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Index of the Cycle of Money: The Case of Serbia

Constantinos Challoumis

*National and Kapodistrian University of Athens, GREECE
School of Economics and Political Sciences*

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Abstract

This paper sought to make clear how the concept of the cycle of money works in an actual case scenario like this of the economic system of Serbia. The index of the cycle of money suggests how an economic system ought to counteract an economic crisis and studies how well-structured is a country's economy. The estimations of the index of the cycle of money of Serbia are compared with the global average index of the cycle of money. The estimations reveal that Serbia belongs to medium rate according to the average global value. Serbia results reveal that it is a fine structured economy and can face an economic crisis, with a moderate dynamic. The applied methodology based on the analysis of theory, mathematical, statistical, and econometrical results. Moreover, this is first published work for Serbia according to this theory and is part of a project that examines the cycle of money of multiple countries.

Keywords: Serbia, cycle of money, index of the cycle of money.

1. The cycle of money of Serbia

This paper examines the dynamic of the economy of Serbia, using the concept of the cycle of money. The theoretical background of the cycle of money supports that the dynamic of an economy is based on the idea of the number of times that money is used in an economy. An economy should be considered not as a closed system, but as a system with fragments. An amount of money in many cases is getting out from an economy to external banks, or other economies. The mainstream is that the bigger companies and the international companies in most cases are saving their money to external banks and economic heavens. Therefore, according to this theory, the tax authorities should put an additional tax on this kind of companies to decline the losses to the economy. Moreover, the smaller companies and the freelancers should be taxed with lower tax rates. Then, it would be plausible to increase the dynamic of the economy. Also, the factories, the know-how services of big companies, the health care system, and the educational system comprise a special case for the economy, as belong to those cases where the taxes improve the quality of the economy. The factories and the big know-how companies increase the cycle of money, as they do not substitute the activities of the small-medium companies and the freelancers. The educational and health care systems improve the quality of the economy, making the whole economy better. Therefore, this paper sought to make clear how the concept of the cycle of money, works in an actual case scenario like this of the economic system of Serbia. The index of the cycle of money suggests how an economic system ought to counteract a monetary crisis and examines how well-structured is a country's economy. The calculations of the index of the cycle of money of Serbia are compared with the global average index of the cycle of money. The estimations reveal that Serbia

is close to the average global value. Serbia results show that it is a well-structured economy and can face an economic crisis. The applied methodology stands on the analysis of the theory, mathematical, statistical, and econometrical results.

The concept of the cycle of money reveals that the taxes return to the economy, to the case of the education and the health care system. But the mainstream is that the tax authorities should maintain the taxes to the lowest level. For small and medium companies, the government should protect them with very low taxes, and contemporaneously should put greater taxes on the larger companies. But there is a type of big and international companies that should have low tax rates, as these types of companies are not substituting the activities of smaller companies. These types of big companies are factories and technological know-how companies. Then, the principal idea is to have a financial system, with the best allocation of production (Helpman & Krugman, 1989). Larger companies should not provide similar products and services, like that of smaller companies, as they can make investments in economic fields that smaller companies cannot support. In that way, an economic system achieves its best level. Additionally, the idea of the cycle of money shows that with the appropriate allocation of production units and of taxes the money is cycled inside the economy achieving the maximum dynamic of the economy. This paper is about Serbia's s index of the cycle of money. The research is based on an actual case scenario of a country's economic system. Therefore, the principal hypothesis of this paper aims to estimate the index of the cycle of money of Serbia and to answer the question if it's near the worldwide general index of the cycle of money, according to the simple index or the general index of the cycle of money. The applied approach is based totally on mathematical estimations from the relevant theory. The results confirmed that Serbia's economic system is properly established, as it follows the general international index of the cycle of money (the value of 0.5) which represents the average global case (Challoumis, 2018a) The countries near 0.5 and above it has an appropriate distribution of money to their financial system. Consequently, Serbia's economic system is considered as well established, standing on the results of this paper. The question about the way that works the index of the cycle of money to the case of Serbia is answered from the structure of its economy and the way that distributed the money to its economy. Besides, it needs some improvements to have an even better index cycle of money. Therefore, Serbia should decrease taxes for small and medium enterprises, to achieve better reuse of money in the country's economic system, and to increase taxes to big and international (OECD, July 2017).

2. Literature review

The arm's length principle is the principle where the authorities use to apply the taxes to international and to groups of companies. The arm's length principle is the method that the tax authorities estimate the tax obligations of the companies, which participate in international transactions (IMF, 2018).

The authorities using the arm's length principle is tough to obtain the controlled transactions, as the international companies offer similar data with that of the uncontrolled transactions and they are hiding with a purpose to avoid paying taxes. Therefore, the government needs to apply the fixed-length principle. The fixed-length principle indicates that the companies of controlled transactions manage transactions and achieve to avoid tax paying. Then, according to the fixed-length principle, international companies should pay plus a fixed amount of tax (IMF, World Bank & WTO, 2017) In that way, the cycle of money is enhanced, because the larger companies generally receive the money out the society and the economy and save them to international banks. Therefore, that money is lost from society, making weaker consumption. Then, according to the fixed-length principle, the local companies which save their money to local banks should have lower tax rates.

Concluding, the fixed-length principle serves the theory of the cycle of money, where the small and medium companies are paying lower taxes than the larger companies, which substitute their commercial activities. On the other hand, the arm's length principle estimates the taxes standing on methodologies provided by the companies that make international transactions. In that way, the large companies cover the activities of the smaller companies. Finally, the mainstream is that small and medium companies robust the distribution of money to a country's economy as usually they don't save their money out of the country's economic system, and reuse the money inside the economy. Therefore, the money distributed inside the economy many times increases the cycle of money.

3. Methodology

$$c_y = c_m - c_\alpha \tag{1}$$

$$c_y = \frac{dx_m}{dm} - \frac{dx_m}{da} \tag{2}$$

$$i_{cy} = Y * b_d \tag{3}$$

$$g_{cy\ Country} = \frac{c_y\ countryts}{c_y\ Average + c_y\ countryts} \tag{4}$$

$$g_{cy\ Average} = \frac{c_y\ Average}{c_y\ Average + c_y\ Average} = 0.5 \tag{5}$$

The c_m is the velocity of financial liquidity, c_α is the velocity of escaped savings and c_y is the cycle of money. The i_{cy} is the index of the cycle of money, Y is the national income or GDP, and b_d is the bank deposits of the country. Moreover, $g_{cy\ Country}$ symbolizes the general index of c_y of the country, $c_y\ countryts$ is the index of c_y of the country, and $c_y\ Average$ is the global index of c_y . Finally, $g_{cy\ Average}$ is the general global index of c_y , and is obtained as a global constant.

Therefore, the main hypothesis is to establish the connection between the index of global average c_y , the bank deposits and the GDP per capita, with an econometric approach. Then is confirmed the initial hypothesis that the cycle of money of Serbia is close to the global average index of the cycle of money.

4. Results: The case of Serbia

Standing on the prior methodology extracted the following results. This table includes the parameters of bank deposits, GDPs, and the indexes of the cycle of money. This section reveals the dependence of Serbia's index of the cycle of money using the bank deposits of Serbia's economy and the GDP per capita of Serbia's economy. The bank deposits of the global average case and the global GDP per capita are used for the comparison of Serbia's economy, on its GDP, and the country's bank deposits.

The same conclusions come up and from an econometric point of view, with the dependent variable to be the index of the cycle of money.

Table 1. Serbia's regression analysis (Source: author's compilation)

Variable	Coefficient	std. error	p-value
Constant	-228317	28943.2	0.0157
Serbia's bank deposits	40.4342	1.02970	0.0006
Serbia's GDP per capita	5755.89	415.761	0.0052
Global index of cycle of money	-0.281025	0.748622	0.7434

To the prior table, the values with two asterisks symbolize the cases that the coefficients are below the 0.05 significant level, and accordingly the three asterisks the case of 0.01 significant level.

The indexes reveal Serbia's distribution of money and the form of its economic structure. The first three rows of the table reveal that the p-value is important, therefore the initial hypothesis rejected and the model is accurate. The fourth row is expected to be above the 0.1 p-value as the global index of cycle of money is independent from any country's rate, as to the most cases, a country has a very small amount to the aggregate value. Based on those estimations and the theoretical background is determined the condition of the economic structure of the country and if Serbia belongs to the good economies. According to these results, it's plausible to clarify the condition of the cycle of money in Serbia (bank deposits of years 2016 and 2017 are waved according to the trend of prior years, because of lack of official data):

Table 2. Serbia's index of the cycle of money
(Source: Globaleconomy.com and author's compilation)

Year	Bank Deposits Global Average (%)	Bank Deposits Serbia (%)	Global GDP per Capita (\$)	Serbia's GDP per Capita (\$)	Index of Global Average Cy (\$)	Index of Serbia's Cy (\$)
2012	52.48	40.3	16,653.01	14,941.76	873,949.96	602,152.93
2013	53.96	40.02	17,266.62	15,448.96	931,706.82	618,267.38
2014	55.81	41.99	17,159.02	15,274.94	957,644.91	641,394.73
2015	59.38	43.24	15,295.71	15,627.95	908,259.26	675,752.56
2016	60.77	43.61	15,330.03	16,234.50	931,605.92	707,986.55
2017	60.07	43.64	15,082.49	16,664.06	906,005.17	727,219.58
RESULTS					5,509,172.04	3,972,773.72

For Serbia's bank deposits:

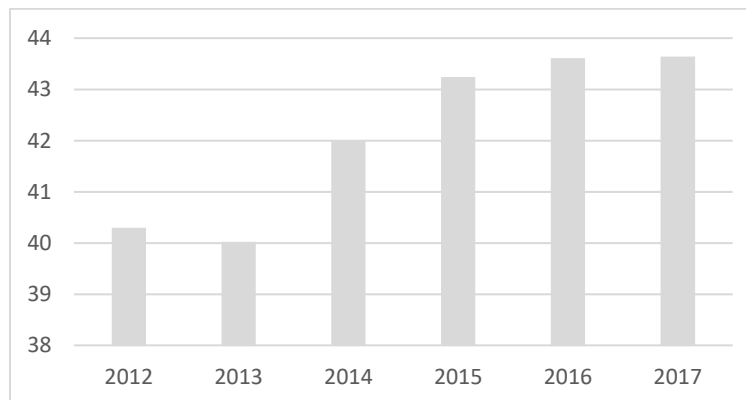


Figure 1. Serbia's bank deposits per GDP (Source: Globaleconomy.com)

