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CUSTOMER'S PERCEPTION ASSESSMENT
OF TECH-RELATED INNOVATIONS IN TOURISM

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JEL O300; O330; Z30	Abstract
Keywords: perception, attitude, tech-related innovations, tourism	Tourism **industry is undergoing a technology-driven transformation.** The efficiency and purposefulness of implementing each new technology depends on the perception and the decision of end users - tourists to accept and use it.The purpose of the article is to assess customer's perception of tech-related innovations in tourism. A questionnaire was designed to survey the perceptions and attitudes of Bulgarians about the use of innovative technologies in travel and tourism. The results show that Bulgarian respondents are not yet very familiar with the use of tech-related innovations in travel and tourism, but are gradually starting to accept them. However for some specific operations they prefer to communicate with a human employee. Exploring customer's attitude and perception of technological innovations is crucial for their acceptance and implementation in tourism. The fact that usershave limited experience in these innovations shows that, at this stage, a combined service of technologies and humans is the ideal solution for satisfying the customer's needs and providing a better travel experience. © 2018 University of Economics – Varna

Introduction

Technological innovations are becoming more and more widely used in the tourism industry. The service process is transformed in response to changes in consumer perceptions and behavior, the new requirements and needs of modern technology before, during and after the tourism consumption. The application of technology in travel, whether it be in the vacation-planning process or during the actual vacation, is changing the entire travel and tourism industry. The average tourist visits about 22 travel-related sites prior to booking a vacation and 70% of business travelers will check into their flights and hotels via their mobile devices(Bittzer, 2012). Hence, it is not surprising that technological innovations and tourism are

becoming closely interrelated. Along the same vein, the travel brands and tourism boards around the world are using technology to enhance the travel experience from the point of booking to the actual vacation. Tech-related innovations in travel and tourism run the gamut and include everything from social media and hi-tech hotel campaigns, automated services and apps that act like tour guides, artificial intelligence and robots that help tourists.

Modern technologiesand business models have revolutionized the travel and tourism industry (Bilgihan & Nedjad, 2015). Following**technology-driven transformations**based on automation of processes and activities in travel and tourism, the advent of the age of robots is on. Like any new phenomenon, the introduction of new technologies in tourism industry is at an early stage of research and analysis. Research should be conducted in the field of perceptions, motives and attitude of consumers and the level of application of tech-relatedinnovations in the various tourism services.

The ***purpose*** of this article is: *on the ground of evaluating the role and significance of modern technologies in tourism industry to define and assess the customers perceptions of tech-related innovations in travel and tourism.* In order toattain the formulated goal the following research objectives have been completed: presenting the modern technologies in travel and tourism that are relevant and used most often; defining the impacts of applying the technologies, as well as the perceptions of tourists towards them.

Researchers and tourism managers have reasons to anticipate the appearance of fully automated establishments, with no human presence. This process raises a range of issues and problems, though. Of special significance is not only the reaction of those employed in the industry, but also the customer's perception and demand, which finally determines the success and positioning of the tourism business. How will customers respond? What will workers do? (Dunn, 2017). Technology in tourism is revolutionizing the way tourists travel by enhancingtheir vacation experience whereas tech-based brands and travel organizations alike can benefit from recognizing and understanding this development.

Technological innovations are helping tourists at airports, hotels, restaurants and cruise ships, museums and attractions.More importantly, advances in technology contribute to better safety and security (Ivanova, 2017).The modern machines used in today's travel industry are engineered to enhance customers' experiences throughfast and convenient service. It is hard to ignore the entertainment value of some of them. They are changing the face of customer service in the travel and tourism industry. That's why conducting research is important in order to establish:

1. How customers perceive technological innovations in travel and tourism?

2. How comfortable tourists are with them?

3. Whether travelers believethat tech-relatedinnovations will improve the experience?

Innovation in tourism is a multifaceted phenomenon, particularly in terms of information andcommunication technology and the Internet (Aldebert et al., 2010).New technologies in travel and tourism cause a range of major social, economic and business effects. The social impacts of the tourism service are connected with the involvement of the customer in the process of providing the services. A challenge for the tourism industry is finding the optimal mix of digital and human interactions to create personalized guest experiences while respecting their privacy (Bilgihan & Nedjad, 2015). In the future the economic and social efficiency and competitiveness of tourism organizations will be in direct correlation with the perceptions and attitudes of customer demand for new technologies, including artificial intelligence and robots. The long-term changes will gradually help build a new type of consumer behavior. It is slowly structured by the acceptance and application of technological innovations related to smart devices and tourism applications,social networks and media, automated operations and online bookings.

Customer's perception of tech-related innovations in tourism - a theoretical approach

New technologies play a keyrole in travel and tourism industry.Mobile technology,user generated content, **self-service technology,** online advertising campaigns **and artificial intelligence**are transforming the industry and enabling a new level of customer service in tourism companies.Tech-related innovations in the transportation sector (airlines, cruise ships, trains and coaches), hospitality (accommodations, including hotels and resorts), tour operating, travel agencies and entertainment venues (amusement parks, restaurants, casinos, shopping centers) comprise new tourism services, products and processes and significant technological changes of the organization, distribution and consumption of these products and services. An innovation has been implemented in travel and tourism if it has been introduced on the travel and tourism market. The innovations that increased productivity in the tourism industry are a source of competitiveness (Karadjova, 2013, p. 160).

Each of us learns from the flow of information that surrounds us through the five senses. However, we perceive reality differentlyas we are influenced by our own needs, necessities, values and experiences. Individuals react according to perceptions

instead of objective reality. Thus, understanding consumer perceptions is the key to the successful implementation of technological innovations in any service area, tourism included. Perception is a dynamic process by which the perceiver gives meaning to "raw materials" from the environment. The individual is not a lifeless object, but an actor (Brée, 2012). Perception interposes, between the real world and behaviors, as a filter between a transmitter (the real world) and a receiver (men) (Brunet, 1974). It is not a simple phenomenon that is easy to describe or study. In our life and society it cannot remain in a pure form. It is affected by various factors like memory, behaviors, codes, values, beliefs, way of life (Brunet, 1974).

Perception is related to the process of creating an attitude – a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object (Hawkins & Mothersbaugh, 2010). Therefore, an attitude is the way one thinks, feels, and acts toward some aspect of his or her environment (Petty, Wegener & Fabrigar, 1997). They have 3 components: cognitive (beliefs), affective (feelings), and behavioral (response tendencies). Every day the consumer is exposed to a considerable amount of information, and only a small percentage of this is retained by the brain for interpretation and preservation. Therefore forming an attitude based on perception of an object or event that we see on regular basis is not so difficult. At the same time an attitude toward an unfamiliar phenomenon, or one that is less recognizable, is far more challenging. The case oftechnological innovations in tourism industry is similar.

There are different types of studies conducted to assess the consumer's perception of technologies, including robots and artificial intelligence (Katz & Halpern, 2014; Reeves & Nass 1996; Friedman & Millet, 1995; Melson et al., 2005; Eurobarometer, 2015), but there are not as many in the field of tourism. Tech-related innovations are not yet universally implemented in travel and tourism and people are feeling puzzled on how to form an assertive opinion of them. Many of the latest work that has been done in robotics and artificial intelligence originated from engineering research, despite using hospitality and tourism as their context. These studies are typically focused on the technical aspects of innovations and robotic design, architecture and performance rather than consumer (tourist) experiences of modern technologies (Tung & Law, 2017). Nevertheless, these technological innovations exist and tourists have formed or have started to form different perceptions and behavioral patterns of them.

It is common knowledge that online tools have changed the face of the tourism industry. The appearance of third-party online travel sites such as Expedia and Trip Advisor, better communications via online tools such as social media and chat

services and the provision of 24/7 service such as booking facilities and real-time webcams have all helped the customer become better informed and more engaged. However, technology is not just for the 'big players'. There are changes that even small businesses can make to take advantage of tech-related innovations, the most important of which are (Gale, 2017):

✓ mobile technology –nowadays leisure travellers are using mobile technology to be more spontaneous. Therefore, itis really important that every tourism business has a website that is easily viewed on mobile devices;

✓ user generated content (UGC) is influencing perceptions and decisions about the tourism products or services that consumers buy. UGC is the pictures, tweets, videos, blogs posts, that others say about travel and tourism products or services;

✓ virtual tourism has allowed people to perceive and 'see the world' without leaving the comfort of their own home, or spending money. This allows people to get excited about a destination or service and want a taste of the real thing. It also allows potential travellers to be more confident about what they are booking.Nowadays, Internethas become a powerful tool, which can predefine the human mind when creating new realities (Borisov, 2011, p. 166). Virtual tourism can add to an experience(for exampleusing augmented reality to create mobile phone 'time machines' which show certain locations as they would have appeared centuries ago);

✓ tourism apps –it seems that there are so many apps and the tourism industry is no exception. Apps are available for everything from completing bookings, finding museums, and guiding tourists through local attractions. The move now is towards apps that combine multiple services into a single platform for maximum convenience;

✓ social media – used well, social media can have a considerable impact on a business;

✓ self-service technology (SST) –from checking into a hotel, booking a tour online, to scanning an item in-store to check its price, self service options are available for those who donot like to wait and donot need to interact with a person. SST is becoming ubiquitous and an important option to offer customers;

✓ online reviews –these can attract more customersand even a bad review can have a positive impact if handled in the right way;

✓ free wi-fi – tourists travel with a smart phone or mobile device and use it to book their trip, visit of attraction or event. The expectation that businesses provide free wi-fi is extending beyond the hospitality.

✓ online advertising campaigns – they can target those who have expressed an interest in a tourism product or service;

✓   online bookings – the ability to book online is becoming almost essential in the tourism sector.

✓   the robotics trend –on the America's Lodging Investment Summit, were made predictions for the growth of hotel robots to deliver guest amenities and clean rooms (Carter, 2017).Investment into these types of technological innovations are fuelled by decreasing technological costs, which at the same time provides hotels with the opportunity to reduce operating costs.

Most authors think that the future development of travel and tourism is irrevocably related to technological innovations and robotization, which definitely calls for further research. Within the robotics literature, there is a growing area of research interest in human-robot interactions (HRIs), which emphasizes human-centered experiences in which people are the core (Tung & Law, 2017). In terms of tourism demand, we believe that robotization and technological innovations, are at an early stage and the dominant perceptions of customers are curiosity, discovery, surprise. Users cannot yet appreciate the performance of 'automated' operations and services and what is important to them (Mest, 2017). It is assumed that tourists do not have enough experience to be the base for a change in consumer's perception and behavior. They definitely do not expect all operations to be fully automated. Consumers would prefer that combination when new technologies, robots and humans are working side by side in customer-facing roles as the ideal situation (IBM and Hilton Field-Test and Robot Concierge, 2016). From a socio-psychological and marketing point of view, customers' perceptions in tourism are in direct correlation with their demographic and behavioral characteristics, first, and second, with the characteristics of the separate segments. Taken together, tourist's prior cognitive beliefs, social influence, perceived ease of use and the perceived usefulness of technological innovations and robotics could affect their acceptance during the consumption of tourism services (Tung & Law, 2017).

Role of technological innovations for customers in tourism

The online era has played a significant role in the change of consumer's perception, attitude and behavior. A "new type" of traveler is emerging. He/she is using more and more the technical tools. They help him to travel and spend his/her vacations more efficiently. Millennials, or generation Y, are considered the first truly global consumer group. They are born between 1980 and 2000. Millennials represent over 25% of the global population. They are very tech-savvy (Euromonitor, 2015). As 4G becomes more widely available and essentially free for travelers within Europe, the way the tourists use their phones is likely to change dramatically as they follow

live maps, use apps as travel guides and find and book hotels, attractions and restaurants with them (Munford, 2016). "Modern" tourists have the opportunity to learn about their destination far more in advance. They can obtain detailed information about every aspect of their stay. Afterwards they have the option to book accommodation as well as a way of travel. With advanced technologies tourists can arrive at any time and enter their hotel rooms. During their stay they can buy tickets, on the spot, for different events, museums, theme parks, etc. After their stay they can immediately rate the quality of the services they have received and leave a narrative for their experience with the help of social media. In conclusion, we can say that tourists use widely technological innovations in order to choose the perfect place and service, meeting their specific needs.

Identifying patterns of current and potential customers and servicing their needs is one way that tourism organizations are attempting to use information as a leverage tool against competitors (Piccoli, 2008). The volume of data available to companies and its accessibility will grow rapidly with advances in smart technology on smart phones, wearables and the Internet of Things. Combined with artificial intelligence and robots, travel and tourism brands will be able to deliver greater personalization to consumers, at greater speed (Euromonitor, 2016). Tourism managers can obtain customer data through the main internet reservation platforms, social media sites, personal sites. They can use a range of technologies (tablets, smart phones and other devices) in order to obtain information from tourists by asking them to fill in questionnaires on the spot. These different means of gathering quantitative and qualitative data can play a major role in the development of the company and its services and the creation of more loyal and satisfied customers. According to Euromonitor (2016) tourism organizations should focus on collecting, analyzing and using data for personalization and cooperating with tech players. Information regarding customers will continue to have a big impact on the future of the tourism industry (Koutroumanis, 2011).

Tourism companies are not only focusing on improving their online availability and marketing strategies to respond to changing customers perceptions and traveler demands. An increasing number of carriers, hotels, tour operators, restaurants and attractions are implementing tech-related innovations and mobile applications, which have the potential to enhance the guest experience (Euromonitor, 2015). Technologies in tourism can include a wide variety of personalized services. The implementation oftechnological innovations started with keyless entry in 2014 and has progressed to wearables (apps for smart watches), artificial intelligence and robots, virtual reality and room alterations (Figure 1).
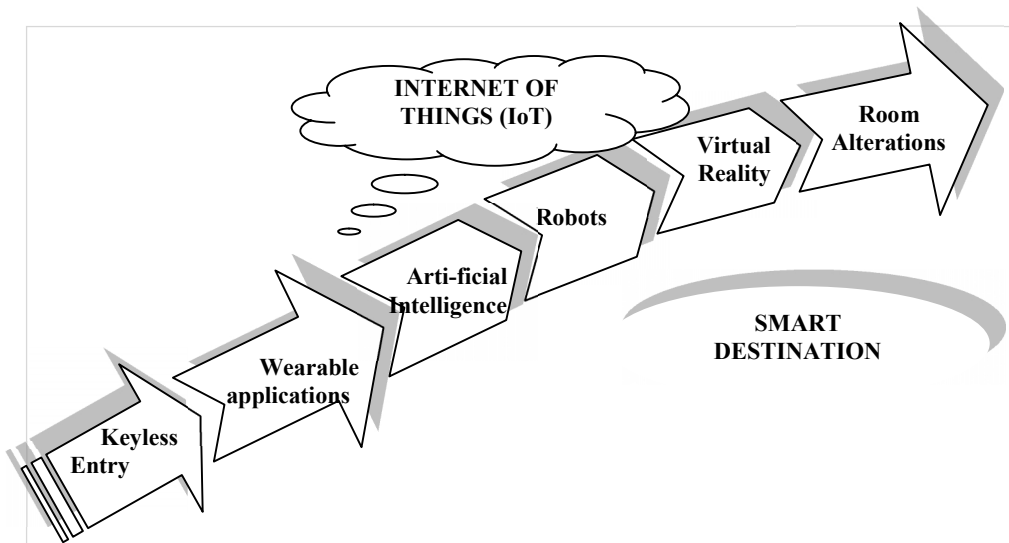
**Fig. 1. Evolution of tech-related innovations in tourism
and hospitality since 2014 (adapted from Euromonitor, 2015)**

The role that technologies play in tourism services is constantly changing and evolving. Customers are getting more and more used to planning and spending their vacations with the help of new technologies. Tourism managers are also implementing them in various creative ways in order to attract more tourists, gather data and improve their services. Tech-related innovations and robotization, if used right, can make travel and tourism even more comfortable,pleasant, interesting and unique.

