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**ACKNOWLEDGEMENT**



**Prof. Dr.**  
**Sokol Abazi**  
Editor-in-Chief

It is with sincere pleasure, that we celebrate the publication of the Journal's May Issue 2022, where relevant papers have been published by authors from different countries and institutions – reinforcing our commitment to providing an international scientific forum for academics, professionals, graduate and undergraduate students.

I would like to take this opportunity to appreciate the indispensable contribution of our authors, reviewers and editors, who have invested significant efforts to the success of this issue.

CIT Review Journal is primarily focused on research that can align science and technology in Business, Economy and Engineering with the current socio-economic and legal developments. In this context, we warmly welcome your original research papers, and editorials for the November Issue 2022. All accepted Full-text papers will be published in the CIT Review Journal (CIT Rev.) ISSN: 2788-645X, indexed in CiteFactor, listed in Ulrichsweb™ & Ulrich's Periodicals Directory.

If you have any questions, suggestions, or concerns, please address them to [editorialoffice@cit.edu.al](mailto:editorialoffice@cit.edu.al).

Thank you and hopefully you will find this Issue informative.

A handwritten signature in black ink, appearing to be 'S. Abazi', written in a cursive style.

**Prof. Dr. Sokol Abazi**  
Editor-in-Chief

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## EDITORIAL

*John Tizard BSc (Econ)\**

\* Strategic adviser and commentator in UK and internationally, and member of the CIT Journal Editorial Board

Almost every government and most public bodies across the world procure goods and services from companies and sometimes from charitable and social enterprises.

Among 22 OECD-EU countries for which data is available, public procurement increased from 13.7% of GDP in 2019 to 14.9% of GDP in 2020. Other countries also saw significant increases such as Norway (from 15.8% to 17.1%) and the United Kingdom (13.2% to 16.1%).

Most western democracies have adopted laws which regulate such procurement. In the European Union (EU) there are procurement regulations which apply in all twenty-seven member states, and which are often applied in those jurisdictions which trade significantly with and/or are seeking membership of the EU. The World Trade Organisation (WTO) also sets international standards for public procurement.

Above all what matters is that the following principles apply:

- the procuring body achieves value for money and public value in ways that promote wider social, economic, and environmental goals and employment standards as well as securing efficiency and effectiveness
- the highest standards of probity are always applied and that any conflicts of interest are avoided
- the regulations are applied in every procurement without favour or compromise
- there is full transparency of the process, relationships between bidders and those involved in the procuring bodies; and that these are subject to independent audit and public democratic accountability
- unless there is an overriding public interest there should be competition between bidders
- key stakeholders including communities, services users and staff and their trade

unions should be involved in procurement processes

- outsourced services should only be procured when there is no alternative and its demonstrably in the public interest

These principles should apply to both the procurement of goods and of services.

The procurement process should be proportionate to the size of the potential contract and to the risks associated with the procurement itself and with the goods or services being contracted.

It is legitimate for governments and for other public bodies to adopt processes which are not based on competition between bidders but only when this is within the law, in the public interest and cannot be open to any accusation of actual or perceived failure of impropriety by any party involved. For example, in the UK and elsewhere public bodies may decide to contract or partner with a non-governmental organisation such as a charity or community group to deliver some specialist services. A public body may wish to buy goods from local suppliers – for example local farmers. In such cases complex and expensive procurement processes may well not be appropriate. This should not be the default though for governments and other public bodies buying from commercial suppliers.

There can also be times when governments must move fast to address unforeseen issues and may have to derogate from their full procurement regulations. This was the case in many countries when governments were faced with the Covid-19 pandemic. However, there is much evidence in the UK and possibly over countries that the public procurement of personal protective equipment (PPE) and other clinical supplies, that mistakes were made or even deliberate political decisions taken were made leading to some serious questions about the failure to meet the required standards of probity and to secure value for money and public value. This demonstrates that

even countries with comprehensive regulations can stray or be politically led to act outside such regulations.

There have been many reports on this UK experience including some detailed enquiries by the National Audit Office (NAO). [The government's preparedness for the COVID-19 pandemic: lessons for government on risk management - National Audit Office \(NAO\) Report](#) and [Initial learning from the government's response to the COVID-19 pandemic - National Audit Office \(NAO\) Report](#)

Transparency International have also produced a very comprehensive report on the UK Government's procurement during the Covid crisis. Concern over corruption red flags in 20% of UK's PPE procurement | Transparency International UK. In this report Transparency International *Track and Trace* reviewed of nearly 1,000 contracts worth a total of £18 billion.

The report details how critical safeguards designed to prevent corruption were suspended without adequate justification and UK identify 73 contracts worth more than £3.7 billion, equivalent to 20 percent of COVID-19 contracts between February and November 2020, that raise one or more red flags for possible corruption.

*Of particular concern is the 'VIP' or 'high priority' lane used to fast track offers of PPE from companies referred by parliamentarians and senior public officials. The analysis of the available evidence is consistent with there being systemic bias towards those with connections to the party of government in Westminster, despite continued claims by the Government to the contrary.*

*The report concludes that poor record keeping combined with opaque, uncompetitive contracting and a suspiciously high number of awards to companies with political connections has undermined public trust and justifiably fuelled criticism of the Government.*

- *contracts awarded to companies with political connections: Twenty-four PPE contracts worth £1.6 billion were awarded to those with known political connections to the party of government the Conservative Party. three contracts worth £536 million went to politically connected companies for testing related services.*

- *contracts awarded without competition: between February and November 2020, 98.9 percent of COVID-19 related contracts by value (£17.8 billion) were awarded without any form of competition, many without adequate justification.*
- *contracts awarded to companies with no track record of supplying goods or services: fourteen companies incorporated in 2020 received contracts worth more than £620 million, of which 13 contracts totalling £255 million went to 10 firms that were less than 60 days old.*

These findings are worrying and undermine public confidence in public procurement and ultimately in democratic government.

This UK case study will be the subject of the national enquiry into the Covid-19 pandemic, but it should also be examined by those responsible for public procurement and political leaders in every country. There will be examples from other countries too. The UK Government's approach to public procurement during the pandemic should be a wake-up call to all democratic countries.

Lessons must be learnt, and mistakes never repeated. Effective and enforced regulations matter

Ideally procurement would be standardised across countries and be subject to same levels of scrutiny and accountability as other aspects of government and governance but whatever, every government should review and strengthen its public procurement legislation and processes based on the six principles set out earlier in this piece.

Public money must always be used wisely and prudently especially when it moves from the government to private sector businesses. Improving public procurement should be one of the core bricks in "building back better" post Covid.

Fundamentally maximising the public interest and behaving to the highest ethical standards to ensure probity must always be paramount whatever the circumstances.



# ANALYSIS OF EFFECTIVE TECHNIQUES AND ALGORITHMS IN TERMS OF “TEXT MINING” TO PREDICT THE AUTHORSHIP IN ALBANIAN LANGUAGE

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## ABSTRACT

Natural Language Processing has gained a special importance and development in recent years, where the analysis of written texts through various techniques of “text mining” and the extraction of all their features is a prerequisite to be used and be further implemented for various purposes. In this paper it will be compared some of the most effective techniques and algorithms in terms of “text mining”, to predict the authorship of a written text in the Albanian language, using for training the model, a fund of articles written by some of the most well-known bloggers of Albanian journalism. When talking about finding the authorship of a text it must be kept in mind many important elements such as: number of sentences, sentence structure, number of words in a sentence, repetition of the same word, length of words used, frequency of the use of punctuation, literary figures used; elements which best display the unique narrative style for each author. This paper can serve as a good starting point to go further to its specific objective, predicting the authorship of an anonymous text, but also for other applications related to “text mining”, referring to the Albanian language.

## 1 INTRODUCTION

Natural Language Processing is a field of study, which has gained a special importance and development momentum in recent years, where the analysis of written texts through various techniques of “text mining” and extracting all their features is a prerequisite to be used and be further implemented for various purposes [11 & 13]. A special and interesting case is the implementation in the Albanian language.

This paper will compare some of the most effective techniques and algorithms in terms of “text mining”, to predict the authorship of a text written in the Albanian language [4 & 18], having as a model training fund articles of some of the well-known bloggers of Albanian journalism [18].

When talking about finding the authorship of a text it must be kept in mind many important elements such as: number of sentences, sentence structure, number of words in a sentence, repetition of the same word, length of words used, frequency of the use of punctuation, literary figures used; elements which best display the unique narrative style for each author [20 & 22].

One method of determining the authorship of a handwritten document, especially a text document as content, is ancient. The importance of the author attribution problem stems from its use in forensic analysis, textbooks, e-commerce and the development of innovative techniques to enable such a process [16].

Data mining techniques have become more popular in recent years for a variety of reasons [14 & 31]. Data in any format, including text, pictures, mass data and multimedia, is now available and endlessly spread online. “Data mining” in itself has evolved as a concept and with an even greater speed have evolved the techniques that make it possible, according to each case or problem that arises.

One of them is Stylometry, which is the study of different language styles and writing habits in order to determine the authorship of a written part of the text. A writing style refers to a writer’s language choices that remain the same throughout his or her work. What is achieved as a result after the stylometric research is that all the lyricists have a unique and special writing style, which can

be evaluated and learned, thus serving as input for the training of Machine Learning models [7, 8 & 17]. A writer's narrative style refers to a set of characteristics he or she typically uses, such as word length, sentence length, use of certain words, and syntactic structure of phrases.

It's possible to know the author, the translator of some works only by the way of writing. In this context, two main problems may arise:

- Decide who wrote a certain text among some well-known authors; this problem is called Author Recognition [23].
- Identify whether or not an author has written a particular document, using a small collection of documents, all written by that author is called Author Identification [1, 2 & 3].

In the paper are presented two approaches that can be used, which are: profile-based classification, probabilistic model. Also best methods in the field are researched and presented as:

1. SVM (Support Vector Machine) that can be used to successfully solve textbook classification problems [6].
2. The Naive Bayes Classifier is a simple classifier that is classified based on the probabilities of events and it is usually applied in text classification.
3. A "neural network" is a set of algorithms that attempts to recognize the interrelated relationships between a set of data [6]. An approach to textbook classification based on Deep Learning is the implementation of a "one layer neural network".

In the paper it is presented the implementation of "logistic regression", which in itself can be seen as an algorithm found between Machine Learning and Deep Learning, as it is interpretable as a "one layer NN".

The proposed built model presented in this paper is based on the use of the "Logistic Regression" algorithm, which is an algorithm that can be seen as a method that lies somewhere between "machine learning" and "deep learning", as it is easily conceived as a "one-layer neural network". This algorithm is most effective in cases where it should be a decision between two possible choices: in this case whether or not an author has written a

specific text. The Python programming language has been chosen for the software component, taking into account the wide range of libraries that can be used in the field of "data science" and "text mining".

In conclusion the results achieved during the simulation are satisfactory while the proposed model, trained on a fund, which should be said to be limited in terms of the number of writings involved. Over 60% of cases finding the authorship of articles written in the Albanian media by the selected analysts, is successful.

## 2 RELATED WORKS

In the last couple years, the usage of data mining techniques is increasing and being applied in many areas, Data available might be in any format like text, images, binary, and multimedia. And several techniques of mining increased, modified, improved over the time. [31, 32 & 33]. The focus of this paper is on author identification techniques. Today the availability of text document in electronic form increases the importance of using automatic methods to analyze the content of text documents [2, 11, 17 & 27]. Initially identifying document was very time consuming, expensive and has its limit. That emerges text categorization in predefined categories called as classification. Categorization is based on certain properties called as features. There are various methods for extraction of features [18 & 20]. Writeprint is a method that is similar to finger printing. Another property of ngrams is that they provide information on rising word sequences based on their length [23 & 34]. Following that, another option is stylometric features, which offers a set of style indicators that have been tailored for automatic text analysis [5 & 18].

## 3 AUTHORSHIP IDENTIFICATION

### 3.1 METHODOLOGY

There are two approaches that can be used, which are: profile-based classification, probabilistic model. Using profile-based classification, first it should be managed a set of texts known to a particular author, which should be collected and stored in a database. This "great bookstore" is used to derive the characteristics of the narrative style of a particular author. The authorship of a text by an unknown author, ie

anonymous, is judged on the basis of this previous collection of texts where the style is analyzed and then it is sufficient to make a comparison. Judging the authorship of a text based on stylistic profile analysis is simple.

On the other hand, probabilistic models are one of the oldest approaches to identifying authorship that has been widely used in recent studies [6,7,8,17 & 18]. These approaches aim to maximize the probability  $P(x | a)$  that a text  $X$  belongs to a candidate author  $a$ . This approach is much more intriguing because it can be used both in character sequences and for words.

In fact, the best results for identifying authorship have been achieved using models that judge the level of word usage, without going into sentences, and compromising accuracy.

## 3.2 BEST METHODS

### 3.2.1 SUPPORT VECTOR MACHINE

SVM (Machine Vector Support) is a good Machine Learning method [7, 8, 17 and 27] that can be used to successfully solve textbook classification problems. However, it is mainly used to resolve categorization issues. Each data item is represented as an  $n$ -dimensional point in space, where the value of each property is the value of the SVM algorithm for a given coordinate. Scikit-learn is a well-known Python library for implementing Machine Learning algorithms [16]. In the scikit-learn library, SVM is also applicable where it should be judged the authorship of an article written in the Albanian media.

Support vector machines is an algorithm that determines the best decision boundary between vectors that belong to a given group (or category) and vectors that do not belong to it [10]. It can be applied to any kind of vectors which encode any kind of data. This means that in order to leverage the power of svm text classification, texts have to be transformed into vectors. On the other hand, Vectors are (sometimes huge) lists of numbers which represent a set of coordinates in some space.

So, when SVM determines the decision boundary mentioned above, SVM decides where to draw the best "line" (or the best hyperplane) that divides the space into two subspaces: one for the vectors which belong to the given category and one for

the vectors which do not belong to it. It can find vector representations which encode as much information from the texts as possible to be able to apply the SVM algorithm to text classification problems and obtain very good results. Examples are widely spread over internet with accuracy score mainly over 80% [10].

### 3.2.2 NAIVE BAYES CLASSIFIER

The Naive Bayes Classifier is a simple classifier that is classified based on the probabilities of events. It is usually applied in text classification. Although it is a simple algorithm, it works well on many text classification problems [18]. The advantage is that it requires less training time and less training data. This means less CPU and RAM consumption.

As with any Machine Learning model [7, 8, 17 and 27], it is the need to have an existing set of examples (training group) for each data category. Let's consider sentence classification to classify a sentence into "question mark" or "demonstrative". In this case, there are two classes ("question mark" and "demonstrative"). With the training group, it can train a model based on the Naive Bayes Classifier, which can be used to automatically categorize a new sentence.

However the raw data, a sequence of symbols (i.e. strings) cannot be fed directly to the algorithms themselves as most of them expect numerical feature vectors with a fixed size rather than the raw text documents with variable length [16]. In order to address this, scikit-learn provides utilities for the most common ways to extract numerical features from text content, namely:

- Tokenizing strings and giving an integer id for each possible token, for instance by using white-spaces and punctuation as token separators.
- Counting the occurrences of tokens in each document.

In this scheme, features and samples are defined as follows:

- Each individual token occurrence frequency is treated as a feature.
- The vector of all the token frequencies for a given document is considered a multivariate sample.



### 3.2.3 NEURAL NETWORK

A “neural network” is a set of algorithms that attempts to recognize the interrelated relationships between a set of data using a method that mimics how the human brain works. NNs refer to neuronal systems which may be of an organic or artificial nature. Because NNs can be adapted to inputs that change from time to time, they can produce the best possible result without requiring the production criteria to be “recreated”. The notion based on NN artificial intelligence has established an unrivaled reputation in creating trading systems.

Text classification is one of the popular tasks in NLP that allows a program to classify free-text documents based on pre-defined classes [11 & 13]. The classes can be based on topic, genre, or sentiment. Today’s emergence of large digital documents makes the text classification task more crucial, especially for companies to maximize their workflow or even profits.

Recently, the progress of NLP research on text classification has arrived at the state-of-the-art (SOTA). It has achieved awesome results, showing Deep Learning methods as the cutting-edge technology to perform such tasks [11 and 15].

Also, keep in mind that beyond accuracy, Deep Learning techniques are also complex [1]. Complexity in implementation brings the need for a good, abundant and well-structured data fund, which in this case, due to the limitations of the Albanian language, but also for the lack of electronic materials, this is not possible.

NN can also be used in textbook classification. Deep Learning methods are proving successful day by day in textbook classification, achieving top-level results in a range of academic problems [19, 21 & 22]. An approach to textbook classification based on Deep Learning is the implementation of a “one layer neural network”. Further in the paper it is presented the implementation of “logistic regression”, which in itself can be seen as an algorithm found between Machine Learning and Deep Learning, as it is interpretable as a “one layer NN”.

## 4 TEXT MINING FOR ALBANIAN LANGUAGE

In the case of this paper, but also in other cases when the Natural Language Processing is ap-

plied to the Albanian language, the challenges are mainly linguistic and not technical [4, 9 & 21]. The Albanian language has a complex morphological system. There are many forms for nouns, adjectives and numbers, which have five cases, two numbers (singular and plural) and determinability (indefinite and definite). Linguistic issues need to be mentioned and considered for textbook classification, including inflections, negation, homonyms, dialects, irony, and sarcasm[19,20 & 21].

- Inflections and word order - The first point noticed is that Albanian is a very inflectional language, compared to English. Albanian is a difficult language to learn due to the large number of different word forms.
- Negation - Negation is another topic where English and Albanian languages differ. English uses a negation form, but Albanian can use double, triple, or even quadruple negations.
- Homonyms - the presence of the same word in different meanings.
- Dialects - With two main dialects, the Albanian language presents an important challenge for Text Mining applications
- Irony and sarcasm - Irony and sarcasm are two types of communication in which the speaker writes the opposite of what he means.
- Sentence with vague meaning - There are many vague phrases that can have particular emotional polarity depending on the situation and context

## 5 PROPOSED MODEL

### 5.1 LOGISTIC REGRESSION

For the implementation it is selected Python programming language and we have developed the prediction model by using Logistic Regression [14 & 15]. The reasons for this choice will be presented below, but the main one is that dataset is not complex just authors assigned to the sentence that they have written in their previous articles.

Binary classification is the “classic” application of the logistic regression model. However, it can utilize many “flavors” of logistic to solve multi-class classification issues, such as the One-vs-All

or One-vs-One techniques, as well as the related softmax regression/multinomial logistic regression. Despite the existence of kernelized logistic regression versions, the conventional “model” is a linear classifier. If it is the case working with a dataset where the classes are more or less “linearly separable” logistic regression comes in handy.

Logistic regression is used to determine the probability of occurrence of a binary event, i.e. with only two possibilities. As you can see, logistic regression is used to predict the probability of a series of events. Logistic regression assists data analysts in making well-informed decisions by predicting as accurately as possible. If the assessment and judge is still simple, logistic regression comes into play to increase efficiency and reduce costs. In this case, the judge should be whether or not an author is the real writer of a certain article? So logistic regression it is seen as a method that chooses only in two ways: Yes and No.

## 5.2 STOPWORDS

Stopwords are a group of words used in the everyday use of spoken and written language. Examples of stopwords in English are “a”, “the”, “is”, “are” etc. Stopwords are commonly used in Text Mining and Natural Language Processing (NLP) to eliminate words that are used so often that they contain very little useful information [15]. So they are words that do not significantly affect the narrative style of an author [20 & 26] as in the case where a judge should be on the authorship of an article.

To make possible and implement in the most effective way possible the model of predicting authorship, it is created a fund of “stopwords” for the Albanian language such as: “I”, “is”, “you”, “do”, i.e. words that should be used for the sentence to make sense, but that do not distinguish one author from another, as they are words that are used with “compulsion”. After creating this vocabulary, should proceed with the “clean” of the available items from these “stopwords” and then do the model training and then the forecasting.

It can be argued that the elimination of stopwords is not necessary because removing them could distort the meaning of the sentence or destroy the structure, but the technical context must be taken into account above all. In this case, if are removed

from the word personal pronouns like: “unë”, “ti” or “ne”, it is not a problem, because in this case should be analyzed the words and not the phrase. Even removing from a sentence of conjunctions (“të”, “e”, etc.) is not a problem, as in this case it interprets them as necessary morphological, but not technical parts. As per the method they have been chosen to analyze the text, it is needed mostly the unique words, the ones that actually constitute and an important stylistic element.

## 5.3 DATASET THAT WILL BE USED

In the purpose of this paper it is created a dataset for the training of the proposed model. This dataset was populated from online data of news portals, a bunch of articles written by the most well-known opinionists in Albania.

First the articles were collected and then divided into sentences. The sentence is selected as the main cell for this kind of prediction and because the sentence is the essence of writing style.

The dataset structure is showed in:

Table No. 4.1 Dataset with Albanian language articles

id	type	article	sentence	text	author
0	1001001	Opinion	1	1 Apeli i Gjykatës së Posaçme i ka dhënë	Bushati
1	1001002	Opinion	1	2 Një trupë prej tre gjyqtarësh e kryesua	Bushati
2	1001003	Opinion	1	3 Natyrisht, që nga ajo kohë ndryshuan s	Bushati
3	1001004	Opinion	1	4 Së pari gjykata e të drejtave të njeriut i	Bushati
4	1001005	Opinion	1	5 Pas kësaj, një sërë mediash ndërkomb	Bushati
5	1001006	Opinion	1	6 Ajo po merrej me median dhe gazetarë	Bushati
6	1001007	Opinion	1	7 Por, elementi kryesor, që e ndryshoi l	Bushati
7	1001008	Opinion	1	8 Përpara 25 prillit SPAK mori përsipër r	Bushati
8	1001009	Opinion	1	9 Ai bleu kohë për ti lënë hapsirë partisë	Bushati
9	1001010	Opinion	1	10 Dhe tani që ky objektiv u arrit, vazhdim	Bushati
10	1001011	Opinion	1	11 Ndonëse përfaqësuesja e institucionit	Bushati
11	1001012	Opinion	1	12 Ata e bënë të tyren duke e zvarritur pa	Bushati
12	1001013	Opinion	1	13 Por tani kur e përfundoi mbull me “hann	Bushati

## 5.4 IMPLEMENTATION OF PROPOSED MODEL

For implementation it is selected the Python programming language and developed the forecasting model using Logistic Regression and also used the “Sci-kit Learn” library, which is the best Python library for Text Mining and has many integrated techniques and algorithms, which provide a high effectiveness for model training as in this case.

