



INTERNATIONAL ACADEMIC INSTITUTE

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International Academic Conferences

**Vienna Academic Conference
21 June 2022**

IAI Academic Conference Proceedings

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ISSN 2671-3179

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The Future Scenarios of Architecture Education in Higher Education in Thailand

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Abstract

The world is undergoing radical, disruptive changes at an accelerating speed. Social, technological, economic, environmental, and political progress fundamentally transform and challenge the educational industries. Architectural Education institutions that play an important role in producing and disseminating knowledge in architecture, design and planning need to understand and try to visualize the future to make plans to deal with those changes. The faculty of architecture, Chulalongkorn University is used as a case study that reveal potential changes in response through past towards future of the faculty, locally and globally. This research has been used as a part of an organizational strategic foresight process that gives an insight into the awareness of uncertainty changing in the context of architecture education, which is disseminated into a matrix of top-down and bottom-up as well as sectoral scanning. The data collection was carried out with horizontal scanning in three sectors of organizational context, the landscaped of educational institutions and the environmental scan (STEEP-V). The result summarized based on five waves of 1) waves of digital technology 2) waves of dynamism and agility 3) waves of distribution and partnerships 4) waves of diversity and 5) waves of needs for supports. It is also visualizing the potential scenarios that had been constructed by those waves.

Keywords: Architecture Education, Futures of higher education

Introduction

The world is now accelerating shift into an era of volatility, uncertainty, complexity, and ambiguity (VUCA). Social, technological, economic, environmental, and political progress fundamentally transform and challenge the education industries, locally and globally. Education have been affected and essentially required to adjust to comply with those changes and require their own separate and unique responses (Nathan B. & G. James L., 2014). The faculty of architecture, Chulalongkorn University is one of the oldest public universities that play an important role in producing and disseminating knowledge in architecture, design, and planning. That is why the faculty need to understand and try to visualize the future to make plans to deal with those changes. Moreover, to understand changing trends is a key to increase competitiveness for the faculty, both from the international education institutions and online learning platforms. The faculty has been used as a case study in this research to explore potential changes in response through past towards future of it. This research aims to understand the changes and visualize the future contexts as a part to construct an organizational strategic foresight plan. There are three principles in the organizational strategic plan which are 1) Strategic planning must study the future 2) Understanding the past and organizational structure and 3) Participation in the process is a key for development. First, Strategic planning for educational institutions is imperative to study the future. As there are various factors and contexts that continuously change over the time. "Future" is significance key to produce efficient graduates who will be able to use their knowledge after graduated. Second, understanding the past and organizational structure will help to plan the organizational foresight plan. The push of the present, the weight of history and the pull of the future are the key framework to cope with the convergence drivers of change. The juxtaposition of different combinations of these drivers of change results in multiple futures that help for the preparation plan in various dimensions (Romere, 2020). Finally, the long-term development of the organization must include all the stakeholders of the organization as a part of the process to create a sense of joint ownership of the plan. Therefore, participation in the process is a key for the development of a strategic plan also potentially effective implementation in the future.

Methodology

This study used a strategic foresight framework (*Figure 1*) as a tool to project the future of the organization into 20 years ahead, from 2022 to 2042. The scope included pedagogy, knowledge management, academic services, research, administration, and budgets. The data collection was carried out with horizontal scanning in three sectors of organizational context, the landscaped of educational institutions and the environmental scan (STEEP-V) which are social, technology, economy, environment, politics, and values. Trend scanning are collected from literature review, case studies and conducting focus groups among operation staff, academic staff, student,

and alumni. Scanned trends are assigned into baseline future by using the impacts x uncertainty matrix which process of arranging trends regarding to importance and possibilities that could affect future scenarios in various dimension.