To Figure 1 presents the situation of bank deposits of Serbia's financial system, as a percent of GDP, for the period from 2012 to 2017. Moreover, the next scheme presented the GDPs of Serbia:

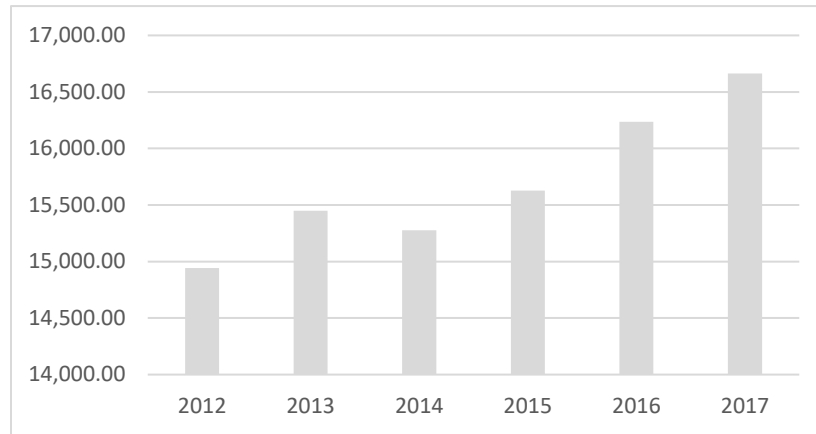


Figure 2. Serbia's GDPs per capita (Source: Globaleconomy.com)

Figure 1 presents the condition of GDPs of Serbia's economy for the period from 2012 to 2017. Also, the next scheme presents the GDPs of Serbia, for the same period.

According to the prior results, the index of Serbia's c_y is 3,972,773.72 \$

We obtain from the prior results that:

The index of global average c_y is 5,509,172.04 \$

Calculating the general index of the cycle of money for the case of Serbia and of global view we have that:

- The general index of c_y for Serbia is $g_{cy\ country} = 0.419$
- The general index of c_y of global view is $g_{cy\ Average} = 0.5$

Therefore, it is concluded that Serbia's index cycle of money is close to the global average cycle of money. Then, the dynamic of Serbia's economy complies with the global average and its structure is near to the initial hypothesis. Then we receive the next scheme:

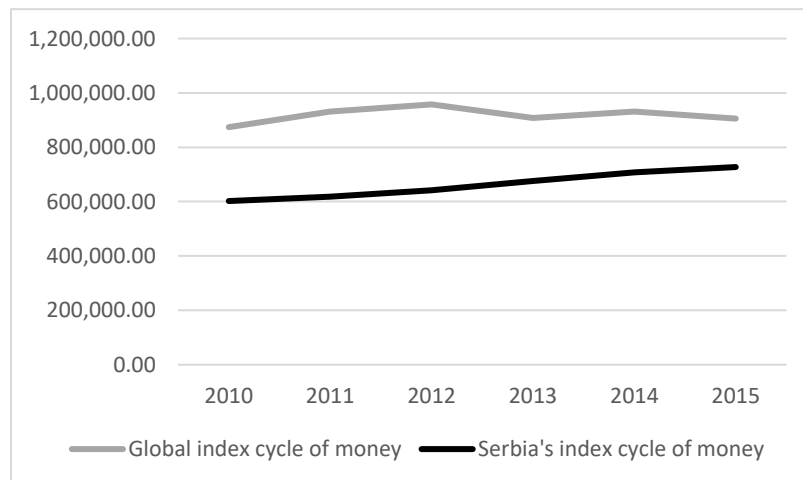


Figure 3. Graph of the index of the cycle of money (Source: author's compilation)

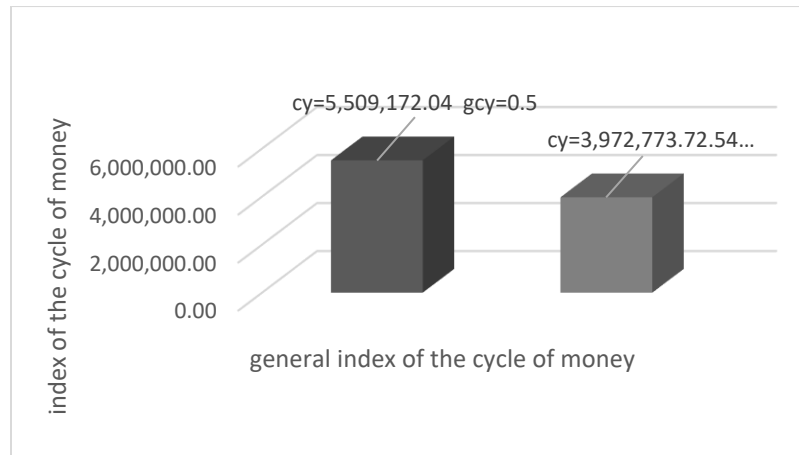


Figure 4. The cycle of money indexes (Source: author's compilation)

To the prior scheme is presented the combination of the index of the cycle of money with the case of the general index of the cycle of money. It is represented the affiliation between the global average indexes and Serbia's index. Serbia is part of the countries which are moderate according to the global average index of the cycle of money (both for the simple index and general index).

5. Concluding remarks

Based on the outcomes of the table, Serbia may be under, but near the worldwide average index of the cycle of money. Using Figure 3 and Figure 4 the index of the cycle of money is close to the worldwide average of the index of the cycle of money, displaying that Serbia's distribution of money is to a medium rate. Economies with low cycle of money are considered that are below the 0.2 general index cycle of money. The cycle of money of the country needs a better distribution of money. The losses of the local banks are to a moderate degree due to the fact an amount of money is excluded from the local financial system by worldwide transactions.

The interpretation is that this financial system belongs to the medium level of the cycle of money, then there is a medium dynamic, because the structure of the economy may be improved, with decrease taxes to the small and the medium companies, and increase of taxes to the bigger companies. Additionally, the bigger companies have to provide economic activities that smaller businesses can't support, then the authorities ought to imply low taxes to know-how companies and factories. Therefore, large companies must no longer replace smaller businesses' activities. The investments of a country are boosted by the increase in the distribution of money. A country with a well-based economic system is a country with a good cycle of money and therefore it can face an economic crisis. Serbia's economic system is under, but near the index of common GDP per capita, from 2012 to 2017 using the index of average GDP per capita.

The current model complies with the initial hypothesis, showing the distribution of money to Serbia's economy. Serbia's economic system has a tendency in the last years to have better reuse of money withinside the financial system than in the past, as tends to have closer characteristics to a financial system which complies better with the idea of the cycle of money. Finally, Serbia's financial dynamic is medium according to the worldwide average cycle of money.

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The author declares no competing interests.

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Forest Policies and Management Issues for Economic Prosperity: Non-Timber Forest Products in Nepal

Sabina Maharjan

Singhania University, Rajasthan, INDIA

Megh Raj Dangal

Kathmandu University, School of Arts, NEPAL

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Abstract

Non-timber forest products are of great importance to large numbers of people whose livelihood depends for forest resources. With recognition of NTFPs contribution in livelihood and economy, many countries' forest policies have been revised with inclusion of NTFPs development provision to certain extent. Still, most of policies including Nepal have failed to address the role NTFPs in poverty reduction. The study aims in analyzing the existing forest policies regarding non-timber forest products and the conservation and management practices being carried underlying the livelihood development of rural dwellers. Along with literature review, interview with user groups and elite persons was carried out to understand the development plan from government and community level. Herbs and NTFPs Development policy is responsible in sustainable conservation of NTFPs promoting their commercialization, still the policy reserves space for implementation. The study urges the effective role of government in NTFPs sustainable conservation and management process to promote livelihood of forest dependents.

Keywords: NTFPs, forest policy, sustainable conservation, management, livelihood.

1. Introduction

Non-timber forest products (NTFPs) consumption has been a global matter to sustain livelihood of forest inhabitants along with the promotion of sustainable forest communities (Cavendish, 2000). They, even considered minor products, are the most important tool in enhancing forest-dependent livelihoods and biodiversity conservation. Utilization of NTFPs in sustainable manner fosters the conservation of natural ecosystems (Shabhaz et al., 2007). Their ecological, economic and cultural importance is also remarkably recognized (Mbuvi & Boon, 2008). In order to combat ecological destruction occurred owing to forest destruction, forest policies from the authority level along with public participation can be a boon to such challenges (Boon & Ahenkan, 2008). NTFPs are recognized to have great value in economy development of most countries and 80% of world population is estimated to depend on these products (FAO, 1997).

Even bearing immense prospects and potentiality, the NTFPs are undermined within the forestry legal framework in most of the developing countries (Wynberg & Laird, 2007). Forest policies of most of the countries place NTFPs as minor products, hence, prioritize the timber forest products only (Gautam & Devoe, 2006). Even the local people and forest dwellers are found utilizing timbers as of economic importance and the contribution of NTFPs is overlooked. Policies also have emphasized the value of timber woods and introduction of plan for NTFPs management and utilization has been new attempt for many countries (Perez & Byron, 1999). Most of the discourses have focused on the development and promotion of timber, even though their destruction is more severe than of NTFPs whereas they lack mentioning the ecological and livelihood contribution of non-timber forest products.

Currently NTFPs have made their valuable space in market creating opportunity for economy development along with conservation and sustainable harvesting challenges. Lack of concrete policies and unawareness of people hold back the development of non-timber forest products. However, with the commercial and subsistence recognition of NTFPs, developing countries are attempting to revise the existing forest policies to address their contribution and necessity of their development for poverty alleviation and biodiversity conservation (Larsen, 2002). Many researchers have also highlighted their contribution in sustainable promotion of rural livelihood and ecosystem.