Customer perceptions of technological innovations in tourism – research and findings

In order to study the customer perceptions of technological innovations in travel and tourism a survey was conducted within a scientific project "Application of Innovative Technologies in Providing Tourism Services". For the purposes of the project and the content of this publication a questionnaire was designed, containing 24 closed multiple choice questions and a Likert Scale of measurement. A total of 260 questionnaires were distributed among Bulgarian respondents, either by e-mail or on hard copy, in the period between July 2017 and January 2018. In order to study customers perceptions towards tech-related innovationsin travel and tourism, the sampling data collection method to studying variables was used. It was a nonrandom, non-probability sampling of respondents (based on volunteering). 228 questionnaires

were collected and studied, 216 of which valid. The survey results were processed and analyzed using the SPSS program product. On the basis of data analyzed and interpreted conclusions have been drawn and outlined regarding perceptions and attitude of consumers towards the introduction of new technologies in travel and tourism. In the following section we will present some of the findings of the empirical research.

When asked 'In general, what is your attitude towards the use of technological innovations in travel and tourism?', Bulgarian respondents said that they had a rather positive perception and attitude. Even if they are not entirely familiar with modern technologies in tourism, customers tend to be open-minded as to the use of these technologies in travel and tourism industry. As most important innovative technologies, customers rank Smartphone apps for online registration, Smartphone usage as a room key and intelligent systems. Naturally, Bulgarians have a positive attitude towards technological innovations as they are widely spread in every aspect of their everyday life. As for robots, considering that they are new and not so omnipresent,building a specific perception and attitude is more difficult (fig. 2).

	to choose room via mobile device and app	online registration via smartphone	to use a smartphone as a room key	a robot registration at reception	a robot to convey your luggage to the room	all processes and operatons to be automated
■ definetly not prefer	9,8	7,3	7,3	17,1	17,1	24,4
■ rather not prefer	14,6	14,6	7,3	48,8	14,6	7,3
■ unsure	34,1	34,1	29,3	17,1	26,8	41,5
■ rather prefer	26,8	26,8	39	9,8	24,4	17,1
■ yes, I prefer	14,6	17,1	17,1	7,3	17,1	9,8

Fig. 2. Customer preferences of technological innovations in tourism and hospitality (%)

During their stay Bulgarian respondents are not very interested in working with tech-related innovations. Out of 100% of respondents, 0% want to use robots during hotel registration, 2,4 % want to call a room-service robot, and 4,9% want to use robots during departure procedures. Bulgarians prefer the "classical" way of service - a human employee. Nonetheless, respondents think that for the most part technological innovations increase the degree of satisfaction with the service provided, and its quality, alongside customer loyalty. According to Bulgarians, implementation and further development of technological innovations should be encouraged for activities such as luggage registrations, luggage transfers, cleaning rooms and public areas of the hotels and airports, cleaning in restaurants. It should not be considered for room service, preparation of food and drinks, service of food and drinks and day-care for children in the tourist destination.

The prevailing opinion of respondents (61%) is that technological innovationsare quickly introduced and they are gradually changing the face of the tourism industry (Fig. 3). Over half of the respondents think that use of technologies in tourism should be limited, about 37% are hesitant or undecided.

	necessary for the labour-intensive activities and operations	useful, support and facilitate the work of employees	secure, reliable and flexible	require careful planning, manage-ment	increase the risk of unemploy-ment, threaten jobs	should be used with caution	require significant invest-ments that slow in return	enter quickly and change the tourism industry
■ strongly agree	24,4	34,1	9,8	31,7	29,3	31,7	24,4	31,7
■ agree	36,6	36,6	26,8	39	26,8	19,5	19,5	29,3
■ neither agree nor disagree	26,8	14,6	39	22,2	20,2	36,6	43,9	24,4
■ disagree	9,8	12,2	17,1	4,9	9,1	7,3	9,8	9,8
■ strongly disagree	2,4	2,4	7,3	2,4	14,6	4,9	2,4	4,9

Fig. 3. Characteristics of tech-related innovations in Travel and Tourism (%)

Technological innovationsare necessary in labor-intensive activities and operations, which is confirmed by 61% of respondents. Comparatively high is the share of hesitant opinions regarding the level of security, reliability and flexibility in the application of technological innovations. Their application is not so widespread in the tourism industry and the experience of consumers using them during travel and holidays is quite limited. Almost 71% of respondents are positive when expressing the necessity of careful planning and management when introducing modern technologies in travel and tourism.

The data analysis of perceptions and feelings when using technological innovations in various activities shows that a little over 49% of respondents would feel uncomfortable, if these were applied to services at airports, rail stations, bus stations and sea ports (Fig. 4). Approximately the same percentage of respondents confirm they would feel uncomfortable, if technologies were used in the services provided in the process of selecting and planning trips and holidays at travel agent offices. The share of those hesitant in their opinion is also considerable (29.3%), and only 20% confirm they would feel comfortable if technological innovations are used in the work of intermediaries and tour operators. The share of respondents who accept their application in guides' talks in sightseeing tours and guided tours at museums is high (44%). Overall, the perceptions and feelings when services are provided by modern technologies during a holiday or recreational break are assessed as comfortable by 39% of the respondents. The percentage of those hesitant in their opinion is also high (34%), probably again because of their lack of experience. In the organization of business and special events, a little over 46% of respondents say they would feel uncomfortable if technological innovations were used in the process of organization and conducting events, and over 1/3 define their perceptions and feelings as comfortable and pleasant.

	choice and organiza-tion of travel in travel agencies	services during a hotel stay	service in dining	service at airports, railway stations, bus stations and ports	tour guiding in museums and attractions	service during vacation and recreation	organizatio n of business and special events
■ very uncomfortable	31,7	22	10	29,3	9,8	7,3	19,5
■ uncomfortable	17,1	19,5	25	19,5	17,1	19,5	26,8
■ neither	29,3	24,4	22,5	12,2	29,3	34	19,5
■ comfortable	14,6	26,8	25	19,5	31,7	26,8	19,5
■ very comfortable	7,3	7,3	17,5	19,5	12,2	12,2	14,6

Fig. 4. Feeling when tech-related innovations are used in Tourism

The highest share of respondents (49%) state that technological innovations are most needed in transportation services (Fig. 5). Most probably they mean those labor-intensive operations, invisible to customers throughout the service process, to do with various modes of transport. In this respect, almost 64% of respondents think that use of technologies should be supported and encouraged during the information and check-in process. The necessary use of technological innovations in the work of intermediaries and tour operators is defined as important by 46.3% of respondents. A little higher is the share of those who stated that their use should be supported and encouraged during services at the offices of travel agents (47.5%).

The need to use tech-related innovations in the restaurant business was considered least important by nearly half of the respondents (49.8%), and the share of those who consider the use of technologies in this field of business especially important is under 9% (Fig. 5). This defines the leading role and importance of the human factor when it comes to providing services and creating a social environment with opportunities to communicate and interact with service staff. For some specific tourism activities where, to the greatest probability, the level of customers active

participation is highest (tour guiding, animation and entertainment) the need of technological innovations is ranked as low.

	Transportation	Accommoda-tion	Restaurants	Tour operators, travel agencies	Tour guiding	Animation and entertainment
■ 1 most important	48,8	22	3,4	14,6	9,8	4,9
■ 2	19,5	19,5	4,9	31,7	12,2	12,2
■ 3	7,3	22	12,6	26,8	17	14,6
■ 4	4,9	19,5	19,5	4,9	26,8	22
■ 5	7,3	7,3	9,8	19,5	29,3	24,4
■ 6 least important	12,2	9,8	49,8	2,4	4,9	22
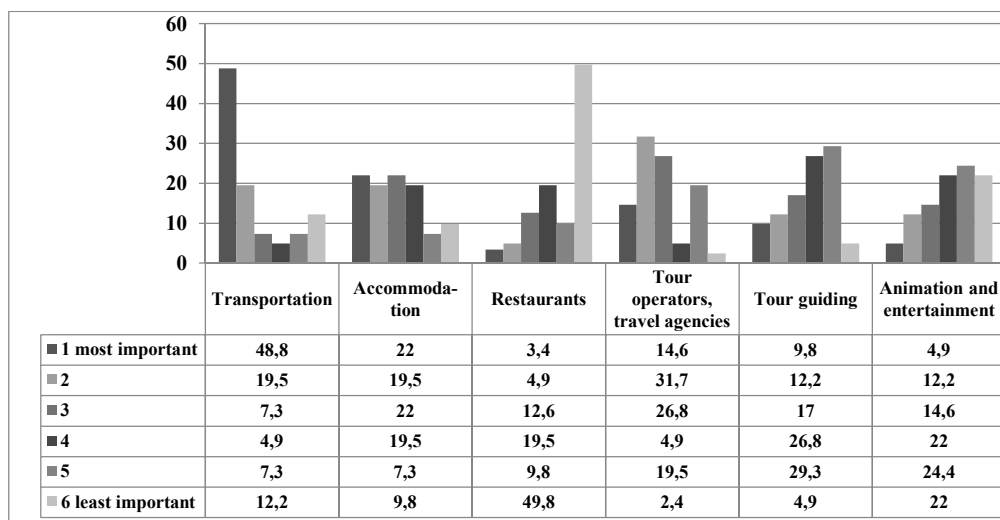
Fig. 5. Importance of tech-related innovations in Tourism (%)

The most popular use case for consumer-facing technological innovations within travel and tourism is virtual assistants and chat bots. Customer perception and vision is to remove some of the friction in online travel planning and booking, allowing consumers to text with virtual travel agents rather than visiting dozens of different travel websites (Deloitte Center, 2017, p. 8). While virtual assistants are not new in travel, those that become smarter as they interact with users are on the rise. The concept is ground-breaking and represents a dramatic shift away from traditional online tourism planning. But the above vision may have a serious flaw: Are tourists ready to trust modern technologies, including robots and artificial intelligence, to recommend and book the perfect vacation at the best price? The question may sound futuristic, but companies seem to be investing in technological innovations without considering this critical point. Powered by artificial intelligence, the next wave of technological solutions will gather unprecedented amounts of data from disparate systems via the multiple touchpoints the traveler has with providers (World Economic Forum, 2017, p. 8).

Conclusions

Theoretical and applied research in the field of **technology-driven transformation**s in travel and tourism is relatively little and limited in scope. This applies both to customer perceptions and consumer behavior, as well as to the benefits and application of these processes in business activities, especially in service management. The introduction of tech-related innovations, especially in terms of artificial intelligence and robots, is so far sporadic. Fully automated operations and establishments in tourism are still very few.Bulgarian travelers do not have the desiredperception and sufficient consumer experience for such operations. Therefore, technological innovations related to the abilities of mobile and smart devices are considered the most appropriate and acceptable for the Bulgarian respondents, where-as automated operations and the presence of robots and artificial intelligence are often accepted with some reserve, mistrust or they are even rejected. Direct interactions with machines are not preferred. Nevertheless, in line with the new realities, it is necessary to increase the number and scope of research in the field of tourists perception of technological innovations.

Generally, tech-related innovations are still new to the travel and tourism industry. The perception of consumers as to their gradual introduction in this business is not unambiguous and firm. They are changing travel and tourism with regard to services offered, environment, entertainment facilities and the personalized travel experience. At the same time, there are certain reserves and mistrust on the part ofBulgarian respondents.They still want humans, as otherwise there is a fear that cultural nuances will be missed and the holiday experience could become too impersonal. If we donot respect the desire for the human touch, we risk 'technophobia' setting in, when in fact technology can significantly improve the holiday experience when used appropriately (Hodges & Higgins, 2016).

Exploring consumer perceptions of modern technologies is crucial for their acceptance and implementation in travel and tourism. The potential impact and use of technological innovations offers many new avenues to enhance and develop the visitor experience. Despite the many changes being brought about by the tech-related innovations, they are there to enhance, not to replace, the core offerings of tourism business. Top quality customer service are the fundamental pillars of the industry, but the technological innovations can make it easier to consistently deliver a memorable experience to guests.The ideal solution for the travel and tourism industry should be technology and humans working in tandem. Understanding how consumers will perceive, embrace and interact with different technological innovations will be critical to their adoption and dissemination.

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REVISITING THE TOURISM-ECONOMIC GROWTH NEXUS: THE CASE OF ECONOMIC COMMUNITY OF WEST AFRICAN STATES

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JEL O47 + Z3	Abstract
Keywords: Tourism expenditures, Tourism receipts, Economic growth, Fixed effects, Pooled ordinary least square	This article investigates the relationship between the level of tourism expenditures and economic growth using a short time panel dataset covering 15 West African Countries from 2007 to 2015. The fixed effects results show that tourism expenditures and tourism receipts are insignificant to explain ECOWAS per capita Gross Domestic Product (GDP) growth. The paper finds that gross capital formation (physical capital) and labour force are positive and significant mechanisms for growth in the per capita income of ECOWAS economy. The paper recommends that ECOWAS should sell all the unused buildings, equipment, machineries and other viable governments' assets to raise capital for investment which may boost gross domestic product if the proceeds from the sales of the assets are well utilised.

Introduction

Following the global importance of the tourism sector, countries that gave a substantial attention to this sector have gained immensely from the income received via expenses incurred by the tourists during the period of tourism activities (for example, lodging in the hotel, travelling within the cities, buying of foods and drinks, etc.). In turn, the multiplier effects cover increases in the expansion of employment activities, improvement in the foreign exchange, and in overall, improvement in the gross domestic product (GDP) of the economy. To buttress the importance of the tourism sector, the recent statistics available from the World Travel and Tourism Council, 2016 (WTTC) show that the tourism sector has contributed about 10.2 percent (US$ 7.6 trillion) to the world gross domestic product (GDP) in 2016. The WTTC report also indicates that travel and tourism supports 292 million people in employment globally. In 2016, the WTTC report shows that people that travel globally for tourism spend 77 percent on leisure while 23 percent are for business purpose respectively.

The Economic growth has not been impressive to cater for the growing rate of epidemic poverty affecting people in the region. For instance, the average growth rate in ECOWAS was about 2.5% and 2.1% in 2015 and 2016 respectively which was considered very low. With this low growth rate, intensive research is currently on-going on the growth determinants that would be recommended in improving the economic status of the countries in this region. Though, tourism has been partially neglected in the regionas part of the viable sector that could generate a substantial income for the government.But other countries like Malaysia, Singapore, and Luxemburg have taken the advantage of tourism business and also one of their major sources of generating revenue.

However, very scanty research on this area, particularly for ECOWAS has been documented in the literature. Although, the work done by Narayan (2004) in the economic literature explicitly covered tourists' expenses incurred by individuals that travel for tourism purposes and not on government spending on tourism and its effect on GDP.A similar empirical research that was done by Ige and Odulari (2007) on the relationship between tourism and economic growth of West Africa Economy also emphasised majorly on the tourist arrivals impact on the macroeconomic variables. But the effect of government tourism expenditure on economic growth was not covered.A recent study by Zuo and Huang (2017) on the relationship of tourism and economic growth in China also measured tourism by two widely used variables in the literature, that is, tourist arrivals and tourism receipts to see the effects of tourism on economic growth. Though, the result from paper was good, it failed to measure tourism using government expenditures on the tourism sector.

However, this gap that was created by the previous scholars in the literature allowed this paper to receive an inspiration and innovations,in particular for West African countries. Therefore, this current papermodel tourism expenditure and economic growth in the framework of short time panel data for the fifteen West Africa countries.Due to non-availability of long time series panel data, the short time panel data technique is adopted.

The balance of the paper is structured as follows: Section 2 provides a theoretical framework and brief summary of the literature review. In section 3, the model specification and the data of the study is set out. Section 4 presents the methodology and discussion of the empirical results, and in the last section, section 5, a brief conclusion of the study is specified.