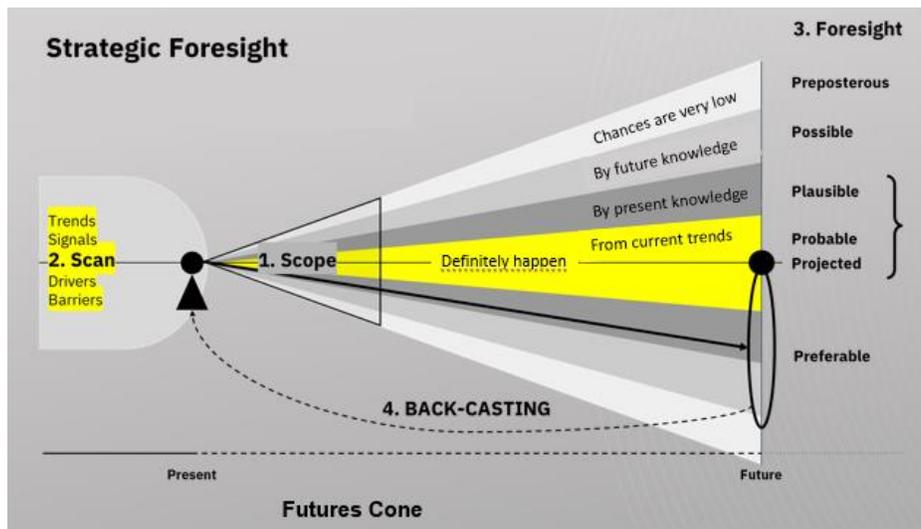


Figure 1. Strategic foresight framework

Result and Discussion

In landscaped of educational institutions scanning sector, there are two main aspects. First, in pedagogy, the changing trends factor corresponding to the main idea of education for sustainable development. The pedagogy encourages students to decide based on supporting data and logical in response to environmental, economic, and social justice (Bunnag, 2021). Knowledges in the faculty are all promotes and drives social development in broad and in-depth dimensions. The study from literature review, case studies and focus groups revealed that there are five significant issues, which are 1) Life-long learning 2) Multidisciplinary and Cross disciplinary 3) Customization 4) Work-Life-Learn balance and 5) Migration of student. Second, in administration, technology will play a role in the workflow by enhancing efficient and make the work more convenient.

Megatrends scanning by STEEP-V framework is an abbreviation for social, technological, environmental, economic, political, and value. (Figure 2)

Social	Technological	Environmental
Social Diversity Aging Society Inclusive Design Diversity (Ethnicity, Age, Gender) Inequality Global Citizenship Sustainable Behaviors	Digitalization Big Data/Open Data Artificial intelligence E-Learning New Mobility Block Chain New Material: Biomaterials /Recycle materials / Substitution Materials.	Climate Change Pollution Eco-based Design/ Bio-Design Renewable Energy Environmental Awareness Resource Scarcity Recycle / Zero Waste Healthy Building Public Health Pandemics
Economic	Political	Value
Circular Economy Sustainable Investment Gig Economy Skill Shortages Economic Volatility	Environmental Policy New Building Standards Public Opinion Public-Private Partnerships Political Instability Bottom-up Policy/Transparency	Demand for Customization /Hypercustomization Crafts and Culture Historical Value / Nostalgic Multidisciplinary / Cross Disciplinary Life-Long Learning Work-Life Balance

Figure 2. Megatrends Scanning Table

From the results of megatrend scanning, the relative trends are prioritizing focused concerning uncertainty and impacts to the faculty. The impact x uncertainty matrix table (Figure 3) Each matrix is important for different response strategic planning. The group of factors in the light grey area leads to the baseline future, which is clear and critical issues for strategic planning. While the group of factors in the dark grey area will lead to projection of future scenarios. Finally, the group of factors in the white area are trends and drivers that should keep monitoring.

