within the hotel company

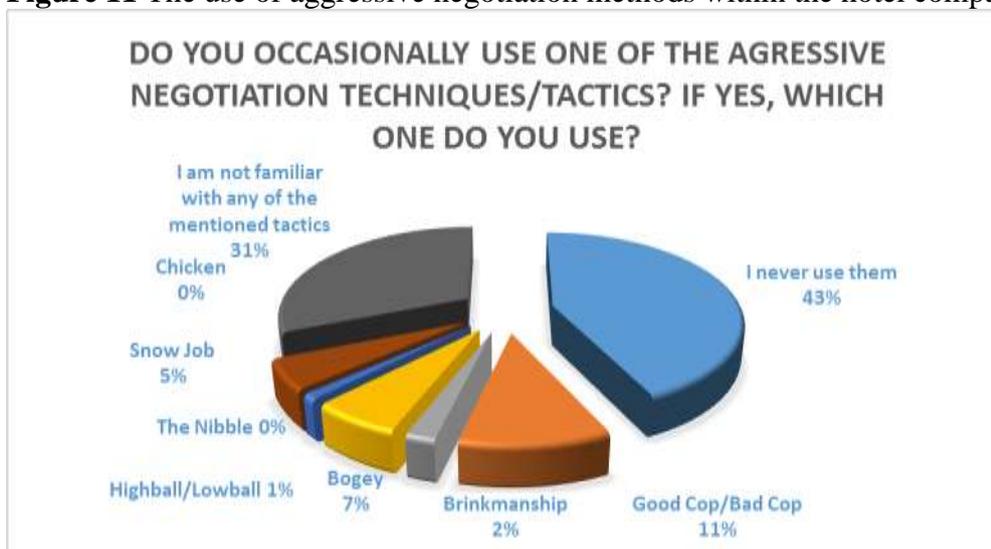


Source: Prepared by the author

The most common form of negotiation is presented within the framework of Figure 9, clearly showing that employees negotiate mostly face-to-face (65%). That is followed by telephone negotiations (21%) and then by e-mail correspondence, which is the preferred method of only 14% of the total number of hotel employees.

Face-to-face negotiations are most common for directors and receptionists because they are in a direct contact with the customers. Telephone negotiations are most common in the Procurement and Sales Sector, which makes up a total of 21%. E-mail communication is generally applied by all employees (sales clerks, company director, i.e. all surveyed sector except the reception department).

**Figure 11** The use of aggressive negotiation methods within the hotel company



Source: Prepared by the author

Figure 11 shows how often do employees of the hotel company use one of the aggressive negotiation techniques. It is evident that the majority of employees responded negatively to the survey with as much as 43%. If they use one of the said tactics, managers and directors it is usually the Brinkmanship tactic with a total of 2% or the Good Cop/Bad Cop technique with 11%. Some of the other methods have never been used by the respondents, but this can

be explained by the fact that even 31% of employees are not familiar with the negotiation methods. Since as many as 41% of the surveyed employees have completed high school education, these results seem to be logical. Previous results were correlated with the results of the negotiations outcome (Figure 7), where the largest proportion of respondents prefer a win-win outcome of negotiations that does not contain any aggressive methods of negotiation.

**Figure 12** The most common negotiation outcomes in the hotel company



Source: Prepared by the author

Figure 12 shows the final outcome of negotiations in the analysed hotel company. To resolve this issue, respondents were explained the concept of BATNA. The survey results indicate that 86% of employees usually ends negotiations in a win-win situation that is desirable for both sides participating in the negotiations. Win-lose outcomes were experienced by the 11% of the respondents, only 3% of respondents have come up with the best alternative solution to BATNA and a lose-lose situation was not experienced by any of the 93% of respondents.

**Figure 13** Levels of conflict in the hotel company



Source: Prepared by the author

Figure 13 examines the level of conflict which may be encountered in the context of verbal communication between employees. It is clearly visible that the most common conflict is interpersonal conflict (75% of respondents). It is a type of conflict between individuals, i.e. a customer and a receptionist, a customer and a manager, a director and a manager or a director

and a director. Intrapersonal conflict is characteristics for 11% of employees who are in a dilemma with their own thoughts and ideas and often do not have solutions for their complex business situations. The negative effects of interpersonal conflict can be recognized by the customer. Therefore one of the most important strategies of hotel companies should be to encourage company's functioning as a single unique entity.