Theoretical Framework and the Review of Literature

The theories of growth are centred on both classical and neo-classical theories, and both have been widely used in the economic literature as theoretical background that explains growth determinants (see, Rivera-Batiz and Romer, 1991; Perera-Tallo, 2003). Following the Solow-Swan (1956), the model posits that raising a new capital is more important than already acquired capital, that capital is produced based on technology, and technology improves with time. Therefore, new capital will be more productive than old capital. The theoretical framework of Solow-Swan model can be represented in a Cobb-Douglas production as follows;

$$Y_t = A_t * (K_t)^{\alpha}(L_t)^{1-\alpha} \tag{1}$$

Where Y_t is the output (GDP), A_t is level of technology, (K_t) is the capital and (L_t) is labour. The model assumes that before the output (GDP) can change, the inputs must be changed as well. For instance, a change in the capital stock by a proportional amount is expressed as $\Delta K/K_t$. Since in the production function, K_t is raised to a power α, therefore, the proportional changes (increase) in the output (Y) as a result of changes in the capital stock (K_t) is written as:

$$\frac{\Delta Y}{Y_t} = \frac{\alpha \Delta K}{K_t} \tag{2}$$

Also, changes in the output as a result of changes in labour can be written as:

$$\frac{\Delta Y}{Y_t} = \frac{1-\alpha \Delta L}{L_t} \tag{3}$$

Several studies in the economic literature have examined the relationship between tourism and economic growth in different dimensions; some researchers applied time series data, while some cross-sectional, and panel data set. Therefore, it is pertinent to review the previous work across all these studies in order to gain a wider knowledge about the subject matter.

Following the work of Naranya (2004) in the long-run impact of tourist expenditure on Fiji`s economy using a computable general equilibrium, the paper finds that a 10 percent increase in tourist expenditure will increase the GDP by 0.5 percent, and hence improve the balance of payment. The paper also finds that improvement in the

tourist expenditure will lead to an increase in the wage rates, domestic prices, appreciation in the exchange rates, the increase in real consumption and national welfare by 0.72 percent and 0.67 percent respectively. Similarly, Chiu and Yeh (2016) examines the threshold effects of the tourism-led growth hypothesis using a cross sectional data for 84 countries in the framework of nonlinear model. A threshold regression model is applied for tourism growth, economic growth, and other macroeconomic variables. The study draws conclusions that the nonlinear relationship between tourism growth and economic growth is non-constant. The authors argued against the work by Naranya (2004) and other authors in the literature that conclusion cannot be made that tourism always promote growth and development. They concluded that different country conditions determine the impact of tourism-growth nexus.

In revisiting the tourism-led economic growth hypothesis for China, Zuo and Huang (2017) investigates a panel data set of 31 provinces spanning from 1995 to 2013 within the framework of a quadratic function, and system generalized method of moments estimation technique. The authors find that, the previous GDP has a significant negative impact on the Chinese economic growth, while investment, tourism specialization, and innovation have a significant positive effect on the growth of the Chinese economy. Adamou and Clerides (2009) also supported the result by Zuo and Huang (2017) that tourism specialization promotes economic growth in their study on the relationship between tourism and economic growth using both linear and nonlinear models. The descriptive statistics, fixed effects and random effects models were adopted in the analyses.

As emphasized by many authors that tourism sector boost the growth and development of many countries within both linear and nonlinear models (see, Brida et al. 2015; Cárdenas-García et. al 215; Ertugrul and Mangir, 2015), the question that is often asked is; would reliance on the tourism development not affect the economic development of other sectors such as manufacturing and agriculture? Bojanic and Lo (2016) provides answer to this question in the empirical research that investigates the moderating effect of tourism reliance on the relationship between tourism development and economic development for some island developing states using a panel data set, 1995 to 2014. In the findings of the study, it was concluded that reliance on tourism sector does have a moderating effect on the relationship between tourism development and economic development particularly for all the countries in the analysis.

As noted by Narayan et al (2010) in the relationship between tourism and economic growth for Pacific Island countries using both Pedroni and Granger Causality estimation techniques for the period 2008 to 2014. They find a panel co-integration between tourism and economic growth, and in the short-run, the real GDP Granger

causes tourism exports and no evidence of tourism exports Granger cause real GDP. They also find that in the long-run, tourism exports Granger cause tourism exports through lagged error correction term and not vice versa.

Ekanayake et al (2012), examine the impact of tourism development and economic growth in developing countries using annual data for the period spanning through 1995-2009. The fully modified ordinary least square estimation technique was used. The paper finds that tourism does not significantly support growth of the countries examined.

Similarly, Stauvermannet. al. (2018) addressed the issue of long –run association between tourism receipts, exchange rate, capital per worker and output per worker in Sri Lanka. An autoregressive distributed lag (ARDL) model was used as an estimation technique. Also the causality between the variables was examined as well. Findings from the results showed that a long-run association exists between tourism receipts, exchange rate, capital per worker and output per worker. A unidirectional causality is revealed from tourism to output per worker; from exchange rate to output per worker and capital per worker; and from output to capital, in per worker terms.

As noted by Sharma and Sharma (2014) in the empirically study of causal links between Gross Domestic Product (GDP) and tourism and a comparative study between India and Pakistan using Johansen and Granger causality tests using data over the period of 1991-2012, the presence of unidirectional causality exists from tourism earnings to economic growth in both India and Pakistan.Gupta and Dutta (2018) theoretically examined tourism development, environmental pollution and economic growth. A comparative steady-state effect was analysed between tourism sector and non-tourism sector. A dynamic model was developed for this purpose. Findings show that improvement in the tourism sector leads to a relative contraction of the labour intensive in the tourism sector and fairly in the non-tourism sector, an expansion of the capital intensive was revealed. Hatemi-J et. al. (2018) examined whether tourism receipt causes growth in a panel of G-7 countries spanning from the period of 1995-2014. Findings show that out of the G-7 countries examined; France, Germany, and the US revealed a tourism-led hypothesis. However, a negative tourism shocks was revealed for Germany, Italy, and Japan while a positive tourism shock was revealed more for US and UK.

In the study by Kumar et. al (2018), the effect of information and communication technology (ICT) on tourism per worker was examined in Israel. A time series data using Autoregressive distributed lags (ARDL) within the Solow growth model was applied in the study. Results from the co-integration test revealed that, a mobile cellular subscriptions and visitor arrivals as a percent of workers have a long-run

relationship and positively significant. A unidirectional causality effect runs from ICT to output per worker, from tourism to output per worker, from capital per worker to tourism, and from ICT to tourism.

According to Boskovet. al. (2018) the relationship between the real effective exchange rate and tourism-led economic growth for selected countries in Europe were examined. The countries examined are: Macedonia, Malta, Ireland, Spain, Italy and Greece. The Ordinary Least Regression was used as the estimation technique for the study. Findings from the paper show that a statistical significant and positive relationship exists between tourism receipts and economic growth. However, a negative and statistical significant result was shown between real exchange rate and tourism receipts. This result implies that there is a great effect of real exchange rate on tourism receipts. Shahbazet. al. (2018) explored the relationship between tourism development and economic growth in 10 countries, namely China, France, Germany, Italy, Mexico, the Russian Federation, Spain, Turkey, the UK and the United States of America, over the period 1990–2015. A bootstrap rolling window Granger causality approach was used in the analysis. Findings of the bootstrap rolling window causality tests show that there are causal relations between tourism and economic growth.

Methodology and data

This paper estimates growth as a function of tourism expenditure, tourism receipts, labour force, and gross capital formation. Due to the insufficient data availability for tourism expenditure and receipt variables, the study adopts a relatively short time panel data framework to examine the relationship between tourism expenditures and economic growth. Hence, the estimated model is written as:

$$lnPCG_{it} = \beta_0 + \beta_1 lnTE_{it} + \beta_2 lnTR_{it} + \beta_3 lnLF_{it} + \beta_4 lnGCF_{it} + \varepsilon_{it}$$

where, i represents individual country and t represents each time period. $lnPCG_{it}$ is the logarithm of economic growth proxy by real GDP per capita growth for country i during period t as widely used in the economic literature (see, Greenway et al., 2002; Makki and Somwaru, 2004; Eric 2015). $lnTE_{it}, lnTR_{it}, lnLF_{it},$ and $lnGCF_{it}$ are, respectively, logarithms of tourism expenditures, tourism receipts, labour force, and gross capital formation for country i during period t; ε_{it} represents the error term which decomposed into $\lambda_i + \mu_{it}$, where λ_i equals the constant across individual country, and μ_{it} shows the remainder error term.

The paper uses annual data spanning through 2007 to 2015 for the 15 ECOWAS countries, namely; Benin, Burkina Faso, Cabo Verde, Cote Di-Voire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. All the data for the following variables; real GDP per capita growth, tourism expenditures, tourism receipts, labour force, and gross capital formation are collected from the World Development Indicators (WDI) database of the World Bank.

In estimating a panel data model, a different estimators can be used, but to ensure an appropriate and optimal techniques is adopted, certain conditions must be considered; (1) the nature of the data-short or longitudinal, (2) the country-specific effect, and (3) the likely endogeneity of other explanatory variables. Therefore, the standard methods of panel estimation suitable for this paper are pooled ordinary least squares, fixed effects or random effects.

Discussion of the results

In estimating a short time panel dataset, pooled ordinary least square, random effect or fixed effect technique are most suitable for this purpose. Thus, the Breusch and Pagan Lagrangian Multiplier test is a standard test used to determine if pooled ordinary least square/random effect is suitable, while the Hausman test specification is used to evaluate the best estimator between fixed effect and random effect.

The Breusch and Pagan Lagrangian multiplier test result ($p<0.05$) in Table 1 shows that the random effect model is preferred over the pooled ordinary least squares. Similarly, the Hausman specification test result ($p<0.05$) rejects the random effects in favour of the fixed effect model. Hence, the paper discusses the result from the fixed effect. The result from Table 1 finds that at 5 percent significant levels, the physical capital proxy by gross capital formation has a positive and significant effect on the per capita GDP growth of ECOWAS countries, that is; a 1 percent increase in the physical capital of ECOWAS countries would result in a 0.25 percent increase in the per capita GDP growth. The implication of this is that, the ECOWAS government can improve the growth of the countries by promoting investment via capital formation. Similarly, a 1 percent increase in the labour force of ECOWAS countries would increase per capita GDP by 0.78 percent. This result indicates that strengthening the labour force in the ECOWAS countries through training, workshop, and improvement in the quality of available education in the countries will enhance the economic growth of the region.

However, the result finds that tourism expenditures and tourism receipts are insignificant to explain the growth of per capita GDP in ECOWAS countries; this result is in contrary to the findings in the previous studies of the country, and cross-country

data that proved a positive and significant relationship of both tourism expenditures and tourism receipts on economic growth (see,Sanchez Carrera et. al., 2007;Katircioğlu, 2010).

Table 1: Regression results

Dependent Variable: Economic Growth	Estimation Method	
Explanatory Variables	Fixed Effects	Random Effects
Tourism expenditure	0.03	0.05
	(0.23)	(0.06)
Tourism receipts	0.01	0.01
	(0.93)	(0.37)
Labour force	0.78	-0.29
	(0.01)*	(0.01)*
Gross capital formation	0.25	0.36
	(0.01)*	(0.01)*
R^2	0.65	0.54
Countries	15	15
Observations	105	105
Period	2007-2015	2007-2015
Breusch and Pagan Lagrangian Multiplier test	Chi2(1) = 149.75(0.01)*	
Hausman	18.12	
	(0.01)*	

Conclusion and Recommendations

This paper has focused to empirically examine whether tourism expenditure, tourism receipts, labour force and gross capital formation has an impact on the economic growth of the fifteen ECOWAS countries, namely: Benin, Burkina Faso, Cabo Verde, Cote DI-Voire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. The study period of the analysis is 2007 to 2015. A short panel model is used for the estimation of the equation within the framework of fixed effects.

As expected, the study finds that, labour force and gross capital formation are the major factors that are positive and significant to determine the long-run growth of ECOWAS countries. However, tourism expenditures and receipts are insignificant to explain economic growth in ECOWAS countries. Therefore, the impact of the tour-

ism sector is yet to be felt in the economic growth of ECOWAS despite the enormous importance and contributions of the tourism sector to the world. The paper recommends that ECOWAS governments and policy makers should take into consideration the sales of unused building, equipment, and other unused assets so that proceeds from the sales can be used as capital formation. Optimal utilisation of the available labour force in the region should be encouraged.

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ACCRUALS APPROACH IN INCOME SMOOTHING AND PERMANENT EARNINGS HYPOTHESIS

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JEL G140	Abstract
Keywords: income smoothing, accruals, Permanent Earnings Hypothesis	This study applies the Jones model (2005) modified by Kothari, Leone and Wasley (2005) in order to analyze and calculate the discretionary part of the accruals, as to accept or reject the Permanent Earnings Hypothesis for a sample of Bulgarian public companies. The study concludes that Bulgarian companies use discretionary accruals to smooth their incomes, thus offsetting the lower income from the current year with higher (unaccounted) from the previous year and *vice versa*. © 2018 University of Economics – Varna

Introduction

The concept of the quality of income has over the past few years been in the focus of attention of accountants and users of financial statements. The quality of income can be reduced by accountancy error or management's manipulation. In the context of the analysis of income smoothing it is believed that the higher levels of total accruals are proof of poor quality of income (Kalelkar & Nwaeze 2011, p. 279). It should be noted that accruals can either be a reflection of the income manipulation or just be a normal accounting estimate based on future business expectations (Beneish & Nichols 2005, p. 3). It is difficult to determine which accrual is a result of manipulation, but there is evidence that their mere levels can roughly indicate forged incomes, especially in companies with high levels of accruals. Thus, it can be conjectured that income smoothing is a function of accrual manipulation, while accrual intuitive value is used as a variable for the quality of the income.

The object of this paper is the accruals assertion, while *the subject* is the use of the latter by Bulgarian public companies for income smoothing. *The optimal timing*

for generating the accruals is a core of income smoothing. Managers try to smooth the company's income, using their *rights of discretion* about the time of accrual the estimated position *to increase the costs in unusually good years and to reduce them in unusually bad years* (Bernard & Skinner 1996, p. 314).

1. Definition of the concept of accruals

In essence, accruals are adjustments for 1) revenues that have been realized, but not yet reflected in the accounts and 2) costs that are incurred but not reflected in the accounts. They are recorded as assets or liabilities (depending on the type) in the balance sheet due to their high probability of realization. The accruals can be assigned to balance sheet accounts, which include *liabilities, receivables, goodwill, deferred taxes and prepaid expenses*. They are reported as "accrued" in the balance sheet on the date at which payment begins to be expected and remain on the balance sheet until they are actually paid. According to the accrual principle, it is possible recognition of future costs as incurred in the current period. Under IFRS, if the amount and timing of future liabilities are known at the time, their reflection in the financial reporting is happening thanks to the accruals.

The term accruals is also used as a synonym of accrued expenses and accrued revenues that share a common name, but they have *opposite* economic / accounting characteristics. Income consists of two components: accruals and operating cash flows. Accruals, in turn, are divided into discretionary and non-discretionary. The accrual component imposed by the accounting regulator in adjusting the company's cash flows is non-discretionary accruals. These are mandatory costs that have not yet been incurred but have already been reported in the books. An example is electricity consumption for the next month. On the other hand, the accrual component that managers choose within the flexibility of accounting regulations for the adjustment of cash flows are discretionary accruals. This is a cost that is not mandatory (such as an expected bonus management), which is to be realized, but is recorded in the books. According to Dechow, Sloan and Sweeney, discretionary accruals often give managers opportunities to manipulate income, which is explained by the availability of flexibility (Dechow, Sloan and Sweeney 1995, p. 202).