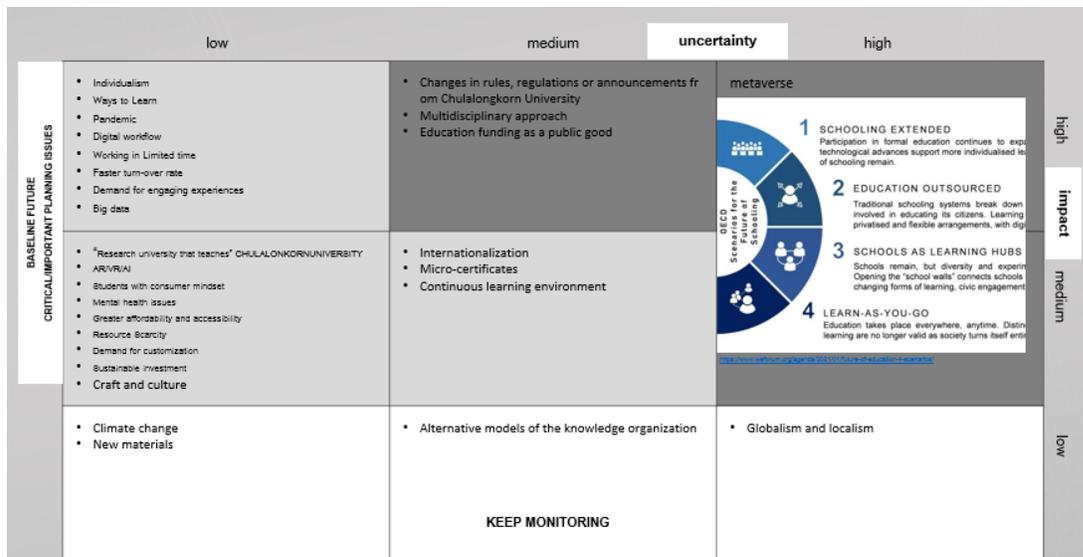


Figure 3. Impact x Uncertainty Matrix

Baseline Future

After reviewing various contexts and trends evaluating in the impact x uncertainty matrix table (Figure 3). The baseline future has been visualized including projected future and probable future, which can be summarized into five waves as following. (Figure 4)

Baseline Future Waves	Pedagogy aspects	Administration aspects
1. Waves of digital technology	<ul style="list-style-type: none"> - Teaching Materials - Teaching Methods 	<ul style="list-style-type: none"> - Working Communication - In-house knowledge sharing - Internal Operations - In-house database management - Digital infrastructure - Digital Structure of Data
2. Waves of dynamism and agility	<ul style="list-style-type: none"> - Choices of learning pathways - Alternatives for self-improvement in other dimensions - Study while working / Earn money while studying - Upskill-Reskill 	<ul style="list-style-type: none"> - Agile working model - Resilience (Individual and system)
3. Waves of distribution and partnerships	<ul style="list-style-type: none"> - Cross Disciplinary / Multidisciplinary - Experiences support learning / Learning enhance the experience 	<ul style="list-style-type: none"> - More Cross Disciplinary work - Collaboration with faculties, institutes, and other organizations (Inside and Outside of Chulalongkorn University) - Learn from colleagues - Work as a team
4. Waves of diversity	<ul style="list-style-type: none"> - Languages - International students and lecturers - Students and lecturers from other faculties - Support for disabled - Learn with people of different ages 	<ul style="list-style-type: none"> - Ability to communicate among diversity - Language, age, and culture

5. Waves of needs for supports	<ul style="list-style-type: none"> - Support: Communication skills - Support: Writing skills - Support: Adulting 101 	<ul style="list-style-type: none"> - Support: Adaptation to new various working systems - Opportunities to learn and build new skills - Support: Resources such as budgets, human resources, and material
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Figure 4. Five waves of baseline future

Alternative futures

Alternative futures have been visualized from external drivers that are high uncertainties and high impact on the organization. (Figure 3) This results in various and uncertain future possibilities. In addition to understanding the baseline future, it is also important to understand the alternative future as well. In this study, the 2x2 matrix has been used to create four scenarios for different alternative futures.

The axes of critical scenario drivers have been defined into 2 main axes: (1) Universities as knowledge centers vs Commonization of knowledge centers (2) Metaverse of learning vs Hybrid Learning. (Figure 5)