**Figure 14** Stalemate position in hotel company's negotiations



Source: Prepared by the author

Figure 14 answers to the question whether the employees of the hotel company have ever faced a stalemate in negotiations. Respondents who had not been previously familiar with the concept of stalemate, were introduced to the term during the survey. 86% of respondents have never found themselves in the stalemate position in the course of the negotiations, but 14% of respondents claimed that they have been in that position many times, mostly due to difficult conflicting situations which occurred in the course of negotiations.

The stalemate position occurs in negotiations due to the lack of preparation and lack of proper identification of the emotional state of the other participant. Since the level of preparedness before negotiations tends to be much lower than avoiding stalemate, it is very likely that a large percentage (86%) indicates the communication between partners who predominantly negotiate about fixed items or in situations where an absolute bargaining power is in the hands of the hotel company. On the other hand, one of the answers can be found in avoidance of aggressive negotiation methods and aspirations of employees towards the realization of a win-win agreement, whose percentages are much lower than the achieved stalemate positions during negotiations.

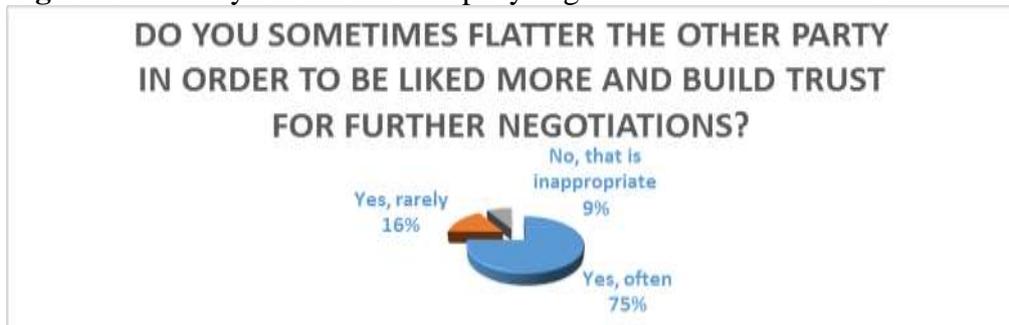
**Figure 15** Significance of conflict in a hotel company



Source: Prepared by the author

Figure 15 shows how the employees view the notion of conflict as an integral part of verbal communication. 75% of them considers that the conflict has a stimulating effect and opens the door to other possibilities. Since the preliminary results of Figure 8 clearly imply a high level of interpersonal conflict hotel company, the results of Figure 10 are quite logical. However, the question is whether interpersonal conflict affects the productivity of employees. On the other hand, 25% of respondents selected the answer in which every conflict reflects a bad image of the company and that it has consequences.

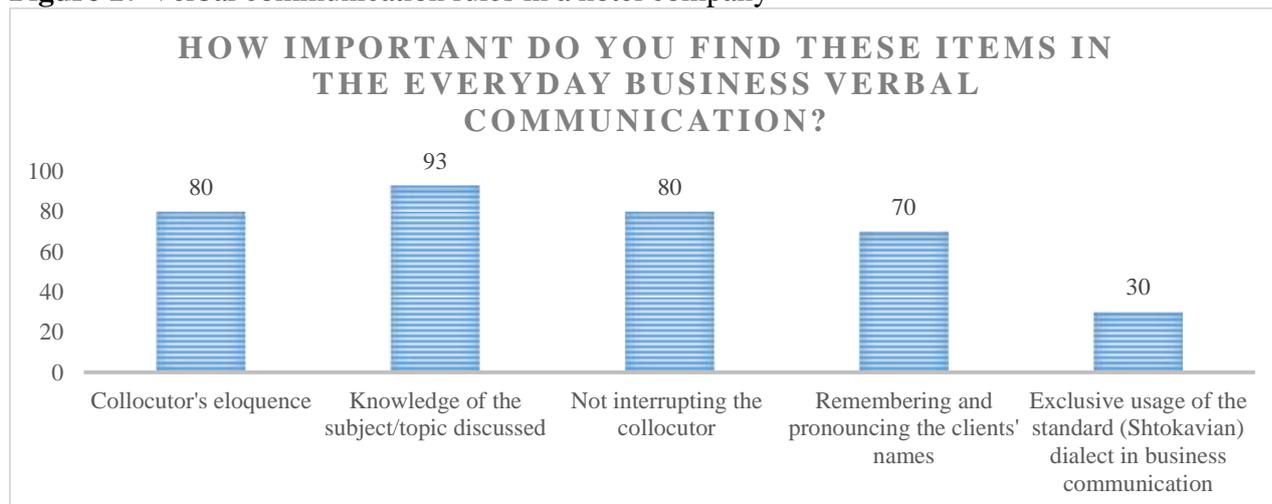
**Figure 16** Flattery in the hotel company negotiations in order to build trust