**Pandas** is a data manipulation and analysis software package for the Python programming language. It mostly consists of data structures and methods for manipulating numerical tables and time series. It’s BSD-licensed open-source soft-

ware with three clauses.

**NumPy** is a Python library that provides support for massive, multi-dimensional arrays and matrices, as well as a large number of high-level mathematical functions that may be used to manipulate these arrays.

The scikit-learn toolkit in Python has a fantastic utility called **CountVectorizer**. It's used to turn a text into a vector based on the frequency (count) of each word in the text. This is useful when dealing with a large number of such texts and converting each word into a vector (for using in further text analysis).

The **train\_test\_split** function in Sklearn model selection divides data arrays into two subsets: training data and testing data. You don't have to divide the dataset manually with this function. Sklearn train test split creates random divisions for the two subsets by default.

**Accuracy\_score** - In multi label classification, this function computes subset accuracy: the set of labels predicted for a sample must precisely match the corresponding set of labels in y true.

It is used Pandas function read, to read the used dataset saved as a *Comma-separated values* file. If it is carefully seen in that line of code, the first thing that comes in mind is that why are used the encoding equal to "latin-1". The answer is simple. Python and any other programming language has a default encoder set to "utf-8". In this case, that it is required to read from a file that has in it text written in Albanian language it should be read it with encoder set to "latin-1". The reason behind this decision is to make the computer "able" to understand "ë" and "ç" which are the most characteristic letters in albanian language. By its default encoder, it cannot read these letters because with "utf-8" encoder those letters are classified as special characters.

Then to check that everything has gone well it is used df.head, which is a line that makes us able to see the first 5 lines of a data frame. The result from that piece of code is shown in the Figure below:

1001001	Opinion	1	1	Apeli i Gjykatës së Posaçme i ka dhënë k
1001002	Opinion	1	2	Një trupë prej tre gjyqtarësh e kryesuar D
1001003	Opinion	1	3	Natyrisht, që nga ajo kohë ndryshuan shumë
1001004	Opinion	1	4	Së pari gjykata e të drejtave të njeriut n
1001005	Opinion	1	5	Pas kësaj, një sërë mediash ndërkombëtare

Figure 4. 1 Dataset to data frame

As a result the data frame has been created successfully and the first read sentences in the dataset are from Andi Bushati articles.

An important problem that needs to be addressed before starting with text mining methods is the elimination of stop words. Stop words are terms that are taken out of natural language data before or after processing. **Stop words** are the most prevalent terms avoided by most search engines in order to save space and time while processing huge amounts of data. Examples of stop words in English are "a", "the", "is", "are" and etc. In the Albanian language, it should be created from the beginning a list of most used stop words. Examples of stop words for the Albanian language can be mentioned: "unë", "një", "është", "janë", etc., words which are found in many sentences, where for Albanian it is inevitable and the use of conjunctions such as: "të".

with `open('stopwords_alb.txt', encoding='latin-1')` as f:

```
content = f.readlines()
```

```
content = [x.strip() for x in content]
```

In the snippet of above code it is created the option for computer to read line by line in a text document all the stop words for the Albanian language, which will be used for cleaning the data.

```
df['text'] = df.text.str.replace("[^\w\s]", "").str.lower()
```

```
df['text'] = df['text'].apply(lambda x: [word for word in x.split() if word not in content])
```

In the code snippet above it is doable to search dataset line by line in "text" column where are stored the sentences written by Albanian analysts. The code takes the sentence and "cuts" it in pieces by creating an array. After that there is the possibility to analyze every sentence and where the program finds words that are in the list of stop words, it decides to delete it. This is an important step to work with strings and text classification.

The result of the operation described above is shown in the figure below:

Opinion	1	1	[apeli, gjykatës, së, posaçme, dhënë, enje, ... Bushati	apeli gjykatës së posaçme dhënë enje drejtë ...
Opinion	1	2	[trupë, tre, gjyqtarësh, kryesuar, dhimitër, l... Bushati	trupë tre gjyqtarësh kryesuar dhimitër lara ho...
Opinion	1	3	[natyrisht, kohë, ndryshuan, gjëra] Bushati	natyrisht kohë ndryshuan gjëra ...
Opinion	1	4	[së, pari, gjykata, drejtave, njeriut, strasbu... Bushati	së pari gjykata drejtave njeriut strasburg pre...
Opinion	1	5	[sërë, mediash, ndërkombëtare, shoqatash, liri... Bushati	sërë mediash ndërkombëtare shoqatash lirisë së...

Figure 4. 2 Data frame with cleaned text using the selected list of stop words

```
Xfeatures = df['test_without_sw']
```

```
ylabels = df['author']
```

```
cv = CountVectorizer()
```

```
X = cv.fit_transform(Xfeatures)
```

Then in order to build the model using logistic regression firstly all sentences of the dataframe are vectorizes, which has been firstly cleaned from stopwords.

**Fit\_transform** – is a function that transforms text in a sparse matrix. The majority of the elements in a sparse matrix are zero, thus they are not kept to conserve memory. The index of the value in the matrix (row, column) is indicated by the numbers in brackets, and 1 is the value (The number of times a term appeared in the document represented by the row of the matrix).

The result of fit\_transform is like:

```
(0, 1) 1
```

```
(0, 2) 1
```

```
(0, 6) 1
```

```
(0, 3) 1
```

```
(0, 8) 1
```

```
(1, 5) 2
```

It can describe this result as “(sentence\_index, feature\_index) count”. As there are 2 sentence: it starts from 0 and ends at 1. So for the example (0, 1) 1

- 0 : row [the sentence index]
- 1 : get feature index (word) from vectorizer. vocabulary\_[1]
- 1 : count/tfidf it is the count of how many times a specific word has appeared in the text

After that it has to split the selected data in train portion and test one.

```
x_train,x_test,y_train,y_test = train_test_split(X,y_labels,test_size=0.33,random_state=42)
```

**test\_size** - float or int, default=None - If float, it should be between 0.0 and 1.0. If int, it refers to the total number of test samples. If the value is None, the complement of the train size is used.

**train\_size** - float or int, default=None - If float, it should be between 0.0 and 1.0 and reflect the percentage of the dataset that should be included in the train split. If int, the absolute number of train samples is represented. If None, the value is automatically set to the complement of the test size.

**random\_state** - int, RandomState instance or None, default=None - Controls how the data is shuffled before the split is done. Pass an int for reproducible output across multiple function calls.

```
logit = LogisticRegression()
```

```
logit.fit(x_train,y_train)
```

```
print("Accuracy of Logit Model :",logit.score(x_test,y_test))
```

In the code snippet above it is created the prediction model and printed out the result of the accuracy that it produces, which in this case is above 60 %.

```
anonymous
```

```
ext = "Është e vështirë sot të parashikosh nëse do të vazhdonin të qëndronin në pushtet në Ballkan autokratë si Vuçiçi, Rama apo Gjukanoviçi, nëse vende të BE nuk do të drejtoheshin nga Orbani, vëllezërtit Kazinski apo Janesh Janza në Slloveni."
```

```
querywords = anonymous_text.split()
```

```
resultwords = [word for word in querywords if word.lower() not in content]
```

```
anonymous_text_without_sw = [' '.join(resultwords)]
```

In the other step, written in the code snippet above, it is one sentence from another article of Andi Bushati, which is not part of the selected dataframe. First it should be split word by word to initially remove all the stop words from it, as previously proceeded with all the sentences inside dataframe, then it should be returned it as it was, a string.



```
vect4 = cv.transform(anonymous_text_without_sw).toarray()
```

```
logit.predict(vect4)
```

**Result: array(['Bushati'], dtype=object)**

In the final step of the program the proposed model is set into prediction stuff. In this case the model has successfully and correctly predicted that the sentence (anonymous text written above) is originally written by Andi Bushati.

## 6 CONCLUSIONS

Although in different parts of the world, where there is great technological progress, but also a more efficient penetration of new technologies related to Big Data, where Authentication Using NLP is a well-known practice, in fact, for Regarding the Albanian language, and a new field of study remains.

This paper contributed in the creation of a fund of stopwords" that makes the classification of text more effective, while these types of words are not part of the analysis, because they are deleted from the text as they do not affect the narrative style.

It is concluded that for this type of data, logistic regression is a good approach to get the desired results in terms of textbook classification, where the proposed model achieved a satisfactory accuracy.

The proposed model can predict the author of a particular piece of text using logistic regression and achieved an accuracy of above 60%. Although we had an accurate result when analyzing the public text written by one of the authors in the used database, this kind of accuracy requires from us additional work, mainly the development of a wider database, a richer vocabulary and the next step is to develop a model for sentence classification.

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## APPENDIX

### Attached files:

- Authors.csv – all articles assembled used for training of the model (CSV file)
- Author\_Identification\_Model.ipynb – Implementation, all code in Python
- Stopwords\_alb.txt – all stopwords

## INVESTIGATING THE ENTREPRENEURIAL INTENTIONS OF YOUNG STUDENTS- THE CASE OF MOTIVATIONAL FACTORS

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### ABSTRACT

The trend of becoming entrepreneurs is increasing among young individuals. Based on research, different motivational factors are playing an important role in increasing the trend of entrepreneurship among young individuals. The entrepreneurial, work, social, individual, and economic core are some of the main motivational factors discussed in this paper. The study attempts to investigate the motivating factors of young students to start an entrepreneurial career by using a quantitative approach. The results of the study show that the role of motivational factors listed in a specific order is quite important in increasing the trend of becoming an entrepreneur among younger students.

**Keywords:** *motivation, entrepreneurship, young students, factors*

### 1. INTRODUCTION

The unemployment issue is increasing with the passing time and young people are facing difficulties in finding suitable employment opportunities because of a lack of experience. Entrepreneurship is becoming the main focus of young individuals, governments, academia, and media as a source of developing employment opportunities in the market (Memon, Makhdoom, Shah, and Tunio, 2020). Entrepreneurship is considered the source of economic and social development, creating employment and promoting technological innovation. Entrepreneurship in simple words is the intention of the individuals to set up a new venture and introduce the innovation in the market

(Kirkley, 2006). The social and economic growth of the country is highly dependent on both education and entrepreneurship (Anjum et al. 2020).

Entrepreneurship is the practice of classifying and developing opportunities and taking risks to fill the market gap (Kirzner, 2000). Governments all around the world are

promoting entrepreneurship but, in some countries, specifically the developing countries the development is quite slow because of the lack of motivation among young people. Shane & Venkataraman (2000) defined entrepreneurship as the practice that includes the association, evaluation, and development of opportunities to develop innovative products, services, and procedures and to enhance the capability by performing in different market structures.

According to literature, entrepreneurship is directly related to the motivational variables that help develop young individuals' intentions towards starting their own business and plays a role in the economic and social well-being of society. The motivational variables associated with entrepreneurship can be classified as psychographic variables and demographic variables (Snieska et al. 2020). Many studies have supported the fact that psychological and personality variables are in direct association with the development of the new venture and also distinguish the entrepreneurs from non-entrepreneurs. The variables include the capability of taking the risk, ability to control, acceptance of uncertainty, and effective

strategy development and decision-making ability (Nosková, & Peráček, 2019). The other motivational factors include financial prosperity, owning a venture, being a boss, and introducing significant and advanced products in the market by putting the effort (Ashley-Cotleur et al. 2009; Benzing et al. 2007). The perception exists that motivational factors vary with each country, region, and culture and the influence of these factors directly impacts the particular and emotional behaviors (Swierczek & Ha, 2003; Turker & Selcuk, 2009). The objective of this paper is to analyze the different factors and to evaluate whether these factors play a role in motivating young individuals to become successful entrepreneurs.

## **2. MOTIVATIONAL FACTORS AND ENTREPRENEURIAL ACTIVITIES**

The researchers are analyzing the different motivational factors that lead to entrepreneurial activities specifically among young individuals (ReyMartí et al. 2015). Williams & Williams (2014) defines the two important classifications of motivation that are the difference between the opportunity-driven cause and the compulsion of becoming an entrepreneur. The individuals that start their ventures through the opportunity-driven cause enter the market to introduce innovation and are highly motivated because of the self-decision of becoming an entrepreneur. Such individuals start the business to earn money by playing the role of economic and social stability (Androniceanu, Sabie, & Pegulescu, 2020). The second component involves the necessity of becoming an entrepreneur because of the lack of employment opportunities. Such individuals are forced to make a choice of starting their venture and the motivation level in this component is not that high because of the forced factor choice (Angulo-Guerrero et al. 2017). Anyhow, according to the literature, both necessity and opportunity are not two different motivations, but the combination of both objectives results in entrepreneurship (Eijdenberg, Paas, & Masurel, 2015).

According to Fairlie and Fossen (2018), individuals that are unemployed before starting a business are the majority of necessary entrepreneurs. Such individuals either lack

the skills or maximum education level or are victims of job discrimination (Basu & Altinay, 2002). The motivation level of either type plays a significant role in starting the new venture and in the success of the venture because the motivation level builds the trust of an individual in his capabilities and makes him/her able to attain something important (Jafari Sadeghi & Biancone, 2017b).

## **3. RESEARCH METHODOLOGY**

To properly address the goal of the paper, the research was designed as a quantitative study with convenience sampling. A quantitative questionnaire was used as the main research instrument.

For this research, an already validated instrument, developed by Vijaya and Kamalanabhan (1998) was used. An instrument investigated twenty-seven items classified in five categories as a motive to start an entrepreneurial career, measured on a five-point Likert scale, ranked from "not important" to "extremely important".

The factors investigated are classified as entrepreneurial core, work core, social core, individual core, and economic core, and each of these measures' different aspects of entrepreneurial motivation.

The researcher utilized convenience sampling using the personal contacts of the researchers as main contact points. Through these contact points, potential undergraduate and graduate students were contacted in universities in the Republic of North Macedonia. All potential participants were asked to fill in an electronic survey. A total of 78 responses were collected, among which 42% were males and 58% were females.

## **4. RESULTS AND DISCUSSION**

The findings (Table 1 and Table 2) show that the entrepreneurial core is the primary motivator factor to start an entrepreneurial career, followed by the work core, economic core, individual core, and social core. In addition, Table 2. shows that there are no statistically significant differences, on a level of  $p < 0.05$ , between different gender groups.



*Table 1- The cores as motivation factors*

	Mean	
	Female	Male
<b>Entrepreneurial core</b>		
Make effective use of my risk-taking ability and succeed	4,75	4,68
Help people by providing them employment	4,88	4,84
Utilize the concessions or loans from the Government, Banks, etc.	4,33	4,28
Be independent	4,94	4,95
Provide good service or products to the community	4,75	4,79
<b>Work core</b>		
Use my decision-making/ problem-solving skills to profit in a career	4,69	4,68
Compete with others and prove to be the best	3,88	3,74
Get complete job satisfaction	4,56	4,58
Utilize my keen business sense	4,69	4,68
Exploit my innate talent and potential in a profession	4,69	4,68
Do something creative/ innovative	4,50	4,58
Do something/Achieve something that others usually do not	4,69	4,74
<b>Social core</b>		
Be a leader	4,38	4,47
Be an employer, never an employee	3,94	4,11
Attain the high social status	4,19	4,05
Show that I am inferior to none	3,50	3,53
Earn the respect of people	4,56	4,32
<b>Individual core</b>		
Get over monotony, experience change	4,50	4,53
Have my preferred work style and lifestyle	4,63	4,63
Enjoy the best luxury of life	4,00	4,05
Acquire lots of wealth for self	3,94	4,05
<b>Economic core</b>		
Make money to clear debts	4,25	4,16
Ensure the financial stability of children	4,88	4,84
Get over the shortage of money	4,07	4,11

Make my family rich	4,27	4,39
Supplement the family income	4,50	4,47
Get the best monetary returns for my talent	4,63	4,68

*Table 2- Comparison between gender group*

	Female	Male	Female	Male	Sig (2-tailed)
	Mean		SD		
Entrepreneurial Core	4,73	4,71	0,59	0,26	0,13
Work core	4,53	4,53	0,80	0,35	0,34
Social core	4,11	4,09	0,36	0,36	0,82
Individual core	4,27	4,32	0,31	0,98	0,15
Economic core	4,43	4,44	0,85	0,85	0,05

Based on the findings it can be concluded that different motivational variables influence young entrepreneurs' intentions of starting their businesses. Such variables can be classified into two major types demographic variables and psychographic variables. Ashley-Cotleur et al (2009) discuss in their study that psychology and personality are the two significant components that highly influence the setting of new business and also define the variations between the entrepreneurs and non-entrepreneurs. The psychological and personality components as a part of the entrepreneurial core, refer to the capability of the individual of taking a risk, control level, and acceptance for uncertainty. This is in line with the research results from this paper, taking into consideration that these are the most important motivators for starting an entrepreneurial career.

Additionally, the results uncovered that some motivational factors play an important role in developing the young entrepreneurs' intentions including the monetary advantage and recompenses (which are placed as number 3 in Table 1) and to stand the new and successful business by putting his strengths (Ashley-Cotleur et al. 2009). It is perceived that motivational

factors differ concerning constituencies, cultures, and countries (Turker & Selcuk, 2009). According to Robbins and Judge (2013), the evaluation of creativity of a person should consider 4 aspects: a suitable environment of an organization, the use of creative and critical tools of thinking, knowledge, and their intrinsic drive to be creative. This is because the profession of entrepreneurship is linked to self-motivation; severe seclusion and commercial instability need sufficient emotional intelligence along with good cognitive capabilities to flourish in the sphere of business.

## 5. CONCLUSION

This paper contributes to the existing field of knowledge by providing a quantitative investigation of motivating factors to start an entrepreneurial career in RNM. The provided results contribute to a better understanding of different motivational aspects that may play a vital role in shaping the young population's future tasks. According to the proposed results, it can be said that young students are willing to take risks and be independent and at the same time they want to provide new innovative goods and services, which will contribute to diminishing the high unemployment rates. In addition, the authors believe that the role of educational institutions is also quite important in promoting entrepreneurial activities among students. This way, students will gain the proper education including entrepreneurial know-how and activities, and be prepared for the outside world.

## 6. LIMITATIONS

There are a few limitations to this study. First, since the study used convenience sampling, there is a limited sample size, which carries the risk of not being representative of the general young population. Furthermore, due to the sensitivity of the questions, social-desirability bias should not be taken for granted, although all measures were undertaken to preserve anonymity. The last limitation is the demographic location of the respondents. This research was investigated only in the Republic of North Macedonia, and therefore the additional studies should provide a more comprehensible analysis of such variables.

However, all of these limitations can face a comprehensive extension in future research. Future studies can utilize larger samples and possibly even representative samples to further enhance the knowledge about motivating factors among the younger population and their linkage with entrepreneurial careers.

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# A COMPARATIVE ANALYSIS OF THE INNOVATION INDEX BETWEEN WESTERN BALKAN COUNTRIES, UNDER A QUALITY MANAGEMENT APPROACH

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## ABSTRACT.

My goal in conducting this study was to evidence and show the importance of the innovation concept and the relations of this concept to quality and quality management, in a comparative analysis between Balkan countries under a worldwide perspective approach.

Collecting data and information about innovation index worldwide, Balkan countries included, describing the newly introduced ISO family of standards for innovation, handling a descriptive statistic for innovation index, making a comparative analysis of this index between Balkan countries, as well as a comparison of Balkan countries with the rest of the world on this issue, was the methodology of this research.

Application of ISO standards generally and the application of the ISO family of standards for innovation helps companies to strengthen their commitment to their clients, improving innovative activities, processes and procedures, and economies of Balkan countries to achieve a competitive advantage, as a response to Crisis and Post-Crisis Period, was the main recommendations of the research.

**Keywords:** *Innovation, ISO standards, quality, quality management, competitive advantage.*

## INTRODUCTION

Discussing innovation we immediately think about products and/or services that are new, new combinations that result in improved ones, new methods of processing, manufacturing, assembling, entering new markets, a new way of resources usage, innovated business models, new organization models, etc., and this related to effectiveness and efficiency of processes, procedures, methodologies, methods, tools, technologies involved on the process of production of goods and services.

Innovation doesn't always require inventions, but easy implementation in the practice of problem-solving techniques and decision making, implementation of individual and group activity-based ideas.

Interest in innovation is increasing, especially related to a quality culture and ISO standards

Quality culture serves as a guide for continuous

improvement, belonging to all members of an organization, since QC forms a link between internal and external clients, as well as with suppliers too.

The main core value of quality culture is embodied in ISO standards, for which there is an increasing interest worldwide, aiming to achieve competitive advantage.

Between them, ISO 9000, ISO 14000, ISO 20000, ISO 22301 (Wiboonrat. 2020), ISO 27000, ISO 45000, ISO 50000 family of standards, and especially ISO 56000 family of standards, which is directly related to Innovation Management, introduced during 2019, which clashes with the period of pandemics of Covid – 19 too, are the most required standards.

Innovation, quality, quality culture, management, and ISO standards are becoming an important part of business models achieving competitive advantage under the new reality and new normality.