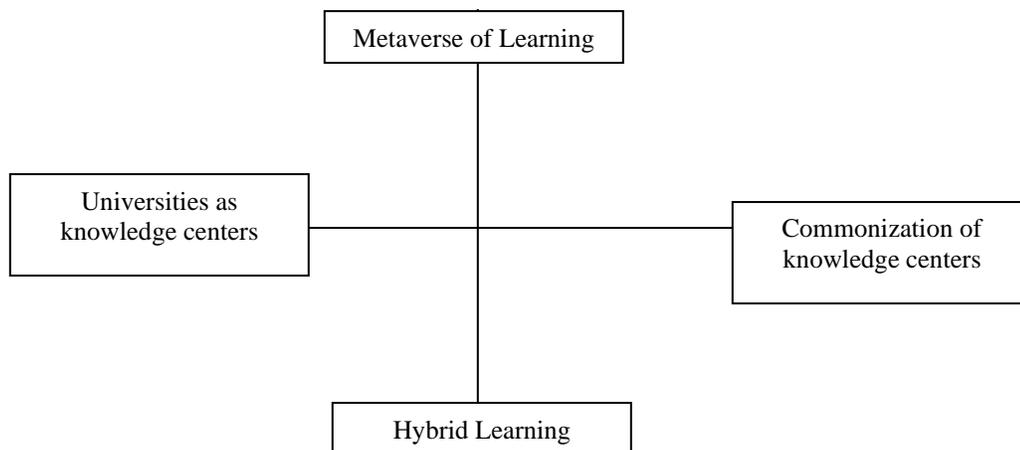


Figure 5. Axes of critical scenario drivers

The horizontal axis focused on the importance role of universities as producers and disseminator of knowledge in education industries, which can be addressed in two opposite directions. First, Universities as knowledge centers, where universities are still the main player in education industries as a valid producer, publishers, and referencing sources. In contrast, Commonization of knowledge centers, where the role of universities will be less important. Anyone can be a valid player in education industries who can produce and disseminate knowledges.

The vertical axis focused on the way of learning, which can be addressed in two opposite directions. First, Metaverse of learning where the real world will be less important. Virtual world will be a new place where technology would drive all operation in education industries exist in virtual reality. On the other hand, Hybrid learning where the pedagogy will be blended on both of real and virtual world.

Futures scenarios

From the two future axes of critical scenario drivers above, they can be crossed to create 4 alternative future scenarios in Figure 6 and Figure 7. Each of these alternative future scenarios is highly uncertain but may become clearer in the future. These four scenarios have both opportunities and challenges for the faculty in pedagogy and administration in various dimensions.