Legal procedures related to Non-timber forest products collection, processing and marketing are found to be less effective and poorly implemented because of which these products are encroached unsystematically causing biodiversity destruction. Random pricing on the products also results in unequal distribution of profit among the stakeholders involved in non-timber forest products activities. For the same also no agencies are concerned. The research can play effective role in bridging the gap in policy implementation and emphasize on need for the management of non-timber forest products.

With the analysis of role of users as essential instrument is sustainable conservation, the government moved towards the adoption of community forestry. There have been different legislative changes with the aim to hand over the forest to local users and empower them to manage the resources along with their livelihood (Acharya, 2002). However, the forest policies introduced for the development of resources generally focused on timber woods concretely undermining the essential source of forest for livelihood and conservation.

Hence, the study purposes to assess the existing forest policies regarding Non-timber forest products and the conservation and management practices being carried underlying the livelihood development of rural dwellers.

2. Research methods

2.1 *Study area*

The field study conducted for the research is carried out in community forests of two districts of Nepal, namely Lalitpur district and Dolakha district. Lalitpur district lies 11 km from capital city whereas Dolakha district lies 150 km away from the city area. The study aims in assessing the conservation and management practices for the promotion and development of NTFPs in study area. People of both districts utilize community forest to harvest forest products at least for their livestock and for their subsistence and trade to some extent. The field conducted in district near to city area and in remote area enabled us to study awareness of user group towards the importance of non-timber forest products and mechanism of their utilization along with management practices.

2.2 Sampling

To know the concept regarding conservation and management policy in the selected districts focus group discussion and key informants' interview were carried out. Purposive sampling is followed for qualitative approach so that the respondents are selected intently who are supposed to provide reliable and relevant information. The key informant's interview was carried out with elite personals of the community which included members of district forest office, chief persons of community forest and traders of the study area. For focus group discussion, the community user groups utilizing the resources for their livelihood purposes along with district forest officer and chief members of community forest were interviewed.

3. Research design and tools

The study followed a qualitative research design so as to obtain the in-depth information to our objective. Qualitative research can best provide the information on emotions of respondents that statistical data hardly provides. The questionnaires and guidelines for focus group and KII were prepared beforehand, but were extended as per the requirement in the field. The key personals contributing to the development of community rigorously who are concerned with the status of natural resources were targeted for the interview. The information solicited included the utilization of NTFPs as their livelihood source, their conservation and management practices and forest policies knowledge that guide the process related to resources and their management.

4. Data analysis and interpretation

Since the study follows qualitative method to meet up the objective. The key persons having the idea of NTFPs development and government policy were interviewed. The knowledgeable person's response is more authentic and relevant to obtain useful insights for the enquiries. The responses obtained from the interview with key personals and focus group were transcribed and coded. Their narration was related with the literature that supports in the management of forest resources.

5. Ethical consideration

Whole research was carried out maintaining the ethical concern. The researcher was conscious in maintaining the confidentiality according to participants' wish in the case of data collection and process. The recording of the interview was carried out with respondents' acknowledgement. Any incident or phenomenon that could prove harmful for respondents is not included in the research findings. The consent was informed regarding the purpose of research and consequences of its outcomes. The liberty of withdrawal of participation at any stage of the research was allowed with respect. Information was confined to study investigators and relevant authorities.

6. Result

6.1 *Impact of policy on livelihood of forest communities*

The utilization of available Non-timber forest products by people residing in the vicinity of forest areas to fulfill their livelihood need is great concern across the global. Ranging from the supplementing food nutrition to treatment and income generation, the NTFPs have crucial role in rural lives. Even the significant contribution of NTFPs is recognized, extinction of

valuable resources and their conservation is less prioritized in developing countries. NTFPs have always been the agenda of discourse of international development policy, still there is no effective international policy that could address the management debates on NTFPs around the world (FAO, 1995). A Forest policy in terms of NTFPs in Nepal addresses the resource with minor priority and even the existing policies working on non-timber forest products lack in implementation as well.

In recent years, NTFPs have gained attention and importance in the forestry sector both as sustainable livelihood options for rural people and the source of revenue generation for the government having less impact on environment. There has been progress in the management for this sector and adopted different NTFPs related policies in order to promote and develop them to enhance livelihood of forest dependents. The policy working on NTFPs development with conservation motive is Herbs and NTFPs Development. The Herbs and NTFP Development Policy for NTFPs management was introduced by the Government of Nepal in 2004 (HMGN, 2004). Pertaining to the growing trade on NTFPs, mostly medicinal and aromatic plants, the various stakeholders felt that there is need of policy for the management of NTFPs resource for long term utilization.

The Herbs and NTFPs Development Policy, 2004, focuses on sustainable management of the NTFP sector in Nepal and retain its resource for long. For the purpose, it sets out some objectives purposing the rise in economy at local and national level. It aims harvesting the maximum economic benefits with sustainable management of wild species and promotes employment opportunities for rural communities underlying their poverty issues. With the intention of poverty alleviation, domestication and commercialization of valuable species is supported with capital, skillful training along with technical knowledge and market information.

Domestication is carried out in both districts as per their knowledge and efforts of CFUGs. Lalitpur district has domesticated broom grass but its commercialization is not promoted as they find the market approach procedure very expensive and neither government nor any organizations have been supportive for the matter. As such, DFO of Lalitpur, said:

“We know there is good possibility of NTFPs in the market, but it is expensive approach. No other sectors play constructive role in reaching the market and our attempt alone is not sufficient enough. So, the people are engaged in the collection basically for subsistence rather than for domestication.”

Commercialization of non-timber forest products is encouraging researchers for coupling the concern of rural livelihood over the concern of biodiversity conservation (Jensen & Melleby, 2008). Commercialization is always noticed as means of livelihood improvement and biodiversity conservation; however, the concept seems less practical in terms of action as the rural people's attempt cannot succeed without governmental and organizational support. They lack knowledge on NTFPs ecological requirements to be supplemented, hence, resulting in poor harvesting. As such,

“We domesticated some of medicinal plants like Pakhanved and Chiraito. We could not continue the domestication of Pakhanved because domesticated production was of low quality and could not fetch any benefits as we could not meet the market needs.”

The Herbs and NTFP Development Policy focuses on raising the economy of the country and improve living standard of forest communities through commercialization and trade of economically valuable NTFPs. The policy is also responsible in developing national and international marketing networks and its information promoting the establishment of national and regional market information centers. Companies are set up for the processing of such herbs under the license of the government to ease the procedures. The policy still does not address much regarding the conservation practices for NTFPs pool. Concrete policy is still demanded for the

management and conservation of NTFPs resource to maintain their existence benefitting the local people at maximum level.

7. Public participation in conservation and NTFPs development

To conserve forest resources, the resources itself can be an effective tool. The awareness of importance of non-timber forest products encourages communities to conserve the resources to retain them for future. The utilization of Non-timber forest products is reported to have ecologically less effect than timber exploitation. The ecological sustainability of the NTFPs harvest can manage the long-term availability of these resources. The impact of NTFPs harvesting from subsistence to commercialization purpose creates pressure on individual species as well as on whole ecosystem.

Modern means of extraction and transportation have overexploited the species with great impact on their existence and have decreased sustainability harvest. Domestication can be effective tool to promote economy through commercialization in parallel with their conservation. This maximizes the harvesting of economical plants deducting the degradation of these species, maintain their natural existence and support in cash income. Domestication of NTFPs will increase the economic and ecological advantages in case it is carried out effectively.

Few community user groups of Suspa CF of Dolakha district domesticated some of medicinal plants like Pakhanved and Chiraito, and commercial plants like Argeli and Lokta. They could not continue the domestication of Pakhanved because they could not provide the ecological requirements so that the domesticated production was of low quality. Because of knowledge deficit, they could not identify the reason, nor any concerned organizations looked after the reason, consequently had to quit the process.

Regarding Chiraito domestication, they have good economic value in market having great medicinal properties. They are exported internationally for medicine purpose from both districts; however, its production is also lessening because the production could not meet the market quantity. Respondents admitted that there is less quantity of the products that could meet the market requirements. This clarifies that the medicinal plants' status is deteriorating which requires the attention for conservation.

Similarly, in Lalitpur district, commercially Chiraito were grown including broom grass. The product is exported to China, but the product started being cultivated in China at large quantity which reduces its export and discouraged the domestication as well. Community user groups are now engaged in other plants cultivation on trial basis. For example, Mr. Thirnath Sapkota (Asst. ban adhikrit) stated:

“People of Lalitpur CF commercially cultivated *Swertia chiraito* as it possesses high medicinal value and are exported to China. Later, China itself started its cultivation, hence decreased its export from Nepal. Recently, CFUGs have started domestication of *Choerspondias axillaris* on trial basis for commercial purpose as well as conservation plan.”

As conservation policy, community forest regularly conducts plantation activities in which CF members also participate. Plants like *Shorea robusta*, *Alnus nepalensis*, *Schima wallichii*, bamboos are planted mostly which they utilize later in case required for housing purpose. Medicinal plants like *Zanthoxylum piperitum* have also been planted by Lalitpur district but the production could not be raised and they are not even able to identify the reason. In addition to the plantation activities; firebreak is made to prevent the forest from the fire as well as strict mentoring method is imposed to check out the illegal collection of species. As such, Safalta Pudasaini (23 years) said:

“Whenever we are called for afforestation, we actively participate. We also attend every meeting when called upon to receive information regarding forest conservation and other developmental plan. We also help in clearing out the unwanted plants which disturb the vegetation of the forest.”

Some community user groups of Dolakha district, encourage their community members in NTFPs collection sharing the benefits of available NTFPs in the forest in their subsistence. They have also planned raising the status of forest through scientific approach in conservation. They conduct training programs occasionally to aware the users and also initiate different developmental projects in the community. As such, chairperson of Thadlage CF, stated:

“We are going through different procedure in transforming community forest to scientific forest in future and we have been conducting different trainings to involve user groups in the process along with developmental activities.”