Innovation index (GII. 2021) includes:

- Institutions
- Human capital and research
- Infrastructure
- Market sophistication
- Business sophistication
- Knowledge and technology output
- Creative output (Aita, Idlebi, Denner, Dimassi. 2017)

## **1. LITERATURE REVIEW**

Currently, literature on innovation, quality, ISO standards, the culture of quality, etc, has been improved all around the world, besides the country and level of economic development. This is because concepts of innovation, quality, quality management, and ISO standards, applied correctly, help private and public organizations to be more competitive in an open market when and where the offer is much higher than the demand, one of the main characteristics of the last 50 years of the world economy (Ceko. 2021).

### **1.1 MEGATRENDS OF 2020 - 2030 AND WORLDWIDE ECONOMIES RESPOND TO CRISIS AND POST-CRISIS PERIOD**

Five main megatrends for the next 10 years shall be (1) Population growth, as the heart of the shift in economic power (Fisk. 2019). (2) The impact of global warming is all around us, having a significant impact on yield and coastal regions. (3) We're in the midst of a fourth industrial revolution, which will become known as the digital revolution (Fisk. 2019), with the rapid advancement of technology (Fisk. 2019), AI, and machine learning. (4) Changes in global demographics (world population, density, ethnicity, education level, and other aspects of the human population) will bring about significant social change, and therefore challenges and opportunities, for both government and business (Fisk. 2019). These megatrends underpin structural shifts, technological development, shifting economic power, etc., having a profound effect on local and global markets and societies. (Fisk. 2019).

In response to these big changes/megatrends and crisis and post-crisis period, the World is going towards (1) information revolution, (2) flexible & learning organizations and innovation systems, (3) explosion of skills, knowledge, and competencies, (4) improving systems of creation, production, and distribution, (5) usage and expand of innovation systems, creativity, and quality management culture, etc.

### **1.2 INNOVATION**

As per an OECD report (Nadim Ahmad and Richard G. Seymour 2006), since around 35 years ago, entrepreneurship has been defined as an act of innovation that involves endowing existing resources with new wealth-producing capacity (Drucker, 1985, Popescu. 2014), with its core, which lies with the creation and exploitation of entrepreneurial opportunities regardless of the context (Shane. 2003, Popescu. 2014) and as a creative activity that takes place when neither the goal nor often the initial conditions are known at the start, but constructed during the process (Sarasvathy. 2001, Popescu. 2014).

Innovation is defined by the Oslo Manual (OECD 2005, ISO 2015) of the Organization for Economic Cooperation and Development (OECD) as "the implementation of a new or significantly improved product (good or service) or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations" (ISO. 2015).

In economics, further to Schumpeter's lesson, it is now part of mainstream thinking to consider innovation as the primary engine of economic dynamic: a process of "...industrial mutation that increasingly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one (Schumpeter. 1942, ISO. 2015)".

This notion is particularly relevant in today's globalized world and knowledge-based economies, which rely ever more on intangible resources.

Not surprisingly, innovation is widely recognized as one of the essential drivers of successful business and a key contributor to the productivity and economic and social development of nations

(ISO. 2015).

Innovation is the practical implementation of ideas that result in the introduction of new goods or services or improvement in offering goods or services (Schumpeter. 1939). ISO TC 279 on innovation management proposes in the standards, ISO 56000:2020 (ISO 2020) to define innovation as “a new or changed entity creating or redistributing value”.

According to the International Organization of Standards, “innovation is a new or improved product or process that differs significantly from previous products or processes and is made available to users. This definition is in line with those found in ISO standards so that they can be useful tools for comparing and assessing innovation within and amongst organizations” (ISO. 2019).

Some common element in the different definitions is a focus on newness, improvement, and spread. It is also often viewed as taking place through the provision of more-effective products, processes, services, technologies (Mayala & Tesha. 2022), and artworks (Lijster, Thijs, ed. 2018) business models that innovators make available to markets, governments, and society. Innovation is related to, but not the same as, invention: (Bhasin, Kim. 2 April 2012) innovation is more apt to involve the practical implementation of an invention (i.e. new/improved ability) to make a meaningful impact in a market or society (Morgan 2015), and not all innovations require a new invention (Schumpeter 1939).

The innovation system in any country consists of institutions, rules, and procedures that affect how the system acquires, creates, disseminates, and uses knowledge. Innovation in a developing country concerns not only the domestic development of frontier-based (Hendarman, Tjakraatmadja. 2012) knowledge but also the application and use of new and existing knowledge in the local context. Innovation requires a favorable climate (Hendarman, Tjakraatmadja. 2012) for entrepreneurs, among which shall be free from bureaucracy, regulations, and other obstacles (WB Institute, 2005, (Hendarman, Tjakraatmadja. 2012).

Designing and developing cutting-edge products

and processes to maintain a competitive edge requires an environment that is conducive to innovative activity, supported by both the public and the private sectors. In particular, it means sufficient investment in research and development (R&D), especially by the private sector; the presence of high-quality scientific research institutions; extensive collaboration in research between universities and industry; and the protection of intellectual property (Porter & Schwab, 2008, Robert. W. 2021).

### 1.2.1 SOURCES OF INNOVATION

Innovation may occur as a result of a focused effort by a range of different agents, by chance, or as a result of a major system failure. According to Peter F. Drucker, the general sources of innovations are different changes in industry structure, market structure, local and global demographics, human perception, mood and meaning, the amount of already available scientific knowledge, etc., (Drucker. 2002).

The robotics engineer Joseph F. Engelberger asserts that innovations require only three things:

- a recognized need
- competent people with relevant technology
- financial support (Engelberger 1982).

As per current tougher and tougher competition, globalization of (Burger-Helmchen. 2012) products, services, production mode, business models, and markets, as well as the implementation of new technologies (Burger-Helmchen. 2012), it looks that the success of businesses is dependent on (Burger-Helmchen. 2012) the effectiveness, efficiency, and intensity of innovation, which is considered as a decisive condition of competitive advantage in entrepreneurship, as a process created through interactions between various actors, which represents an important element of a company's future success (Burger-Helmchen. 2012).

It is clear that the growth of output is not attributable to labor or capital but is deemed to be linked to innovation and technological change (Greenhalgh & Rogers. 2010, Neil Robert Anderson, Kristina Potočnik, Jing Zhou, 2015).

Other authors stress the relations

between innovation, integrative creativity, entrepreneurship, leadership, and management too (Shung Jae Shin, Xiaomeng Zhang, and Kathryn M. Bartol (2015), Kris Byron, and Shalini Khazanchi (2015), Lucy L. Gilson, Hyoun Sook Lim, Robert C. Litchfield, and Paul W. Gilson (2015), Jill Perry-Smith, and Pier Vittorio Mannucci, (2015).

As per above, considering competitive advantage as one of the main driving forces for entrepreneurship, innovation, and creativity as key factors should be considered, requiring physical and nonphysical support for an optimal result.

Every crisis brings opportunities and room for creative disruption. One side effect of the current crisis has been to stimulate interest in innovative health solutions, naturally, but also areas such as remote work, distance education, e-commerce, and mobility solutions. With growing attention to innovation as the way to build a sustainable and inclusive future, unleashing these positive forces may well support societal goals, including reducing or reversing long-term climate change. (GII 2021).

The unprecedented global crisis that resulted from the outbreak of COVID-19 has propelled us into reinvigorating the important dimension of innovation to mitigate the pandemic's profound adverse effects on the economy and restore growth, calling for nations to embrace innovation as never before. While the crisis has naturally stimulated interest in innovative healthcare solutions, it has also catalyzed other areas, such as remote working, distance learning, e-commerce, and mobility solutions (GII. 2021).

The COVID-19 pandemic has triggered severe health and economic crises that will have lasting impacts. Vaccine research and scientific investigation to prevent the spread of coronavirus have increased awareness of the pivotal role of science, technology, and innovation (STI) in economic and social development (GII. 2021).

Innovation is an instrument of development that plays an increasingly important role in global trade. Particularly over the past two decades, the arena of global trade has been changing, with economies of scale gradually being replaced by an innovation economy focused on high value-added

products and services (GII. 2021).

The Global Innovation Index (GII) is a ranking of countries as per their success and capacity in innovation. It is published yearly by the World Intellectual Property Organization (WIPO). Global Innovation Index 2021, data which are used in this research, captures the innovation ecosystem performance of 132 economies and tracks the most recent global innovation trends.

### **1.3 A SHORT EXPLANATION OF THE GLOBAL INNOVATION INDEX (GII)**

- Developed by Cornell University, INSEAD, and World Intellectual Property Organization, the Global Innovation Index (GII) is a ranking of countries based on certain indicators like their success and their capacity for innovation. This index is based on both subjective and objective data derived from different sources.
- The Global Innovation Index (GII) is published yearly by the World Intellectual Property Organization (WIPO). The GII ranks 131 countries based on 81 indicators. This index was started in 2007 by INSEAD and world business (Morrison. 2018), which is a British magazine.
- This index is calculated by averaging the scores of two indices —the innovation input index and the innovation output index (Morrison. 2018). These two subindices are composed of seven pillars (the innovation input index of five pillars and the innovation output index of two pillars).
- The Global Innovation Index (GII) ranks the innovative performance of the economies (Morrison. 2018) each year by highlighting the strengths and weaknesses of certain innovation metrics. This index is based on the most recent global innovation trends and aims at measuring the innovation metrics based on indicators like political environment, education, infrastructure, and knowledge creation of the economies.
- These different indicators which are used to calculate the Global Innovation Index (GII) can also be used to monitor the performance of the economies and compare the developments of these economies with other economies in the



same region.

- In the Global Innovation Index (GII) edition of 2020, India was ranked as the 48th most innovative nation in the world. This year was also marked as the first year for India to enter the top 50 countries in this Index.
- As for the Global Innovation Index (GII) edition of 2021, the index includes the impact of the COVID-19 pandemic along with the other indicators while tracking the recent trends in global innovation.

#### 1.4 QUALITY AND CULTURE OF QUALITY

The core definition of quality, as a group of values that helps on how improvement is done on the daily practice of works and outputs related, a group of applications taken for granted that forms the philosophy of organizations or working groups, has been identified by several authors, which in paraphrasing that has defined quality culture as “social attack that supports people in the organization to stay together” (Ceko. 2021. Robbins, 1999).

Products and services features and improvement of them thrive. This is a culture expressed in several issues: (1) improvement individually, (2) tolerance and respect, (3) entrepreneurship (4) having proven capacity (Ceko. 2021).

“Culture of quality is a group of common, respected and integrally formed approaches of features of products and services, identified on the culture of organizations and systems of management” (Vlăsceanu, Grünberg & Pârlea, 2007, Ceko 2021).

“The importance of quality culture, quality management culture on doing business, achieving competitive advantage, relating them with corporate social responsibility, sustainable business, business ethics, diversity issues, international, cross-cultural management, national/international organizational culture, culture and sectors of the economy in a country, as well as currently as an important part of the history of economic thought (related to business management culture)” (Ceko. 2021, Gordon and Owen, 2008), Harvey and Stensaker, 2008), (Schein, 2010, 2013).

ISO standards, their importance, use of them

in practice, etc. have been described in several publications (Harrington & Mathers, 1997, Ceko. 2021).

Main ISO standards required then most currently are:

- ISO 9000 Family – Quality management system
- ISO 10244:2010- Document management — Business process baselining and analysis
- ISO 14000 – Environment protection
- ISO 20000 – Information technology
- ISO 22301:2019- Security and resilience — Business continuity management systems — Requirements
- ISO 27000 – information security management
- ISO 45000 – Health and safety at work
- ISO 50000 – Energy efficiency
- ISO 56002:2019 - Innovation management — Innovation management system — Guidance
- Etc.

According to ISO, there are three main types of benefits of using standards (ISO, 2014):

- Key benefit 1: Streamlining internal operations

One main finding is that standards can be used to streamline the internal processes of a company, for example by reducing the time needed to perform specific activities in the various business functions, decreasing waste, reducing procurement costs, and increasing productivity. The case studies consistently report that the contribution of standards to the gross profit of companies ranges between 0.15 % and 5 % of the annual sales revenues.

- Key benefit 2: Innovating and scaling up operations

Some case studies provide examples where standards served as the basis for innovating business processes, allowing companies to expand their suppliers' network or to introduce and manage new product lines effectively. In other instances, standards helped mitigate the risk to companies of introducing new products onto national markets.

- Key benefit 3: Creating or entering new



### markets

Standards have been used as the basis for developing new products, penetrating new markets (both domestic and export), supporting the market uptake of products, and even creating markets. In exceptional cases, the impact of standards far exceeded the figure mentioned above, with companies achieving a gross profit contribution of up to 33 % of their annual revenue, which helped them position themselves as leaders in their field, at least over a certain period (ISO. 2014).

### 1.5 INNOVATION AS AN ISO FAMILY OF STANDARDS. ISO 56000

Innovation is the fuel that drives a successful business. And organizations that give their managers and employees the tools to respond to and make the most of opportunities, both internal and external, are well placed to grow profits, improve the health and well-being of their employees, and, thereby, the wider society. With effective innovation management systems in place, organizations – both large and small – can not only be in a better position to achieve their business growth goals but also be more agile and better prepared in their response to unexpected challenges and disruptions (Brady. 2021).

An innovation management system helps organizations capture the best ideas and continually improve to keep up with the competition. The latest standard in the ISO innovation management series has been published in 2019 (Naden. 2020).

All organizations, whatever their nature or size, need to continually evolve to survive, and the ISO 56000 series will help them to do that in a structured and effective way. Innovation is about creating something new that adds value; this can be a product, a service, a business model, or an organization. And the value that is added is not necessarily financial, it can also be social or environmental, for example. The ISO 56000 family will help organizations significantly improve their ability to survive in our changing and uncertain world. They allow organizations to permanently reinvent themselves. (Naden. 2020).

The ISO series on innovation management includes the following published documents:

- ISO 56000:2019 - Innovation management — Innovation management system — Guidance
- ISO 56002, *Innovation management – Innovation management system – Guidance*
- ISO 56003, *Innovation management – Tools and methods for innovation partnership – Guidance*
- ISO/TR 56004, *Innovation management assessment – Guidance*
- ISO 56005, *Innovation management – Tools and methods for intellectual property management – Guidance (Naden.2020)*
- ISO 56006, *Innovation management – Strategic intelligence management – Guidance*
- ISO 56007, *Innovation management – Idea management*
- ISO 56008, *Innovation management – Tools and methods for innovation operation measurements – Guidance (ISO. 2019)*

It is clear that even for International Standards Organization, relations between Innovation and Creativity are strong, since the ISO 56000 family of standards of innovation expresses the connection clearly, saying that the application of ISO standards generally the application of ISO 56000 family of standards helps companies strengthen their commitment to their clients, improving innovation and creativity activities, processes and procedures, and economies worldwide to achieve competitive advantage as a response to Crisis and Post-Crisis Period.

### 2. METHODOLOGY

Specifically, while acknowledging the importance of innovation and quality management in doing business and entrepreneurship ecosystem, prior empirical (Ceko. 2021) research does not explain how innovation and quality management influence doing business and entrepreneurship and among them together, besides the fact that few serious theoretical studies show the strong connection between innovation and quality management, but not numerical, statistical and algebraic studies.

The methodology followed for the realization of this study was the creation of the idea for the field of study for which the research would be

performed, the collection of data, figures, facts, and information as well as the literature that would be used for the realization of the study, based on desk research.

The desk research was done through:

1. Gathering information on innovation index worldwide.
2. Gathering information on innovation for Western Balkan economies.
3. Gathering theoretical information about ISO 56000 standards.

The literature, data, figures, facts, and information were then read, and selected, to determine the materials to be used in this study. Subsequently, the study methodology has been the processing of data through comparative analysis of innovation, and its sub-patterns (Institutions, Human capital and research, Infrastructure, Market sophistication, Business sophistication (Aita, Idlebi, Denner, Dimassi. 2017), and Knowledge and technology output (Aita, Idlebi, Denner, Dimassi. 2017), for Western Balkan countries, to provide reliable data, to create other reliable data, combining using descriptive statistics method data, figures, information, defining the current situation in region's business sophistication issue. All information, data, and facts gathered and processed helped to identify, quantify, and visually display the main research results, and propose solutions for Western Balkans economies.

After writing the final text, the abstract and the introduction of this paper were constructed, and then drew the relevant conclusions and recommendations, as well as later, all information and data were prepared in a user friendly, visual manner understandable for a wider audience in case of publication of this paper research dedicated to Canadian Institute of Technology Journal.

## 2.1 CASE SELECTION

The case was selected based on three main criteria: a theoretical approach, suitability of relations, and practical (Ceko. 2021) positive impacts of business sophistication in doing business and entrepreneurship ecosystem,

considering business sophistication as a property of ISO 30401 family of standards too.

## DATA COLLECTION AND ANALYSIS

- Data for the Innovation index and its sub-patterns have been gathered from the Global Innovation Index Report 2021 (World Intellectual Property Organization, 14<sup>th</sup> Edition) too.
- A descriptive statistics for the Innovation index for 132 countries worldwide were performed.

Table 1. Innovation index ranking (GII, 2021)<sup>1</sup>

No	Country	Innovation Index
	Switzerland	1
	Sweden	2
	United States of America	3
	United Kingdom	4
	Republic of Korea	5
	Netherlands	6
	Finland	7
	Singapore	8
	Denmark	9
	Germany	10
	France	11
	China	12
	Japan	13
	Hong Kong, China	14
	Israel	15
	Canada	16
	Iceland	17
	Austria	18
	Ireland	19
	Norway	20
	Estonia	21
	Belgium	22
	Luxembourg	23
	Czech Republic	24
	Australia	25
	New Zealand	26
	Malta	27
	Cyprus	28

<sup>1</sup> Data for Kosovo was not available.

	Italy	29
	Spain	30
	Portugal	31
	Slovenia	32
	United Arab Emirates	33
	Hungary	34
	Bulgaria	35
	Malaysia	36
	Slovakia	37
	Latvia	38
	Lithuania	39
	Poland	40
	Turkey	41
	Croatia	42
	Thailand	43
	Viet Nam	44
	Russian Federation	45
	India	46
	Greece	47
	Romania	48
	Ukraine	49
	<b>Montenegro</b>	<b>50</b>
	Philippines	51
	Mauritius	52
	Chile	53
	<b>Serbia</b>	<b>54</b>
	Mexico	55
	Costa Rica	56
	Brazil	57
	Mongolia	58
	<b>North Macedonia</b>	<b>59</b>
	Iran (the Islamic Republic of)	60
	South Africa	61
	Belarus	62
	Georgia	63
	Republic of Moldova	64
	Uruguay	65
	Saudi Arabia	66
	Colombia	67
	Qatar	68
	Armenia	69
	Peru	70
	Tunisia	71

	Kuwait	72
	Argentina	73
	Jamaica	74
	<b>Bosnia and Herzegovina</b>	<b>75</b>
	Oman	76
	Morocco	77
	Bahrain	78
	Kazakhstan	79
	Azerbaijan	80
	Jordan	81
	Brunei Darussalam	82
	Panama	83
	<b>Albania</b>	<b>84</b>
	Kenya	85
	Uzbekistan	86
	Indonesia	87
	Paraguay	88
	Cabo Verde	89
	Un, Rep. Tanzania	90
	Ecuador	91
	Lebanon	92
	Dominican Republic	93
	Egypt	94
	Sri Lanka	95
	El Salvador	96
	Trinidad and Tobago	97
	Kyrgyzstan	98
	Pakistan	99
	Namibia	100
	Guatemala	101
	Rwanda	102
	Tajikistan	103
	Bolivia (Plur. State of)	104
	Senegal	105
	Botswana	106
	Malawi	107
	Honduras	108
	Cambodia	109
	Madagascar	110
	Nepal	111
	Ghana	112
	Zimbabwe	113
	Côte d’Ivoire	114
	Burkina Faso	115

	Bangladesh	116
	Lao People's Dem. Rep.	117
	Nigeria	118
	Uganda	119
	Algeria	120
	Zambia	121
	Mozambique	122
	Cameroon	123
	Mali	124
	Togo	125
	Ethiopia	126
	Myanmar	127
	Benin	128
	Niger	129
	Guinea	130
	Yemen	131
	Angola	132

Table 2. Descriptive statistics for innovation index

Innovation Index	
Mean	66.5
Standard Error	3.329164
Median	66.5
Mode	#N/A
Standard Deviation	38.24918
Sample Variance	1463
Kurtosis	-1.2
Skewness	8.95E-17
Range	131
Minimum	1
Maximum	132
Sum	8778
Count	132
Largest (The worst)	132
Smallest (The best)	1
Confidence Level (95.0%)	6.585881

Table 3. Value and ranking of Western Balkan economies for business sophistication (prepared by the author of this paper with data from GII 2021)

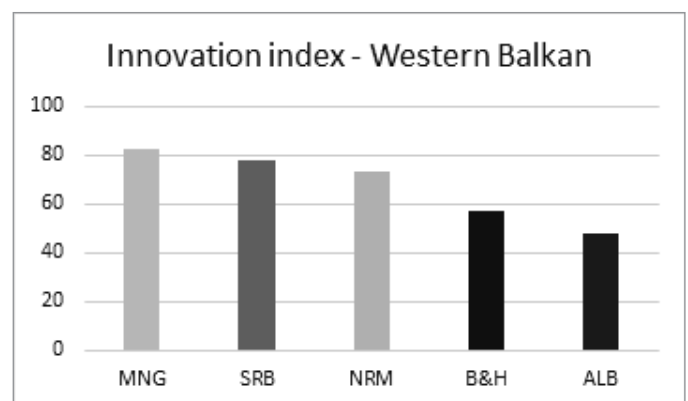
COUNTRY	ALB	B&H	MNG	NRM	SER					
INNOVATION INDEX	84	75	59	54	50					
Sub-Patterns	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank
Institutions	64.9	60	59.5	82	69.6	48	68.9	52	69.3	50
Human capital and research	22.7	90	31.4	68	32.7	59	30.2	73	32.3	62
Infrastructure	43.0	62	45.7	52	43.2	60	46.9	49	48.7	44
Market sophistication	44.1	79	49.3	51	50.9	41	63.7	12	48.4	58
Business sophistication	25.0	68	18.8	99	25.3	67	25.4	65	25.5	63
Knowledge and technology output	12.0	103	20.7	66	17.1	78	22.7	57	29.1	43
Creative output	20.3	81	15.9	99	35.9	33	19.5	83	21.4	76

Table 8. Innovation index Western Balkan countries rank and color to identify them in this research.