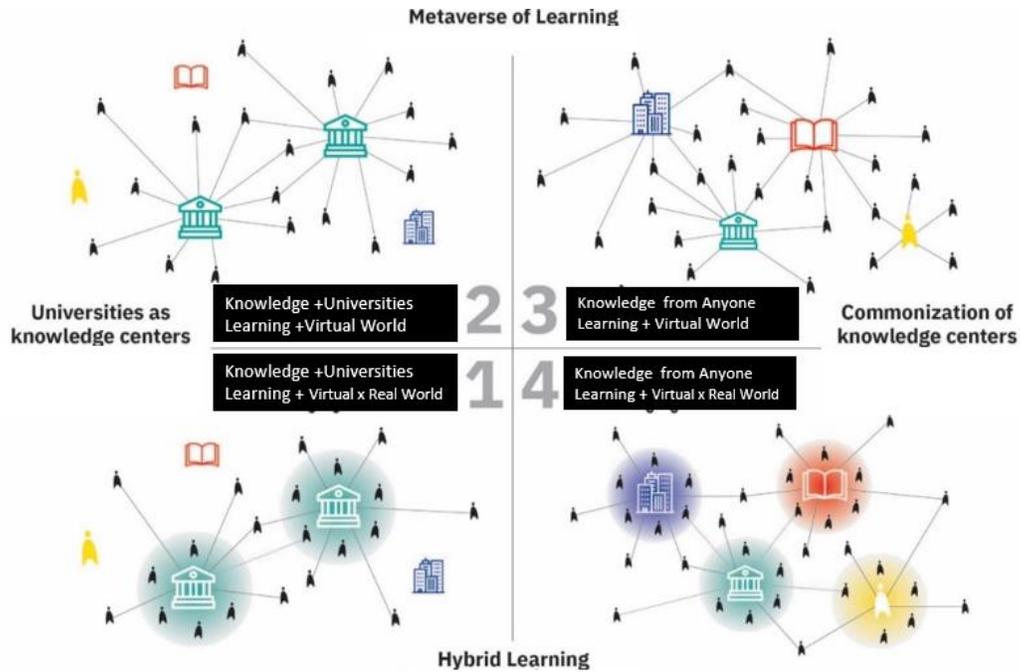


Figure 6. Conceptual diagram of future scenarios

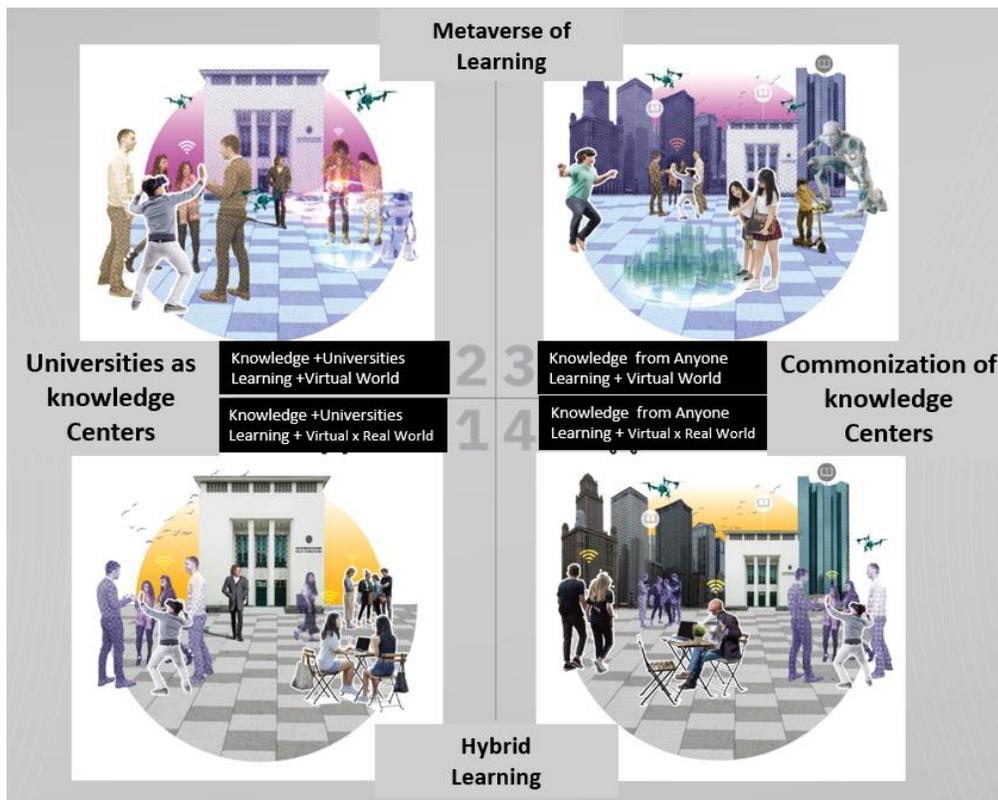


Figure 7. Alternative futures scenarios

4. Conclusions

This research was based on a future study framework which is a part of an organizational strategic plan in the next 20 years. The visionary of alternative futures scenarios illustrated various possibilities for the faculty, which required to study further to develop the organizational strategic plan. The significance of this study points out that competitiveness for public university under strict budgetary

constraints is the important issues. Finding a strategic to increase financial resiliency for the organization might be the priority, no matter which scenarios that the faculty will choose to go through. Moreover, competitiveness for national universities in developing countries under a new global education market might urgently need support systems for every stakeholder in the faculty. However, the trends scanning should be continuously monitored and analyzed to enhance organization adaptability and resilience.

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Digital Assets in the Process of Enforcement of Judgements at the Intersection of the Interests of Digital Economy

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Abstract

This article analyses the question whether digital assets are considered as assets in the classical sense of the term and discusses the key features of digital assets in order to reveal their specifics and provide a working definition for further legal debates. The main characteristics of a digital asset that distinguish it from other types of assets include the digital form and the value of the digital asset. In this article, the author proposes to define digital assets as assets that have value being in the digital form. We can also consider that digitalised information which has value is also a digital asset. Therefore, not everything that is expressed in the digital form can be considered as a digital asset, because the prerequisite for such an asset category is the possession of value. The main issue that raises the debate about the status of digital assets as a property in general is the question of the ownership of this asset. However, not all forms of digital assets can be acquired by ownership or restricted by licensing or other civil agreements, therefore digital assets as an object of ownership should be approached with caution.

Keywords: digital asset, ownership, property, enforcement of judgements

1. Introduction

An increasingly growing number of online, social networking and email accounts is creating a large digital network that, in addition to all social interests, also creates value. Digital property includes cryptocurrencies, email addresses, social networking accounts (Facebook, Twitter, Youtube and others), and Internet domains. All of this can have not only personal but also historical or economic value. For example, airline miles or hotel loyalty points have a clear economic value because they can be usefully exchanged for free flights, free hotel accommodations, etc. (Recovery from digital assets: as ..., 2019). All of this could be collectively defined as a digital asset.