Based on the definitions and examples of accruals there can largely be sought analogue with the accrual principle, which is applied in Bulgarian accounting practice. From this perspective, revenues and expenses arising from transactions and events are accrued at the time of their occurrence, regardless of the time of receipt or payment of cash or its equivalents and are included in the financial statements for the period to which they relate. For example, if we sell goods to a customer during the current month (year), but the customer pays for them in the next month (year), the

sale proceeds will be recognized in the current month (year) and not in the following month (year) when the money is received.

In summary, with regard to Bulgarian accounting practice, accruals are accrued revenues and expenses that are defined as temporary differences when the related cash flows are received or paid in a different accounting period than the current accounting period.

2. Application of accruals for income smoothing

While examples so far refer to the non-discretionary accruals, from now on the attention will be focused on the discretionary accruals, as means for identifying the smoothing of income.

Figure 1 illustrates the application of discretionary accruals by management in order to smooth the income by curtailing (hiding) it in good years and inflating (revealing) it in bad years. The result of this procedure is a manifestation of the Permanent income.
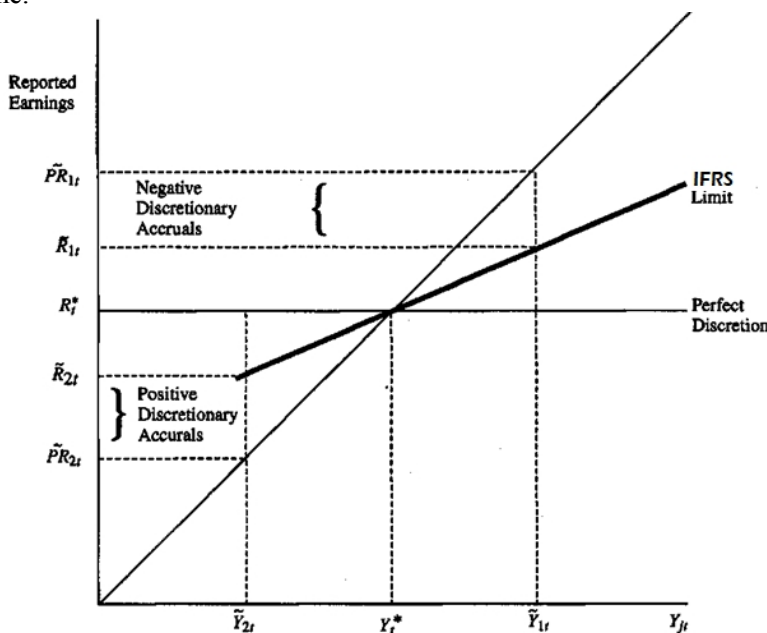
Fig. 1. The use of discretionary accruals within IFRS to adjust reported earnings as a permanent income (Chaney, Jeter, and Lewis 1998, p. 107).

Notes: Y^*_t is the Permanent income for year t; the reported income R^*_t is equal to the Permanent income for year t; PR_{jt} are the potentially reported income for year t, under scenario j; R_{jt} are the reported income for year t in scenario j; Y_{jt} are the income before discretionary accruals for year t in scenario j ($CFO_{jt} + NDA_{jt}$); CFO_{jt} are cash flows from operating activities for the year t scenario j; NDA_{jt} are non-discretionary accruals for year t in scenario j.

Let's assume that Y^*_t represents the best management's assessment of the level of Permanent corporate income. The graphic presentation of income before discretionary accruals in a given year is obtained by adding non-discretionary accruals to the cash flows. In Figure 1, the 45 degree line represents what should be reported if management cannot exercise discretion in reporting. The horizontal line represents what will be reported, if management can exercise discretion over all accruals and thus reports income exactly equal to its assessment of Permanent corporate income. The third line presents the restrictions imposed by IFRS on income reporting[1].

Suppose that the level of income for period t is Y_{1t}. In this case, the management realizes that potential income that the company can report (PR1t) will be increased and this would lead to unwanted downward trend in future periods. The desire of management is to report income in section R^*_t, but the restrictions of IFRS does not permit it. In this situation, the managers use their right of discretion, without violating IFRSs and report negative discretionary accruals graphically represented as (R_{1t}, PR_{1t}).

On the other hand, suppose that the level of income for period t is Y_{2t}. In this situation, management understands that the current period includes temporary net negative components and reports positive discretionary accruals to offset (in part) these components. Again, as in the previous situation, the management would prefer to report incomes in point R^*_t, but it was limited by IFRS and the compromise solution is R_{2t*} reporting. The reported levels, although not as high as R^*_t, are higher than PR_{2t*}. Discretionary accruals are represented as R_{2t}, PR_{2t*}. Similarly, as in the example, reported real income is unlikely to be equal to the management's assessment of Permanent corporate income, but will generally be closer to it than in the absence of discretionary accruals. Thus, the reported values (R_{1t} and R_{2t}) are smoother or closer to the assessment of Permanent incomes than potentially reported (PR_{1t} and PR_{2t}).

By definition, it is expected that if income smoothing is performed by all accruals, the focus is on discretionary rather than non-discretionary accruals. Therefore, it is predicted that the levels of discretionary accruals in a given year depend on the relationship between income before discretionary accruals and permanent income (income smoothing). It is assumed that if income in the current year before discretionary accruals is lower than that reported in the previous year discretionary accruals will be positive. On the other hand, if income in the current year before discretionary accruals is higher than that reported in the previous year, discretionary accruals will be negative.

Based on the important theoretical relationships between income smoothing and accruals, Hypothesis 1 is presented as follows:

Companies smooth their incomes by covering the lower incomes of the current year with higher (unaccounted) from the previous. Alternatively, if the current incomes are higher than those in the previous year, companies smooth their incomes by transferring income for subsequent periods (Permanent Earnings Hypothesis).

3. Methodology for the calculation of accruals and identifying income smoothing

This study uses a sample of public companies that are part of the segments Premium and Standard of BSE. There are two objective reasons for constructing the sample with the most liquid public companies traded on the Bulgarian stock market.

The first is that, according to Watts and Zimmermann's political cost hypothesis, high incomes are a substitute variable for political and public attention (Watts & Zimmermann 1978, p. 115)[2]. Therefore, company management has an incentive to smooth out incomes and reduce political costs. The second reason stems from the need for a subsequent study of the relationship between income smoothing and stock prices. The sample of companies is comprised of 66 companies, using cross-sectional data for 2012 and 2013 in the test for the permanent income hypothesis.

Since permanent income is practically unobservable, this hypothesis is formulated considering that for the purpose of management there is used the reported income from previous periods. The study of Sibson and Company indicates that most companies have set specific annual targets as part of their strategic plan (Sibson & Company 1992). For example, Heinz reports that they set targets that are 115% higher than previous years or actual results. Although the realization of a target higher than 100% is realistic, the focus of the formulated hypothesis and the results reported in this study is aimed at a 100% target against the realized income from the previous reporting period.

The process of proving the research hypothesis involves the consecutive calculation, firstly, of total accruals and consequently of discretionary accruals. Next, it is necessary to calculate the income for the current and the previous period, without any discretionary accruals, i.e. income before its eventual smoothing (manipulation).

The Chaney, Jeter, and Lewis approach is used in the calculation of the total accruals as follows (Chaney, Jeter, and Lewis 1998, p. 107):

$$T_{it} = \left(\Delta CA_{it} - \Delta CL_{it} - \Delta Cash_{it} + \Delta STD_{it} - Dep_{it} \right) / \left(Assets_{i,t-1} \right), \quad (1)$$

Where:
T – total accruals;

ΔCA – changes in current assets;

ΔCL – changes in current liabilities;

ΔCash – change in cash and cash equivalents;

ΔSTD – change in debt included in current liabilities;

Depit – depreciation costs;

Assetsi,t-1 – total assets.

Taking into account the information available in the annual financial statements of the companies in the sample, the variables of equation (1) are defined as follows:

CA – Current assets. These are cash or other assets that the company expects to be converted into cash within one year or a period corresponding to the duration of the operating cycle of the company. Current assets are presented in the company's balance sheet in the order of their liquidity, i.e. the ease and time required to be converted into cash. Among the current assets of the company are: Cash, Receivables, Short-Term Investments in Marketable Securities, Inventory, Prepaid Expenses.

CL – Current Liabilities. These are liabilities of the company, which it is expected to repay within one year. Examples of current liabilities are: Accounts Payable/Expenses Payable, Notes Payable, Current Maturities of Long-Term Debt and Interest Payable.

Cash – Cash and cash equivalents.

STD – The current maturities of long-term debt and other short-term debt included in current liabilities during period t. These are Current Maturities of Long-Term Debt and Notes Payable. Here for this variable there are used the debt items that are part of the current liabilities of the balance sheet - Liabilities to financial institutions (Bonds up to 1 year, Liabilities to financial institutions up to 1 year).

Dep$_{it}$ – Depreciation and Amortization

To calculate discretionary accruals there is used Cross-sectional data in the Jones model (2005), modified by Kothari, Leone and Wasley as follows (Kothari, Leone and Wasley 2005, p. 13):

$$T_i = \beta_0 + \beta_1(1/ASSETS_{-1}) + \beta_2 \Delta SALES_i + \beta_3 PPE_i + \beta_4 ROA_i + \varepsilon_i , \qquad (2)$$

In the regression equation total accruals, changes in sales and the level of property, plant and equipment are weighted with assets at the beginning of the year.

Return on assets is added as an additional control variable, because previous studies found that the model of Jones is mistakenly specified when applied to samples

of firms with extreme financial performance. Non-discretionary accruals (NDA) are predictive values of regression (2), and discretionary accruals (DAP) are the standard-ized residual values of regression. Income before discretionary accruals is calculated by deducting discretionary accruals (PDI = NI - DAP) from net income.

To test the Permanent Earnings Hypothesis (income smoothing), it is necessary to calculate the following regression equation with Cross-sectional data:

$$DAP_i = \beta_0 + \beta_1 F_i + \beta_2 Bot_i + \beta_3 D/E_i + \beta_4 MV/BV_i + \varepsilon_i \ , \tag{3}$$

Where:

DAP_i are discretionary accruals for company i and period t;

F_i – a variable for a predictable indicator equal to 1 if the current income before the discretionary accrual of company i exceeds the income before discretionary ac-cruals from the previous reporting period; and equal to 0 - otherwise;

Bot_i – an indicator variable that accepts value 1 if the company's income are ranked in the lower 10% of the sample in year t; and 0 otherwise. The sample of companies in the study are classified into 10 groups in ascending order on the basis of net income.

D/E_i – debt / equity for firm i in period t. The values for this ratio are taken from the calculated coefficient Long Term Debt / Equity from the site infostock.bg;

MV/BV_i – market / book value of equity of company i for period t. The values for this ratio are taken from the calculated coefficient P/B from the site infostock.bg;

The variable for the predicted F indicator is calculated by comparing the incomes before the discretionary accruals (cash flows from operating activities plus non-discretionary accruals) with the income from the previous year. If income before discretionary accruals already exceeds the income from the previous year, the vari-able for the predicted indicator F is equal to one. *In this case, if managers smooth the company's income there are expected negative discretionary accruals.* On the other hand, if income before discretionary accruals is smaller than those in the previous year, predictable indicator F is zero. *If managers use their discretion to report in-comes closer (or even higher) to levels of the previous year, discretionary accruals are expected to be positive.*

The model includes variables to control the level of leverage, the potential for growth (measured as in Collins, Kothari, Shanken, & Sloan, as a ratio between market value and book value of equity (Collins & Kothari 1989, p. 166) and the effect of performance within the selected sample (measured via the Bot variable).

The control variable for leverage is included because firms with high values of the debt / equity ratio are more likely to manipulate their accruals in order to avoid the suspension of payments on debt (See Daley & Vigeland 1983, p. 198), while the probability of debt manipulation in low leverage companies is unlikely (Ahmed, Godfrey & Saleh 2008, p. 121). On the other hand, it should be borne in mind that companies with very high values of the debt / equity ratio are usually more closely monitored and managers may not have enough freedom to report positive discretionary accruals (Jung, Soderstrom and Yang, p. 650).

If a company has significant growth opportunities, increasing the company's working capital may lead to positive accruals. For example, when a firm grows, receivables and inventories may grow at a higher rate than current liabilities. In order to control the performance of a particular firm with respect to the rest of the sample, the variable Bot is added to the regression equation. If incomes are ranked in the lower 10% of the industry, the company could be a candidate for "taking a bath" in accounting for the current period.

4. Results

Descriptive statistics

Table 1 presents the discretionary accruals from the regression model (3) for the data sample divided by the predicted indicator F. Overall, about 68% of companies have earnings before discretionary accruals lower than those in the previous year. As predicted discretionary accruals are positive for companies whose income before discretionary accruals is lower than income in the previous year (hereinafter called the sample with lower incomes) and negative for companies whose income before discretionary accruals is higher than those in the previous year (hereinafter called the sample with higher incomes). The average discretionary accruals for the lower-income sample are 0.552, while those for the higher-income sample are -0.9701. Table 1 provides evidence that 100% of the companies in the selected sample report discretionary accruals, according to the forecast of their direction in the particular year.

Table 2 illustrates that companies in the higher-income sample (F = 1) have a slightly larger debt than companies in the lower-income sample, while they, on the other hand, have higher average values for the MV / BV ratio.

Table 1

Descriptive data for discretionary accruals according to predictable indicator F

$$DAP_i = \beta_0 + \beta_1 F_i + \beta_2 Bot_i + \beta_3 D / E_i + \beta_4 MV / BV_i + \varepsilon_i$$

Company	DAP	F = 1	Company	DAP	F = 1	Company	DAP	F = 0	Company	DAP	F = 0
ALCOMET	-1.7644697	1	MOMINA KREPOST	-0.1310275	1	AGRIA GROUP HOLDING	0.7287694	0	St. St. Constantine and Helena Holding	0.6644979	0
BIOVET	-1.0984869	1	PETROL	-0.0482128	1	ALBENA AD	0.2270735	0	SVILOSA	0.6447752	0
ELHIM-ISKRA	-0.2222891	1	SPARKY ELTOS	-0.0955862	1	ALBENA INVEST HOLDING	0.4196505	0	SEVERCOOP GAMZA HOLDING	1.1588662	0
EMKA	-0.2834128	1	SPEEDY	-2.4059749	1	AROMA	0.1557255	0	SINERGON HOLDING	0.3687182	0
ENEMONA	-0.8684113	1	TK-HOLD	-0.0575393	1	ASENOVA KREPOST	0.509557	0	SYNTHETICA	0.1434771	0
ETROPAL	-0.4845062	1	UNIPACK	-0.3895387	1	BG AGRO	1.1182423	0	SUNNY BEACH	0.4927361	0
INVESTOR.BG	-0.111138	1	UNIPHARM	-2.6800265	1	BILLBOARD	0.3794464	0	SOLARPRO HOLDING	0.1317253	0
KORADO-BULGARIA	-1.6956395	1	FAZERLES	-0.9114754	1	BIOIASIS	0.1928104	0	SOPHARMA	0.4329052	0
LAVENA	-1.6498446	1	HYDRAULIC ELEMENTS AND SYSTEMS	-1.5385661	1	BULGARTABAC HOLDING	0.8162963	0	SOPHARMA TRADING	0.1392607	0
LOMSKO PIVO	-3.6005023	1	HOLDING NOV VEK	-0.1240599	1	VARNA PLOD	1.7116337	0	SOFIA COMMERCE-PAWN BROKERAGE	2.2353186	0
M + C HYDRAVLIK	-0.2105122	1				VELGRAF ASSET MANAGEMENT	0.8615089	0	STARA PLANINA HOLD	0.2978202	0
MEAN	**-0.97**				**32%**	ENERGONI	0.3209264	0	TODOROFF	1.754575	0
						ENERGOEMONT-HOLDING	0.0674887	0	TOPLIVO	0.2695602	0
						GOLDEN SANDS	0.3441993	0	TRACE GROUP HOLD	0.4979741	0
						ZARNENI HRANI BULGARIA	0.0462196	0	FAVORIT HOLD	0.3696327	0
						INDUSTRIAL CAPITAL HOLDING	0.2935902	0	FORMPLAST	0.0961933	0
						INDUSTRIAL HOLDING BULGARIA	0.7126641	0	HYDROIZOMAT	2.0581408	0
						INTERSOLAR VARNA	0.8859714	0	CHIMIMPORT	0.1155374	0
						IHB ELECTRIC	0.2199954	0	HIMSNAB BULGARIA	0.3215658	0
						ODESSOS SHIPREPAIR YARD	0.5465172	0	HOLDING VARNA	0.2895604	0
						MONBAT	0.6939287	0	TCHAIKAPHARMA HIGH QUALITY MEDICINES	0.2833974	0
						NEOCHIM	0.0733468	0	YURI GAGARIN	0.1825676	0
						BULGARIAN RIVER SHIPPING	0.5635157	0			
						MEAN			**0.552**		**68%**

Notes: F = 1 if current income before discretionary accruals of i exceeds income before discretionary accruals from the previous reporting period.