Rural people are continuously encroaching natural forest to overcome their daily basic needs. Continuous encroachment directly affects the status of forest resources. The resources become susceptible to the degradation resulting to the extinction. Along with flora, faunas are also at risk of extinction. It has been utmost necessary to formulate some rules and regulations with strict implementation to minimize their loss and maintain their natural stock. Certain policies must be imposed for their collection and other related approach procedure.

8. Governmental and organizational role

Common people do not possess concrete knowledge regarding conservation practices nor have any idea of policy imposed. They need to follow the guidelines. Concerned person from government should take initiation to make CFUGs aware on importance of forest resources especially NTFPs. User groups have less knowledge about NTFPs value because of which they do not consider their conservation as importance. Government authorities need to take steps to make community aware about their rights towards the utilization of natural resources along with their responsibility to conserve them. As per Soto et al. (2001) local communities meaningfully participate in conservation practices, in case they understand the benefit they gain from forest management.

The information received during household survey also revealed that they have no much idea of the governmental or other organizations’ steps taken beside afforestation program. As per CFUGs, no any organizations have contributed in conducting any awareness related to NTFPs or other conservation activities. Participants are not aware regarding the policy imposed for the collection and marketing of forest products. They collect the products as suggested by middlemen or DFO.

The government has affirmative policies regarding the use and function of the community forest. The issue in its effectiveness is lack of implementation of those rules by the individuals holding official position. The organizations are not approaching any program due to lack of enthusiasm of CFUGs to carry out any developmental or commercial programs. Governmental policies are revised at certain level but are not implemented. As such, Communication Officer, DFO, Dolakha district (Mr. Shambhu Baraili) stated:

“Government has revised its policies regarding non-timber forest products; however, the revised policies are not applicable. SWISS Nepal and ANSAB non-governmental organizations have worked for the development of NTFPs till 2010. Now the organizational institution is paying less interest because of fluctuation in market requirements and the government is not yet supportive to maintain the market reachable.”

Lack of human resources in the community also has led to less engagement of people in commercialization and market approach for commercialized products. Youthful and energetic manpower required for the NTFPs effective development and management lack in the community. Aged people are likely to contribute less in the development program. Apart from less human resources, government policies against some of the valuable species have limited the involvement of organizational agencies in market promotion eventually leading to less participation in conservation initiatives as well. For example, District forest officer of Dolakha district, said:

“Government has ban on some of the products in raw or processed forms. It has discouraged their participation. Now the community also lacks human resources as well since youths have started migrating to city area and abroad for employment and only aged people are left in the rural community who participate less in NTFPs development procedure.”

Nearly 15,000 species of the world’s MAP species are threatened due to overharvesting, land conversion and habitat loss (Schippmann et. al, 2006). Sustainable harvesting procedures could lead community members to manage the resource pool maintaining their benefit from it. The government even though having certain affirmative policies regarding the use and function of community forest, less effort is provided to spread awareness rights of communities towards their utilization and conservation responsibility.

It is difficult for local people to identify the valuable NTFPs; knowledgeable person within the area or government sector in case appointed to identify those resources, communities should not have to depend only on few species that cause threatened to biodiversity. Forest livelihoods can be better enhanced by the optimal use of NTFPs through domestication (Arnold & Ruiz Perez, 2001). Harvesting of different form of species help rural community to diversify their livelihood. For example, a chairperson of Thadlage CF of Magha, Dolakha District (Mr. Prem Bahadur Shrestha) said:

“A very rare activities have been taken for the conservation of the useful resources as there has not been any serious steps taken by the forest department and other government sector yet. Engaging expert individuals for the identification of NTFPs resources can be economically beneficial leading to employment opportunities for CFUG members and do not have to depend only in agriculture.”

Governmental sector has to be more responsible in formulating strong basis for conservation of natural resources. They should have division of area and engage expert within the selected area for actual implementation of policies and identify the useful multiple resources. Along with organizational involvement, establishment of forest-based enterprises could help providing communities with employment, hence, encouraging in NTFPs management. Creating employment opportunities to community people it assists in raising economy even at national level promoting international export of the products. Enterprises also motivate them in cultivation and commercialization of the products that have market value and are about to decrease in nature leading to their conservation.

9. Discussion and conclusion

Both national and community-based forestry programs in Nepal have mostly focused on management of forests through sustainable use of timber and fuel wood, where the Master Plan for the Forestry sector, 1998, has been the major guiding document (Chaudhary, 2000). The Forest Act 1993, the Forest Regulation, 1995 and amendments that are published in various government documents have been the major regulatory documents for forestry sector, including NTFPs, in Nepal. In recent years, NTFPs have gained attention and importance in the forestry sector both as sustainable livelihood options for rural people and the source of revenue generation for government having less impact on environment than timber. Recognizing the benefits of non-

timber products in sustainable livelihood and ecosystem conservation, progress in the management for this sector is initiated but still with less priority.

The significant contribution of forest resources is noticed by policy-makers and different stakeholders emphasizing of timber products. The policy formulated for NTFP states the key role of the government to facilitate and regulate collection, cultivation, production and processing of NTFPs in collaboration with cooperatives and the private sectors. Many communities, however, lack the enterprises because of which the processing of valuable NTFPs is not possible and have to trade raw form of products. It has been reported that more than 90% of NTFPs are traded from Nepal in raw form to India and other countries (Edwards, 1996) and we have to depend on developed countries for processed products on high prices.

Establishment of forest-based enterprises could solve the issue of dependence on developed countries at certain level. Their development also helps in marketing and trading of valuable products supporting livelihood of marginalized group. Most of the valuable NTFPs are found in hilly and mountains where the transportation is major hurdle in development of enterprises as infrastructure are difficult to manage. However, small scale enterprises can be institutionalized with the assistance of the government.

Even with less importance, NTFPs are placed in policy section by Nepal government. There is utmost need of the formulation of specific NTFPs related policies as the earlier developed are less in implementation as majority of lives of rural in developing countries is sustained by natural resources. Rural people are found utilizing the forest products for food, medicine, energy, etc. as they are taken granted as the means of coping hard times to fulfill their basic needs. Owing to no or less agricultural land and livelihood options, rural people are found depending on forest resources unsystematically causing threat to their existence.

Recognizing the community dependence on forest products especially non-timber forest products, public participation in conservation of forest resources was noticed, so as Community Forestry program was introduced 1978 to assist Department of Forest (Gilmour & Fisher, 1991). The national forests under the Department of forest were handed over to community groups with the motive of biodiversity conservation as well as benefit themselves with those resources. Every year 1.3 million hectares of forest is estimated to be destructed for development, agriculture and timber (FAO, 2010). Because of limited land access and conversion of forest into agricultural land, deforestation has increased in rapid pace to meet up their livelihood requirements.

Since the collection is made directly from wild, there is quite chance to get these products degraded at natural ground. Public awareness towards sustainable harvesting of forest resources can assist in retention of forest resources. Domestication is the best technique to promote and conserve those resources. Clear policy with regards to domestication and conservation can help in sustainable conservation as well as livelihood. The government and different organizational institutes should facilitate the process in collaboration with private cooperatives or enterprises. Communities should be encouraged to cultivate the wild species with certain incentives as motivation so that pressure on natural stock is reduced. The knowledge of biological and ecological requirements of NTFPs can help them cultivate them sufficiently as market demands and harvest the profit. Market information should be conveyed to them as per the requirements so that the resources trade is enhanced supporting community's livelihood status. Systematic harvesting of economical plants can be suggested to user groups for sustainable conservation that can hold up their economic status.

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Dark Tourism in the EU: Are We Aware of Taking Part in It?

Nikolina Juranović & Iva Slivar

*University of Juraj Dobrile, Pula, CROATIA
Faculty of Economics and Tourism “Dr. M. Mirković”*

Sanja Kovačić

*University of Novi Sad, SERBIA
Department of Geography, Tourism and Hospitality*

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Abstract

Dark tourism attractions and sites are gaining increasing attention, whereas dark tourism is considered one of the relatively recent and growing trends in the turbulent tourism market. Along with providing a theoretical framework, this paper aims to explore the tourism market of dark tourism and the motives of tourist demand. The perspectives of the population of the Republic of Croatia on dark tourism as a concept as well as the offer side of dark tourism are presented. These findings will be useful in designing and improving this kind of tourist offer, which also represents the main purpose of this paper. The research instrument was an original questionnaire. The main hypothesis of research refers to insufficient tourists' awareness of their participation in dark tourism, which was confirmed by the carried research. The new frontier of research refers to their propensity of visit in case they would be aware of the tragic history related to a site; namely if they knew a site they visited previously is classified as a dark tourism site – would they still have chosen to visit it?

Keywords: dark tourism, Europe, Croatia, awareness of participation.

1. Introduction

Dark tourism is a specific form of tourism that involves travel to places where tragic, morbid or gruesome events have occurred as well as to places that have just been brought in connection with them (Foley & John, 1996).

Vukonić (2010) states that “tragic events in the history of mankind attract today’s generations of tourists in all parts of the world, with almost the same intensity as the bright events and successes of mankind.” The increase in revenues and higher living standards have influenced an increase in travel intensity, so traveling has become an integral part of life. The requirements of tourist demand are increasing and tourists no longer need a traditional holiday but require a new tourist product.

The concept of dark tourism has gained considerable popularity at the very end of the 20th century. Today, there are numerous locations marked by disasters, suffering and human death, which are, at the same time, of interest to modern tourists. The increase in demand for dark tourism can also be attributed to the advancement of information technology through which all news and information from the world are constantly available. Facebook and Twitter are just some of the social networks through which tourists get information and which draws people's attention to places of disaster and conflict (The Conversation, 2016).