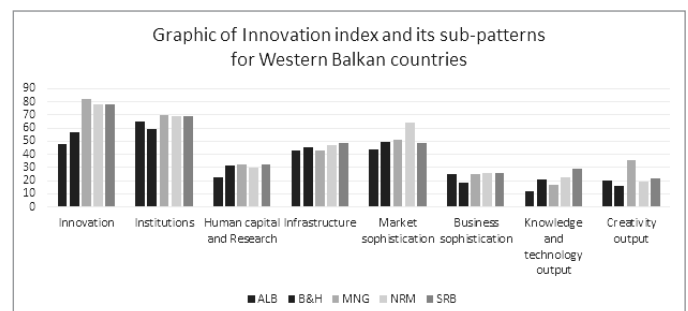
Colors were selected by the author of this research for easy identification purposes.

No	Country	Rank
1	Montenegro	50
2	Serbia	54
3	North Republic of Macedonia	59
	Mean & Median	66.5
4	Bosnia & Herzegovina	75
5	Albania	84

Graph 1. Innovation index, in Western Balkan economies, graph prepared by the author of this research<sup>2</sup>



Graph 2. Innovation index and its sub-patterns, in Western Balkan economies, graph prepared by the author of this research



#### 4. RESEARCH RESULTS

- Based on the data of this research, it appears that the countries of the Western Balkans are at a level unsuitable for the innovation index compared to the goals of these countries for
- 2 Building the graph, author uses the inverse ranking data. Inverse ranking data uses to show the larger figures when they are listed from the minimal level (the best) to the highest (the worst).



- integration in Europe and among themselves.
- Three of the Western Balkan countries (Montenegro, Serbia, and the North Republic of Macedonia) are in a better position compared with the mean and median (66.5) in the list of 132 countries, while Bosnia & Herzegovina, and Albania are below the mean and median (as per descriptive statistics analysis of this research).
  - Examining the constituent characteristics of the Innovation index and its sub-patterns, it turns out that Montenegro is in a better position, followed by Serbia, and the North Republic of Macedonia, while in the end, Bosnia & Herzegovina, and Albania remain.
  - Since in terms of innovation the countries of the Western Balkans are not in a suitable position, also for the elements of institutions, human capital and research, infrastructure, market sophistication, business sophistication, and creative output, these countries have shortcomings.
  - Implications for theory and practice

About the theory, based on the final results of this research, a new window has been opened for further research on the field of innovation and its relations with quality management, ISO standards, and its sub-patterns which form this index, considering them as a tool for a stronger competitive advantage approach for individual businesses and as a country's economy too.

- Limitations and further research

This research has been undertaken using plenty of data about the Innovation index and its sub-patterns for 2021.

Further research is needed to verify if these relations exist for other periods.

### CONCLUSIONS AND RECOMMENDATIONS

1. Towards fixedness of natural resources and restrictions on boundless economic growth approach, the direction of innovation is important in overcoming resource constraints.
2. There is a tendency for innovations to save on scarce resources. If technological progress will be fixed-factor saving, then fixed factors may not be a large barrier to growth. The same argument and logic can be applied to quality management, since TQM is not a fixed

resource, and is strongly connected with innovation too.

3. Achieving competitive advantage requires a positive approach towards innovation, quality management, and all sub-patterns of innovation index, a group of subjects which helps and support doing business climate in SMEs, seeing this as a general microeconomic perspective too, while, in a broader context, this study extends the general understanding of the relations between innovation, quality management, institutions, human capital and research, infrastructure, market sophistication, business sophistication, and creative output, which should be used as a combination for a future managerial approach/mechanism in real-world situations, suggesting future research could focus on developing and validating the proposed framework and investigate the issue in more contexts and settings.
4. There is a strong connection between the Innovation index, ISO standards, and institutions, human capital and research, infrastructure, market sophistication, business sophistication, and creative output.
5. The main recommendation is that application of ISO standards generally and the application of ISO 56000 family of standards helps companies to strengthen their commitment to their clients, improving innovation and business sophistication activities, processes and procedures, and economies worldwide to achieve their competitive advantage, as a response to Crisis and Post-Crisis Period.

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# AIR TRANSPORT IMPLICATIONS IN TOURIST DESTINATIONS

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## INTRODUCTION

Air Transport and Regional Development is a rapidly growing process, promoting Air Transport, tourism and connectivity.

In this context, it is important to find out the influence of Aviation on the Tourism Industry, critical Issues as benefits and cooperation in Air Transport and Tourism. Additionally, the data arrivals by world region, travel facilitation-measures, connectivity and tourism demand in the Air transport industry, tourism towards 2030 and further expectations are elements of a great importance generating subject of serious scientific consideration.

Air Transport and Tourism are two interlinked areas with important interdependencies.

The implications for Air transport in tourist destinations are subject to a wide range of specificities that design the operational, technical, economic and regulatory framework in which relevance and compatibility are segments of high importance that generate a level of quality services within the global world as a whole.

Air transport facilitates integration into the global economy, provides vital connectivity on a national, regional and international scale, and offers a safe, convenient, reliable, frequent, and consumer-centered service.

Air Transport industry generate trade, promote tourism and create employment opportunities

Tourism was a driving factor and enabler of many developments in air transport as new business models like charter emerged. On the other hand air transport did lay the grounds for entirely new destinations or tourism forms like long haul excursions.

In this contribution these interlinks are going to be analyzed based on a system model. As a key influential factor the type of business model turned out to be decisive for the influence of a

destination as well as for an airline.

For the strategic development of destinations a clear airline policy and air access strategy seems to be necessary. By shaping the external regulative environment of air traffic, the government may influence air traffic and tourism.<sup>1</sup>

## 1. AIR TRANSPORT

Air transport is an important enabler to achieving economic growth and development. Air transport facilitates integration into the global economy and provides vital connectivity on a national, regional, and international scale. It helps generate trade, promote tourism, and create employment opportunities.<sup>2</sup> The specifics of Air transport:

- main mode for international tourism,
- plays a dominant role in inter-regional movements of tourists,
- attractive package tours,
- competitive airfare attract tourists,
- requires efficient infrastructure.

### 1.1. LOW COST CARRIERS AND DEMAND

The Low Cost Carriers-LCC often set up bases in nearby countries as their brand awareness becomes more established. The main aim of the LCC is focusing:

- at stimulating demand particularly from fare conscious leisure and business travelers to widen existing markets,
- to develop markets neglected by competitors.

LCC opens more routes and offers flights at a

1 A. Wittmer,T.Biege, Air transport and tourism-Perspectives and challenges for destinations, airlines and governments,governments,Journal of Air Transport Management 12(1)DOI:10.1016, January 2006,

2 The World Bank,https://www.worldbank.org/en/topic/transport/brief/airtransport



higher degree of frequency. It is essential to mention that the emergence of LCC has created a gradual evolution in European tourism.

The recent growth of low-cost carriers have had a definite impact on the economic growth of the entire territory, where those choices could determine the life or the death of firms and, inevitably, their annual incomes.<sup>3</sup>

## **1.2. CRITICAL ISSUES IN AIR TRANSPORT AND TOURISM**

In respect of the air transport and tourism and their mutual connectivity, three salient issues facing International commercial Air transport and their resulting implications for global tourist follows:

1. The wider aero political environment is reviewed,
2. Recent developments in airline operations,
3. Carbon pricing on aviation.

### **Air transport and tourism are based on interdependence and interconnectedness**

Air transport is an integral part of the tourism industry. Interdependence and connectivity between Air transport and Tourism research especially from the destinations point of view.

The airline industry today ranks first in the list of leading business sectors in the Tourism Industry in terms of revenues generated by air transport, followed by the hotel industry and tour operators

### **Air transport characterized by growing interest which includes:**

- Destinations,
- Air routes,
- Service development,
- Passenger rights,
- Carriers and their impact on tourism etc.

### **Air transport is an integral part of the tourism industry**

Interdependence and connectivity between Air transport and Tourism research especially from the destinations point of view.

<sup>3</sup> Air Transport Implications in Tourist Destinations,- Journal of Land Use, Mobility and Environment, December 2019, DOI: 10.6092/1970-9870/6298

The airline industry today ranks first in the list of leading business sectors in the Tourism Industry in terms of revenues generated by air transport, followed by the hotel industry and tour operators.

### **The development of Air transport and tourism is subject of higher consideration which:**

- Relies heavily on each other,
- Lead to both positive and negative outcomes.

This interrelationship is taken into account, either implicitly or explicitly:

- In the business models adopted,
- In some cases airlines get involved in the planning and development of tourist destinations,
- In advertising initiatives and the planning of airport access facilities.

## **2. ROLE OF AIRLINES IN THE TOURISM INDUSTRY - THE ATTRACTIVENESS OF TOURIST DESTINATIONS**

The concept discusses approach to assess travel attractiveness of a tourist destination. It is based on calculating the link number of the official websites of the tourism attractions within the destination and analyzing the spatial distribution of the links. The approach is extended to the destination scale and a new travel attractiveness appraising method based on link analysis is proposed. The process includes four steps:

1. Ascertaining the range of a tourist destination;
2. Confirming the tourism attractions in the range of the tourist destination. The common confirming methods include confirming by the local tourist guide to determine the attractions, by the determination of the local commercial companies and by the determination of the administration;
3. Calculating the travel attractiveness of each tourism attraction. Guided by the previous research conclusion the travel attractiveness of a tourism attraction can be indicated with the link account of its official website;
4. Confirming the travel attractiveness of the tourist destination by the travel attractiveness

of each tourism attraction. Because every attraction has its own influence toward the attractiveness of the tourist destination, the travel attractiveness of the destination is not simply equal to the summation of the attractiveness for each tourism attraction, but must be calculated with its own weight.<sup>4</sup>

## 2.1. DESTINATIONS

No destination in the world can become a tourist destination if there is no proper access to it. The lack of adequate access to one destination is one of the biggest drawbacks for tourism development and investment in the destination. The important factors are:

- accommodation,
- activities offered by the destination,
- attractions,
- local amenities (traditional offer).

Tourist destinations are a central feature of tourism and the focus of much tourism research. Destinations have been studied from diverse perspectives using multiple concepts and a range of approaches. As a result, destination research today has become increasingly fragmented as studies have become more specialized.

There is a need for a more integrated approach, one which systematically draws together these different research threads to provide a comprehensive and coherent picture and a fuller understanding of destinations, their structure and how they function.

The tourist destination concept is drawn together around two major structural themes: spatial and organizational structure.

Spatial structure concerns the physical location, distribution, configuration and inter-connectedness of products, services and actors and the factors which underlie the resultant patterns of these.

Organizational structure focuses on the diverse configurations and the ways in which multiple actors, collectively and individually, come together,

<sup>4</sup> Lili Song; Lina Qi; Ji Qi; Kun Wang; Xiaojing Liu, IEEE Xplore, Evaluation of the attractiveness of tourism destinations based on link analysis, DOI: 10.1109/ GEOINFORMATICS, 2010

interact and behave to produce the experiences sought by tourists.

Destination research today has become increasingly fragmented as studies become more specialized. This book provides a systematic examination and combines spatial and organizational structure across destinations from the national to the local scale to produce a comprehensive understanding of destinations and a complete integrative framework of them.<sup>5</sup>

The tourist destinations have specifics defined within transport policies and decisions of governments. Air transport is far advanced than the transport mode and has revolutionized the geographical aspect of distances. The most remote areas can now be attained, any journey around the world can be measured in terms of hours of traveling.

It is important to be underlined that the International tourism is no longer an ongoing adventure.

In this respect it is worth noting that the tourist destinations often have an incentive to invest in local (regional) airports.

Various reasons have been increased the value component of air traffic and new emerging models of tourism expressed through destinations becoming more accessible, level of reasons to travel, sightseeing - historical, cultural, social, technological sights, relaxation - beach and mountain resorts, sport - mountain, climbing, skiing, surfing, scuba diving, special Interest - Study tours on art, history, religion, culture and science, shopping - personal and professional, business Governmental - political, cultural, social and scientific reasons.

Destinations offering important natural or man-made attractions (such as historic cities) are traditionally served by network carriers that find them a suitable base for their mixed traffic streams.

Destinations with large number of decentralized managed second homes, and thus a need for flexible traffic connections, provide a good market for LCCs, including the following:

- Traditional hotel destinations,
- Provide a good basis for charter services-

<sup>5</sup> D.Pearce, Victoria University of Wellington, New Zealand, Torist destinations, Tourist Destinations: Structure and Synthesis, 2020

especially in exclusive segments for network carriers and regional airlines,

- Provide a good basis for charter services- especially in exclusive segments- for network carriers and regional airlines.

### **KEY POINTS**

Natural resources -beauty or the local culture combined with the man-made infrastructure that is available, including:

- Hotels,
- Restaurants,
- Shopping centers,
- Entertainment venues.

### **Interlinked elements**

Natural resources can make an excellent basis for the development of :

- Infrastructure;
- Beach resorts,
- Skiing centres,
- Ecotourism,
- Leisure purposes,
- Infrastructure can be integrated with the natural resources or local culture to generate synergies that stimulate demand from tourists even further.

### **Important elements**

Destination from the the conceptual framework:

- The essential tool for planners, economists, analysts and researchers regarding the business relationship of Air transport and tourism industry,
- Role of Air Transport in tourism,
- Destination research today has become increasingly fragmented as studies become more specialized. This book provides a systematic examination and combines spatial and organizational structure across destinations from the national to the local scale to produce a comprehensive understanding of destinations and a complete integrative framework of them.

## **2.2. TOURISM ACCESSIBILITY**

Air transport has made traveling more affordable and convenient for destinations, evolved and became very much commercialized and developed. Indicator for tourist arrivals, which increases tourist receipts to the country. One of the many factors that influence the development of tourism in a region.

Physical and market access to the destination are important and contribute to the attractiveness of a region able to reach areas that have been previously seen to be inaccessible or remote.

Internationally based in terms of its network across countries. The efficient network of air travel provides access to remote regions and is considered as tourist destinations.

### **The importance of accessible tourism**

“Accessible tourism” enables people with access limitations in mobility, vision, hearing and cognitive dimensions to function independently and with equity and dignity by delivering universally designed tourism products, services and environments (*Darcy and Dickson, n.d.*). According to the European Network for Accessible Tourism (*ENAT, n.d.*) accessible tourism includes:

- Barrier-free destinations: infrastructure and facilities.
- Transport: by air, land and sea, suitable for all users.
- High-quality services: delivered by trained staff.
- Activities, exhibitions, attractions: allowing everyone to participate in tourism.
- Marketing, reservation systems, websites and services: information accessible to all.<sup>6</sup>

### **The increase in tourist arrivals is result of :**

- Mmarket diversification,
- Liberalization of air access,
- Increased seat capacity.

### **Stakeholders**

Stakeholders to take part to develop tourism in their regions:

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6 Next Tourism Generation Alliance, <https://www.hi-sour.com/es/accessible-tourism-38586/>

- Government,
- Local community,
- Business sector,
- Advertising companies,
- Tour operators,
- Tourism sector is one of the main important sectors of the economy,
- Difficult to think of the tourism sector without transport.

### **Influence of Air transport on Tourism Industry**

Tourism depends on Air transport to bring visitors and the Air transport depends on Tourism to generate demand for its services.

### **2.3. THE FACTORS STIMULATING THE DEVELOPMENT OF AVIATION TOURISM**

Benefits for the airline industry resulting from the elimination of these barriers will be significant. This will expand the whole aviation sector, and as a result of these activities the effects shall be the following:

- development of the entire sector, and as a result of these activities there will be more and more air carriers offering services between States concerned,
- improvement services quality,
- the increase of the general level of security,
- the modernization and expansion of the airports to adapt to handle increased demand, thanks to increased demand for travel by air,
- at the same time there will be a decline in the unemployment rate caused by the increase in employment in various companies of the aviation sector.

We can find a lot of benefits for the development of tourism coming from liberalization. Thanks to competitive prices and continually increasing offers of air connections to various places in the world, demand for tourism is growing. At the same time it should be pointed out that the elimination of the barriers mentioned above may have a positive effect on the development of tourism. It should be noted the example of the Member States of the European Union, which have abolished the visa requirement between

themselves, and the institution of internal border controls was abolished in the prevailing area.

Thanks to this facilitation, tourism is being developed between Member States, i.e. the Schengen area. More and more tourists are travelling by air, as it has become easier and without cumbersome control procedures.

Tourist activities include benefits for many hotel companies, catering, transport,. Many countries in the world are bent on the development of tourism, as it is an important factor consisting in the Gross Domestic Product (*GDP*) of each State.

Tourism in many countries can grow almost exclusively on the basis of the air transport sector, as it is almost the only means of transport for tourists who are visiting the country.

Another factor stimulating the development of aviation tourism is the safety of this mode of transport.

Air transport is one of the most secure means of communication. Accidents, though sometimes very spectacular and causing the death of all or many of the passengers, are extremely rare, taking into account the degree of intensity of the number of journeys. This is due to at least two main reasons:

1. The technological quality of manufactured aircrafts is becoming more perfect. The aerospace industry uses all the latest technical solutions in order to increase the safety of passengers and crew.
2. A large degree of aviation safety is due to the existence of modern forms of satellite navigation.

With this technology it is possible to more secure control and air traffic management. The most important satellite navigation systems include: the American system GPS (*Global Positioning System*), Russian Glonass and European Galileo, which is currently being implemented. Galileo should be available for all civil users not until 2020, after all 30 navigation satellites are put on geostationary orbit.

This will be the breakthrough of the navigation system for the world, as it will cut the monopoly of the present American GPS system. Europe will have its own independent navigation



system with more benefits for users, including tourism.

#### **2.4. RULES FOR THE ORGANIZATION OF AVIATION TOURISM**

Today the market of aviation tourism organizers in the world is a network of many enterprises, institutions and organizations who are interrelated. Organizers of air travel must provide attractive services at a suitable level of quality. Both national and international organization of trips by air, requires formal qualifications of personnel and expertise (specialization) in this area.

Thanks to this mutual connections of the tourism industry and air transport also increases employment in these sectors. The proper functioning of the system of air tourism organization is indispensable, to minimize or exclude the hazard of human factors in the preparation of the tourism trip.

The main tasks of air tourism providers include:

- to provide tourists with a comprehensive offer of events (the creation, promotion and sale),
- attention to the relationship with the consumer when concluding contracts for the supply of tourist services based on air transport at a proper level,
- consumer rights' protection arising out of contracts for the supply of tourist services,
- responsibility for the implementation and organization of services (air packages),
- taking into account any additional services and benefits that make up the comprehensive tourist event related to air transport.<sup>7</sup>

#### **3. DIGITAL TOURISM: INFLUENCE OF E-MARKETING TECHNOLOGY**

Tourism is an activity of immense socio-cultural and economic phenomenon, as it facilitates economic growth and regional development. The

advancements in the communication process, technology and transportation facilities, progress in the educational standards, changes in public lifestyle and spending habits, and increased stress in life make people have more empathy towards tourism. Tourism is a dynamic source of income to the economy as it complements a country's Forex reserves.

A significant development in the tourism sector boosts the economy of a country, and, in return, it improves the infrastructure and creates employment opportunities. Besides good infrastructure, tourism also needs developments in specific areas, such as hotels and roads, efficient telecommunication, banks, health care, and security facilities, which seems promising enough to attract tourists across the world (*Katta & Patro, 2019*).

In tourism, the primary goal of marketing is to capture tourists' attention in a particular destination and further assist them by creating interest in the destination by showing their mythical stories, scenic beauty, or any other cultural aspects. Once the interest is formed, the desire to visit that particular destination is created, and it becomes quite easy to take the tourist to the destination with an appropriate action plan and attractive deals. Thus, tourism's marketing process begins from encouraging the tourist to visit the destination to perceiving his experience and suggestions after the tour/trip ends. Yasmin, Tasneem, & Fatem (2015) stated that digital marketing includes the elements such as online promotions, e-mail marketing, social media marketing, affiliate marketing, search engine optimization and pay per click (Mkwizu, 2019).

In today's competitive environment, marketing is much more important than the production and sale of the product/service. Despite much potential and possibilities, lack of attention towards tourism marketing and mode of promoting the packages, the tourism sector is not achieving considerable progress (*Lamsoo, Niroomand, & Rafsanjani, 2013*). An extensive range of media is available for promoting the tour packages which includes print media such as newspapers, magazines, banners, etc., and electronic media including radio, television, and the Internet (digital marketing). Information

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<sup>7</sup> Grzegorz Zajac, The role of air transport in the development of international tourism, *Journal of International Trade, Logistics and Law*, Vol. 2, Num. 1, 2016, 1-8

Technology (IT) has made the marketing of products/services easier and cheaper, where a person from anywhere in the world can check the tourist's destinations.

The expectations of the public are rising day by day. These new aspirations are the driving force behind the transformation of public service delivery, primarily in high-impact areas, such as health, education and social benefits. The Internet made convenient for certain services like travel bookings, food orders with mobile apps, comparison among these services, and government services have become inevitable. People expect more awareness, agility, and responsibility from government services. The digital revolution in governance and public service delivery with the improved information and communications technology (ICT) is increasing the productivity and efficiency of the tourism sector. It is enhancing digital customer experience and also promoting connectedness with users (ASSOCHAM-PwC, 2017).