F = 0 if current income before discretionary accruals of the company i is less than income before discretionary accruals from the previous reporting period.

Table 2

**Descriptive statistics of the average
Variables, according to the predictable indicator F**

$$DAP_i = \beta_0 + \beta_1 F_i + \beta_2 Bot_i + \beta_3 D/E_i + \beta_4 MV/BV_i + \varepsilon_i$$

	Debt/Equity				MV/BVi			
	F=1	**F=1**	**F=0**	**F=0**	**F=1**	**F=1**	**F=0**	**F=0**
	0.35	0.07	0.23	0.32	1.16	1	1.81	0.62
	0.49	0.27	0.16	0.04	0.45	0.18	0.61	1.29
	0.03	0.34	0.06	0	2.01	0.36	0.48	0.3
	0.15	0.53	0.21	0.12	1.59	9.31	0.5	0.22
	0.19	0	0.54	3.63	0.65	1.44	1.24	25.05
	0.03	0.27	0	0.03	4.29	1.03	1.41	0.21
	0	0.09	0.42	0.01	2.25	1.16	0.84	0.35
	0.04	0.03	0	0.16	0.25	0.97	44.94	1.64
	0.76	0	0.01	0.12	2.13	10.23	7.27	2.4
	0.07	1.74	0	0.27	0.32	3.57	1.11	0.21
	0.02		1.03	0	9.35		3.73	2.81
			0.01	0.45			0.01	0.37
			0.83	0.04			1.15	0.24
			0.02	0.19			0.08	2.45
			0.07	0			0.43	0.2
			0	0.92			2.76	2.78
			0.18	0.06			0.64	0.21
			0.18	0.21			0	0.13
			0.08	0.04			0.38	1.03
			0.03	0.18			0.74	0.61
			0.07	0.08			2.28	0
			0.21	0.08			1.58	0.96
			0.07				0.46	
MEAN	0.26047619		0.252444444		2.557142857		2.634	

Notes: F = 1 if current income before discretionary accruals of i exceeds income before discretionary accruals from the previous reporting period.

F = 0 if current income before discretionary accruals of the company i is less than income before discretionary accruals from the previous reporting period.

Regression results

Tables 3 and 4 present the results of evaluating the regression model (2), which displays discretionary accruals such as residues of regression. First of all, there is checked the adequacy of the evaluated regression model. Assumed is significance level $\alpha = 0,05$. The assumed reference level of significance $\alpha = 0,05$ and the calculated level of significance $\alpha_{emp.}$ are compared. In calculating the model with data for 2013 and 2012 it is found that $\alpha = 0,05$ is greater than $\alpha_{emp.} = 0,000$. It proves that the model is adequate. From the 2013 data model, it is clear that 71.5% of the variance of the dependent variable is triggered by the independent variables, whereas in the calculation of the 2012 data model, 83.7% of the variance of the dependent variable is caused by the independent variables.

Table 3

Verification of adequacy of the model

$$T_i = \beta_0 + \beta_1(1/ASSETS_{t-1}) + \beta_2\Delta SALES_i + \beta_3 PPE_i + \beta_4 ROA_t + \varepsilon_i \textbf{ for 2013}$$

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,715[a]	,511	,479	,72576	,511	15,932	4	61	,000

a. Predictors: (Constant), MvBv, F, Bot, DebtEquity

Next, it is necessary to check the reliability of the individual regression coefficients. From the analysis of the data for 2013 in Table 4 it is concluded that the regression coefficients of the four independent variables are statistically significant. The variance of the dependent variable is most affected by the variable 1 / Assetsi, t-1. In assessing the regression model with data for 2012 it is found that all regression coefficients of independent variables except ΔSales / Assetsi, t-1 are statistically significant. The variation of the dependent variable is mostly determined by the variable 1 / Assetsi, t-1.

Table 4

Estimates of regression coefficients

$$T_i = \beta_0 + \beta_1(1/ASSETS_{t-1}) + \beta_2\Delta SALES_i + \beta_3 PPE_i + \beta_4 ROA_t + \varepsilon_i \text{ for 2013}$$

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	3,588E-7	,000		1,287	,203	,000	,000
1/ASSETSt-1	-,031	,003	-1,740	-10,431	,000	-,036	-,025
delta SALESt	-,025	,005	-,902	-5,217	,000	-,035	-,015
PPE	-1,107E-6	,000	-,152	-2,221	,030	,000	,000
ROAt	-4,488E-8	,000	-,241	-2,608	,011	,000	,000

a. Dependent Variable: T/ASSETSt-1

Tables 5 and 6 present the results of the calculation of the regression equation (3). First of all, the adequacy of the regression model is proven, which shows that 71.5% of the variance of discretionary accruals is triggered by independent variables.

Table 5

Verification of adequacy of the model

$$DAP_i = \beta_0 + \beta_1 F_i + \beta_2 Bot_i + \beta_3 D/E_i + \beta_4 MV/BV_i + \varepsilon_i \text{ for 2013}$$

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,715[a]	,511	,479	,72576	,511	15,932	4	61	,000

a. Predictors: (Constant), MvBv, F, Bot, DebtEquity

<div align="right">**Table 6**</div>

**Regression results from the relationship between discretionary accruals DAP
and Predictable F indicator**

$$DAP_i = \beta_0 + \beta_1 F_i + \beta_2 Bot_i + \beta_3 D / E_i + \beta_4 MV / BV_i + \varepsilon_i$$

Estimates of the parameters						
Intercept	F	Bot	Debt/Equity	MV/BV	F-value	R-Square
0.571*	-1.526*	0.051	-0.016	-0.012	15.932	0.511

Notes: * significant at a level of significance of 0.05

F = 1, if the current income before discretionary accruals of company i exceeds income before discretionary accruals from the previous reporting period;

Bot = 1, if the income of company i are ranked in the lower 10% of those for the industry in year t;

D / Ei is the debt / equity ratio for company i over the period t;

MV / BV is defined as the market / book value of equity of company i for period t using the P / B ratio.

The free member's assessment is positive and significant at a level of significance of 0.05, while the coefficient of the variable for the predicted indicator F_i is negative and significant, also at a level of significance of 0.05. The positive assessment of the free member indicates that companies reporting current incomes before discretionary accruals, lower than those in the previous year (*F=0*) report positive discretionary accruals, which is consistent with the formulated hypothesis for permanent income. Accordingly, when companies report incomes before discretionary accruals higher than those in the previous year (*F=1*), discretionary accruals are expected to be negative. The assessment of discretionary accruals is measured as the sum of the free member and the variable for the predictable indicator *F. The negative value of the predictive indicator variable demonstrates the existence of an inverse relationship between discretionary accruals and independent variable F, which is in line with the expectations in the formulated hypothesis 1*. The estimates of the remaining three parameters of the regression equation Bot, Debt / Equity and MV / BV are not statistically significant, which suggests that they do not affect variance in discretionary accruals.

Conclusion

This study provides evidence that managers use accruals to smooth the company's income. The direction of discretionary accruals in a given year is predicted by

comparing income before discretionary accruals with reported income from the previous year. It is found that if current income before discretionary accruals is lower than reported income in the previous year, discretionary accruals are positive. On the other hand, when current income before discretionary accruals is higher than reported income in the previous year, discretionary accruals are negative. Table 1 provides evidence that 100% of the companies in the selected sample report discretionary accruals in line with the forecast for their direction in the particular year. This proves that Bulgarian companies smooth their incomes by covering the lower incomes of the current year with higher (unaccounted) from the previous year.

Notes:

1. The line of restrictions imposed by IFRS may be different from displayed. In some cases, IFRS cannot prevent the company's management to account amounts equal to permanent income, while in others, the restrictions arising from IFRS may be larger than shown.

2. The hypothesis of the political costs is related to the attention the company receives from external parties such as environmental groups and competitors.

According to it relatively large companies use creative accounting techniques that reduce the company's income as opposed to the aspirations of the smaller ones. This hypothesis implies that the size of the company and the income levels are considered as variables that indicate a political or public attention. As a result, the managers of companies tend to apply creative accounting techniques that reduce companies' income to minimize the focus on them.

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THE EFFECT OF TRADE ON HUMAN PERFORMANCES IN NIGERIA

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JEL F1, I31	Abstract
	This study investigates the impact of trade on human performances in Nigeria using various econometric techniques to analyse the data from 1970-2015. It was observed from the findings that trade and interest rate had a positive impact on human performances in the economy, while price index and exchange rate had a negative impact on human performances in the economy. On the overall, it was observed that the independent variables are capable of correcting about 20% of deviations in human performances back to equilibrium in the long-run. The study therefore concludes that trade activities are a significant factor of human performances in the economy and also prices and currency value are recognized in human performances in the economy. The study recommends that policies towards trade activities in the economy should be further reviewed to increase human performances in the economy as it is found significant therewithin.
Keywords:	
Trade, Human Performance, VECM	

1. Introduction

Economists have found that foreign trade is often favorable to growth and may well be a necessary condition for rapid growth for small open economies (Arodoye and Iyoha, 2014). Foreign trade is the exchange of production output between countries. In determining the growth and development of a country, domestic production, consumption pattern and foreign interaction are considered (Adesuyi & Odeloye, 2013). In Nigeria before the discovery of oil in the 1950s, agriculture was the major export-based product. Agricultural output accounted for about 90% of the export sector. However, in the 1970s, oil sector output took over in the export sector as it generates more revenue compared to the agricultural sector output.

Theories have noted the role of foreign trade in the growth and development of an economy, among them is; Smith (1776) who assumed that for a nation's growth to increase, its production pattern should be absolutely based. That is, producing and trading commodities at which it has a lower labour cost advantage. Ricardo (1817) states that countries can increase their economic welfare by producing and trading the product where they have a lower opportunity cost advantage. Bhagwatti (1958), however, noted that as a country's export expands, economic growth increases, but individual welfare declines. He criticized the need for expansion of exports to promote economic growth as its feedback effect on the welfare of the people living in the country is negative. However, in standardizing the theory, Johnson (1971) noted that Bhagwatti's view is just a country-specific view.

In Nigeria, the research on trade and growth has concentrated much on the effect of foreign trade on the growth and development of the Nigerian economy. It has been argued that a larger part of the growth expansion in the Nigerian economy has been through international trade, while some believed that foreign trade over the years had impacted growth and development negatively. Umoru (2013) in line with Usman (2011) argued that foreign trade has not transformed into economic growth and most of the imported goods causes damage to the industrial output, which leads to insufficient output in the economy and lowers the value of the economy's output in other countries. This, they further argue, has a later impact on the welfare of individuals. On this note, this study deviates by investigating the impact of trade on human performances in Nigeria.

2. Theoretical Framework

In view of the related theories in the study, Smith (1776) advocated that a country's growth can only be promoted by basing is production on the products it has a higher cost advantage. Ricardo (1817) proposed that considering the production that attaches a lower opportunity cost is advisable for the promotion of growth in an economy. This theory concentrated on the welfare gains and ignores the gains from the rate of economic growth. The neoclassical theory of Heckscher and Ohlin (1917), (1933) further explained by Samuelson (1948 and 1949) advocated the opening of a country's trade arguing that it is efficient, beneficial and positive to the entire world, but a major limitation was that it assumed a static gain(s) of welfare. Marshal (1890) pointed that the major engine of economic progress is international trade. He postulated that international trade leads to global production and promotes both the internal and external economies, which results in increased income.

The modern theory of commercial policy by Bhagwati (1958) argued that an increase in the productive capacity of an economy can become worse off and the benefit of economic growth can diminish, if its trade terms deteriorate sufficiently. He suggested that the benefits of the increase in productive capacity are mostly enjoyed by foreign consumers through lower prices from exports expansion. This he believes hurts the domestic producer in terms of maintaining their standard of living. In discussing the condition, he assumed a two-country model where a country is expanding in growth and other countries does not. He concluded that the effect will be positive if the terms of trade do not move against the growing country enough to deny it of all the growth gains, and it is negative if the price of the import good is not in conformity with that of export. Johnson (1967) in explaining the theory further opined that a declining terms of trade is not the only factor that leads to immiserizing growth, but also the exogenous imposed tariff faced by small open economies can worsen the economic expansion in terms of welfare. Bhagwati (1968) further explained three fundamental theoretical ingredient of commercial policy: distortion, welfare and growth, which he explained as in a situation where there is economic distortion, the benefits of economic growth declines and affects the welfare of individuals.

On the empirical front, Wei and Zhang (2013) in testing the immiserizing growth in China argued that the non-trivial portion of the Chinese growth rates in recent years may be a case of immiserizing growth. In 124 countries including both developed and developing countries between 1971 and 2010, using simultaneous equation, Iamsiraroj (2015) argued that foreign direct investment positively relates with economic growth and considered trade openness, labor force and economic freedom as other determinant factor of economic growth. In agreement with the findings, Iamsiraroj and Ulubaşoğlu (2015) also noted a postive nexus between FDI and economic growth and also consider trade and financial development as a catalyst for signigficant growth mostly in the developing countries. Were (2015) observed the link between trade and economic growth in both developed and developing countries, the study noted a positive link between trade and economic growth for both regions but insignificant.The study firther argued that the insignificanct relationship is stronger in the least developing countries,where African countries are included, compared to the developed countries and also considered trade as an important determinant of FDI in the study. For the economy of Pakistan, Gokmenoglu, Amin, and Taspinar (2015) examined the relationship between international trade, financial development and economic growth. Their findings revealed that there is a causal link between international trade, financial development and economic growth in the economy of Pakistan. Therefore, international trade and financial development should

be considered as an important determinant of economic growth. Tekin (2012) also examined the causal link between development aid, trade openness and economic growth in the less developed countries for the period 1970 and 2010 using the new Granger causality test approach. The study noted a significant causal link between development aid, openness to trade and economic growth for the least developing countries in Africa. Fetahi-Vehap, Sadiku and Petkovski (2015) used a system panel GMM to examine the relationship between openness to trade and economic growth in the economy of South East European (SEE) countries. The result revealed that a positive relationship exist between trade openness and economic growth through the initial income per capita and other explanatory variables, otherwise there is no robust evidence between these two variables. They further noted that trade openness is more beneficial to countries with higher level of initial income per capita, ABND countries with higher level of FDI and gross fixed capital formation. Ali-Mohamed (2015) used Two-Stage Least Squares to discuss the impact of reducing time cost on trade and international trade on economic growth of 16 Arab countries during the period 2005 and 2011. Their findings noted that information and communication technology leads to time and cost reduction, thereby increasing the value of merchandise exports and imports. Dritsaki and Stiakakis (2014) used ECM-ARDL model to analyse the relationship between FDI, export and economic growth in the economy of Croatia between 1994 and 2012. Their findings proved a bidirecetional relationship between the export and economic growth in the economy. Maku and Ajike (2015) examined the impact of capital and financial inflow on human welfare in sixteen Sub-Saharan African countries using the feasible generalized least square estimator test the fixed and random effect of the variables employed at 1% level of significance. The Portfolio investment was found to influence HDI access to health services and life expectancy at birth negatively but improved access to water and sanitation significantly, while Financial and Capital channels of globalisation showed mixed effects on human welfare indicator.