The main aim of this research is to examine the familiarity of the local population in the Republic of Croatia with the very concept of dark tourism and attitudes towards it. The aim is to investigate the previous involvement of the local population in the travel of this type and as well as to get information about destinations that have been visited. One of the study aims is also to explore the possible motives for such trips. Moreover, the study intends to explore the familiarity of residents with the tourist offer of dark tourism in the European Union. The study will help in determining whether there is a desire among respondents to participate in dark tourism and what is their perception of the possible growth/decline of interest in tourist demand for this tourism form. This research intends also to contribute to a better understanding of the existing but also potential tourist demand in dark tourism.

The paper consists of five chapters, including an introduction and a conclusion. In the second chapter, upon a key summary, the literature review will focus on dark tourism within the EU. The third part refers to the research methodology where the main instrument was the original survey questionnaire, while the results of the same are presented in the fourth chapter. The last chapter deals with concluding remarks.

2. Literature review: Dark tourism in the EU

New ideas and opportunities are quickly being adopted by the tourism industry. However, connecting tourism and the dark side of humanity at first glance seems like an incompatible pair and the question was whether there is a way to connect them at all (Hooper & Lennon, 2017).

Seaton and Lennon (2004, in Sharpley & Stone, 2009) state that dark tourism has existed since the very beginnings of tourism and that the demand for dark tourism has grown in parallel with the expansion of the tourism industry in the middle of the last century.

Stone (2005) considered traveling associated with death and suffering to be an old concept in the new world and states that some of the earlier journeys associated with dark events were to witness gladiatorial games.

Seaton (2009, in Stone, 2010) believes that Christianity, antiquarianism, and romanticism are three key historical periods of dark tourism. People used to take part in religious pilgrimages to feel the presence of God, think about the meaning of life and death, and escape from everyday life. Under the influence of increasing secularization, there was a reversal in the motivation of tourists to visit cemeteries, churches and holy places. Hedonism, fascination with death, and education have become strong motivators, and religion and spirituality did not remain the primary reasons for visiting certain attractions as reported by MMNieuws.nl (2016).

The term dark tourism is introduced into the academic literature as a consequence of the emergence of an increasing number of dark attractions, which laid the foundation for further research of this term (Stone, 2005). Numerous theorists have recognized the growing interest of tourist demand for dark travel, so, consequently, they have begun to research the phenomenon to understand the same Lennon and Foley (2007).

2016): The typology of dark tourism encompasses several dark tourism forms (Fonseca et al.,

- War tourism – which involves travel to war zones for sightseeing and education, seeking evidence of conflict (e.g., Waterloo, 1815);
- Disaster tourism – which includes travel to places marked by a natural disaster or a disaster caused by human error. (e.g., Pompeii);
- Prison tourism – visits to former prisons accompanied by a dark and / or important history (e.g., Alcatraz);
- Cemeteries – visiting cemeteries or individual graves (e.g., Pere Lachaise);
- Ghosts – travel to locations associated with the paranormal (e.g., the Tower of London).

There are many dark attractions and the typology of dark tourism according to the tourism supplier, can be divided into seven dark suppliers, as follows: Dark Fun Factories, Dark Exhibitions, Dark Dungeons, Dark Resting Places, Dark Shrines, Dark Conflict Sites and Dark Camps of Genocide (Stone, 2010).

Kesar and Tomas (2014) claim in their paper that “apart from gaining income and employment of the local population, the commodification of historically sensitive facts related to tragic events ensures a kind of attractiveness of these localities and continuity of the number of visitors.”

There are five categories of dark travel activities of this type, and these are (Seaton, 1996, in Stone, 2010):

- travel to witness public executions,
- trips to visit the sites of individual or mass deaths,
- trips to memorial sites, cemeteries, crypts, etc.,
- travel to relive some events or simulate death,
- visiting places that are not the original places where some dark events take place, but which are brought in connection with the same as war museums, etc.

Vukonić (2010) finds it fascinating that “one of probably the most intriguing issues in tourism is that the motivation for tourist travel turned: from positive to negative.” The motives for participating in dark tourism are numerous and some are experiencing a spiritual or retrospective experience, checking and confirming the truth of some events, satisfying the need for authenticity, self-discovery, and learning, the desire to visit places where some important events took place, curiosity, meeting with victims, etc. (Dunkley, 2006, in Robinson, 2015). Experiences that dark tourists can feel are, for example, insecurity, humility, gratitude, and superiority (Tarlow, 2005 and Stone, 2005).

Moreover, literary and film works are increasingly contributing to the importance of dark attractions. Thus, the locations where e.g. The films *The Witch of Blair* and *The Exorcist* have become important tourist attractions (Reeves, 2001, Carl et al., 2007, in Strielkowski, 2013)

Europe has not only been a significant tourist region through the historical development of tourism but nowadays, it remained a leading tourist region (UNWTO, 2019). War destruction, natural disasters and various legends create excellent conditions for the development of this form of tourism in many locations of the European Union, and at the same time, such locations marked by suffering, death and terror are causing an increasing interest in tourists to

demand. Among the most popular attractions of dark tourism are certainly: Waterloo in Belgium, Pompeii in Italy, Paris Catacombs in Paris, Auschwitz concentration camp in Poland, Anne Frank House in the Netherlands, Colosseum in Italy, etc.

The tourist offers also recognized that the interest in this tourism form is growing. Although larger tour operators do not have offers tailored to meet the requirements of this specific group of tourists, local tourism providers have found ways to make a profit. Costa Concordia in Italy can be taken as an example. The news of the catastrophe with many fatalities went around the world in a few moments. Giglio Island, a place unknown to most people, suddenly found its way into all the media. Not long after, the first interested people began to come to the small island to see the largest passenger ship ever sunk. The Telegraph (2014) states that tourists were offered boat tours lasting an hour for the price of 10 euros in which tour organizers guaranteed tourists to observe and tour the shipwreck from close range. The Daily Mail Online (2012) states that the mayor of Giglia, Sergio Ortelli, confirmed a noticeable increase in the number of visitors which contributed that the island itself has become a kind of museum. But interest in the Costa Concordia did not diminish even after dragging her to Genoa where she was supposed to be destroyed. The Daily Mail Online (2014) states that local businesses in Genoa recognized the potential for further earnings and then also began to offer boat tours of the wreck, and many accommodation facilities and restaurants in their offer also emphasized the “view of the Costa Concordia” to attract more tourists.

3. Methodology and data

The instrument for researching the attitudes and perceptions of the Croatian population was a questionnaire, both pen and paper and online survey. The survey consisted of 13 questions, three of which were related to the socio-demographic characteristics of the respondents, four questions were formed in such a way as to allow multiple-choice, four questions were closed, i.e.

The study sample is convenient, combined with a snowball sample technique, as respondents were asked to share the survey with their friends and acquaintances. All adults with their residence within the Republic of Croatia were targeted with the survey.

The survey was conducted during March and April 2017, and a total of 234 respondents completed the survey of which 9 or 3.8%, respectively, were excluded because of the incomplete surveys. The results were obtained based on the total of 225 questionnaires.

There was a higher number of female respondents in the survey: 139 or 61.78% were female and 84 or 37.33% were male. Two respondents did not state gender, and they represent 0.89% of the sample.

The respondents were divided into four groups. The first group refers to respondents aged 18 - 34 years, the second group includes respondents aged 35 - 49, the third group represents persons aged 50 - 65 years, and the last group refers to respondents aged 65+. Respondents who did not state their age were grouped separately.

The sociodemographic characteristics of the respondents are shown in Table 1.

Table 1. Sociodemographic characteristics of respondents (Juranović, 2017)

Gender	%	Education	%
Male	37.33	Elementary school	0
Female	61.8	Secondary school	52
Missing data	0.89	High school	11.56
		Faculty/master/PhD	36
Age	%		
18 – 34	47.56		
35 – 49	27.11		
50 – 65	19.56		
65 +	5.33		
Missing data	0.44		

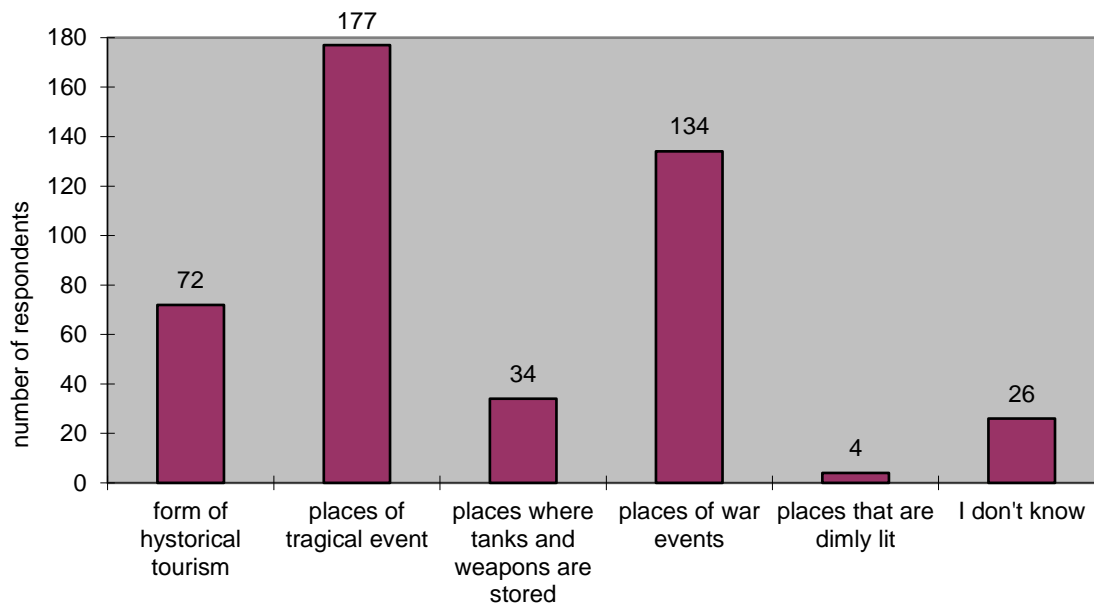
Out of a total of 225 respondents, the highest number of respondents – 107 or 47.54% – is the group of respondents aged 18-34. The smallest number of respondents is in the age group of 65+ years (5.33%).