The rapid growth of the Internet, technological infrastructure and the social network have redefined the rubrics of marketing worldwide.

The economic globalisation and privatisation have increased the competition in every sphere of life. In the digital era, the marketing of products and services have also been more important to the service providers (Sharma & Hazarika, 2017).

Before the launch of a product, it is necessary to determine its marketing and promotional strategies. At present, digital marketing has become the key focus area for the tourism sector all over the world. From convenient booking engines to creating customised experiences, e-marketing has helped the tourism sector reach out to a wider audience, which was not possible with traditional marketing. People can easily access the required information of the tourism services such as accommodation, travel, food and activities, among others, by connecting to the Internet through desktops, laptops, mobiles and other devices.

Tourism is one such affected segment with digital development.

The travel and accommodation segment use digital marketing systems to engage the public and make sure their customers have the best

possible retreats (Yolodigital, 2019). Therefore, digital marketing is the unsurpassed means to influence a large audience faster and at a lesser cost.<sup>8</sup>

#### 4. AIR CONNECTIVITY AND BUSINESS SECTORS AS TOURISM

Air transport development is a key driver for growth in national and international scale. The key objective of this paper is to quantify the socio-economic impact of air transports on regions heavily dependent on tourism. By a top-down analysis, the trends and characteristics of tourism and aviation are highlighted, providing the linkage between these two industries. According to a systemic approach the concept, the methodology and the results are analyzed, providing the framework for similar applications.

The numerical application is Greece, which is a very attractive tourist destination on one hand; and suffers from economic stress on the other. Conventional wisdom is to provide an easy to handle tool appropriate for relevant applications; and highlight key messages

to decision makers and stakeholders. In this paper a socio-economic impact assessment modeling framework is constructed.

The methodology based on income-expenditures concept used to quantify the direct-indirect-induced effects of air transports and the spillover effects of air transports to the tourism industry and, finally, to the local or national economy.

The spillover economic effects involve identifying the key supply chain linkages in the transportation sector and the quantification of air transport in enabling tourism activity and inducing spending by visitors in the domestic economy, referred to as catalytic impact. Finally, the analysis provides results regarding the impact of aviation on key economic indicators and business sectors at a regional or national scale.<sup>9</sup>

8 Chandra Sekhar Patro (Gayatri Vidya Parishad College of Engineering (Autonomous), Impact of New Media in Tourism, 2021,Pages: 21DOI: 10.4018/978-1-7998-7095-1.ch01Benefits of Air Transport,

9 Dimitriou J. Dimitriosa,Mourmouris C.Johnb, Sartzetaki F. Mariac, Published by Elsevier B.V. Peer-review under responsibility of WORLD CONFERENCE ON TRANSPORT RESEARCH SOCIETY,Elsevier,2017

#### **4.1. AIR CONNECTIVITY AND ECONOMIC REGULATION**

While there is no universally agreed definition of 'air connectivity', the general understanding is that it is an overall measure of the level of service - the range and economic importance of origins/destinations, the reliability and frequency of flights and connections - available through a country's aviation system linkage to the global air transport network. The higher the level of connectivity, the greater will be the level of access to the global economy.

Policies limiting air connectivity present one of the major barriers to growth of travel and tourism.

This was recognized by UNWTO's Executive Council which decided that promoting increased air connectivity shall be one of the priorities of the Organization.<sup>10</sup>

#### **4.2. AIR CONNECTIVITY AND BUSINESS SECTORS AS TOURISM**

Air transport development is key driver for growth in national and international scale. The key objective of this paper is to quantify the socio-economic impact of air transports on regions heavily depended on tourism. By a top-down analysis, the trends and characteristics of tourism and aviation are highlighted, providing the linkage between these two industries. According to a systemic approach the concept, the methodology and the results are analysed, providing the framework for similar applications.

#### **4.3. COOPERATION- AIR TRANSPORT AND TOURISM**

Condition for sustainable planning and development.

Actors choose to cooperate establishing relation-based cooperation occur jointly or in substitution, depending on the context and the subject of research.

Tourism and connectivity are strictly related, thus showing deficiencies of the area in terms of accessibility, as well as the trade-offs between the different government (central and local) investment policies and the specific benefits

emerging from the airport in the regional mobility.

#### ***International arrivals by Country***

The map shows the number of tourists by country. France is today the country that receives the most tourists.

#### ***Travel facilitation-measures***

A solid networking protected mechanism has been created in order to enable transportation and tourism providing of services. Mainly, the framework is consisting as follows:

- Border protection agencies, airlines, airport authorities and destinations,
- Taxes and duties,
- Consumer protection,
- Climate Change.

#### **Travel Industry- Factors**

Factors changed which fundamentally altered the dynamics of the travel industry.

1. Distribution
  - Tour operators,
  - Travel agents.
2. The Rise of Low Cost Carriers.

#### **5. TOURISM TOWARDS 2030**

The number of International tourist arrivals worldwide is expected to increase by an average 3.3% a year over the period 2010 to 2030.

#### **International tourist arrivals will:**

- Long-term outlook and assessment of future tourism trends
- Increase by some 43 million a year, compared to an average increase of 28 million a year during the period 1995 to 2010.
- UNWTO's recently updated.

#### **Expectations - Global tourism transport towards 2030**

UNWTO Tourism Towards 2030 is a broad research project in continuation of UNWTO's work in the area of long-term forecasting initiated in the 1990s and aims at providing a global reference on tourism future development.

Following the long-term forecast series of reports

<sup>10</sup> UNWTO (2012), Executive Council- Ninety-third session, Madrid, Spain

Tourism 2020 Vision, the Tourism Towards 2030 - Global Overview report updates international tourism projections through 2030.<sup>11</sup>

Emerging economy destinations of Asia, Latin America, Central and Eastern Europe, Eastern Mediterranean Europe, the Middle East and Africa will grow at double the pace (+4.4% a year) of advanced economy destinations (+2.2% a year).

Forward planning by tourism destinations that include reviews of the external operating environments faced by airlines. Assist with securing accessibility and connectivity

- 57% of International arrivals will be in emerging economy destinations (versus 30% in 1980),
- 43% in advanced economy destinations (versus 70% in 1980).

Air transport will continue to increase its market share, but at a much slower pace.

### **Forecast - by regions**

The biggest growth will be seen as follows:

- Asia and the Pacific, where arrivals are forecast to increase by 331 million to reach 535 million in 2030 (+4.9% per year),
- The Middle East and Africa are also expected to more than double their arrivals in this period, from 61 million to 149 million and from 50 million to 134 million respectively.
- Europe (from 475 million to 744 million),
- America (from 150 million to 248 million) will grow comparatively less.

## **6. CONCLUSION**

Most of the travel destinations rely almost entirely on air services for their visitor traffic. Air transport facilitates integration into the economy and provides vital connectivity on a:

- National,
- Regional,
- International scale between countries,
- Promoting tourism growth,

Create employment opportunities in tourist

11 UNWTO, eLibrary, <https://www.e-unwto.org/doi/abs>

destinations.

Over time, the rate of growth will gradually slow down, from 3.8% in 2011 to 2.5% in 2030, but on top of growing base numbers. The total economic impact of travel and tourism can be assessed by measuring current and capital expenditures in each of the fields including those by:

- consumers,
- businesses,
- government.

The adequate system of Air transport is an essential requirement for the successful development of tourism to many destinations. The emergence of LCC,s contributed to the increase in tourist arrivals.

There is a powerful synergy between the development of International Air transport and International tourism.

Air transport contributes to consumer welfare and travel and tourism provide substantial social benefits, including:

- Increasing understanding of different cultures and nationalities which facilitates closer international integration,
- Improving living standards by widening choice

Air transport contributes to sustainable development and makes a major contribution to sustainable development by supporting and promoting international tourism.

Tourism helps reduce poverty by generating economic growth, providing employment opportunities, increasing tax collection, and by fostering the development and conservation of protected areas and the environment.<sup>12</sup>

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# GREEN PRODUCTS AND CONSUMER BEHAVIOUR IN ALBANIA

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## ABSTRACT

Due to the increasing of environmental awareness, consumers nowadays tend to pay more attention to the safety of personal care items and products that claim to offer environmental benefits. Over the years, both consumers awareness and consumers attitudes towards sustainable or “green” brands have increased significantly. The purpose of this thesis is to affirm this conclusion reached by the authors of scientific articles for Albania as a case study.

From the questionnaire conducted online with 268 participants, in the beginning of the analyses we concluded that Albanian consumers have information and knowledge regarding the term “green” products, also some of them are users of these products and prefer them compared to traditional products as a result of greater quality and bigger benefits. But by the end of the analysis, we saw that despite the qualities highlighted and pointed out by participating consumers, and the possible reasons for using green products, their behaviour does not comply with these thoughts of theirs. What is most important during this research is the low exposure of green products or brands in Albania, creating major constraints on finding and disposing of these products for the Albanian consumer.

**Keywords:** *Green products, green consumption, green marketing, green shopping, social ethics, social dilemmas, consumer behaviour*

## 1. INTRODUCTION

The past decades have witnessed rapid economic growth through increasing consumer consumption worldwide. This, on the other hand, causes deterioration of the environment through excessive consumption and exploitation of natural resources. The consequences of environmental degradation are global warming, stratospheric ozone depletion, sea and river pollution, noise and light pollution, acid rain and desertification. As a result of these last years the concept of green product is widely used.

Generally, the green product is designed or manufactured in a way that minimizes the environmental impact involved in its production, distribution and consumption. This may include the use of recyclable materials, biodegradable elements and components.

While ethical consumption is used to explain socially conscious consumer behavior by focusing on social goals, ideals, and ideology (Culiberg, 2013). In ethical consumption, consumers under-

stand that their behavior will have consequences in their society and can bring important social changes.

This paper aims to study the concept of green products, as a new practice of these recent years, conducted from the need to come to aid to the environment, which is degrading more and more every day. The study also seeks to find a relevance between consumers’ beliefs and ethics regarding these products and the behavior that these consumers hold towards them.

Through this paper it is intended to define the main concepts for green products and green purchases; explain the relation between green products and consumer behavior towards these products; give some factors that affect consumer belief in green products and consequently the attitude of consumers; to conclude about how dilemmas and social responsibilities affect the consumer and his behavior. As such this research addresses the following research questions:

*“Is there a relation between brand awareness,*

*perceived quality and purchase intention?"*

*"Is green product brand awareness positively related to the purpose of the purchase?"*

*"Do consumer ethical beliefs and social dilemmas have a positive and significant effect on the purpose of green shopping?"*

## **2. LITERATURE REVIEW**

Due to the increasing of environmental awareness, consumers nowadays tend to pay more attention to the safety of personal care items and products that claim to offer environmental benefits. Over the years, both consumers awareness and consumers attitudes towards sustainable or "green" brands have increased significantly. However, consumers are acting differently from their purpose.

Rising environmental awareness and green consumption trends have shown a critical need for consumer research for this emerging market. Studies discuss the issue of eco-friendly consumption of consumer products that have gained mostly attention (T. Ramayah, J. W. C. Lee, and O. Mohamad, 2010), (Y. Strizhakova and R. A. Coulter, 2013).

Although "green" thinking is increasing on the minds of consumers, they still struggle with their role in the product life cycle with an environmental benefit. Moreover, consumers seem to have lack of information to verify the responsibility of green products. Branding enables consumers to judge product quality and find manufacturers who should be responsible for products (N. F. Koehn, 2001). Therefore, environmental concern and brand knowledge are likely to be both critical factors influencing the intent of consumers to purchase green products (M. Wheeler, A. Sharp, and M. N. Thiel, 2013).

Despite the fact that consumers have expressed their concerns about the global environment and the sustainable increase in sales of green products, the market share of these products is still very small (MR Gleim, JS Smith, D. Andrews, and JJ Cronin Jr. 2013). Previous studies have suggested that the relationship between "green" attitudes and environment-oriented behavior is quite weak (B. Martin and A. C. Simintiras, 1995). Although consumers express their concern for the environment this does not necessarily convert

into green purchases. Consumers continue to embrace sustainable alternatives to traditional consumption. There seems to be a gap between consumers attitudes and their behaviour towards green products.

### **2.1 GREEN PRODUCTS**

In general, the green product is designed or manufactured in a way that minimizes the environmental impact involved in its production, distribution and consumption (L. Tomasin, G. M. Pereira, M. Borchardt, and M. A. Sellitto, 2013). This may include the use of recyclable materials, biodegradable elements and components (GA Blengini, M. Busto, M. Fantoni, and D. Fino, 2012), (HM Wee, MC Lee, JCP Yu, and CE Wang, 2011).

In fact, there are some characteristics that a product should have to be considered a "green" product (S. C. Tseng and S. W. Hung, 2013). Some criteria are: These products are easily reused using natural and / or renewable resources; Contain recycled content; Easily recycled; Biodegradable; Energy efficient; And are durable with low maintenance requirements.

Thus, green products can be described as products with less environmental impact and less harmful to human health than their substitutes (L. J. Shrum, J. A. McCarty, and T. M. Lowrey, 1995). The growing public awareness of environmental degradation has resulted in the well-functioning of green marketing or environmentally responsible practice for firms in some industries.

### **2.2 HOW MUCH DO GREEN PRODUCTS AFFECT THE MARKET AND CONSUMER CHOICES?**

Green policy has set a criteria that influences consumer buying behavior from the perspective of traders. Follows and Jobber (2000) provided the definition that environmentally responsible products generally tend to be viewed as socially acceptable choices.

Expanding the product line to so-called green products and services is a new brand strategy for them to benefit to a "caring and responsible" image and personality.

Many organic and green products are already produced by many manufacturers. In 2009, the number of green products on retail shelves in

the United States increased by 72%, according to Terra Choice. "Going Green" is an initiative that helps brands smartly expand their product line, introduce a different identity, and make consumers pay more attention to the environment in their choices. Examples of extensions for brand lines are increasing (e.g. Procter and Gamble similarly reduces water consumption by increasing the strength of the liquid detergent and reducing the packing mass. It uses a simple packaging plastic which is lightweight for recycling, such as the packaging for Pantene shampoo.etc)

Efforts by most vehicle companies to produce cars electric and hybrids, also help to change the brand image.

### 3. METHODOLOGY

The data used in this thesis are primary and secondary data, taken from scientific articles, provided in Google Scholar and which are quoted, as well as primary data extracted from the questionnaire conducted by me and distributed and completed online. The primary methodology is the survey to gather the data. The strategy is duo-method.

Data collection. I chose to use the questionnaire technique for data collection, as being the most usable and easiest technique for such studies and for quantitative data collection. The questionnaire is easy structured and the respondents simply answered by clicking on the options that were ready for them for the closed questions, or by placing their respective answers in the open questions as well as in the last questions giving their opinion and suggestions on the questionnaire topic.

The questionnaire has 20 questions and contains general data about 268 respondents such as gender, age, education, income, as well as other questions related to green products, their knowledge and brands and also the impact they have had on behavior consumers. The questionnaire was distributed on social networks who led in becoming the source of primary data used in this paper.

### 4. STUDY RESULTS

In the questionnaire distributed online for the purpose of my analysis, participated 268 people,

who gave their ideas and answers based on personal experiences and knowledges they had about green brands.

#### Question 1: Gender

Most of the people who participated in the study were female, about 84%, a very high percentage compared to males who participated about 16%. Such a division will also have its impact on the given answers as women are more committed to shopping, especially in "green" shopping, focusing on cosmetic products. Males were less interested to this questionnaire as they showed that they had less information on green products.

#### Question 2: Age

As it is shown in the graph below, most of the participants were 21 years old, since the questionnaire was distributed among colleagues of different groups that were almost the same age. So the largest number of participants were 21 years old with 37.8%, 22 years old with 24.3%, 23 years old with 13.5% and 20 years old with 8.1%, creating the most important age group for the analysis of the questionnaire 20-23 years old. To analyze the answers, this presence of young people is quite satisfactory, since the concept of green products, or "green" purchases, are new and related to what has happened in the environment in recent years, which is less familiar for old age people.

#### Question 3: Education

By asking the participants about their education I wanted to find a relation, if there exists any, between culture and information received in school and how they affected the level of knowledges participants had about green products as well as the impact of this knowledge gained on their purchases. The participants of this questionnaire are mostly with a university and post-university degree about 18.2% and 69.1%, while a small part with secondary education, 12.7%. From the answers received, most of the respondents who said that had knowledge about green products and who also gave more opinions and ideas were in fact with a Bachelor and a Master degree, which suggests that with the increase of the educational level, the knowledge on delicate issues that affect us all increases, as well as issues that are



considered ethical dilemmas, such as the use of green products.

**Question 4: Monthly income level**

The income level of the participants is very important, because there are many consumers who are affected from the price of the product in order to make a purchase. So, even though they have a lot of information about the product and their desire to buy is high, the incomes limits many of them.

The graph shows that most of the respondents belong to the level of income 0-30000 ALL, which can be said that is somewhat normal considering that the participants are still in college or newly graduated. It is therefore normal for them to be employed in part-time jobs, or perhaps in jobs that are not yet paid at higher levels as a result of lack of experience. The next interval with higher % is the income level 30001-50000 with 22.1%, followed by other intervals with fewer participants.

Considering that most had such income levels, this affects further responses that although participants have knowledge of green products, they are not always their users as their purchases may be considered costly.

**Question 5: Are you informed about green products or brands?**

As I mentioned above most of the respondents had knowledge about green brands. About 53% said they were informed about green products or brands, while the remaining 47% had no knowledge. Such a result is positive for our analysis as we will be able to get as much information on the following questions from participants familiar with these green products.

**Question 6: If yes, what products do you know and why do you consider them green?**

This question was left open to allow respondents to freely express their opinions and to obtain information about the products they use and the reasons why they consider them green products.

Almost all respondents who answered this question indicated that they consider green products to be any product that is environmentally friendly, organically grown, and suitable for

recycling.

In terms of the type of products, most of the responses were from women who indicated that they use a lot of cosmetic products with plant-based ingredients and with green labels. There are also responses about organic foods and their packaging or packaging that is recyclable and environmentally friendly.

**Question 7: Have you heard of green consumption and ecological labels?**

I also involved in the questionnaire more questions to find out how informed respondents were not only about specific green products, but also about the concept of green consumption and ecolabels themselves. And the responses were quite positive. Of the 268 participants, 73% had some knowledge, even basic, about green consumption and ecolabels. So, the people who participated in this study are aware of these phenomena, which have become more and more vulnerable in recent years, also as a result of the changes in the environment and the increasing number of natural disasters. This is an expected result if we establish a correlation with the age group predominant in the analysis and their level of education. Nevertheless, the concept of ecolabels is still unknown and also slightly reviewed in the literature, so it was a valuable result that most of the participants had heard or were informed about it.

**Question 8: Are you influenced in your purchases by green labels?**

Most of the questionnaire participants stated that they are influenced by the products with green label when making their purchases. About 68% are sensitive consumers and demand that the products they use should be environmentally friendly, have non-harmful and recyclable packaging, be organic and chemical-free products used in them. These consumers prefer to use healthy products for them and with minimal negative impact on the environment, compared to other benefits offered by products without green label.

While the remaining 32% stated that they are not affected by their purchases of products with green label. These may be the part of the participants who have never tried green products, or who do

not know how to distinguish them. They may also be the part of consumers who do not think in the long run about the benefits to their health or the damage caused to the environment.

**Question 9: Do you prefer buying traditional or green products?**

This question is made to directly understand how much consumers use green products compared to traditional ones, regardless of the reasons that lead to such a choice. Most of the answers to this question were not what we expected. From analysing the data collected, we concluded that 33% of the participants used only traditional products. There are many reasons that may have influenced such preferences, despite the great knowledge that the participants had. Some of them are strong loyal consumers of the products they have always used, preferring not to change their purchases even though they are presented with other, perhaps even healthier options. Some others might be price sensitive and despite the desire or information of the benefits they can get, money limits their purchases. They may also be the part of consumers who do not have knowledge about the benefits of these products or the little information they have makes them more skeptical about them.

Most have reacted with indifference, about 49%. These consumers do not realize any big difference between traditional and green products. They can make purchases from instant influences, from the most convenient promotions offered to them, or they can only buy a few specific types of green products. However, they are not regular or loyal consumers. Meanwhile only 18% of participants are permanent buyers who have realized the benefits of using green products and are more sensitive to environmental problems.

**Question 10: What green products do you buy and consume mainly?**

This question is also an open question in order to understand which are the categories of green products that are bought mostly by the participants. And the answers are almost the same as the question asked about what types of products they knew.

Most of the participants responded that they try to buy only eco-friendly packaging, recyclable paper

or cardboard bags. Also most of them say that the 'green' products they buy the most are cosmetics, body and hair care. In fact it is normal that buying products like this, since health comes first and green products are tested that are healthier and with higher values. There also other answers given regarding food products, which are preferred bio and are considered as green products.

**Question 11: Where do you make your purchases?**

We see that the majority of 58% have online shopping as the most used method of buying green products. This is because they are easier to find, as physical points can be difficult to reach, or because many of the brands in our country operate online. It should also be mentioned that the pandemic situation has greatly influenced the behavior of consumers in terms of how they make purchases. In order to avoid contact with people consumers have been influenced and have begun to develop optional shopping methods, such as online shopping. 32% of the participants said that they still have more confidence to see and try the product in the physical points of green brand stores, as they are more suspicious and have a more protective behavior. While 10% of them trust their friends and their experience with these products, leaving it up to them to select and provide green products.