The cross-border movement of data and digital assets has already become a common practice, however, the legal understanding and regulation of this issue has appeared to be much more complex and lagging far behind. This is due to the fact that the legal aspects of data and digital property ownership have not yet been developed. Even though the development of a digital asset as that of a legal concept is still in its infancy both at international and national levels, it is already facing very real day-to-day challenges to be addressed here and now. For example, the transfer of an e-book to another person or the inheritance of points accumulated in an e-account. These issues can be addressed in the following ways: 1) to rely on the existing legal framework and try to adapt it to the category of digital assets; 2) to create a new legal basis for digital assets by taking into account the specifics of this type of an asset. Before we are able to deal with the regulation of digital assets, the first step should be to understand what the concept of digital assets involves.

In the absence of a universally accepted definition of digital assets, the author of this article, by examining the main features of digital assets, seeks to reveal the specifics of digital assets and provide a working definition of digital assets which would facilitate further development of legal discussions aimed to provide the legal definition of digital assets. It would also make it easier for legal practitioners and researchers not only to identify digital assets but also to decide what level of legal protection shall regulate these types of assets.

The subject matter of the research that has been carried out and enabled the preparation of this article has been embedded in title of the article - searching for a definition of digital assets and the identification of the main features of digital assets as well as the examination of the main practical problems arising from digital assets. This article explores a new area of law covering the issues related to digital assets that have not been attributed to the relationships regulated by the intellectual property law.

Taking into account that the forms of digital assets, as mentioned earlier, are very diverse, and their list may be continuous, it is crucial to single out the most common characteristics of digital assets in order to classify a particular asset as digital. Therefore, this article examines the characteristics of digital assets that distinguish this category of assets from other categories. Also, an attempt has been made to identify and discuss the problems arising from the attribution of this category of assets to classical assets categories, thus there are author's suggestions on how digital assets could be classified.

In the absence of comprehensive studies on the analysis of the concept and content of digital assets, modern science of law is facing a challenge to scientifically evaluate this new, technology-driven and constantly evolving legal phenomenon, to understand it,

set the guidelines for its application, and create traditions. The topics examined in this article are original in terms of an interdisciplinary subject matter of technology law that is in its initial definition stage, which includes the impact of digitization and smart technologies on traditional legal concepts as property law.

The most notable works, which the preparation of this paper was based on, have been the articles by Natalie Banta from the University of Drake, entitled *Electronic Wills and Digital Assets: Reassessing Formality in the Digital*, *Property Interests in Digital Assets: The Rise of Digital Feudalism* and *Death and Privacy in the Digital Age*.

Also, the insights into the concept of digital property were also examined in Jamie Hopkins' article *Afterlife in the Cloud: Managing Digital Estate*. It is hoped that the analysis of digital assets in this article will help and encourage legal scholars to dive deeper into issues related to digital assets.

2. Digital Assets in the Process of Enforcement of Judgements

Digitisation has become a global phenomenon which modifies all human activities. The global COVID-19 crisis has revealed that new technologies are needed to maintain human relationships when "face-to-face" contact is no longer possible. For economic players, the use of digital technology is an essential factor in ensuring the maintenance of economic activity and its recovery after lockdowns. For the functioning of justice, digitalisation makes it possible to guarantee access to the judge; for judicial officers and enforcement agents, it constitutes an effective means of executing enforceable titles. Enforcement professionals are strongly impacted by the digitalisation of justice and enforcement of court decisions, whether it is the electronic communication of documents, access to dematerialised registers, the dematerialisation of enforcement procedures, the digital management of professional activities, or the use of artificial intelligence to set up automated enforcement. The International Union of Judicial Officers (UIJH) created a Global Code for the Enforcement of Digital Assets, which aims to accelerate the development of practical recovery tools covering various types of digital property and defines the principles which should govern enforcement of the future.