Over half of respondents have finished secondary education (52%). The higher school has been completed by 11.56% of respondents, while the number of respondents with faculty/master/Ph.D. was 36%. There are no respondents without qualifications and with primary school.

4. Results

4.1 *The familiarity of respondents with dark tourism*

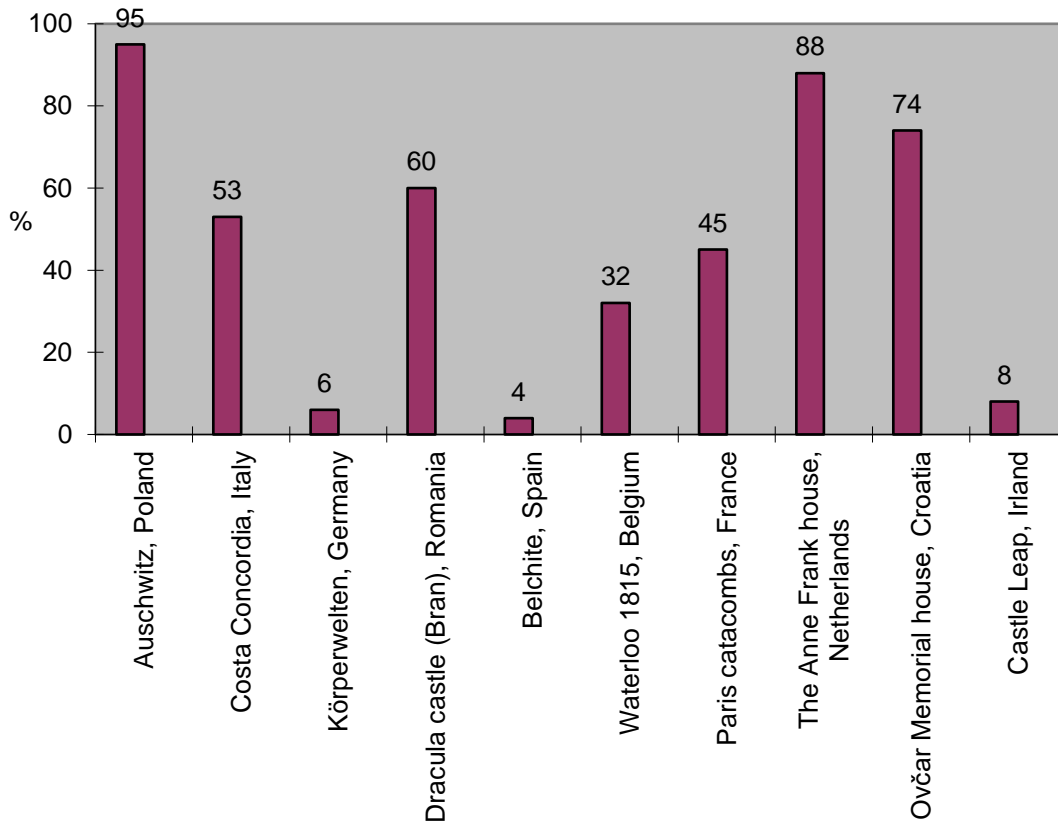
When asked about the definition of dark tourism, respondents were offered a multiple choice of answers and the respondents had to circle those answers that they consider to best fit with the description of dark tourism.



Graph 1. Definition of dark tourism (Juranović, 2017)

According to Graph 1, the largest number of respondents (78.67%) would define dark tourism as a place of tragic events. Afterwards, the majority of them connect dark tourism with places of war events (59.56%) and historical tourism (32%). The smallest number of respondents believe that dark tourism is a place where tanks and weapons are stored and places that are poorly lit.

In terms of respondents' familiarity with the tourist offer of dark tourism in the European Union (Graph 2), respondents were asked to choose popular dark attractions in the EU they are familiar with. Given a large number of the Member States and the impossibility of offering attractions for each country, to maintain the simplicity of the survey, ten Member States with ten popular dark attractions were selected.



Graph 2. The familiarity of respondents with selected dark attractions in the EU (Juranović, 2017)

Respondents are most familiar with Auschwitz in Poland (94.67% of respondents). The next three attractions the respondents are most familiar with are the Anne Frank House (Netherlands), the Ovcara Memorial House (Croatia) (74.22%) and the Bran Castle (Romania) (60.45%). Almost half of the respondents had heard of Costa Concordia (Italy), while 44.89% of them have heard for Paris Catacombs (France). Körperwelten Exhibition (Germany) and Belchite (Spain) are the attraction respondents are the least familiar with.

4.2 Respondents' experiences and motives for visiting dark attractions

Further questions examined the respondents' experience with dark tourism travel. Respondents were asked if they have ever participated in dark tourism. One-third of respondents

have participated in this tourism form (32%) while 68% of them have not experienced dark tourism before.

Respondents who participated in this form of tourism were asked to write the dark tourism site they have visited. Out of a total of 72 respondents who claim to have participated in dark tourism, 45 respondents indicated the exact dark tourism site they have visited.

The most frequent answers were Auschwitz Poland (16 respondents), Ovčar Memorial Home – Croatia (10 respondents), Anne Frank House in Amsterdam – Netherlands (6 respondents), Mirogoj Cemetery in Zagreb – Croatia (3 respondents), Jasenovac – Croatia concentration camp (2 respondents) and Westerbork – Netherlands camp (2 respondents). Other dark attractions visited are Holocaust Memorial – Berlin, Germany, city tour of sites related to medieval torture, witch burning, etc. – Edinburgh, Scotland, Flossenbürg – Flossenbürg concentration camp, Germany, Waterloo 1815 – Waterloo, Belgium, Dracula's Castle – Bran, Romania and the Stara Gradiška – Stara Gradiška concentration camp, Croatia (1 respondent). This question was combined with the question of visiting specific tourist attractions that are representatives of dark tourism, where it was found that 2/3 of respondents visited a dark tourism attraction without being aware of its connection with dark tourism.

Furthermore, the aim was to investigate the purpose of the visit to the dark tourism destination (Graph 3), and whether participation in dark tourism was the primary motive of the trip or whether an attraction was only an additional destination of another trip. Out of the 72 respondents who participated in dark tourism, 84.72% indicated that the visit to the dark attraction was an additional destination during another trip, while 15.28% of respondents stated that participation in dark tourism was their primary destination.

The following questions were intended to explore respondents' interest in participating in dark tourism, as well as travel motives. Respondents were asked if they would like to participate in dark tourism, and if so, space was provided for writing desired destinations. Respondents who expressed a desire to participate in dark tourism represent 33.33% of respondents, those who do not want to participate in dark tourism represent 31.56%, while 35.11% of respondents do not care whether they would participate in dark tourism.

To an open-ended question in which respondents could write which destinations they would like to visit, 61 of them wrote an answer. There are eight answers in which the tourist attractions that you want to visit are not specified, but the countries are written in response (Germany (3 respondents), Romania (2 respondents), Croatia (2 respondents), Spain (1 respondent), Bosnia and Herzegovina (1 respondent), the Netherlands (1 respondent), Iraq (1 respondent) and Ireland (1 respondent)).

The largest number of respondents expressed a desire to visit Auschwitz (Poland), 27 of them. Furthermore, 3 respondents want to visit the Anne Frank House (Netherlands), four respondents want to visit the Paris Catacombs (France), Bran Castle (Romania) four respondents, Chernobyl) three respondents, Pompeii (Italy) one respondent, Dachau concentration camp (Germany) one respondent, Jasenovac (Croatia) one respondent, Srebrenica (Bosnia and Herzegovina) one respondent, National Memorial Museum September 11 – WTC (New York, USA) two respondents and battlefields one respondent. Nine respondents stated that they want to participate in dark tourism, but that they don't care about the location.



Graf. 3. Motives for the visit of dark tourism attractions (Juranović, 2017)

Respondents were given a choice of multiple answers to dark tourism motives (Chart 3). The largest number of respondents, 156 or 69.33%, chose understanding and learning about an event as the motive for the visit. Furthermore, 105 or 46.67% of respondents chose emotional experience and empathy towards victims as the motive for the visit. The smallest number of respondents chose the popularity of the tourist attraction – 37 or 16.44% of them, and the intrigue for death, suffering and catastrophes, i.e., fun and curiosity was chosen by 34 or 15.11% of respondents.

4.3 Respondents' perception of the development of dark tourism

The last group of questions concerned respondents' views on the potential of dark tourism in the Republic of Croatia, the development of dark tourism in the EU and the opinion of respondents on the decline/growth of demand for this form of tourism.

The following are the attitudes of the respondents about the possible development of certain types of dark tourism in Croatia. The majority of respondents, 169 or 75.11%, believe that Croatia has the potential to develop dark tourism in places of war. The development of dark tourism in former prisons and courtrooms was chosen by 39.56% of respondents. Furthermore, the potential for the development of dark tourism in cemeteries was indicated by 61 respondents, i.e., 27.11%, while 44 or 19.56% of respondents believe that Croatia has the potential to develop dark theme parks. The smallest number of respondents, 21 respondents, or 9.33% do not know which type of dark tourism has the potential for development in Croatia.

About the expected decline/growth of interest in tourist demand for dark tourism places, most respondents agreed that an increase in interest can be expected (70.67%), while respondents who believe that interest in dark tourism will fall represent 29.33% of the entire sample.

5. Conclusion

The increase in tourist trends, but also changes in the behavior of tourists and their interests have influenced the increase in demand for dark tourism. Motives for visiting dark attractions vary. While some seek entertainment and are motivated by an intrigue for death, others are interested in its educational character.

In the EU, one can find dark attractions that belong to the brightest spectrum, such as dark theme parks, all the way to those in the darkest category, such as mass murder sites. Thus, in the European Union, there are attractions associated with myths and legends such as haunted castles, cemeteries were celebrities or historical cemeteries rest, places of death of celebrities, former concentration camps, various museums, places of natural disasters, etc. The data on tourist trends available for individual attractions confirm the growth in demand for dark attractions. Attractions such as Pompeii, Auschwitz, the Colosseum in Rome, the Catacombs of Paris, etc., each year record an increase in the number of visitors and the prospects are such that this trend will continue in the future.