**Question 12: What has influenced your purchases of green products mostly?**

As for the reasons that influenced the participating consumers to buy green products, most of them, 37.5%, are influenced by the quality of these products. Thus, it seems that the participants of the questionnaire consider green products to be of better quality compared to others.

In addition, 18.8% of respondents indicate that the reason they choose these products is because of the benefits they receive from them, so green products are perceived by consumers to offer more benefits, both in terms of quality and in meeting the needs, demands and desires of buyers. Other reasons cited are the environment (12.5%) and ethical and social problems (10.4%), which shows that the participants are very interested in and concerned by environmental issues and consider the use of "green" products as an ethical

issue and the right choice for the benefit of all.

**Question 13: What has influenced you not to buy environmentally friendly products or reduce their consumption?**

Furthermore with this question I wanted to highlight the reasons that stay behind the decisions of participants for not buying green products. And most of the answers indicate the high price that comes with these products. 35.3% of the participants mention as the main reason for limiting the consumption of green products the high prices resulting from the high quality, which, as we analysed in the question above, is affirmed by the participants, and another reason mentioned mostly is the more difficult processes in the production in order not to harm the environment and meet the maximum expectations of consumers. It should also be noted that the age groups that participated in the study did not have high income levels, so they will be sensitive to the reasons of the economic costs of providing these products.

However, numerous responses also addressed the limited opportunities to find green products because it is difficult to obtain them or because they are not found on the main shelves. This important part of marketing damages knowledge about the products and does not make them visible to consumers, which directly affects their position in the minds of consumers and, consequently, information about them and their purchase.

**Question 14: Do you think it is a moral obligation to buy environmentally friendly products?**

The level of answers given to this question is quite optimistic and hopeful. This is because regardless of any reason why consumers do not buy these green products, the majority of participants, more precisely 86% of them, consider it a moral obligation to buy environmentally friendly products. So for this part of the participants the use of green products in addition to a benefit to their health is also a moral obligation for the well-being of the environment, placing the emphasis on long-term benefits, but very influential. Just as our families are made up of each member who has their own responsibilities, rights and obligations,

so society is made up of these families and beyond the whole environment is made up of all these societies.

So, in the same way that we accept our responsibilities in the family and feel the obligation to help them, so for the environment we have the moral obligation to protect and care for it by using environmentally friendly products, which ultimately, we, ourselves and our health will benefit.

A smaller part of 14% said that they do not consider it a moral obligation to use green products. They do not see this part as an obligation, just if they want to use this kind of products they do so and if they don't want to, then there is no problem, as it is not something obligatory for them.

**Question 15: What is your attitude towards green products?**

Regardless of the reasons, we had to understand what attitude participating consumers had towards green products, which affects the opportunities to obtain new information about them and consumer behavior towards them. And we see that the answers are quite positive. Most of them show that they have a positive attitude towards green products, which in addition to certain conditions also affects their positive behaviour towards these products, and in their future purchases. 24% have stated that they have a neutral attitude, so they are neither convinced in favor, nor convinced against the purchase and benefits of the products. Their behavior in most of the cases will follow the attitude participants have and if they hesitate in buying, in the first moment of lack of products on the shelves, they may decide to give up further purchases.

A small proportion, 3%, hold a negative and undesirable attitude towards these products

**Question 16: Do you think green products have more quality and bring more benefits?**

This question was asked to participants who have used both green products and traditional ones and can make a comparison with other products of the same category. The answers are very optimistic because from the analyses made, 89% of respondents that had used "green" products think that green products have more quality



and that they receive more benefits compared to other products. While 11% participants stated that they did not receive any more benefits or did not perceive more quality from the use of these products compared to others. Despite the fact that most of them were positive and their behavior will be in favor of further use of green products, different brands should be careful with the participants that do not perceive more quality, as they would not want this number of consumers to get increased, rather than decreased trying to meet their needs or desires.

**Question 17: Do you know any brand in Albania that produces and sells green or ecological products?**

We see that the majority of respondents, 76.4%, do not know a certain brand that produces and sells green and ecological products. Despite the fact that most were users of green products and preferred them, they choose only on the basis of the product and not on the brand name. Meanwhile only 23.6% have knowledge of specific brands in Albania not only for the products they produce and sell. The recognition in fact is low and leaves much to be desired, but brands need to do more to increase knowledge of them. As green product are new to the market they also need more marketing efforts in order to make them known for the benefits offered as well as the extra offers and possible improvements.

**Question 18: If yes, mention 3 brands.**

It was requested that those participants who knew Albanian brands that produce or sell green products, also mentioned 3 names of those brands they know.

The most mentioned brands by almost everyone were Ada Herbs, Yves Rocher and Green Food. There were also other mentioned brandes by a few participants like Memory Foam, Eco Marcet or Lufra. Ada Herbs and Yves Rocher are known in Albania as brands that produce and sell cosmetic products, hair or body treatment products, all classified as green products. Most of our participants who claimed to be familiar with Albanian green brands were women and therefore the names they gave fit the products they use.

However, there are a very small number of brands mentioned compared to those operating

in Albania, but they do not have an aggressive marketing development in order to gain positioned in the minds of consumers.

**Question 19: What do you think about the marketing you get of green products and how much you are influenced?**

This question was asked with the aim of relating the knowledge of the participants about green products and the influence of this knowledge on their behavior. From the answers of the participants in Albania, it appears that the marketing of these products still leaves much to be desired. Although they are new products related to natural and environmental phenomena and require more efforts for their promotion, brands do not seem to be very focused in this regard.

This initially has a negative impact on the information that consumers should receive and consequently on further consumer behavior towards these products. All participants complained about the lack of marketing and information disseminated by brands in Albania for the production and distribution of green products and expressed that they have a positive attitude towards the products that are heavily promoted and about which they are informed. Participants also indicated that they are highly influenced by the brands that have developed promotions, advertisements, announcements, or other types of marketing tools, which increases their knowledge, trust and purchase of products from these brands.

I also wanted to give an answer from a girl participant in the online questionnaire, as she had touched on some very key points: "Green products should be marketed as much as possible, at least to increase awareness that there is a better alternative for the environment and the individual, in order to reduce products produced not only unethically but also harmful. Another important thing is the transparency on social media about the product because the "green washing" effect often occurs where companies like H&M for example market the product as relatively environmentally friendly when in fact it is not. As I have tried and watched over from firms abroad, their presence on social media is key and also PR through influencers. Since these products sometimes require 2x marketing, this affects costs



along with other production/ packaging costs etc. I am personally first influenced by the aesthetics of the brand itself, if it attracts me I continue to get more information and buy the product and if it the brand does not attract me I just do not buy the product. In addition to aesthetics is the transparency and data provided on the product, ingredients, materials or other. “ This was the response of the girl whom I thank because she emphasized in a complete way what the other participants had said above.

**Question 20: If you have any suggestions on the types, uses or green brands in Albania how they should operate or what to change please feel free to comment.**

I thought there should be a free space for all participants who wish to freely express an opinion or give a suggestion. And some of the arguments of the participants are presented below: “In my opinion, they should focus on the quality of the product they offer, as a start they should be certified, registered and tested. They have to go through a few filters until they come to me as a customer. The marketing they use focuses on the service that makes me as a customer for what it offers and then mentions as a strong point the fact that they are ecological and not to be primary.”

As a consumer, I first want to fulfill my needs and then the environments’, so I can not buy something that does not fully serve me or that I find the product better at the same price simply because it is ecological. I think if they want to consider being ecological they should make a lot of tests to bring out the best and combining quality with the materials used. I hope that all those who love the environment take really concrete steps, well thought and studied a lot before launching the product at the market. The brands should not rely on a global idea (which is ecological) because society is very individualistic (it wants the best for itself) “

“Green brands are still negligible for us. Vodafone is trying and has objectives that are conform to the actions and conduct of business in the most eco friendly way. When it comes to consumer brands whether clothing or food, there are small businesses which are “really” green brands but still unknown due to lack of marketing. Price is a very influential factor to push the customer to buy

from a brand and unfortunately these products have high costs. We as a people are not yet aware, but the younger generation must research and increase knowledge in this regard. “

“In Albania, green products have started to be introduced and marketed, but not enough, there should be an awareness through the marketing of these products on social media mostly, by influencers such as bloggers or public celebrities or other forms of marketing that promote consumer purchasing.”

These were some of the opinions and suggestions of the respondents and also there were many opinions that in Albania green products are not branded and therefore that is why there is a small number of consumers who buy them, but that if the awareness about these products would increase, the impact on consumers and their purchases would also increase.

## **5. CONCLUSIONS**

Over 70% of participants showed positive attitudes towards green products and have created the belief that these products have a higher level of quality than traditional products. The purchase of these products has been mostly influenced by the high quality as well as the benefits that consumers receive from their use. The green products most used by the participants were: cosmetic products, food and ecological packaging.

A very important conclusion is that Albanian brands that produce and sell green products do not make much marketing efforts to increase awareness about them and all participating consumers complained about this. In Albania it is very difficult to find and always have green products available, as there is a lack of access to exposure and increased publicity for them. Despite all the knowledge, positive attitudes and information about the benefits and high quality of green products, consumer behavior does not always follow consumer attitude. For various reasons most participating consumers do not make large purchases of these products. Some of the reasons identified were: high price, difficulty to find them within stores, being already familiar and comfortable with the use of traditional products, skepticism about the production of

these products etc.

That being the case from the study conducted on green products and consumer behaviour we came to the conclusion that despite the great knowledge of Albanian consumers on consumption and ecological labels, most of them still prefer to buy traditional products, or are indifferent to both types of products, without eventually having a high preference for the green ones.

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## THE POSITIVE IMPLICATIONS OF THE DECENTRALIZATION PROCESS ON PRIMARY EDUCATION MANAGEMENT

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### ABSTRACT

Democratization has emerged as a need for the good of citizens, to improve the quality of life, the process of accession to communities (democratization of society, creating a democratic, accountable, transparent and accountable government) and to improve and maintain stable interethnic relations in the country. As in other segments, decentralization in education refers to the transfer of responsibilities from national to local level, thus placing primary and secondary education under the jurisdiction of municipalities. The decentralization process is changing the way schools are managed and managed where schools tend to become open learning centers, involving more entities, including parents and students, and local government officials, increasing cooperation with enterprises and NGOs such as and utilizing local resources in order to enrich the experience and raise the level of skills acquired. The research part is aimed at determining the effects of primary education management before and after the decentralization process. The research was conducted on a sample of respondents from primary school teachers, principals, ie deputy principals and professional associates from the pedagogical-psychological service in schools. A research questionnaire technique was used to conduct the research. The poll is anonymous and the questions are clearly worded. The obtained results from the research are processed quantitatively, and certain areas will be interpreted qualitatively.

**Keywords:** *education, primary, decentralization, effects, management.*

### 1. INTRODUCTION

The legal implementations for territorial division increase the responsibilities and competencies of the local self-government units, ie the municipalities. Competencies primarily relate to public services, urban and rural planning, environmental protection, local and economic development, local finance, social and health care, culture and, of course, education.

In all segments, responsibilities are transferred from national to local level, in order to bridge the gap between central and local government, but also reduce the vacuum between the citizen and the state, and overcome the threat to the local environment, inefficient and ineffective satisfaction of the interests and needs of the citizens. Namely, each municipality is better able to adapt and monitor the characteristics of local development as well as local problems and priorities on the one hand, but also to ensure the presence and participation of local people in local government decisions in political processes on the other hand.

As in other segments, decentralization in education refers to the transfer of responsibilities from national to local level, thus placing primary and secondary education under the jurisdiction of municipalities. Thus, each municipality takes over the ownership of the school property, the obligations for its maintenance and the payment of salaries to the employees from the education sector. Among other things, with the decentralization process, each municipality manages the financial resources intended for education. The decentralization process is changing the way schools are managed and managed where schools tend to become open learning centers, involving more entities including parents and students, increasing cooperation with enterprises and non-governmental organizations as well as the use of local resources with in order to enrich the experience and raise the level of acquired skills.

Decentralization in education redistributes responsibilities for key issues in education at all three levels: national, local and school. Responsibilities have increased at the local and school level, as opposed to previously concentrated com-



petencies at the central level. The responsibilities of the entities at the state level are responsible for external quality control in the educational institutions, while the local entities are in charge of providing conditions for higher quality, in accordance with the national standards for quality of education.

The manager of a modern school has an important role as a leader of change, ie careful data management, careful analysis and making appropriate decisions. The manager of the school, in addition to managing and organizing the educational work, makes decisions, represents the school before third parties, and is responsible for the legality of its work. Hence, I believe that the managerial skills of the leaders at the municipal and school level are essential for ensuring a high quality educational process and education according to modern trends.

## 2. DECENTRALIZATION

Decentralization as a first step towards democratization in a society, above all is a need for the citizens. They should be actively involved in making decisions that affect their daily lives and decide on their own local needs and priorities, with the ultimate goal of providing better and better services close to where they live.

### THE ROLE OF MANAGEMENT IN EDUCATION

The most important educational institution is the school. The school as a whole is a specific organizational system that aims and task to implement such activities that will lead to high results and achievements of students. The level of these results is certainly determined by the environment in which the school operates, ie. from the values and expectations of the social environment.

A very successful attempt at a complex approach to school setting as an organizational system was made by Ubben and Huges.

According to this approach, the school is basically characterized by three components:

1. The external structure of the school
2. The behavior of the school principal
3. The internal structure of the school

The external structure of the school consists of:

- Institutional framework of the school;
- Beliefs, values and expectations of the social community;
- Beliefs, values and expectations of the school principal.

The behavior of the school principal includes a series of specific behaviors, distinguishing five types of power of the leader / administrator: professional, cadre, educational, symbolic and cultural.

The internal structure of the school consists of three elements:

- The organization and realization of teaching;
- School climate;
- School culture.

Regarding the organization and realization of teaching, this part of the school structure includes:

- organization and implementation of curricula (curriculum);
- staffing, organizing, coordinating and communicating staff;
- division and grouping of students by class and groups;
- distribution of classes by subject executors and class leaders;
- preparing a schedule for students and teachers;
- selection, application and strategy for development of appropriate and modern educational technology;
- selection of books, magazines and other types of professional and pedagogical literature for the school library;
- work program of the teacher council, professional assets and other professional bodies and bodies;
- program for working with students' parents;

More recently, the role of management, and thus of management in education, comes down to regulating the relationship between the one who manages and what is managed in terms of achieving the set goals. Therefore, the basic functions of management are the embodiment of the

necessary forms, actions and processes that exist in a given organization in order to achieve the desired and predetermined result.

Practically, for the management of educational institutions it is necessary to have knowledge of theories of motivation, of course intertwined and assisted with the ability to cope in certain different situations and to encourage their employees because it depends on the success or failure of each educational institution, the people themselves as the most important resource in it. Of course, material resources also have their meaning and importance, but more important than anything else are certainly the people who practically provide and manage those material resources. Management in education is a special process of planning, motivating and controlling the accomplishment of the mission of the educational institution with the help of man and other resources.

We need to know that every organization, including the educational one, cannot move on its own. A series of components and realization of many functions and actions are needed to help in the realization of the tasks of that organization. But the essential and most essential functions of the organization are precisely the management.

More recently, the role of management, and thus of management in education, comes down to regulating the relationship between the one who manages and what is managed in terms of achieving the set goals. Therefore, the basic functions of management are the embodiment of the necessary forms, actions and processes that exist in a given organization in order to achieve the desired and predetermined result.

### **STAKEHOLDER ENGAGEMENT ANALYSIS**

With the decentralization process, the municipalities take on new competencies and responsibilities and especially emphasize the cooperation between the municipality and the principal, but also the school boards, teachers and parents. In this way, the needs of more stakeholders in the educational process are heard. The municipality must listen to the needs, solve the problems and get involved in the discussion of issues related to education for all groups involved in the educational process.

1. School principals - who as managers play a key role in organizing and planning educa-

tional activities. The main expectation of the principals is that the municipality will provide them with sufficient funds to improve the conditions for their schools and that the municipality will respect their professional autonomy and the right to manage the pedagogical process. The municipality must allocate the already insufficient funds in such a way as to strengthen the autonomy of the schools, and at the same time to minimize the potential conflicts between the schools.

2. Teachers - the largest group in the school staff. The main expectations of teachers after the decentralization process are that the municipality will improve their working conditions in schools, as well as the regular payment of salaries and job guarantees, especially in the regional schools where due to demographic changes the number of students is reduced. What teachers also expect from the municipality is the introduction of new professional guidelines, especially in terms of the impact of such changes on their employment.
3. Parents of students are the largest group who are directly involved in local education and have very specific needs and expectations. Their expectations are aimed at making the school a pleasant and safe place for their children, they expect success in learning, they expect the teachers to meet them both in acquiring new knowledge and skills, as well as educational activities for the children.
4. School boards - composed of teachers, parents and representatives of local authorities. The school board should focus on the interests as well as on solving the problems of the school, cooperating with the municipality.
5. Students are the stakeholder and the central emphasis is given to their needs in order to acquire knowledge and skills in teaching and extracurricular activities.
6. Local business community - represented by owners and managers of enterprises that have a direct interest in the staff coming from high schools. It also emphasizes another aspect of cooperation with the business community, where the business community is expected to provide equipment support and improve school conditions.

7. Non-governmental organizations - which through presentations and workshops encourage students to volunteer and support the goals that the organization strives for, and in return offer additional educational activities in the school. The field of activities of non-governmental organizations includes democratic processes and values, human rights, civil rights, multicultural traditions, ecology, animal protection, etc.

### **THE ROLE AND OBLIGATIONS OF THE MAIN ENTITIES IN THE DECENTRALIZATION PROCESS IN THE PRIMARY EDUCATION**

The main entities in the education sector are at three levels, namely: entities at the macro - state level, entities at the secondary - municipal level and entities at the micro - school level. Entities at the macro level are: the Ministry of Education and Science, the Bureau for Development of Education and the State Education Inspectorate. As part of the responsibilities of the Ministry of Education and Science, we will mention:

- Adoption of pedagogical standards and norms (proposed by the Bureau for Development of Education);
- Adoption of plans and programs for public schools prepared by the Bureau for Development of Education;
- Selection of a public school that will serve for the implementation of pilot projects aimed at introducing new pedagogical forms and contents in the curriculum;
- Approval of concepts for textbooks (prepared by the Bureau for Development of Education in accordance with the plans and programs for appropriate subjects);
- Establishment of a commission for expert evaluation of the proposals for textbooks for appropriate subjects;
- Adoption of a program for taking the final national exam in high schools, matura or international matura in secondary education (at the proposal of the Bureau for Development of Education);
- Adoption of regulations for the pedagogical forms, procedures and conditions for professional and pedagogical training;

- Nostrification or confirmation of the equivalent of certificates obtained abroad;
- Establishment of an expert commission composed of representatives for the professional bodies of the Ministry and the universities and compiling an exam for school principal;
- Monitoring the legal compliance of the implementation of the programs for the primary and secondary schools.

The Bureau for Development of Education functions within the Ministry of Education and Science and has the following responsibilities:

- Development of curricula;
- Building and maintaining knowledge standards and norms and standards for an effective school;
- Determining the concepts for textbooks and the methodology for their evaluation;
- Participation in the assessment of the adequacy of the textbooks and teaching aids with the goals and the curriculum;
- Preparation of the program for professional development of teachers;
- Building programs for extracurricular and educational activities of young people in schools and school dormitories;
- Strengthening the pedagogical-psychological service in schools by clearly demarcating the competencies of the staff and focusing them on the development sphere;
- Providing professional assistance to schools in ensuring quality in line with national quality standards;
- Supporting projects that aim to improve the quality of education and are in line with state priorities;
- Establishment of a system for rehabilitation of the teaching staff;
- Cooperation with the non-governmental sector;
- Research-development component of education.

The State Education Inspectorate is a body of state administration that functions under the Ministry of Education and Science. As part of the respon-

sibilities of the State Education Inspectorate, we will mention:

- Supervising the work of teachers;
- Professional and pedagogical upgrade;
- Use of textbooks;
- School management and administration;
- Implementation of the curriculum and extra-curricular activities;
- Determining the criteria and analyzing the results of the entrance exam;
- Control of keeping pedagogical records.

The State Education Inspectorate also monitors the implementation of regulations and laws in the field of education. There are also authorized municipal education inspectors in the municipalities who have the task to supervise the legitimacy of the activities in the field of education for the competent municipality. Entities at the middle, ie municipal level are the mayor and the municipal council. The Mayor:

- has a decisive role in the appointment, ie dismissal of school principals, upon a previous proposal of the school board;
- three months before the expiration of the term of the director, makes a decision for election of a new director;
- Appoints a new deputy principal no later than 15 days after receiving the proposal from the School Board;
- Appoints a trustee in case the director resigns or is dismissed;
- Authorizes a person for the duty of inspector of education.

The municipal council also has its role and responsibilities in education, such as:

- Establishing a school;
- Abolition of school;
- Deciding on a location for a certain school;
- Appointment of members in the schools (in primary two and in secondary three members), as representatives of the municipality;
- Providing access to primary and secondary education.

Micron level entities are the school board, the school principal and the professional school authorities. The school board is composed of teachers, parents and local government representatives, so as such they do not represent a specific group of interests. In small primary schools, the total number of board members is seven, in large primary schools it is nine members.

The responsibilities of the school boards in the primary schools are:

- Adoption of the statute of the school;
- Proposing an annual work program;
- Submitting reports on school achievement;
- Proposing an annual financial plan to the municipality;
- Proposing annual financial accounts of the municipality;
- Announcing a public announcement for election of a school principal;
- Interviewing the candidates applied for a previously announced competition for school principal;
- Nominating a candidate for school principal to the municipality.

It is important to emphasize the need for good cooperation between the municipality and the school board, in order to ensure that common interests and common views prevail.