In Nigeria, several studies have been carried out on international trade and economic growth; among them is Usman (2011) ,who studied the impact of trade on economic growth in Nigeria using multiple regression analysis. He observed that export, import and the exchange rate are negatively related to economic growth in Nigeria. Adesuyi and Odeleye (2013) observed that a positive relationship exists between non-oil export values, non-oil import value, oil export value and the exchange rate, while oil import value exhibits a negative relationship. Arodoye and Iyoha (2014) observed, using vector autoregressive model, that the predominant sources of Nigerian economic growth variation are due to the nexus between foreign

trade and economic growth in Nigeria. Afaha and Aiyelabola (2012) also used the multiple regression analysis to explain the relationship between foreign trade and economic growth in Nigeria and find out that export, the exchange rate, and per-capita income are positively related while trade openness and import are negatively related to output (proxy by GDP) of Nigeria with 60%, 0.4%, 101%, 41%, 1.2% respectively for the period of 1980-2010.

Omoju and Adesanya (2012) also examined the impact of trade on economic growth in developing countries using Nigeria as a case study. It was revealed that trade; foreign direct investment, government expenditure and the exchange rate have a significant positive impact on economic growth in Nigeria and recommended that the government should create an enabling environment that would facilitate trade and foreign direct investment. Efforts should also be geared towards improving expenditure and ensuring exchange rate stability.

From the empirical review it was noted that most of the studies focused on trade and economic growth nexus except for the work of Maku and Ajike (2015) on capital inflow and human welfare in Sub-Saharan Africa countries. Even the studies on trade-growth nexus were found to lack consensus in findings due to the method and scope of their studies. This study however, adds to the existing literature by investigating the nexus between trade and human performances in Nigeria using the vector error correction method (VECM) to analyse the data spanning from 1970-2015.

3. Data Source and Methodology

The study used secondary data spanning from 1970 to 2015 and sourced from WDI (2015). The data used include GDP per capita (Current US$), Trade calculated as Export of goods and services (Current US$) plus Import of goods and services (Current US$), Official Exchange Rate (LCU per US$, period average), and Consumer Price Index (2010=100), Lending interest rate (%). This study followed the model of Thirwall (1979) who developed a one- sector demand model of output and growth from three critical equations of Kaldor (1970) which expresses the theoretical framework of the post- Keynesian theory of growth and trade and expressed in growth form as follows;

$$y_B = \frac{(1+n+\varphi)(p_d - p_f - e) + \varepsilon z}{\pi} \tag{1}$$

Araujo and Lima (2007) redefined the model and develop the multi-sector growth model which incorporates the share of each sector in total exports and total imports respectively and this is presented as;

$$x = z \sum_i^\kappa w_{xi} \, \varepsilon_{ix} \tag{2}$$

$$n = y \sum_i^k W'_{mi} \, \pi_{im} \tag{3}$$

Where w_{xi} and W_{mi} are shares of sectors in total exports and total imports respectively, and ε_{ix} and π_{im} are elasticities of exports and imports.

Despite the derivation of a multi-sector model, the structural model retains the weakness in the Thirlwall's (1979) one-sector model. It remains deterministic and non-parametric, making it less appropriate for the estimation of the rate of growth in output.

Catela and Porcile (2012) adopt the Keynes-Pasinetti framework in line with Araujo and Lima (2007) to develop a parametric demand model of output growth in order to argue that the pattern of specialization matters for growth in long-run output. The model is strictly guided by the neoclassical trade theory of comparative advantage that limits the pattern of specialization to exports. They proxied the Keynesian efficiency by the share of sector with high income elasticity of demand in total exports and the Schumpetarian efficiency is proxied by the share of technology- intensive sector in total exports. Their parameterized demand model of growth in long-run output is expressed for a panel of countries as follows;

$$InY_{it} = \beta_0 + \alpha InK_{it} + \gamma InS_{it} + \delta InZ_{it} + \mu InT_{it} + \varepsilon_{it} \tag{4}$$

Where Y is the real GDP, K is the share of sector with high income demand in total exports, S is the share of sector with high technology in total exports, Z is the real world income, and T, is the terms of trade.

From equation (4) we therefore specify the model for this study as;

$$InY_t = \beta_0 + \beta_1 InT_t + \beta_2 InCPI_t + \beta_3 EXR_t + \beta_4 INT_t + \varepsilon_t \tag{5}$$

Where, Y is GDP per capita proxy for human performances, T – Trade, CPI- Consumer Price Index, EXR- Exchange rate, and INT, Interest rate. ε is the error term. $\beta_1 - \beta_4$ coefficient of the variables, while β_0 is the intercept.

4. Results
4.1. Correlation Test

It was revealed from the result that none of the variables are correlated. The result showed that trade, consumer price index and exchange rate positively correlate with human performances, but not perfectly, while interest rate negatively correlates with human performances. We strongly agree that there is no problem of multicollinearity among the variables. The result is presented in table 4.1.

Table 4.1: Correlation Matrix Test

Variables	InGDP	InT	InCPI	EXR	INT
InGDP	1.00000	0.622364	0.568141	0.483597	-0.02612
InT	0.622364	1.00000	0.992498	0.97113	0.678941
InCPI	0.568141	0.992498	1.00000	0.975223	0.703137
EXR	0.483597	0.97113	0.975223	1.00000	0.75747
INT	-0.02612	0.678941	0.703137	0.75747	1.00000

Source: Authors Computation (2018)

4.2. Descriptive Statistics

From the result, it was shown that the mean value of the variables lies in between their maximum and minimum values. The skewness result showed that trade, inflation and the exchange rate have a negative skewness. This implies that they all have a long tail to the left, while gross domestic product per capita proxy for human performances has a positive skewness. For the distribution test, Jarque-Bera Statistics revealed that gross domestic product and the exchange rate are not normally distributed as they have a probability value of less than 10%, while Trade, inflation and interest are normally distributed as they have probability values greater than 10%. The result is presented in table 4.2.

Table 4.2: Descriptive Statistics Test Result

	InGDP	InT	InCPI	EXR	INT
Mean	6.249754	26.55993	1.586109	2.346866	15.21517
Median	6.040804	26.63206	1.607344	2.968195	16.7575
Maximum	8.077658	31.14664	5.068549	5.259787	31.65
Minimum	5.034656	21.28761	-2.30177	-0.60371	6
Std. Dev.	0.835832	3.184241	2.500317	2.31466	6.411009
Skewness	0.804676	-0.02159	-0.1016	-0.0984	0.153508
Kurtosis	2.697266	1.533235	1.478438	1.330285	2.279917
Jarque-Bera	5.139853	4.127091	4.516513	5.417795	1.174492
Probability	0.076541	0.127003	0.104533	0.06661	0.555856
Sum	287.4887	1221.757	72.96103	107.9558	699.8978
Sum Sq. Dev.	31.43768	456.2726	281.3213	241.0944	1849.547
Observations	46	46	46	46	46

Source: Authors Computation (2018)

4.3. Unit Root Test

From the stationary test result, it was revealed that all the variables are stationary at first difference, which implies that the variables are stationary at order of integration one [I(1)] and there is a presence of unit root among the variables The result is presented in table 4.3.

Table 4.3: Unit Root Results

Variables	None	Intercept	Trend and Intercept
	Level		
LGDP	1.447353	-0.24863	-0.97588
InT	4.152403	-1.20113	-1.28337
InCPI	2.46672	-0.91052	-0.44212
EXR	1.850206	-0.24271	-1.6206
INT	-0.17139	-1.73544	-1.7601
	First Difference		
Variables	None	Intercept	Trend and Intercept
LGDP	-5.96459***	-6.27795***	-6.19031***
InT	-4.89294***	-6.55526***	-6.59702***
InCPI	-1.92525**	-3.28519***	-3.30534*
EXR	-4.65922***	-5.3843***	-5.3204***
INT	-7.46834***	-7.43613***	-7.43485***

***, **, * implies stationary at 1%, 5%, and 10% significance level
Source: Authors Computation (2018)

The result also implies that the data does not behave well over the period specified. As a result of this, we carry a long-run co-movement test among the variables to verify if the variables have a long-run relationship. The result of the long-run relationship is presented in table 4.4.

Table 4.4: Johansen Cointegration Test

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.1 Critical Value	Prob.**
None *	0.509311	84.56076	65.8197	0.0021
At most 1 *	0.39572	53.23523	44.49359	0.0144
At most 2 *	0.351518	31.07168	27.06695	0.0355
At most 3	0.209606	12.01437	13.42878	0.1562
At most 4	0.037123	1.664517	2.705545	0.197

Trace test indicates 3 cointegrating eqn(s) at the 0.1 level

* denotes rejection of the hypothesis at the 0.1 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.1 Critical Value	Prob.**
None *	0.509311	31.32553	31.23922	0.0978
At most 1	0.39572	22.16355	25.12408	0.2121
At most 2 *	0.351518	19.05731	18.89282	0.0952
At most 3	0.209606	10.34986	12.29652	0.19
At most 4	0.037123	1.664517	2.705545	0.197

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.1 level

* denotes rejection of the hypothesis at the 0.1 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: Authors Computation (2018)

From the long-run cointegration result, it was observed that there are at least three cointegrating equations among the variable in the trace test, while two cointegrating equations were revealed for the maximum eigenvalue test. This implies that there is a long-run co-movement among the variables in the study. As a result of this we further estimate the impact of the independent variables on human performances using the Vector Error Correction Model (VECM).

From the result in table 4.5, we observed that in the long-run, trade and interest had a positive impact on human performances in Nigeria, while inflation rate and the exchange rate had a negative impact on human performances therewithin. The short-run result conforms to the expected negative sign. The implication of this is that the

independent variables are capable of correcting about 20% divergence in the dependent variable back to equilibrium in the long-run. The degree of correction is however found to be low. This is because trade activities have been suffering from internal factors such as price benefits and also exchange rate policy. This confirms the argument of Bhagwatti (1958) that the benefits of productivity increase only accrue to foreign consumers through lower prices from exports expansion, and unfavouable prices to domestic consumers which hurts the standard of living of the domestic producers.

Table 4.5: VECM Test Result

Variables	Coefficients	Standard Error	T-statistics	P.V
InT(-1)	0.964335	-0.27643	3.48856	
In(CPI(-1))	-1.29558	-0.33921	-3.81938	
EXR(-1)	-0.01132	-0.00372	-3.04265	
INT(-1)	0.088158	-0.02579	3.41809	
ECM(-1)	-0.20088	-0.07379	-2.72220	0.0105

Source: Authors Computation (2018)

4.6. Diagnostic Test

In order to verify our result based on the model specified, we adopted a Heteroscedaticity Test, and Serial Correlation LM test to test the stability of the model. The results are presented in table 4.6. It was confirmed by the Breusch-Godfrey Serial Correlation test the absence of auto-correlation and absence of heteroscedasticity problem was also confirmed in the model. These results are supported by their F-statistics and probability values greater than 10%.

Table 4.6: Diagnostic Test Results

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.396949	Prob. F(2,29)	0.676
Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.318515	Prob. F(15,27)	0.2577

Source: Authors Computation (2018)

We also checked the graphical stability of the model using the Cumulative Sum of Chart and Cumulative Sum Square (CUSUM & CUSUMQ). The stability of the model is confirmed if the graph plots lie within the critical bounds at 5% significance level.

The plots of CUSUM and CUSUMQ for testing Trade and human performances model in the economy of Nigeria was found to be valid to explain the relationship.
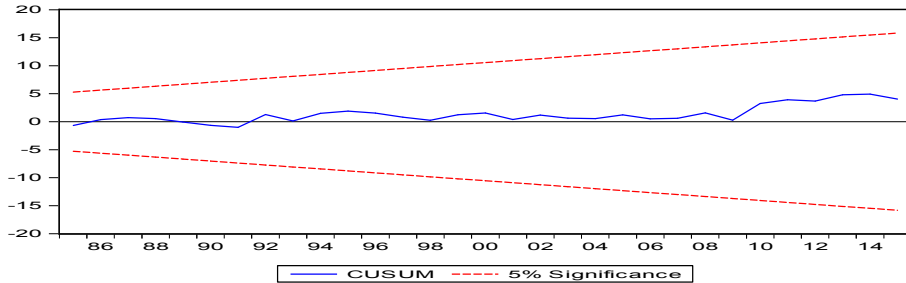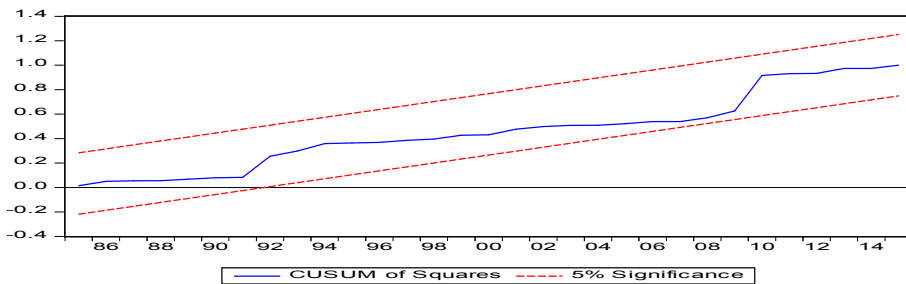

Figure 1: CUSUM Test

Figure 2: CUSUM of Squares Test

5. Conclusion and Recommendation

The study empirically examines the effect of trade on human performances in Nigeria. From the result, it was observed that trade and interest rate positively influence human performances in Nigeria, while consumer price index and exchange rate negatively impact on human performances. Also, the findings showed that the explanatory variables have the ability of correcting about 20% deviations in human performances in the long-run if attention is paid to the sector. The findings however are similar to the conclusion of Omoju and Adesanya (2012) and Maku and Ajike (2015) that trade significantly increases human performances in Nigeria. From the findings, the study recommends that policies towards improving the trade sector of the economy a better one should be given more attention since it significantly explains human performances in the economy. Also, if trade activities are promoted through provision of incentives in the sector, the price index and exchange rate are likely to turn out in favour of the people which will increase their performances.

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SPECIFICS IN THE LEGAL REGIME OF THE PUBLIC PROCUREMENTS CONDUCTED BY THE HIGHER SCHOOLS IN BULGARIA

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JEL K23	Abstract
Keywords: higher education, public higher schools, public procurements, contracting authorities, control over the public procurements	The paper examines in historical and current aspect the specifics in the legal regime of conducting public procurements by the public higher schools in Bulgaria. On basis of the analysis are brought out periods in the legislative development of awarding public procurements by the higher schools and marked problems and tendencies. © 2018 University of Economics – Varna

Introduction

The higher schools are legal entities, which accomplish activity of training of specialists, capable to develop and apply scientific knowledge in different areas of human activity and develop the science, culture and innovative activity of the country. The realization of these activities requires that the higher schools schedule and spend their funds according to the law and strictly conform to the principles and procedures of the Public procurement act (PPA) (Dimitrova, 2017). The examined problematic is exceptionally actual because of several cumulative related reasons. On the one hand, there shall be rendered the increased public and legislative attention to the quality of the higher education, on the other, the operation of a new PPA (adopted SG 13 from 16.02.2016 in force from 15.04.2016), which norms propose order for

conducting of the procedures in accordance with the European standards. The higher school, in the role of contracting authority, implements its competitive strategy related to the creation/updating of competitive material base in the frame of national and European educational environment through the public procurements. Exactly this reason provokes the interest of the authors to anexamination of the problematic, concerning the specifics of the legal regime of the higher schools in their quality as contracting authorities according to the PPA.