The research results are representative for the Croatian travel market. They indicate that a relatively small proportion of respondents have no idea what the term dark tourism means while most respondents are able to assume what dark tourism is and what dark attractions represent. Respondents' familiarity with the popular dark attractions in the EU is satisfactory. The vast majority of respondents are familiar with attractions that are globally recognizable dark attractions.

It is interesting to note that almost 2/3 of the respondents did not consciously participate in dark tourism, which was determined by linking the question of participation in dark tourism and the question of whether they visited certain tourist attractions of dark tourism. This research question requires deeper reflection and analysis of the causality of this phenomenon, which is recommended to be determined in future research. Only then, it will be possible to give clearer implications for practice.

In past experiences with dark tourism, it was found that the respondents who participated in dark tourism mostly, over 90% of them, visited attractions located in EU member states. Poland (Auschwitz) and Croatia (Ovčara Memorial Home) proved to be the two leading destinations visited by the respondents.

Opinions are divided regarding the interest in participating in dark tourism. About a third of the respondents want to participate in this form of tourism, one third did not express a desire to participate, while the last third of the respondents are indifferent. The destinations that have proven to be the most desirable are mostly those located within the European Union, with Auschwitz in Poland leading the way, as in the case of past experiences. This implies that marketers should work on the image of the attractions they represent to make them more recognizable and appealing to the general public.

Then, when it comes to the motives of visiting dark attractions, educational attractions are predominant (those attractions that allow visitors to better understand the event itself), as well as the emotional experience and sense of empathy for the victims. Motives that have proven to be rarer when choosing dark destinations are the popularity of the tourist attraction as well as the entertainment or curiosity of the visitors.

In conclusion, respondents believe that the Republic of Croatia has the most potential for the development of dark tourism in places affected by war destruction and in the facilities of former prisons and courtrooms. Furthermore, most respondents agreed that an increase in demand for the same could be expected.

As far as the EU is concerned, this global region is competitive in the international tourism market and has the potential for further successful development, which was confirmed by analyzing available data on tourism trends, but also by a survey in which respondents showed interest in participating in dark tourism. Further development certainly requires more aggressive promotional activities, as well as a more detailed study of tourist demand and its motives. Research has shown that in the vast majority of cases, dark tourist attractions are not the main motive for taking a trip. Since the range of dark attractions is wide, it is necessary to observe each attraction individually and create such a product that will represent it adequately and which will ensure appropriate development while ensuring dignity, both for victims and all others potentially affected by these forms of tourism.

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Influence of Firm-Specific Determinants on the Profitability of Companies in Agri-Food Sector in Bosnia and Herzegovina: Research Project

Dalila Ivković & Ermin Cero

*International Burch University, Sarajevo, BOSNIA AND HERZEGOVINA
Faculty of Economics and Social Sciences*

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Abstract

The main objective of the undertaken study is to examine the influence of firm-specific determinants on the profitability of companies in the agri-food sector (agricultural production and food processing) in Bosnia and Herzegovina (B&H). For this purpose, we examine the impact of factors that are considered as determinants of firm profitability such as size, age, liquidity, leverage, and growth. The impact of the specific characteristics of the companies is tested on profitability measured by return on assets (ROA) in the agricultural and food processing sector in B&H. The analysis is based on the collection of quantitative data published in the food financial annual reports of the listed agricultural and processing companies in B&H over a period of five years (2015-2019). A research model with crucial variables with five independent variables (size, age, liquidity, leverage, and growth rate) and one dependent variable (profitability) was developed based on the literature review. The study outcomes will give an insight into the firm-specific factors that are important in examining the profitability of companies in the agri-food sector in B&H. Furthermore, the results of this research will serve as a basis for further studies in which the number of variables observed will be extended. Moreover, the results are expected to be useful for the management of the company to direct business decisions towards improving the company's profitability.

Keywords: firm-specific determinants, profitability, agri-food sector, agricultural and food processing companies, Bosnia and Herzegovina.

1. Introduction

Agriculture and food processing is an important sector of the economy of Bosnia and Herzegovina. According to official statistical data for 2019 (Plecher, 2020), agriculture contributed around 6.1% to the overall Gross Domestic Product (GDP) of Bosnia and Herzegovina. Although post-war conditions and a complex socio-economic structure negatively affected the development of the sector as a whole, according to data from World Bank (2020), the agri-food sector employs around 15% of all employees in Bosnia and Herzegovina. Therefore, because of its significant economic and social importance, the agri-food sector in Bosnia and Herzegovina deserves the examination of the factors impacting its profitability.

Businesses are always significant as well as their determinants. Each nation is trying to build a desirable business operating climate. In a dynamic economy, company owners must

learn how to reach a satisfactory level of profitability. The ratio for measuring the company's efficiency is profitability. It is a crucial feature of financial statements for a company. A business's profitability reflects the potential of a company to produce profits at a rate of sales, assets, and capital stock cost over a certain period of time (Gitman, Zutter, Elali & Roubaie, 2013). For a variety of interest groups, beginning with the shareholders, future investors, and state and supervisory authorities, the business of a corporation is of considerable significance. Understanding the determinants of profitability is a crucial element that allows managers to establish a successful profitability strategy for their business. Also, Goddard, Tavakoli & Wilson (2006) stated that the identification of firm-specific determinants that impact profitability is an important research field in economics, strategic management, and accounting and finance.

This research examines the impact of firm-specific determinants on profitability for a sample of the B&H agricultural and food processing companies. It assesses the main determinants of firm profitability in the period from 2015 to 2019. The main research objectives of the study are the following:

- To examine the impact of firm-specific determinants on the profitability of the companies.
- To explore the relationship between size and profitability of the B&H agricultural and food processing companies.
- To investigate the relationship between age and profitability of the B&H agricultural and food processing companies.
- To investigate the relationship between the two objectives of liquidity and profitability of the B&H agricultural and food processing companies.
- To find out the relationship between leverage and profitability of the B&H agricultural and food processing companies.
- To find out the relationship between growth and profitability of the B&H agricultural and food processing companies.
- To draw a conclusion on the relationship of firm-specific determinants and profitability of the B&H agricultural and food processing companies.

Statistical Package for the Social Sciences SPSS 20.0 will be used to conduct quantitative analysis (descriptive statistics, multiple linear regression, correlation matrix, multicollinearity and VIF test - Variable Inflation Factors) using secondary data based on financial annual reports of the listed agricultural and food processing companies in Bosnia and Herzegovina. In addition, the research will use additional descriptive statistics and correlation matrix to analyze the data collected. The analysis will be conducted for a period of five years (2015-2019).

The following sections of this paper are structured as follows: Section 2 reviews the literature on specific determinants of the firm and its effect on profitability; Section 3 contains the research hypotheses and model that explains the core of this research; Section 4 explains data collection and methods that are used for a statistical analysis in order to reach results and draw a conclusion in Section 5.

2. Literature review

2.1 *Definitions and concept evolution*

Many scientists and experts have conducted their studies on the factors that determine the profitability and success of companies. The determinants of profitability have been analyzed from different perspectives and in different years. These research studies explored external determinants, as well as internal determinants and the specific characteristics of companies in various industries. According to Yazdanfar (2013), company sustainability is one of the primary prerequisites for long-term business stability and performance. The accomplishment and other financial results of the company are greatly impacted by the determinant of the business's profitability. These variables are significant because they have an impact on economic development, wages, development, and technological change. The company's primary aim is to improve its profitability. Since 1990, many scientists and researchers have focused on examining the profitability of a corporation. According to various theoretical studies, profitability is one of the most important tools in a company's operating system. A significant number of scientists offer their own definition of profitability. Profitability is the ratio of the overall effectiveness of management based on the returns generated from sales and investment. According to Harvard and Upto (1961), profitability is the ability of a given investment to earn a return from its use. In the same sense conveyed by Husan (2001), profitability is the company's ability to benefit from the assets, sales and capital.

For the purpose of this study, we focused mainly on the period from 2015 to 2020. The following ones are relevant and helpful for this study.

2.2 *Studies on profitability and its determinants*

Through applying the multilevel method of Hierarchical Linear Modeling (HLM), Zouaghi, Garcia and Hirsch (2017) examined the effect of firm-specific, industry-specific, region-specific, and year-specific influences on firm profitability. Using a sample of 3,273 Spanish agri-food companies during the period 2006-2013, these researchers concluded that firm-specific factors have a stronger impact on firm profitability than industry and region determinants. Margaretha and Supartika (2016) used a sample of SMEs firm listed on the Indonesia Stock Exchange to analyze the influence of firm-specific determinants on profitability. They stated that the size of the company, growth, and lagged profitability, have a negative impact on profitability. Productivity and industry affiliation variables, however, have a positive effect on profitability. An additional study investigating the relationship between firm-specific factors and profitability. Al-Jafari and Al Samman (2015) used a sample of 17 industrial companies in Oman for the 2006-2013 period. The results obtained from regression analysis showed that size, growth, and working capital affect profitability positively and significantly. The results also indicated a negative and significant relationship between profitability and financial leverage.

In another study, focusing on the Croatian food and beverage industry, Pervan and Mlikota (2013) reported what determines the profitability over the years 1999-2009. Their empirical results showed that lagged profitability, size, and concentration ratio affect profitability positively and significantly, while the company's debt ratio affects profitability negatively and significantly. Lazar (2016) researched the determinants of firm performance for Romanian non-financial companies over twelve years period (2000-2011). As concluded by this researcher, firm-specific factors such as tangibles, size, leverage, and the intensity of labor affect profitability negatively. Also, they stated that sales growth and value-added have a positive effect on profitability. Factors that influence the profitability of 153 real sector firms in Turkey in the period between 2005 and 2012 are investigated by Işık (2017). Panel data review findings showed that all business-specific factors, including company size, company age, liquidity ratio, the tangibility of

assets, debt, and financial crisis, have an impact on the overall profitability of companies in the real sector. Results also indicated that growth opportunities have no impact on the profitability of the listed companies. In another study, analyzing the factors that impact the profitability of 120 manufacturing companies in Istanbul, Isak and Tasgin (2017) concluded that determinants such as past profitability, net working capital, size and economic growth affect profitability positively and significantly. They also found that financial risk and R&D cost have a negative effect on the profitability.