School directors are a group of stakeholders that the municipality must work with from the beginning. Every director has a role and responsibility:

- To organize and manage educational activities;
- To provide educational materials for the school;
- Legal compliance and financial operations;
- Proposes an annual work program and its implementation;
- Implementation of school board decisions;
- Selection, as well as making decisions for the beginning, ie termination of the employment of teachers, professional associates and technical staff;
- Making decisions on the engagement of teach-



ers, professional associates and administrative-technical staff;

- Submits an annual report on the implementation of the planned program to the Ministry of Education and Science and the municipality;
- Submits reports on the achieved results of the school to the Bureau for Development of Education.

Professional school bodies have a role to play in decision-making at the school level. Professional school bodies are the teachers’ council, the class council (council of subject teachers) and the heads of the classes, professional assets (teachers who teach the same subject). The obligation of the professional school bodies is to organize and conduct a quality educational activity and to achieve the goals of the annual program and the extracurricular activities provided by the program.

### 3. III. MATERIALS AND METHODS

Given the complexity of the decentralization process, several issues arise that could be explored from several aspects. Regarding education as one of the segments that was covered by the decentralization process, I believe that it is extremely important to determine the effects of education management.

The research was conducted on a sample of respondents from primary school teachers, principals or deputy principals and professional associates from the pedagogical-psychological service in schools. The total number is 69 respondents.

<b>Respondents</b>	<b>Total</b>
Teachers-central	40
Teachers-regional	15
Director / Deputy	4
Pedagogical-psychological service	10
<b>Total</b>	<b>69</b>

The obtained research results will be processed quantitatively in order to give an objective picture of the opinion of primary school teachers. The research technique questionnaire was used to conduct the research. The poll is anonymous and the

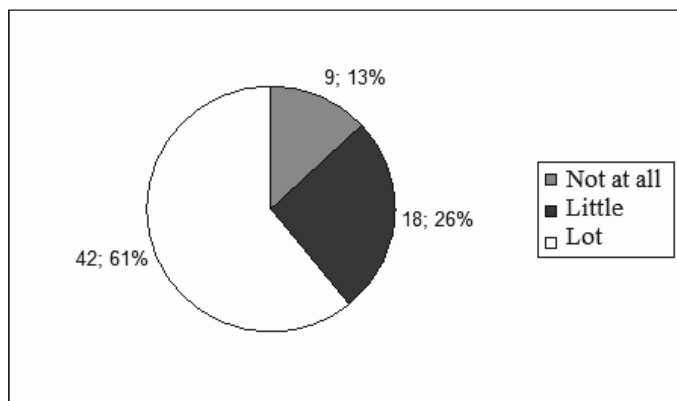
questions are clearly worded.

The data processing will use scientific methods that are most often used in research in the social sciences. In that sense, in addition to theoretical research, analytical, inductive-deductive, comparative, quantitative and logical methods will be used.

	Gender		Age				
	male	female	to 30	31-40	41-50	51-60	up 60
<b>Teachers-central</b>	4	36	8	11	15	4	2
<b>Teachers-regional</b>	2	13	4	5	4	1	1
<b>Director / Deputy</b>	2	2	/	/	2	2	/
<b>Pedagogical-psychological service</b>	1	9	/	4	3	2	1

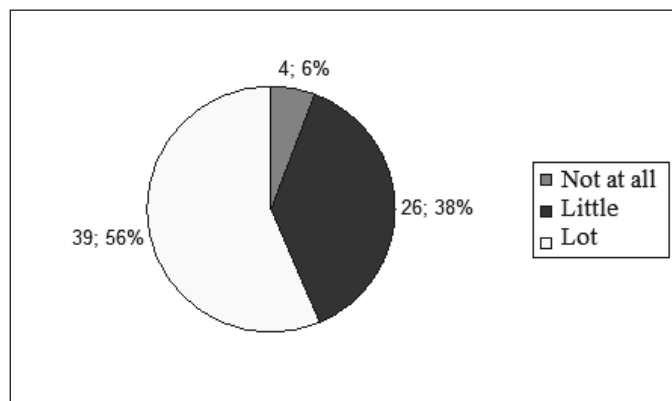
To the question “How much do you think the working conditions in your school have improved after the decentralization process”, 9 respondents (13%) answered no at all, 18 (26%) answered with little and 42, ie 61% of the respondents answered with a lot . Out of a total of 40 teachers employed in schools in the downtown area that were included in the survey, 4 answered with no at all, 8 with little and 28 with much. Of the teachers working in district schools outside the downtown area, 2 answered with no at all, 7 with little, 6 with a lot. One of the directors answered with little, one with no at all and 2 directors answered with a lot. From the respondents from the pedagogical-psychological service, 2 answered with no at all, 2 with a little and 6 with a lot.

THE POSITIVE IMPLICATIONS OF THE DECENTRALIZATION PROCESS ON PRIMARY EDUCATION MANAGEMENT



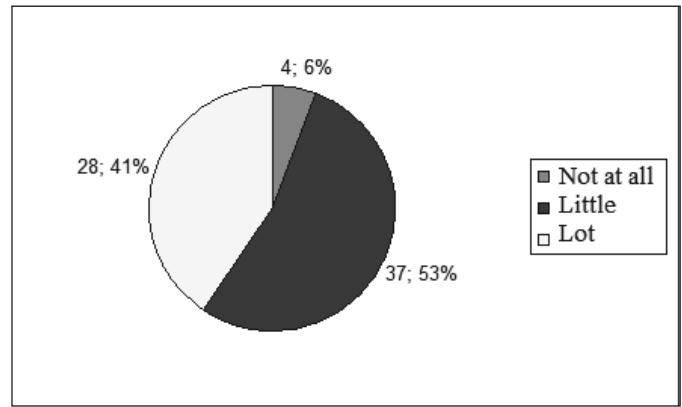
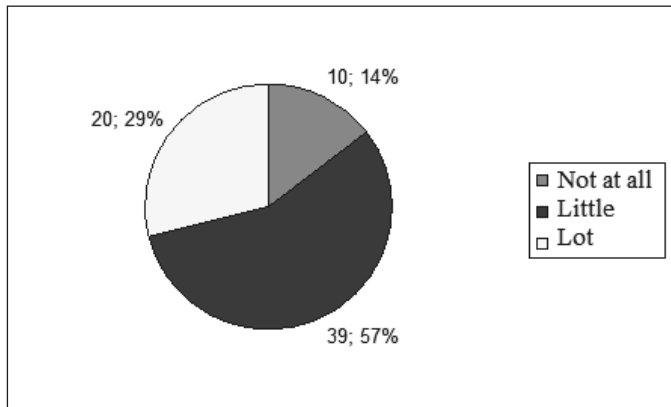
	Not at all	Little	Lot	Total
Teachers - central	4	8	28	40
Teachers - regional	2	7	6	15
Director / Deputy	1	1	2	4
Pedagogical-psychological service	2	2	6	10
<b>Total</b>	<b>9</b>	<b>18</b>	<b>42</b>	<b>69</b>

To the question "Do you think that the teaching staff has a greater influence in making important decisions for the school after the decentralization process", 4 respondents (6%) answered no at all, 26 (38%) answered with little and 39, ie 56% of respondents answered with many. Out of a total of 40 teachers employed in schools in the downtown area that were included in the survey, 3 answered with no at all, 14 with little and 23 with a lot. Of the teachers working in district schools outside the downtown area, 1 answered no at all, 4 answered little and 10 answered much. The directors answered in the affirmative, ie that their influence on decision-making is great. From the respondents from the pedagogical-psychological service, 8 answered with a little and 2 with a lot.



	Not at all	Little	Lot	Total
Teachers - central	1	20	19	40
Teachers - regional	2	10	3	15
Director / Deputy	/	1	3	4
Pedagogical-psychological service	1	6	3	10
<b>Total</b>	<b>4</b>	<b>37</b>	<b>28</b>	<b>69</b>

To the question "Do you think that the teaching staff has a greater influence in creating a vision for the school after the decentralization process", 10 respondents (14%) answered no at all, 39 (57%) answered with little and 20, ie 29% of the respondents answered with many. Out of a total of 40 teachers employed in schools in the downtown area that were included in the survey, 6 answered with no at all, 18 with little and 16 with much. Of the teachers working in district schools outside the downtown area, 3 answered no at all, 11 answered little and 1 answered a lot. Of the principals, 3 responded with little and 1 with much. From the respondents from the pedagogical-psychological service, 1 answered with no at all, 7 with a little and 2 with a lot.

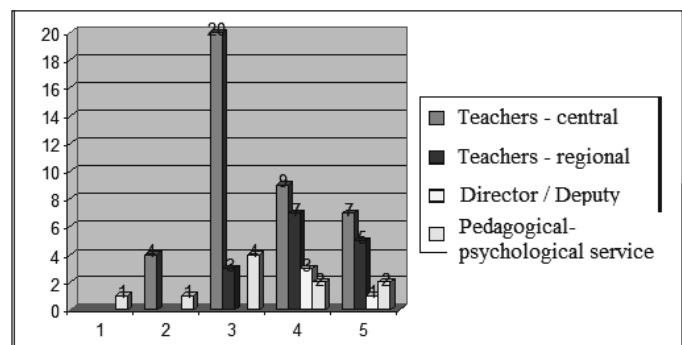


	Not at all	Little	Lot	Total
Teachers - central	6	18	16	40
Teachers - regional	3	11	1	15
Director / Deputy	/	3	1	4
Pedagogical-psychological service	1	7	2	10
<b>Total</b>	<b>10</b>	<b>39</b>	<b>20</b>	<b>69</b>

	Not at all	Little	Lot	Total
Teachers - central	6	18	16	40
Teachers - regional	3	11	1	15
Director / Deputy	/	3	1	4
Pedagogical-psychological service	1	7	2	10
<b>Total</b>	<b>10</b>	<b>39</b>	<b>20</b>	<b>69</b>

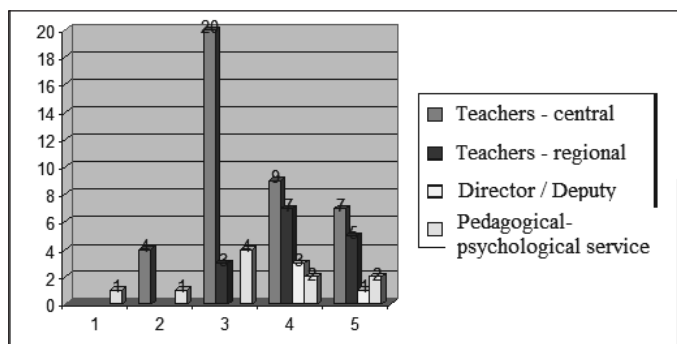
To the question “How much do you think your school establishes a successful relationship with the local community after the decentralization process”, 4 respondents (6%) answered no at all, 37 (53%) answered a little and 28, ie 41% of the respondents answered a lot . Out of a total of 40 teachers employed in schools in the downtown area that were included in the survey, 1 answered with no at all, 20 with little and 19 with much. Of the teachers working in district schools outside the downtown area, 2 answered no at all, 10 answered little and 3 answered very much. Of the directors, 1 answered with a little and 3 with a lot. From the respondents from the pedagogical-psychological service, 1 answered with no at all, 6 with a little and 3 with a lot.

To the question “How do you assess the effectiveness of education after the decentralization process”, 1 respondent gave a grade of 1, 5 respondents gave a grade of 2, 27 respondents gave a grade of 3, 21 respondents gave a grade of 4 and 15 respondents gave a grade of 5. The analysis shows that the results are higher than the previous question and higher values prevail, which means that the arithmetic mean is shifted to the right.



	1	2	3	4	5	Total
<b>Teachers - central</b>	/	4	20	9	7	40
<b>Teachers - regional</b>	/	/	3	7	5	15
<b>Director / Deputy</b>	/	/	/	3	1	4
<b>Pedagogical- psychological service</b>	1	1	4	2	2	10
<b>Total</b>	<b>1</b>	<b>5</b>	<b>27</b>	<b>21</b>	<b>15</b>	<b>69</b>

To the question “How do you assess the effectiveness of education after the decentralization process”, 1 respondent gave a grade of 1, 5 respondents gave a grade of 2, 27 respondents gave a grade of 3, 21 respondents gave a grade of 4 and 15 respondents gave a grade of 5. The analysis shows that the results are higher than the previous question and higher values prevail, which means that the arithmetic mean is shifted to the right.



	1	2	3	4	5	Total
<b>Teachers - central</b>	/	6	16	10	8	40
<b>Teachers - regional</b>	/	/	7	6	2	15
<b>Director / Deputy</b>	/	/	/	2	2	4
<b>Pedagogical- psychological service</b>	/	/	1	7	2	10
<b>Total</b>	<b>/</b>	<b>6</b>	<b>24</b>	<b>25</b>	<b>14</b>	<b>69</b>

## CONCLUSION

Decentralization as a first step towards democratization in a society, above all is a need for the citizens. They should be actively involved in making decisions that affect their daily lives and decide on their own local needs and priorities, with the ultimate goal of providing better and better services closer to where they live.

In general, democratization is needed for the good of the citizens, to improve the quality of life, to democratize society, to create a democratic, accountable, transparent and accountable government, and to improve and maintain stable interethnic relations in the country.

Decentralization has brought new competencies to municipalities in the field of education as well. Their basic regulation is done by the Law on Local Self-Government, as “establishment, financing and administration of primary and secondary schools in cooperation with the central government, in accordance with the law, organizing transportation and food for students and their accommodation in dormitories.”

The situation in education before the decentralization process speaks of the following problems:

- Centralized education with minimal competencies of the local self-government, the teaching staff and the parents, ie the community, so undoubtedly it is a space for politicization in the area;
- Extremely centralized, and thus politicized education;
- Overlapping competencies;
- Inadequate school network;
- Insufficient coverage of students with separate ethnicities in primary and secondary education;
- Lack of a national program for development of education;
- Dominance of factography;
- Minimal informatization
- Depreciated facilities;
- Chronic lack of information;
- Demotivated and instead inappropriate



teaching staff;

- Unsatisfactory management capacities in the administration and educational institutions;
- The expectations from decentralization are aimed at increasing the competencies from national to municipal and school level through:
- Reorganization of the educational administration and management through appropriate newly adopted laws on local self-government and financing of local self-government;
- Better education replacement and management strategy;
- Developing a more efficient system for financial planning, allocations and financial management;
- Improving the management at the middle and micro level, as well as the professionalism and effectiveness of the employees in the schools and the local self-government;
- Precise definition and restructuring of the responsibilities of the entities at all three levels;
- Building a system of school self-government and providing training for managerial positions in schools;
- Increasing capital investments in education.

From the results of my research, as well as from the opinions of experts in monitoring reports, we can generalize answers to the set goals: The decentralization process affects a more active and transparent management of schools involving a larger number of entities, thus enabling more efficient control of the work of the schools. Schools are gradually becoming open learning centers, and management teams should provide conditions for quality teaching through modern methods and active participation of students in mastering the curricula. The curricula need to be enriched, and the teachers need to be permanently improved.

The management team should provide a good link with the local government and establish relations with business community entities, parents, NGOs, all in order to provide students with instruction that leads to the acquisition of lasting knowledge.

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## THE COVID-19 EFFECTS ON THE VIDEO GAME INDUSTRY -A COMPARATIVE RATIO ANALYSIS ON ACTIVISION-BLIZZARD, ELECTRONIC ARTS AND KONAMI

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### ABSTRACT

The video game industry has evolved from having just a children-focused target market to a more sophisticated one with a widespread and mainstream audience with no age limitations. After the COVID-19 outbreak, it is mainly stated as one of the industries that faced little to no issues, so the main aim behind this research is to investigate how the giants of this industry confronted the financial challenges of pandemic.

We conducted a comparative profitability, liquidity, asset and debt utilization ratio analysis relying on the annual reports of 2021 and 2020 (*2020 and 2019 for Activision-Blizzard*), published by three of the biggest video game development companies. The time frame was chosen to reflect the position of the companies before and after the first year of the pandemic. The results vary due to the companies' business models. Based on these results, we tried to identify any possible changes and variations, assessing the financial performance and position of the companies.

In the case of Activision-Blizzard, we mostly came up with increases in all of their major ratios, which derives from a successful business model they follow. In Electronic Arts' case, we noticed an increase in revenue expenditure that led to a decrease in its profitability ratios. We also found out that the company has slight reduction in liquidity and asset utilization, but the results still indicate a good performance and do not reflect any serious predicament. While Konami, we saw a significant growth in their profitability and liquidity ratios, but on the other side there is a decrease in their total asset turnover and increase in the debt ratio.

In overall, we can state that the companies managed to cope with pandemic and financial challenges during the first year and even to expand their presence in the video game industry, but not without having to face some difficulties.

**Keywords:** *Video Game Industry, COVID 19 Pandemic, Electronic Arts, Konami, Activision-Blizzard, Ratio Analysis, Financial Position and Performance.*

## 1. INTRODUCTION

### 1.1 BACKGROUND

"An electronic game in which players control images on a video screen" is the simple definition given to video games by the Merriam-Webster dictionary. Nowadays, a video game can be considered an art piece by many enjoyers since it holds a plethora of emotions, visual beauty, and history behind it.

Early video game prototypes were created in labs in the 1960s, but the first breakthrough was done by Atari, an American manufacturer

of computers and video game consoles. It was Atari's introduction of Pong in 1972 that helped to spark the industry. After the market had dwindled owing to a glut of Pong clones, the arrival of Space Invaders in 1978 re-energized it. Unfortunately, the gaming industry grew too quickly for it to be sustainable. As other firms attempted to capitalize on the market, many more failed attempts at games and systems triggered an industry decline. Simultaneously, with the advent of the Commodore 64 in 1982, personal computers became the new taste of gaming.

It was a foreshadowing of what would come to define this age in gaming history: a technology race. In the following years, Nintendo would unveil the Nintendo Entertainment System (NES) in 1985, focusing on high-quality games and continuous marketing to reclaim the hesitant market. Even Microsoft recognized the importance of PC gaming and created the DirectX API to aid with game development.

However, it was the rise of the internet and smartphones that propelled the gaming business from tens of billions to hundreds of billions of dollars in revenue. Meanwhile, Amazon and Google are creating their services that function across numerous devices, including smartphones. Companies are targeting as much of the market as they can, after seeing the popularity of games like Pokémon Go on smartphones. According to Statista (2022) there were an estimated 3.24 billion players in 2021 across the globe, and how they spend their money continue to impact gaming industry.

## **1.2 HISTORY OF THE COMPANIES IN FOCUS**

### **1.2.1 ACTIVISION-BLIZZARD**

Activision-Blizzard Entertainment, two outstanding gaming businesses, united about 40 years ago, bringing together one of the best creative talents in gaming. Their journey to industry leadership started with humble beginnings. They acquired King in 2016 boosting their ambition of bonding the world via great entertainment. The company has become one of the world's most popular and beloved video game businesses. Activision-Blizzard in 2018 revolutionized eSports, the competitive gaming industry with the inaugural season of the Overwatch League, the world's first major global professional eSports league.

### **1.2.2 ELECTRONIC ARTS**

According to Ivan (2020), Electronic Arts Inc. (EA) is the second-largest gaming firm in the America and Europe by sales and market capitalization, trailing only Activision Blizzard and ahead of Take-Two Interactive and Ubisoft. It is founded and established in May, 1982, and it was a pioneer of the early home computer gaming industry, referring to the designers

and programmers as “software artists.” In 1991, the firm began to focus on internal game studios, frequently through acquisitions, such as Distinctive Software becoming EA Canada. EA currently develops and publishes games from well-known franchises such as Battlefield, Mass Effect, Dragon Age, The Sims, Medal of Honour etc.

### **1.2.3 KONAMI**

The company was found by Kagemasa Kozuki, on March 21, 1969, and was legally incorporated in March, 1973, under the name Konami Industry Co., Ltd, in Osaka. Their first coin-operated video game was released in 1978, and the following year, they began exporting items to the United States. In 1982, they founded Konami of America, Inc., and their U.S. subsidiary.

Konami has made a legacy in the video game industry for creating the first cheat code ever in video games. The Konami Code, often known as the Contra Code, is a cheat code found in numerous Konami video games as well as several non-Konami games. This was a staple in the video game industry since it made it a necessity to add cheat codes in a video game and make the game more enjoyable, simpler, or even funky for the players.

## **1.3 RESEARCH QUESTION**

This study is going to give responses to these questions: “Has the video games industry suffered or benefited from the pandemic? What are the effects that the pandemic caused to the financial position and performance of most important companies operating in this industry?”

## **1.4 RELEVANCE AND OBJECTIVES**

The main aim of this research study is to compare, interpret and mark how Activision-Blizzard, Electronic Arts and Konami are acting over time, before and after pandemic, in order to reveal insights with regard to their financial position and performance. Some of the reasons behind this study are to examine the press' speculations that this industry is one of the greatest beneficiaries of pandemic, to analyse if the companies within this industry have leveled



up during the pandemic and to see if their business models affected the changes that have concurred.

## 2. LITERATURE REVIEW

As stated by Ortiz, Hector, Chimbo, and Toaza (2021) the pandemic has turned everyone into finding indoor hobbies to spend the time, one of them being gaming since it is the most accessible, (since everyone can play videogames from their smartphones or laptops, even their TVs), and an entertaining alternative. The growing demand for video games during quarantine has revealed economic changes to the benefit of this industry, with an increase in sales within the countries with the highest video game consumers. The global PC gaming market, as researched by Clement (2021), generated almost 37 billion US dollars in revenue through 2020, while the mobile gaming market was also expected to generate more than 77 billion US dollars. According to a Bloomberg report (2022), "the video-game industry could be one of the greatest beneficiaries of the pandemic, growing 23% in 2020 from the year prior. Though growth probably won't be as explosive in future years, research firm Newzoo still predicts that revenue will reach \$219 billion by 2024". This growth prediction even though it takes into charge different factors, the video game industry is in a very fragile state where it has high spikes of revenues, but still suffers from different issues that have caused losses (Dobrilova, 2021). The industry has faced many issues developing new games. Garnett (2020) noted that many conventions like E3, Gamescom, Tokyo Game Show, etc. have been cancelled due to the pandemic and drove to major losses in the industry.