The purpose of the paper is to examine in historical and comparative-legal aspect the specifics of the legal regime of the public higher schools as contracting authorities of public procurements in order to systematize the legislative amendments until the present moment, make critical analysis of the norms and make practical summaries. **Object of the research** is the national normative regulation, related to the conducting of the procedures of public procurements by the public higher schools. For achieving the purpose the authors set the **following tasks**: 1) to complete a retrospective examination of the legislative development concerning the order of conducting of public procurements by the higher schools; 2) to bring out the specifics of the higher schools in their quality as contracting authorities according to the PPA; 3) to examine the types of control over the public procurements, conducted by the higher schools.

The paper examines the contemporary period (after 1989) in the development of the higher education, bearing in mind the new public relations, which impose control over the spending of public funds and the related to this adopting of national normative regulation, introducing and regulating the conducting of public procurements. The setting of the tasks puts the accent of the examination on the actual PPA and its relation to the Higher education act (HEA) and the specifics of the public higher schools as contracting authorities of public procurements. **The methodology of the scientific examination includes:**1) complex analysis of the legal regulation of the higher schools and the public procurements in historical and comparative-legal and actual aspect; 2) examination of the normative regulation and doctrinal examination – theoretical overview, systematization and classification.

1. Legal regime of the higher schools, as contracting authorities according to the PPA

In the acting legal regulation, regulating the public procurements, special norms are missing, specifically related to the higher schools. The higher schools are included in the group of public contracting authorities of public procurements. The disclosure of the specifics of the procedures conducted by them and providing for the process of

lawful and appropriate spending of public funds for education and science requires to bring out the sources of normative regulation.The PPA in force from 2016 is prepared in compliance with several European directives (§3 of the additional provisions of PPA). Especially for the higher schools three of them are applicable: 1) Directive 2014/24/EU of the EuropeanParliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (OJ, L 94/65 of 28 March 2014); 2) Directive 2007/66/EC of the European Parliament and of theCouncil of 11 December 2007 amending Council Directives 89/665/EEC and 92/13/EEC with re-gard to improving the effectiveness of review procedures concerning the award of public contracts (OJ, L 335/31 of 20 December 2007); 3) CouncilDirective 89/665/EEC of 21 December 1989 on the coordination of the laws, regulations and administrative provisions relating to the application of review procedures to the award of public supply and public works contracts.

Along with the PPA there are Rules on application (RAPPA, Decree of the Council of ministers 73 from 05.04.2016, promulgated in SG 28/2016),which detail the rules for conducting of public procurements. The purpose of the legislation in the area of the public procurements is to assure the effectiveness in spending public funds, funds, provided by the EU funds and programmes; funds, related to performing activities with public importance or funds of companies and undertakings, which are contracting authorities in the meaning of the act.

The legal regime of the higher schools is regulated in the special HEA (promul-gated SG 112/95). These are specific legal entities, having in mind their main activity, regulated in Art. 6, 1 HEA. (1) According to this regulation the main activity of the higher schools is the educational and scientific (non-commercial), but along with them the higher school may perform also commercial activity (Dimitrova, 2017), which is directly linked to the main activity (Art. 6, 2 HEA). According to art. 12 HEA the higher schools are public and private. The legislation regulates equal both types of higher schools, but only the public ones, in their quality of public legal or-ganizations, may be contracting authorities of public procurements and this is regu-lated by a specific legal regulation. The legislation uses for the public higher schools terms as "budget organizations", (2) „state establishments", (3) „budget enterprises", (4) „public legal organizations". (5) In the legal literature they are designated by "legal entities of the public law" (Vasilev, 2000, p. 159) (Balabanova, 2013, p. 44) (Ilieva, 2015, p. 201). As such persons the public higher schools are subject to public legal regime and the norms of the public law (administrative, financial) are applicable for them. The reasons why only the public higher schools are contracting authorities for public procurements are complex. On the one hand, they are legal entities of the

public law ("public legal organizations", according to the imperative regulation of PPA for the contracting authorities) as opposed to the private higher schools, which are legal entities of the private law (Paunov, 2001). On the other hand, the public procurement contract is an institute of the administrative law and as a typical public law branch it regulates the legal relations between the subjects by the imperative method of legal regulation (Andreeva & Yolova, 2016). The active subject in these relations is the public-legal subject – the contracting authority and in this case the public higher school.

According to the repealed PPA (SG 56/1999) and PPA (SG 28/2004) the higher schools also had the right to be contracting authorities of public procurements, but this Acts did not include a legal definition for contracting authority. According to the PPA in force contracting authorities of public procurements are divided in two main groups: public and sector (Art. 5, 2, p.1-17 PPA) and the public higher schools are in the group of the public contracting authorities, which is large and includes also state bodies, medical establishments and other (art. 5, 2, p. 1-17 PPA). For the different public contracting authorities the quality as contracting authority is based on different juridicial facts. The higher schools are regulated as contracting authorities of public procurements by the norm of art. 5, 2, p. 14 PPA, according to which the public contracting authorities are the representatives of public legal organizations. §2, p. 43 of the additional provisions of PPA gives the definition of the notion "public legal organization" in its quality of contracting authority of public procurements. (6) The representative of a public legal organization acquires the quality of contracting authority in the moment in which the legal entity fulfills the criteria according to § 2, p. 43 of the additional provisions of PPA.

Bearing in mind the mentioned above shall be concluded that only the **public higher schools** fulfill the legal requirements of **"public legal organization"**, as contracting authority of public procurements, not the private higher schools, because they are private legal organizations, established and financed with private funds (art. 14 HEA). Whereas the public higher schools are established and function on the basis of the state property given at their disposal and the transfer from the executive budget (Art. 13, 1HEA). Obviously from the list of public contracting authorities the public higher schools are active contracting authorities of public procurements and this is also indicative for the importance of the examined problems**.** (7)

It shall be considered that the representatives of the public legal organizations have the quality of contracting authority of public procurements and not the organization itself (in this case the public higher schools) as legal entity (argument art. 5, 2, p. 4 PPA). As addressee of the obligation for conducting a procedure according to the

PPA in the law in force is indicated not the public legal organization, but the contracting authority. Whereas according to the repealed PPA 2004 contracting authorities were the public legal authorities as legal entities. In this case examining the public higher schools as contracting authorities of public procurements shall be considered that this is the representative of the higher school, who is the rector according to art. 32, 1, p.1 HEA. In order to have a lawful procedure for awarding a public procurement all activities of its conducting shall be initiated and performed only by a person, who has the quality of contracting authority. If the person does not possess this quality, it cannot be considered that there is awarding of public procurement, because the concluded contracts does not conform to the definition of "public procurement contract"(§2, p. 4 additional provisions PPA). The acquisition of the quality of contracting authority is basic preposition for arising of its powers according to the PPA. No other person, only the contracting authority may have the right to conduct procedures for awarding of public procurements and to conclude public procurement contracts.

This legislative amendment is a result of the amended philosophy in the new regulation of the relations of awarding public procurements, where the whole liability shall be for the contracting authorities, exhaustively indicated in art. 5, 2 PPA. According to the regulations of the repealed PPA 2004 exhaustively was provided for administrative penal liability for contracting authority – legal entity, which is public legal organization, through imposing of pecuniary penalty. According to the new PPA (art. 247-256) subject of the violations may be only the contracting authority, who is a physical person –principal of the respective organization. The public legal organization shall not be administrative-penal liable and is not contracting authority according to the law in force (see in Decision № 5167 of 11.01.2017 арс. № 4679/2016 Sofia regional court; Decision № 713 of 21.04.2016 арс № 779/2016 . Regional court - Plovdiv).

The analysis of the actual normative regulation in the area of the public procurements and the interpretative relation to the norms of the higher education allows to make some conclusions. As opposed to the former legislation in the area of the public procurements the **new normative regulation in the PPA in force is more precise.** There is not only a differentiation of the contracting authorities to public and sector, but also the representatives of the public legal organizations are differentiated from the public legal organizations. In the literature (Mateeva & Dimitrova, 2016) is indicated that the reason for amendment of the legal statute of the contracting authorities is to determine easier which person is the contracting authority, which order of awarding of public procurement shall be applied, who is administrative-penal liable in case of violations of PPA and RAPPA. The differentiation of the contracting authori-

ties contributes for their clear defining and in this way the difficulties to determine the violators may be avoided. This eliminates the possibility for disputes if the rector or the higher school is contracting authority and makes it easier also for the contracting authorities. The rectors as representatives of the public higher schools are contracting authorities for public procurements according to art. 5, 2, p. 14 PPA. In their quality as such they are obligated to comply with the provided procedures in the PPA in case of spending of funds for implementing different projects and supplies. Some specific problems arise for the higher schools in the application of the PPA, related to the peculiarities of the object of public procurement, the procedure itself of announcing and awarding of public procurement, the assessment criteria for the offer and the selection of contractor and conclusion of the public procurement contract (Dimitrova, 2013).

2. Specifics and control of the public procurements, conducted by the higher schools

One of the questions reflecting the specifics of the public procurements, conducted by the universities in Bulgaria, is related to the contracting authority, as a party of the process and especially the actual moment concerning the delegation of powers and replacement, provided by the PPA. As mentioned above, the rectors as representatives of the higher schools are contracting authorities for public procurements. The legislator provided for a solution of problem situations, in which the liable person is in leave or absent due to disease in order to avoid the delay of the procedures. According to art. 7 PPA (8) the delegation of powers is possible in two hypothesizes: the first one – delegation by a normative or administrative act, or also by the contracting authority, and the second one – in case of absence of the contracting authority his powers shall be fulfilled by the person, who replaces him under normative, administrative or other act, which defines the representation of the contracting authority. In art. 7, 3 PPA is explicitly indicated, that the delegation shall not be used for division of the public procurement in view to circumvention of the law. The rector as contracting authority has the following possibilities: in case of absence to authorize a person, who shall replace him or to delegate his powers through authorization/power of attorney to a person selected by him. The public contracting authorities for whom the following conditions are present at the sametime: the annual budget, including the funds, provided through various EU funds and programmes is at the value above BGN 20 mln. and the average annual number of conducted procedure for awarding public procurements during the previous 3 years exceeds 20 shall build up internal specialized unit as part of the administration, responsible for management of

the cycle of the public procurements and according to §25, 1 of the Transitional and concluding provisions the term is by 31 December 2016. Even though the obligation to build up internal specialized unit is for the contracting authorities, determined by the law, in practice many of them build up such unit, because of the numerous obligations, related to the announcements and publication of documents in order to assure publicity and transparency and respectively they select a person to perform these powers. The legislative solution concerning the delegation of powers is positive on the one hand, because it assures a better operability and rapidity and it does not engage the budget of the organization, which spends public funds. On the other hand, it gives the possibility to avoid sanctions by one person through delegations of powers to another person, because according to art. 259 PPA (9) in case of delegation the punishments according to art. 247-256 shall be imposed to the certain official. In this relation it may be **provided for solidarity liability for the person, who is contracting authority** according to the law and the person, to whom these powers are delegated. Considering the big amounts of the administrative sanctions unbearable for the individual physical person, it may be considered a **possibility for insurance of the liable persons** similarly to the obligatory insurances for lawyers (10) and private enforcement agents. (11)

In order to reflect in maximal degree the peculiarities of the public procurements conducted by the higher schools, it is important to examine the types of control, exerted over them in order to guarantee the lawful and appropriate spending of public funds. Considering the fact that PPA regulates the spending of public funds in public interest, the compliance to its regulations shall be guaranteed by the state. Guarantee procedure for compliance to the legality is the control, performed by the state bodies (Dimitrov, 2006, p. 462). In this relation we agree with the opinion of Prof. Balabanova, that "strengthening of the statehood and especially of the control of the executive power is related first to the guarantee of the legality" (Balabanova, 2004, p. 9). The controlling is a means to secure and guarantee the observance of the normative prescriptions, necessary for the lawful performance of certain activity. In PPA is provided for different possibilities of control for compliance to the norms by different subjects and they shall be differentiated in administrative control and procedure for appeal, including procedure in front of the Competition protection commission (CPC) and court procedure.

The administrative control is one of the possible forms, which the legislator provided for compliance to the regulations of the PPA. There are different possibilities to perform administrative control over the higher schools as contracting authorities. The different types of control may be classified in groups according to respective

indications. According to the time, in which the control shall be performed it may be classified as preliminary and follow up control.

The Public procurement agency (PPA gency) and in particular its executive director is the state body, which realizes the preliminary control over procedures for public procurements in cases, defined in the PPA. Along with the developing of projects of normative acts and drafts, as well as opinions and lists, the executive director of the PPA gency shall have the function to carry out control, as well as give recommendations and concrete instructions for eliminating of irregularities (art. 5, 3 ORPPA) (12). According to Art. 229, 1, p. 5-10 PPA he may: 1) carry out control through random choice of procedures for awarding public procurements; 2) carry out control of procedures of negotiation under Art. 18, Para. 1, p. 8 and 9; 3) carry out control over contracts, awarded under exceptions from the applicable field of the act; 4) carry out control over amendments of public procurement contracts under Art. 116, Para. 1, p. 2;5) refer the competent bodies for exercising a follow up control on the observation of the act; 6) appeal before the Competition Protection Commission the decisions of contracting authorities, with whom there are violations in conducting a procedure forawarding public procurement, established by the European Commission by signing of the contract and indicated in the notification under Art. 221, Para. 1.

The control on a random selection over procedures of negotiation and amendments of the contract concerns all types of contracting authorities, while control over some exceptions concerns only the public contracting authorities, by application of the general exceptions according to art. 14, 1, p. 5-8 PPA. According to the general rules in art.115 PPA each stage of the control according to art. 229, 1, p. 5-8 shall be performed once. The opinions, issued by the PP Agency shall not be subject to change unless in the cases of technical mistake, made by the PP Agency.

The comparative legal analysis determines that there are three new types of control – the control on a random selection, in case of amendment of the contract and over some exceptions, and over procedures of negotiations the former PPA was applicable only for public contracting authorities, not also for sector authorities as it is in the present version. Another new statement is the obligation to send all documents in electronic way according to the requirements of the new Directive 24/2014. With the amendments of the PPA (SG40/2014) to the Public procurement agency were granted more extensive powers such as in art. 20 a, 3 PPA they were empowered to give in the opinion not only recommendations, but also concrete instructions for removal of the inconformity (also in art. 4 and 5). In the present version of the law the opinion is not obligatory for the contracting authority.

The legislative amendments in the norms concerning the preliminary control shall be defined as positive because of several reasons. **First,** their purpose is to a big extent to help the contracting authority in choosing the right procedure, in indicating reasons for amendment of the contract as well as their motivation in procedures of negotiation. **Second,** the freedom of the contracting authorities shall be kept and expanded, considering the fact that the opinions of the PP Agency are not obligatory for them, but have the function to help in the process of the right and lawful determination of the type of procedure. T**hird,** an important moment shall be the connection with the bodies for follow up control, to which notifications shall be submitted in the cases provided for by the law. The whole information shall be sent on electronic way according to the requirements of the Directives. There is a problem, because up to the present moment the electronic submission has not been regulated and provided for, and this delay creates obstacles for application of the law regulations.