Contrary, the study conducted by Mijić, Zekić and Jakšić (2016) using a sample of 12 meat processing industries in Serbia for the period 2011-2015 resulted in a significant positive relationship between the profitability of the company and the growth variable. The results also showed that the high debt ratio has a negative impact on the company's profitability. In another study, where the key objective of the research was the analysis of firm-specific determinants using a sample of 2,366 hotels in Italy over nine-year period, Menicucci (2018) discovered that the financial recession, the corporate model, and the management structure impact the profitability of hotel companies. The results showed that size, internationalization, place, accommodation, and chain affiliation have a positive effect on profitability. Wasiuzzaman (2015) analyzed the relationship between the management of working capital and profitability of the company in a sample of 192 Malaysian companies for the period from 1999 to 2008. The study found that enhancing the productivity of working capital by reducing investment in working capital results in higher firm value.

Considering the latest research studies conducted on this topic, one study revealed that size and growth have a positive effect on profitability. However, they additionally stated that tangible assets, business risk, and debt have a negative relationship with profitability (Gharaibeh & Bani Khaled, 2020). Vieira, Neves and Dias (2019) observed that the determinants of firm success differ according to the component used to assess performance. This research was focused on a sample of 37 non-financial companies for a period of six years (2010-2015). In particular, this finding indicates that the company-specific factors are not so relevant to clarify performance when the researchers use a business measure of performance. They concluded that the macroeconomic variables clarify the firm's performance more efficiently. Besides, many researchers have stated in their results the significant impact of firm-specific determinants on the profitability of companies (Abbas, Bashir, Manzoor & Akram, 2013; Nunes & Serrasqueiro, 2015; Akben-Selcuk, 2016; Nanda & Panda, 2018; Egbunike & Okerekeoti, 2018; Cyril & Singla, 2020).

Studies of profitability and its determinants are not deeply discovered and almost non-existent for the B&H agricultural and food processing companies. There are only a few research papers connected with this topic. The review of previous research shows that the profitability of a company is determined by a range of indicators. In summarizing some of the previous studies, in most cases, attention is paid to variables such as company size, liquidity, leverage, age, industrial affiliation, leverage, growth, working capital, tangible assets, etc. For the purpose of this research study, the variables such as firm size, firm age, liquidity, leverage and growth will be used to evaluate the relationship with the profitability.

3. Hypotheses and research model

The main problem being investigated in this study is comprised of the impact of firm-specific determinants, namely size, age, liquidity, leverage and growth, on the profitability of the agricultural and food processing companies in Bosnia and Herzegovina.

H1: There is a statistically significant relationship between firm size and profitability of companies in the agricultural and food processing sector in Bosnia and Herzegovina.

H2: There is a statistically significant relationship between firm age and profitability of companies in the agricultural and food processing sector in Bosnia and Herzegovina.

H3: There is a statistically significant relationship between liquidity and profitability of companies in the agricultural and food processing sector in Bosnia and Herzegovina.

H4: There is a statistically significant relationship between leverage and profitability of companies in the agricultural and food processing sector in Bosnia and Herzegovina.

H5: There is a statistically significant relationship between growth and profitability of companies in the agricultural and food processing sector in Bosnia and Herzegovina.

We have presented our research model based on the literature review in the figure below.

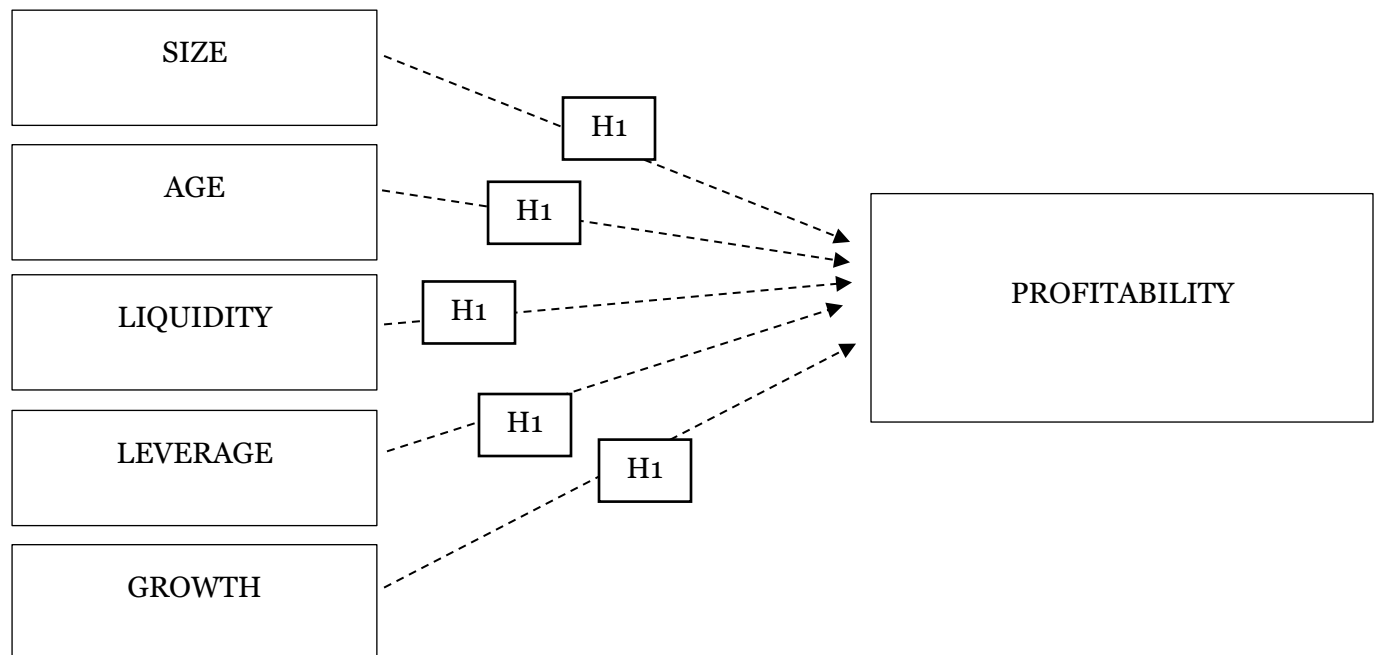


Figure 1. Proposed research model

4. Methodology

This part of the research proposal will explain the data collection activities, variables included in the study and the research methods that will be used in this study to examine the relationship between firm-specific determinants and profitability.

4.1 Data

The data that will be used in this study refers to a sample of the B&H agricultural and food processing companies. Data was collected through business intelligence database containing official financial reports of all companies in Bosnia and Herzegovina. In addition, the period that will be covered by this analysis includes financial reports for the five-year period (2015-2019) of the listed companies in agricultural and food processing sector.

4.2 Variables and measurement

In order to explore how the company's profitability reacts to company-specific determinants, we developed a profitability model in which we used different variables (one dependent and five independent variables) selected on the basis of relevant theory and literature. This research study includes variables that affect the profitability of agricultural and food processing companies in Bosnia and Herzegovina. According to Asiri (2015), return on assets (ROA) is the most relevant factor in explaining the market value of companies. As a result, profitability as a dependent variable is expressed by Return on assets. The five independent variables are measured as follows: (1) firm size, natural logarithm of the firm's total assets; (2) firm age, natural logarithm of the number of years since the firm's incorporation; (3) liquidity, current assets / current liabilities; (4) leverage, total debt / total assets, and; (5) growth, sales growth rate. Moreover, a summary of the variables and their measurements is provided in the table below.

Table 1. Definition of variables and their measurement

Dependent Variable (X)		
Variables	Measurements	Scale
Profitability	ROA Net Income / Total Assets	Ratio
Independent Variable (Y)		
Firm Size	Logarithm of Total Assets	Ratio
Firm Age	Logarithm of Year	Ratio
Liquidity	(Current Assets / Current Liabilities)	Ratio
Leverage	(Total Debt / Total Assets)	Ratio
Growth	Sale growth rate	Ratio

4.3 Research techniques

Different scientific methods will be used in this research study. For the purpose of this research, SPSS Statistics software 20.0 will be used to analyze data and provide the results in numerical percentages. The research will use descriptive statistics and correlation matrix to analyze the data collected and quantitative analysis (linear regression, correlation, regression analysis and diagnostics test (multicollinearity test with the method VIF – Variable Inflation Factors)).

5. Conclusion

Although profitability in the manufacturing industry as a whole has been widely examined, studies relating to the particular industries within this industry are rare. This is especially the case with the agricultural and food processing sector in Bosnia and Herzegovina. Keeping in mind that one of the key objectives of each business is profitability, it is understandable why the profitability determinants of the firms have drawn the attention of many researchers. The key objective of this research analysis was to investigate the impact of firm-specific determinants on the profitability of companies in the agri-food sector (agricultural production and food processing) in Bosnia and Herzegovina. The agriculture and food processing industry is an important field of economic growth in Bosnia and Herzegovina. This industry is significant in terms of production facilities, the income it generates and the number of employees in the agri-food sector.

From this research study, many contributions are expected. Firstly, recognition of key determinants that have an impact on the profitability of agricultural and food processing

companies in Bosnia and Herzegovina. Development of a research model and analysis of the impact of firm-specific factors on the profitability of companies in the agri-food sector. An overview of the results and providing a clear picture of the profitability of the listed companies. Furthermore, the results of this research will help managers to increase the profitability of listed companies. In addition, the results obtained will serve investors to make clear business decisions.

Besides, the impact of the COVID-19 pandemic on firm profitability should be researched. Moreover, this research can serve as a basis for future studies where a wider set of variables will be covered.

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