Source: Prepared by the author

Figure 16 shows the analysis whether employees use flattery in verbal communication in order to build trust for further negotiations. Figure 11 confirms that 75% of respondents have used flattery several times in the negotiation process. 16% of the employees have used it at least once. The conclusion is that 91% of respondents believe that flattery is a powerful verbal communication and negotiation tool in the hotel company, while the remaining 9% considers it inappropriate. However, one should bear in mind that excessive flattery may be a sign of dishonesty, which in turn may have adverse effects on verbal communication and the course of negotiations.

**Figure 17** Verbal communication rules in a hotel company



Source: Prepared by the author

The last question from Chart 16 deals with the importance of certain communication rules and items for the surveyed hotel company employees. The survey participants have selected the knowledge of the discussed subject as the most important item. Here we can find an indirect connection to the importance of preparation. It is interesting to point out that the largest share of respondents value the knowledge of the subject, while at the same time a relatively small number of them gives importance to the preparation. Additionally, 80 respondents have circled the collocutor's eloquence and non-interrupting as equally important qualities.

Remembering details of the conversation and remembering and pronouncing the collocutor's name was listed as important by 70 respondents, but only 30 of them circled it is important to use only the standard Shtokavian dialect in business communication. This can be justified by the fact that the company is located in the area where a specific local dialect is predominant and some employees use it in both their personal and business life, although they should not be using it. They feel that the use of dialect does not affect the results of the negotiations.

#### 4. CONCLUSION

Employees who work in the tourism and hospitality industry should pay attention to the proper use of verbal communication, which represents an integral part of the code of conduct of each hotel company. Moreover, it is necessary to pay special attention to the use of the right words at the right time, in order not to insult the guest but to the contrary - show respect towards them by using the correct verbal communication, their personal name and empathy.

This research confirmed that hotel company employees with a higher level of education are better acquainted with the verbal communication rules applied in the course of business negotiations, in comparison to the employees with a lower educational level. Employees with a lower educational level, who make up a total of 41% of surveyed employees are acquainted with the verbal communication rules almost equally as their more educated peers, but they do not consider some issues to be important, such as using the standard Shtokavian dialect during negotiations.

Hotel company employees with a lower level of education also deem flattering in negotiations inappropriate and most of them have confirmed that they are not using it or if they are, then only rarely. At the same time, the highly educated employees such as company managers have immediately recognized it as method of achieving a personal rapport with the client, when they use flattery as a method of approaching clients. Even 6% of the employees with lower education and with less than one year of work experience consider flattery to be a poor method, while the remaining 3% of employees with lower education and with work experience of more than three years consider flattery to be a good communication strategy.

It has been proved that highly educated managers or the ones with a more extensive work experience often apply ethical negotiating methods and act with empathy towards the other party, while the respondents with lower education have chosen replies showing that they tend to use aggressive methods of negotiation.

The practice shows that communication in the manager-subordinate direction is more efficient and this is the way most companies operate, not only in Croatia but also in other parts of the world, but only in an environment of complete trust, and trust must be earned. Such communication should be maintained but in addition to it *Brainstorming*, *Open door policy* and MBWA strategy should be implemented too. In that way the lower-ranking company employees' opinions and ideas would also be heard and appreciated.

By investing time into preparation, risks of unsuccessful negotiations or unsuccessful verbal communication and getting into win-lose or lose-lose situations during negotiations, i.e. the non-verbal communication get significantly reduced. Preparation makes a solid foundation for a quality education of negotiators. It is alluded here to the interest of the individual to expand their knowledge outside of the scope of their work. It is important to have the knowledge of legislation, psychology, foreign languages, etc. for a successful verbal communication / negotiations. People who have often met and talked with their counterparts from different areas throughout their years of practice, who had an inherent interest in expanding their knowledge and who have gained communication skills through the many years of work experience, can also be classified as excellent business negotiators.

Preparing for communication with the guests is crucial for business, i.e. for the export of hotel company's services. Investments into the verbal communication can significantly improve the communication skills of employees, what in turn can result in a greater customer satisfaction. Finally, a satisfied customer does not only come back, but also represents an additional promotion of the hotel company, what is definitely reflected in the hotel company's increased profitability. An effective verbal communication results in building the customer's trust and in maximizing the customer's security in the hotel, which also provides a positive effect on the business, i.e. the hotel company's export of

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