The second type of control according to the time of performance is the **follow up control**. The main purpose in this case is ascertainment of the observance of the main principles – equality and non-admittance of discrimination, free competition, proportionality and publicity, transparency and the lawfulness of the behavior of the contracting authorities of public procurements. It is defined as external control according to art. 238 PPA, because it shall be performed by organizations external for the contracting authority – National audit office and the Public financial inspection agency (PFIA), assuring in this way independence of the opinion. This type of control is also for lawfulness – the conformity of the contracting authority's actions to the normative requirements of the PPA shall be estimated. The control bodies may make a complete estimation, because the follow up control shall be performed as a rule over finished procedures – with conclusion of a contract or termination of the procedure, as well as cases of inaction, in result of which there was no opening of procedure. As an exception the follow up control is admissible in case of not finished procedures, but is limited to enforced acts and actions of the contracting authority. In case of appeal of decisions or actions of the contracting authority, without enforced act of the CPC or the Supreme administrative court (SAC) the follow up control shall be not performed in order to avoid contradictory pronouncement for lawfulness of these decisions or actions. In this case the control over the higher schools as contracting authorities shall be documental – the control shall be performed on documents and the contracting authority and the persons in the checked sites shall be obliged to provide the needed documents, information and references, related to the public procurements. Except documental checks the officials of the National audit office and PFIA shall have the right to checks on the site, search sites, transport means, as well as other places in

which documentation of the checked site is stored, and to seize documents, records of computer information data and media of computer information data for provision of evidence – with the assistance of the bodies of the Ministryof Interior after received permit by the court. In case of found administrative violations the control bodies shall draw up acts for administrative violations and in case of perpetrated crimes the materials from the check shall be sent to the prosecution. The administrative penal liability of the guilty persons shall be one of the possible consequences of the follow up control. In case of violations of the PPA, found by the National audit office and PFIA, the auditors or the financial inspectors shall form administrative penal procedures, and in case of violation against the RIPPA – the competence shall be for the financial inspectors of PFIA. The comparative analysis with the former legislation determines, that in the legislative solution before 2014 the acts for finding violations of the PPA, found by bodies of the National audit office, were drawn up by the PFIA, as well as the penal decrees, with the exception of a short period of time, in which they were drawn up by the authorized auditors in term of 6 months from the day, in which the violator was found, but not later than 3 years from the violation and the penal decrees were drawn up by the Chairman of the National audit office or by officials authorized by him. (13) The new legislative solution assumes the achievement of more fastness and effectiveness for imposing the penalties, because the penal decrees shall be drawn up by the body, which found the violation and no documents shall be sent to another body.

The follow up control is supplementary to the whole function of the state in the process of strict observance of the legal norms and principles at spending of public funds. As opposed to the preliminary control the follow up control covers already finished procedures and this reflects on the used by it means of impact to the contracting authority. In case of finding violations administrative penalties shall be imposed and the purpose, laid down in their regulation in the PPA and following imposition to the delinquentis synchronized with the purpose of the administrative penalties, broken through the prism and specifics of the public procurements. The comparative analysis in the direction former-present national legislation determines that the regulations are similar to the ones in the former PPA.

According to the subjects, the performed control may be classified as control by the National audit agency, by PFIA, by other bodies in the frame of their authorizations (according to art. 243 they may perform preliminary, current and follow up control), internal control by the contracting authorities according to their internal rules and court control. For unification of the practices of application of the control activity a Permanent methodical council shall be established with the participation of

National audit agency, PPA and PFIA. The council shall adopt directions for realization of preliminary and follow up control under the act, as well as for internal control, exercised by the organization of the contracting authorities. The new moment with the establishment of the Methodical council shall have the purpose to unify the practices of application of the control activity under the act and harmonize the control and also achievement of a better interaction between them.

Except to administrative control, the public procurement shall be subject to appeal in a procedure before the CPC and the courts (Kostov & Hrusanov, 2011) (Lazarov, 2001). The appeal is possible in three procedures – appealing of decisions of the contracting authority, for announcing the concluded contract for invalid and compensation for damages, due to violated procedures. The appeal may be divided into not before the court – in front of CPC - and court procedure, which is appeal in front of SAC and in front of the Regional or Administrative court.

The appeal not in court shall be performed before a special jurisdiction (Krivachka & Markov, 2006, p. 18) (Angelov, et al, 1967, p. 384) (Dermendjiev, et al, 2010, p. 282) (Dermendjiev, 1976) (Staynov & Angelov, 1963, p. 344) (Staynow, 1956) (Stalev, 1954) (Hrusanov, 2002,p. 28) – CPC and shall be realized during the procedure for awarding a public procurement and up to the moment of concluding a public procurement contract. CPC is a specialized administrative body with exceptional competence. (14) The possibility to appeal the acts of the contracting authorities before the common or administrative courts is excluded. The procedure has two instances; second instance shall be the SAC, which judgments are final. As opposed to this order of appeal in the PPA from 2004 was provided for appeal in front of the civil courts – according to art. 120 as of the version from 2004 every candidate shall have the right to lay in front of Regional court a claim for cancelation of the contracting authority's decision, which violates the law. The procedure was in two instances – the decision of the Regional court may be appealed in front of District court, which decision was final. The other possibility was to conclude arbitrage agreement, as Arbitral court may be indicated only the one, functioning in PP Agency. Considering the spending of public funds in public interest the appeal in front of Arbitral court would give too much freedom in this otherwise so strictly administrative controlled process. In this direction the decision of the Bulgarian legislator is harmonized with the external legislative solutions, which do not permit the intervention of arbitration in the control process of the public procurements.

The court procedure of appeal has its specifics, which are object of a separate examination of the authors, but here they present only basic moments, considering the completeness of the control. Besides the court appeal of decisions and resolutions of

the CPC in front of SAC, there is the possibility for court appeal in case of conducting public procurements (art. 260 and 261 PPA), which is related mainly to the performed follow up control after the conclusion of the public procurement contract and during its performance. For this control the controlling bodies of the National audit office and PFIA carry out mainly documental check for the performance of the contract by the contracting authority and for the existence of violations. As mentioned above, examining the follow up control, in case of found violations they shall start an administrative penal procedure against the guilty persons (the contracting authority or another physical person authorized by it). In a 3 days term after handing out the statement to the person, assumed as offender, objection may be lodged in and additional investigation of the controversial circumstances requested. The penal decree shall be issued in a term no longer than 6 months from the date of draw up of the statement and with it an administrative sanction shall be imposed to the guilty person - fine to the amount indicated in part "eight" of PPA. The penal decree shall be subject to appeal in front of the Regional court in the place where the violation has been perpetrated, the term is 7 days after receipt of the decree by the guilty person. The decision of the court shall be subject to appeal in a 14 day term from its receipt in front of Administrative court, which is the final instance.

The control over public procurement contracts is different from the one over other commercial and obligation contracts. The preliminary and follow up administrative control is typical only for public procurement contracts, because of the spending of public funds in public interest. The legislator chooses a strictly restrictive approach, applying methods, typical for the public law and relating them to a legal institute with long term tradition and origin in the private law. The purpose is not only the protection of the public interest, but also protection of the contracting authorities – on the one hand from mistakes, made by the wrong interpretation of the legal norms and their wrong relation to the concrete factual situation, on the other hand - from abuses by certain officials/persons, authorized with such functions.

A characteristic specific shall be the **appeal in front of the special jurisdiction – CPC.** The comparison to foreign legislation indicates that also there exist special jurisdictions, competent to hear appeals in the area of the public procurements. By the adopting of the Directives in 2014 there was no provision for amendment of the Council Directive 89/665/EEC of 21 December 1989 on the coordination of the laws, regulations and administrative provisions relating to the application of review procedures to the award of public supply and public works contracts.

Conclusion

The performed analysis of the actual normative regulation in the area of the public procurement - PPA and the relation to the special legislative frame in the sphere of the higher education - HEA and the presented in the separate parts retrospective and comparative legal parallels enable the authors to make some **conclusions and summaries**. The public higher schools, as contracting authorities for public procurements are obliged to follow the order for conducting of procedures according to PPA in their activity and this is a kind of guarantee for the lawful spending of public funds as well as for engagement of the society for the quality of the higher education. In this relation on legal level the mechanisms for control are set, which shall assure strict observance of the order for conducting public procurements. Up to the present moment of the operation of the new for Bulgaria PPA it is still not possible to give a categorical evaluation about the advantages of the new moments, related to the specifics of the contracting authorities and their liability, such evaluation shall be made after accumulation of administrative and court practice of the control institutions. The harmonization of the Bulgarian legislation in the area of the public procurements with the European norms in this area shall allow to Bulgaria as a member state to adapt to the processes of the internal market. At the same time in the sphere of the higher education the application of the principles and procedures of PPA, as well as the control for spending of public funds shall be prevention from abuses and establishes conditions for qualitative performance of the main activities of the higher schools – educational and scientific researches.

End Notes

1. Art. 6, 1 HEA: Higher schools are legal entities whose nature of business is:

1. training of specialists competent to develop and apply scientific knowledge in all various areas of human activities; 2. Upgrading the qualifications of specialists; 3. (amended, SG No. 48/2004) development of science, culture and innovations;

2. Public finances act (SG 15/2013);

3. Civil procedure code (SG 59/2007);

4. Accounting act (SG 95/2015) and Corporate income tax act (SG 105/2006);

5. Public procurement act (SG 13/2016);

6. "Public legal organization" is a legal person, for which the following conditions are fulfilled: a) it has been established with a concrete purpose to satisfy needs of common interest, which are of non industrial or commercial nature; b) funding is by more than 50 % of state territorial or local bodiesor of other public legal organization or is a subject of management control on behalf of these bodies; or has manage-

ment or supervision body, more than half of its members areappointed by a public contracting authority under Art. 5, Para. 2, p. 1 – 14. The needs of common interest are of industrial or commercial nature, where the person acts in normal market conditions, aims at making profit, where independently bears losses from it sactivity;

7. In the list of contracting authorities, published in the web page of PPA the University of Economics – Varna is listed under №1: http://rop3-app1.aop.bg:7778/portal/page?_pageid=93,158255&_dad=portal&_schema=PORTAL

8. PPA: Art. 7. (1) The contracting authority may select an official, who shall organize and / or award public procurement.; (2) With the exception of the cases under Para. 1, in absence of the contracting authority, his powers, related to awarding public procurement shall be fulfilled by the person, who replaces him under legislative, administrative or other act, which defines the representation of the contracting authority.; (3) The possibility under Art. 1 shall not be used for division of the public procurement in view to circumvention of the law.;

9. As opposed to the regulation of art. 258 PPA, which provides for sanctions – fine for the physical persons and property sanctions for the legal entities and sole traders and according art. 141 RAPPA – the guilty persons and the persons who have admitted committing of a violation;

10. Art. 50 Attorney law (SG 55/2004);

11. Art. 25 Private enforcement agents law (SG 43/2005);

12. Organizational rules of the Public procurement agency (SG 24/2004 – not updated after adoption of the new PPA);

13. Art. 127PPA(SG 15/2015, up to the coming into force of the new PPA on 15.04.2016 г. - SG 13/2016);

14. See: Stenograph of the session of the NA on 16 March 2006 – first reading of the LASPPA, report on the bill.

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• After receiving the feedback reports from the two reviewers, the editorial board decides whether to accept or reject the manuscript. To do this there needs to be unanimous opinion from both reviewers. If their opinions are extremely opposite, the editor-in-chief can require another expert opinion from a third reviewer.

• A manuscript can be accepted without any remarks or with minimal correction. This does not require another check from a reviewer.

• A manuscript can be accepted with a recommendation for substantial correction. This requires for reviewers to confirm again the truthfulness and relevance of their corrections, after that the editor-in-chief makes the decision for publishing the article.

• The manuscript can be returned to its author for substantial rewriting and a second review process.

• In case the manuscript is rejected, its author cannot send it again.

Structure of the manuscript

Requirements about the structure of the manuscript:

✓ **Title** – clearly and precisely stated, relatively short.

✓ **Abstract** – it must resemble a summary and include the objectives of the research, methodology and results;

✓ **Key words** – precise and sufficient, not more than five.

✓ **Introduction** - it should state the objectives of the research and the relevance of the scientific problem; it should review the condition of the issue and review references; it should also give the theoretical framework of the research, lead to research questions and hypotheses.

✓ **Methodology and data** – the methods used should be correct and include also appropriate references on similar, already published methods. The data shown must come from reliable sources.

✓ **Results and outcomes (conclusions) –** the results should be presented clearly and elaborated correctly; they must show a better way of using the data. Conclusions must be significant, valid and supported by proofs.

✓ **Bibliographic sources (references).**

Formatting:

The papers suggested for publishing must meet the following technical requirements:

✓ Manuscripts typed in Word for Windows, font - Times New Roman, font size – 14 pt, line spacing – 1.5 lines.

✓ Size of tables and charts – not larger than A4. The numeration of tables and charts should be consecutive in the wording of the paper. The use of colour charts, graphs and pictures are not accepted. All tables, figures, charts and images should be editable.

✓ Margins in cm: top – 2.5, bottom – 2.5, left – 2.5, right – 2.5.

✓ The title should be typed in caps, without abbreviations (font - Times New Roman, font size - 14 pt, line spacing - 1.5 lines, Bold – Center).

✓ At the right top corner above the title it is typed EconLit index in JEL (Journal of Economic Literature) classification system.

✓ After the title articles must include an abstract (10-12 lines) and up to 5 key words. The abstract and the key words should be written in Bulgarian and English (for articles in Bulgarian) and only in English for the articles submitted in English.

✓ Listing the used sources and citations is done in compliance with the Harvard short reference system (See examples of description and citation). The Quoted sources of a scientific research paper should be at least 20 and <u>transliteration is obligatory</u>. Footnotes are not recommended, except when necessary. If so-called "notes" need to be used, they should be indexed with Arabic numerals and are explained at the end of the article, before the references.

✓ The papers should be written without any handwriting and crossing out words, in good Bulgarian and, respectively, English.

After the article is received, it is edited language- and style-wise. As for the

Language the editor makes insignificant corrections since it is supposed that the papers are written in goof Bulgarian and English. The articles in English can be returned for another check by the author. Authors confirm the suggestions for changes in style or mark what they disagree with.

Acceptable size of manuscripts:

- for articles – from 16 to 20 pages ;
- for micro articles, reviews and abstracts of dissertation papers - up to 10 pages.

Articles submitted for publishing must be original and not published before or in the process of reviewing and preparation for publishing in other publishing houses. Editors have the right to make insignificant editing corrections on the manuscript. After an article is accepted, authors must declare an agreement and give the publishing house the exceptional right for publishing. Authors can use the article or part of it in their future work without permission from the publishing house, but this would require citing the original article.

Objectives and scope

Objectives

The journal follows a policy of open access and tries to turn into an international scientific forum for presenting various scientific theories, studies and ideas in the field of economics and economic policy. It encourages pluralism in scientific research and is open for discussions. The journal welcomes the papers of both young scholars and prominent and leading researchers.

Scope

The journal accepts and reviews for publishing original manuscripts in all fields of economics and economic policy. We accept both theoretical and empirical studies. We encourage empirical articles about emerging markets, the countries in Central and Eastern Europe and the issues of the functioning of the European-union economy.

Suitable for publishing are manuscripts in the field of:

✓ **Business, management and accounting** including: accounting, business, management, marketing, international business, industrial relations, management of information systems, organizational behavior and human-resources management, strategies and management, trade, tourism, commodity science and others;

✓ **Computer sciences**: application of computer science, information systems and technologies;

✓ **Economics, econometrics and finance**;

✓ **Mathematics**: applied mathematics, statistics, possibility theory;

✓ **Social sciences**: public administration, higher education, planning and development, law, sociology and political science, urban science, languages and others.

Types of manuscripts

The editorial board welcomes for publishing all authors who would contribute for achieving the objectives and scope of the journal. We publish articles in the following groups:

♦ Conceptual articles
♦ Research papers
♦ Overview articles
♦ Micro articles
♦ Literary reviews
♦ Book reviews
♦ Abstracts of dissertations papers