### 2.1 THE BUSINESS MODELS IN THE VIDEO GAME INDUSTRY

The videogame industry throughout its lifetime has had a huge shift into different business models when it comes to companies generating their revenues through the games. The basic model is used to include just a simple "Develop-Produce-Distribute-Sales" earning method whilst now with the different channels of distribution it has largely evolved. Lapas (2020) divided them into these main business models:

- **Advertising Model**

Advertising model is widely used and employed by most games. To earn money, games in this format show Display commercials, interstitial and incentivized ads, among others.

- **Upfront Payment Model**

This model is a business model in which games charge a one-time price to download the game. This model is used by several well-known major games.

- **Subscription Model**

In subscription model, the games charge a small price regularly. The majority that use massively multiplayer online games follow this approach. The reason for collecting recurring fees is that games have substantial maintenance costs, not covered by advertising or upfront payments.

#### **Free 2 Play- Next**

Games are free to download, but many upgrades demand fees, and some players are put at a higher advantage regarding other players when they purchase upgrades.

- **Freemium Business Model**

Another common business model utilized by games is the freemium model. Games are free to download and play in this format, but there are a variety of purchases known as micro-transactions.

- **Hybrid Model**

Another business model employed by games is a hybrid model, in which three different business models are combined. For example, they used advertising model that display ads, but also apply a hybrid one if players desire an ad-free experience.

## 3. METHODOLOGY

The main purpose of this research study is to find out the effect that the COVID 19 pandemic had on the video games industry, in particular on financial position and performance of Activision-Blizzard, Electronic Arts and Konami. In order to analyze how these companies were financially handling the pandemic, a handful of

ratios are selected from three different ratio categories. In addition, the business models pursued are examined to find out any differences in the results. Since these companies are some of the largest in the videogame industry and exert most of the business models mentioned before, the study is concentrated to them as the results are more significant.

### 3.1 RESEARCH DESIGN

For research purposes, we mainly used secondary data. We refer to the annual statistics published by the companies respectively, whereas the data from the financial statements, were collected from the companies' annual reports. The financial statements used, were the consolidated balance sheet of each company and the consolidated statement of operations (*income statement*). A major aspect that makes this research more effective, is that Electronic Arts and Konami end their fiscal years on the 31<sup>st</sup> of March, which perfectly aligns with the period that most of the world started enforcing quarantine laws.

#### 3.1.1 TARGET POPULATION

The target population for this research is video game development companies. The reason behind concentrating on developers rather than other forms of entertainment, such as eSports organizers, was that developers are the front line of handling and reflecting the state of video game industry.

#### 3.1.2 SAMPLING DESIGN

The sampling method used in this research paper was Purposive Sampling. The chosen firms are three of the largest in the game industry, exert different business methods, and operate on the global market but in different countries. The chosen firms are Activision-Blizzard, Electronic Arts, and Konami. Activision-Blizzard and Electronic Arts are the biggest gaming companies, whilst Konami is the biggest Japanese developer and merchandise producer regarding videogames.

### 3.1.3 FINANCIAL RATIO CATEGORIES

The financial ratios used in this research fall under three categories: Profitability Ratios, Liquidity Ratios, and Asset & Debt Utilization Ratios.

**-Profitability Ratios** are a type of financial indicators that assess a company's ability to create earnings compared to its sales, operational costs, assets, or shareholders' equity over time. These ratios assisted in determining the companies' potential to create revenues while also managing costs and expenses during the pandemic. The chosen Profitability Ratios are Gross Profit Margin, Net Profit Margin (*Operating Margin in the case of EA*) Return on Assets, and Return on Equity (*Activision-Blizzard and Konami only*).

**-Liquidity ratios** are another type of financial indicators that assess companies' capacity to satisfy debt commitments and margin of safety. The Liquidity Ratios used in the analysis are: Current Ratio and Cash-Asset Ratio.

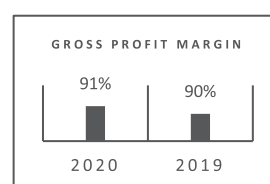
**-Asset and debt utilization ratios** are those ratios that assess companies' capacity to manage its assets and debt successfully. A rise in asset utilization suggests that the organization is making better use of its assets. The asset and debt utilization ratios used in the analysis are Total Asset Turnover and Debt Ratio.

## 4. DATA ANALYSIS

In the following, we have conducted a comparative ratio analysis using financial statements to see how the results have evolved in the latter stages as gone through the pandemic. The data represented are for illustration purposes only and should not be considered by individuals or businesses when they select the products/services of those companies.

- **Gross Profit Margin**

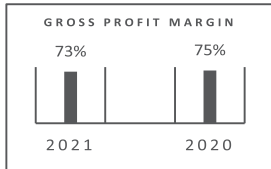
Figure 1: Gross Profit Margin (Activision-Blizzard)



**Comment:** The results show a slight increase from 2019 to 2020. Referring to Consolidated Statement of Operations, we notice an increase on COGS, but even higher increase on revenues. A GPM by 91%

could be considered high for any other industry, but here the product costs are minimal and most of the expenses go towards operating expenses.

Figure 2: Gross Profit Margin (Electronic Arts)



**Comment:** Figure 2 conveys the 2% decrease of GPM for EA from 2020 to 2021. This resulted as the company had an increase

in their production costs by 125\$ million. This increase was caused by a surge in royalty costs driven by higher sales of the FIFA and Madden franchises and a rise in the platform and hosting fees for their servers of Star Wars.

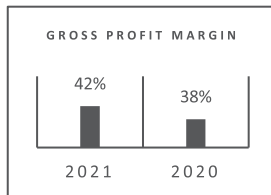


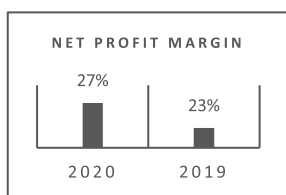
Figure 3: Gross Profit Margin (Konami)

**Comment:** In the Figure 3, we see a 4% increase in Konami's GPM ratio. This

indicates that company generated more earnings over and above its costs. The main increase in revenues was caused by rendering services, that means that the mainstream was from Subscription Based games and less from trading card games.

• **Net Profit Margin**

Figure 4: Net Profit Margin (Activision-Blizzard)



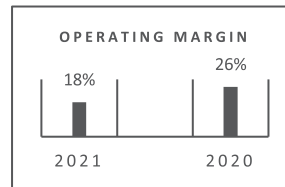
**Comment:** The NPM, a very important indicator, has considerably increased at 4% during the pandemic; the ability to turn net sales into net profit has

improved. The higher net income is derived from its business model. This corporate, duo of giants, uses a mix of business models in their games. Mainly the Freemium and Subscription models are applied, which require higher operating costs for the maintenance of servers and game updates but generate much higher revenues than the regular upfront payment model.

Figure 5: Operating Margin<sup>1</sup> (Electronic Arts)

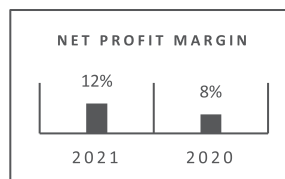
**Comment:** As conveyed, we see an 8% decrease in the Operating Margin of EA. Hence, the more

<sup>1</sup> Authors' Note: We refrained from using Net Profit Margin, because of the company's policy towards Provisions for Income Tax. During the 2020, the company had a 1,531\$ million benefit from these provisions, but it does not relate to Net Sales.



we dive into Operating Expenses we notice they are higher compared to last year. EA has allocated more funds into R&D, Marketing & Sales, and General & Administrative costs. These costs were mostly increased by pandemic-related causes such as improvement of working conditions in the R&D or increase in marketing costs to make up for the lack of physical retail sales, since most physical video game stores were closed.

Figure 6: Net Profit Margin (Konami)

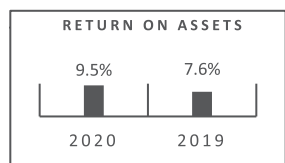


**Comment:** In a noticeable pattern we see a 4% increase in the NMP of Konami, which reflects a better performance of the company to produce

profits from their revenues. If compared side by side with the other companies, we see that Konami has lower profitability margins, but this comes from its different revenue streams including Trading Card Games which require physical production. This also led to increasing operating expenses.

• **Return on Assets**

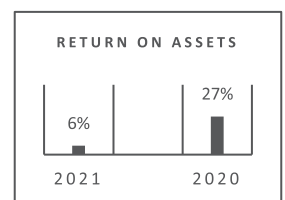
Figure 7: Return on Assets (Activision-Blizzard)



**Comment:** As displayed in the Figure 7, we see around 1.9% increase in the company's ROA caused by an increase in their

Net Income, but also their Total Assets (mainly short-term assets). This indicates that Activision-Blizzard has used their assets more effectively to generate profit, comparing to the previous fiscal year.

Figure 8: Return on Assets (Electronic Arts)



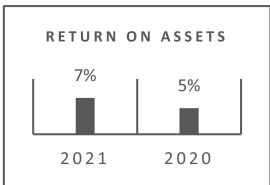
**Comment:** As it is obvious from the figure displayed, we see a huge decrease in EA's ROA. However, this is not necessarily a bad sign or impacted by

the pandemic. The huge decrease comes from aforementioned Net Income increase in 2020, caused by income tax provisions. As it is also



explained in the annual reports, negative income tax results from the sale of intellectual property to EA Swiss subsidiary. However, a 6% ROA is still considered a good figure in the video games industry, since it is very heavy on assets where goodwill is one of the worthiest assets.

Figure 9: Return on Assets (Konami)

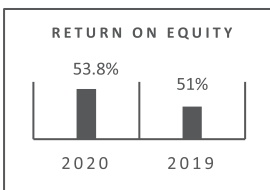


**Comment:** The slight increase by 2% from the 2020 to the 2021 fiscal year indicates a better use of Konami’s assets to generate revenues. This

has concurred from an increase in net income and a decrease in long term assets.

• **Return on Equity**

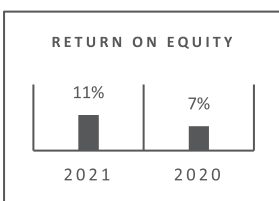
Figure 10: Return on Equity (Activision-Blizzard)



**Comment:** The increase of ROE by 2.8% shows that the company’s management was able to generate more profits with the net assets available. By

looking at the Cons. Balance Sheet, we notice an increase in equity, caused mainly by the increase in the retained earnings and no offsets caused by dividends since they were the same for both years.

Figure 11: Return on Equity (Konami)



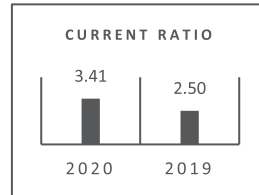
**Comment:** ROE also indicates a better performance of Konami during 2020-2021 fiscal year showing an increase by 4%. Hence, we notice

an equity growth due to the increase in the retained earnings and with barely any difference in dividends distributed.

To conclude, we can state that, the financial metrics (profitability ratios) used to assess the three giants’ ability to generate earnings relative to their revenues, operating costs, assets, or shareholders’ equity over time, shown that they have performed better during pandemic than before.

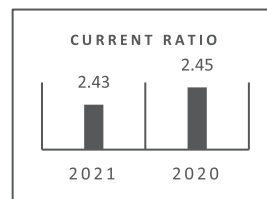
• **Current Ratio**

Figure 12: Current Ratio (Activision-Blizzard)



**Comment:** A Current Ratio at two (2) is usually considered a good indicator, while in our case Activision-Blizzard has increased their ability to pay their short-term debts up to 3.4 by liquefying its short-term assets. The increase in this ratio has happened mostly from a notable rise in the companies’ cash and cash equivalent whilst no significant increase in its short-term debts comparing to last year.

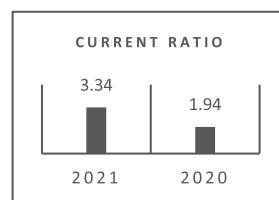
Figure 13: Current Ratio (Electronic Arts)



**Comment:** The current ratio shows us how many times a company can pay off its short-term debts using only its current assets. In our case Electronic Arts is able

to pay off its short-term debts more than twice (2.43 times) using only its short-term assets. This means that despite the slight decrease, its liquidity is being handled in a good manner and well over the industry standard.

Figure 14: Current Ratio (Konami)

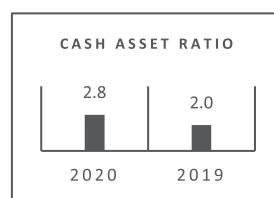


**Comment:** The increase shown in the Figure 14 indicates the capacity of the company to have enough resources to meet its short-term obligations

or those due within one year. The growth in this metric measured, is caused by an expansion in the short-term assets and a further decrease in the short-term liabilities.

• **Cash-Asset Ratio**

Figure 15: Cash-Asset Ratio (Activision-Blizzard)



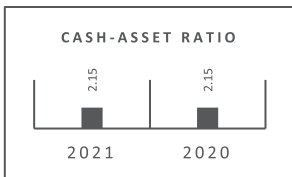
**Comment:** The cash-asset ratio is a more stringent measure and gives us an in-depth look at a company’s short-term liquidity by removing

just those current assets such inventories or receivables that are not immediately convertible into cash. While considering only the most liquid assets, cash and cash equivalents, and marketable



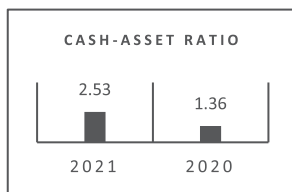
securities, we see that Activision-Blizzard has a higher capability during 2020 to pay off and settle its short-term debts. In particular, the companies' cash and cash equivalents had a significant increase from 2019 to 2020 fiscal year and an insignificant increase in short-term debts.

Figure 16: Cash-Asset Ratio (Electronic Arts)



**Comment:** As it is obvious, there is no difference from the 2020 to the 2021 fiscal year. However, we notice a 40% increase in cash and cash equivalents and a decrease in short-term investments by 44%, whereas the change of current liabilities is barely noticeable. Comparing also to the CR, it is still above 2, which shows us yet again EA's high liquidity and ability to pay off its short-term obligations.

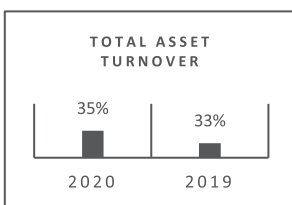
Figure 17: Cash-Asset Ratio (Konami)



**Comment:** As overviewed by previous ratios as well, we have concluded that the corporate has an expansion in their short-term assets. The Cash-Asset Ratio shows us that even if they use only their cash and cash equivalents, their ability to settle the short-term debts has increased, by 1.17 times more.

• **Total Asset Turnover**

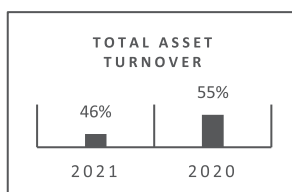
Figure 18: Total Asset Turnover (Activision-Blizzard)



**Comment:** As stated in the Figure 18, we see a 2% increase in TAT ratio, conveying that net sales are increase more than the total assets growth.

This is an indicator that shows how efficiently the company has used their assets to generate revenues.

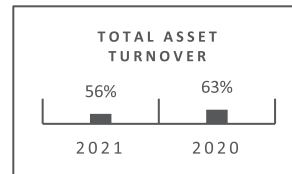
Figure 19: Total Asset Turnover (Electronic Arts)



**Comment:** As displayed we see a 9% decrease in EA's total asset turnover which shows us that the efficacy of them using their assets to generate

revenues has fallen. Generally, the higher the ratio, the better the company is utilizing their assets, in this case, we notice a deficiency.

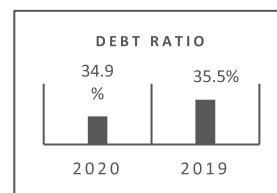
Figure 20: Total Asset Turnover (Konami)



**Comment:** We also see a 7% decrease in this ratio during pandemic, caused by an increase in total assets and considering Konami's products, this depicts a decrease in the efficiency of the assets use.

• **Debt Ratio**

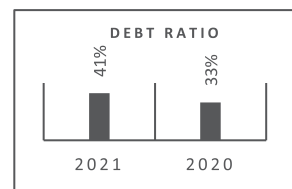
Figure 21: Debt Ratio (Activision-Blizzard)



**Comment:** This ratio shows us how much of the company's assets are financed by debt. We see a slight 0.6% decrease from 2019 to 2020. A high Debt

Ratio is worrisome, which is here not the case, comparing also with industry levels.

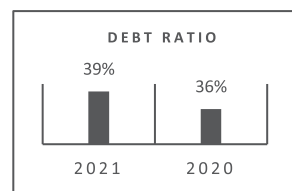
Figure 22: Debt Ratio (Electronic Arts)



**Comment:** The ratio shows that during the pandemic, 41% of EA's assets are financed by debt whilst before it was only 33%.

This has occurred due to the increase of almost 50% of liabilities, despite the 20% increase in the total assets. The growth in the level of company's leverage by 8% might be a bit worrisome from potential and existing investors point of view, but keeping in mind the previous results from the "Current Ratio" analysis, we state that the company is doing a good job managing current obligations.

Figure 23: Debt Ratio (Konami)



**Comment:** This ratio is used to measure the extent of Konami's leverage. Generally, an increase in the Debt Ratio is not a good sign, but referring

also to the previously analysed data, this may not be considered an issue.

## 5. CONCLUSION AND RECOMMENDATIONS

### 5.1 CONCLUDING REMARKS

This research study aimed to identify the effect that the COVID-19 pandemic had on the video games industry throughout the first year. Based on a quantitative analysis including three categories of ratios, Profitability, Liquidity, and Asset and Debt Utilization ratios, we can conclude that the video game industry has seen a noticeable growth during the Covid-19 outbreak. Like many other industries, initially it faced troubles while adjusting to the new working conditions and other circumstances, but the facts gathered and analysed shown a quick adaptation, which is also reflected in the main findings with regard to the growth in the companies' revenues.

Based on the different business models that these companies follow through, they had different ratio thresholds even though they are in the same industry. In Activision-Blizzard and Electronic Arts's cases, we saw a high Gross Profit Margin, 91%, and 73% respectively, while in Konami's case we have a lower rate by 42%. This mainly comes from Konami's production costs being higher, since they are the only one out of the three companies that allocate many of their capital in the manufacturing of the products. While examine the profitability ratios, we see a decrease in Electronic Arts overall results, which depicts an increase in their overall costs caused by barriers created during the pandemic and higher marketing costs to compensate for the lack of physical stores to sell their games. On the other hand, the other two companies have faced small increases in their profitability ratios caused by increase in net sales and lower costs mostly. Activision-Blizzard has an upward trend regarding profitability since it resulted with the highest increases out of the three companies on focus, caused by its consistent business model of subscription-based digital payments and lack of physical production.

On regard to liquidity ratios, it is observed a stability as well from all three companies, with slight decreases seen on Electronic Arts. The findings show that companies are highly liquid,

compared also to industry standards. All three of the companies are capable to pay off their short-term debts twice or more times using their short-term assets, even using their most liquid assets such as cash and cash equivalents and marketable securities.

Asset Utilization Ratios on the other hand indicate the companies are not being as effective while using their assets during the pandemic. In particular, we see a 9% decrease in asset turnover ratio of Electronic Arts, that shows that the company was less efficient using their assets to turn profits. Also, we noticed an increase in Electronic Arts and Konami's debt ratios, which shows us they were funding a larger portion of their assets through debt. Activision-Blizzard on the other hand saw a decrease in their Debt Ratio and an increase in Total Asset Turnover. However, the Debt Ratio increases in the two aforementioned companies are not much to worry about since they are easily hedging from their debts through their high liquidity. The decrease in their total asset turnovers is not a good sign though, they need to recover from these reductions and do a better job to utilize their assets since it might highly affect their revenues.

### 5.2 RECOMMENDATIONS

Based on the main findings and the conclusions, we would highly recommend for Electronic Arts and Konami to start utilizing their assets more effectively stretching their revenue streams gain. Considering that we are still under a pandemic and maybe some of their assets were unusable, they still managed to do a good job, but they need to avoid turning these reductions into a yearly trend.

Another thought that occurred was the unexpected high liquidity ratio results for all three companies, they had a high count of cash and cash equivalents, which is not always a good sign. Even though they can pay off their debts with facing no issue, they could or might also invest that money in the well-being of the company in other projects or improve a certain work factor that might lead to higher employee satisfaction and inevitably to better job

conditions and more revenues. This also might better improve other aspects of the companies and maybe lead to more revenue streams or new franchises.

The data analysis of this study has been conducted through comparative ratio analysis of the three companies but there are other perspectives that may be considered for a more in-depth analysis of the industry. There are events or other news which have not been taken into consideration that might have happened during this time frame. They might include important aspects that explain furthermore why these changes in ratios or generally in financial reports have occurred. A further empirical research will be conducted adding more factors, in addition to a final study after the pandemic ends to have a full quote on it.

The last recommendation is that the gaming industry needs to broaden more in Albania. While there is a considerable high demand for video games, there is a lacklustre delivery from Albanian companies. The only existent provider of videogames is a merchandising company that sells video games mainly from the aforementioned companies, but barely any development studios exist. The growth of the video games markets worldwide, especially after having mostly a positive effect on the users during pandemic, may have a long-lasting macro-economic impact for our country as well.

To conclude, the popularity of the video game usage during the first year of pandemic was very crucial, which in overall, has been also translated into a better financial situation of the companies within this industry.

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