The purpose of the Global Code of Digital Enforcement is to define universal principles which states should introduce into their national legislation, to govern the use of digital technology in the enforcement of court decisions and contracts. It defines the principles applicable to all aspects of digital enforcement in civil matters (criminal and administrative proceedings are excluded unless national law allows the application of civil law enforcement measures) and encompasses the new ethical obligations inherent in the use of artificial intelligence in enforcement. In order to take into account the new digital assets, the Global Code of Digital Enforcement proposes standard procedures for seizing cryptoassets (these are assets in the private domain, excluding assets belonging to public authorities in the exercise of their sovereign powers). Digital enforcement as the term is used in this Code therefore not only refers to procedural aspects of enforcement ('e-enforcement'), but also to substantive aspects ('enforcement against digital assets'). Also, both are possible: e-enforcement against digital assets.¹

3. Digital or digitized assets?

Before investigating digital assets, the concepts used in this article and their scope should first be explained. Looking at existing assets in digital form, two types can be distinguished:

1. Digital assets such as computer game, database, electronic library, cryptocurrencies;
2. Digitized assets such as e-book, movie, music file.

A digital asset is an asset that exists and has value only in the digital form. For example, cryptocurrencies are digital assets by nature and can exist in no other form. Meanwhile, digitized assets are just another form of assets that can take the form of a specific asset, such as a book in both the digital and paper form. Also, the paper book can be digitized.

The scope of this article will refer to both digital assets and digitized assets in general, and the term digital assets, which covers both types, will be used. The most important criterion by which a type of an asset will be classified as a digital asset is that a particular unit of digital asset is expressed in a digital form, regardless of its nature and the technical feasibility of converting the digital asset to another form.

4. Digital assets in the general classification of assets

The emergence of a new legal category as a digital asset (*digital asset*, *virtual asset*, *digital property*) has also given rise to a number of legal issues related to its status as an object of legal relations of property. Examples of digital assets are e-books, music files, software, digital images, website layouts, e-mail accounts, reward points and electronic media and others. This digital asset has an economic value and involves not only many legal issues of intellectual property, but also many other property interests.

As property is both a social and a legal category that, among other functions, creates, protects and maintains stability (Kreiczer-Levy, 2019, p. 16), it is relevant to define property from these perspectives. In jurisprudence, assets are those objects of civil rights (property) that have an economic value or objective value and the property of civil turnover, i. e. the owner of such an object has the possibility to transfer it to another person (Jakutyté-Sungailienė, 2009, p. 224). An asset is considered to have no value in itself, and its

¹ <https://www.uihj.com/2021/12/08/official-presentation-of-the-global-code-on-digital-enforcement/>

value is determined by what social value is given to it, so we can argue that wealth is not an object but only embodies core values that society has chosen to preserve (Gerhart, 2016, p. 8).

Therefore, when talking about an asset as an object of civil legal relations it is important to talk about its participation in civil turnover. The property of civil turnover can also be understood as the consumer value an object possesses (Pakalniškis, 2002, p. 72). Therefore, values that are directly linked to a person (for example, a person's honour, dignity, life, health) or have no economic value (for example, an objectively worthless possession that has a high personal (sentimental) value to its holder) cannot be considered an asset (Jakutytė-Sungailienė, 2009, p. 224). With reference to the characteristics of digital assets, this type of an asset has the characteristics of an asset - it has an economic value (Kud, 2019, p. 46) and participates in civil turnover, so it makes sense to talk further about which type of an asset it belongs to.

According to the form of expression, assets can be tangible and intangible (Latin *res corporales*, *res incorporales*). The Romans based this classification of objects on the possibility of touching a certain object. If it was possible to touch the object, i. e. it was the object of the material world, such things were called *res corporales* (material things); and those objects which could not be touched and which were abstract objects existing as legal fiction were called *res incorporales* (intangible objects) (Nekrošius *et al.* 1999, pp. 100 - 107). Intellectual property, contractual and other rights are treated as intangible assets (*res incorporales*).

Although digital assets cannot in principle be touched, this does not constitute a basis for considering these assets as intangible. The worldview was radically rewritten in the 19th century and objects such as "field" and "elementary particles" were introduced (Jepsen, 2013) that we cannot touch or otherwise feel with our direct senses, nevertheless these "new" objects are no less material than our ordinary material objects such as a chair or a table. A digital asset is the object of this "new" worldview and therefore also tangible.

A digital asset is in all cases stored in a specific physical object that can be both with the owner of the digital asset and with a third party, such as a cloud. Digital assets have the potential to change their form and evolve from digital assets to another type of assets (Connor, 2010, p. 4). For example, a digital photo can change its shape simply by printing a copy of it.

Further analysis of tangible property shows that it can be divided into movable and immovable both in terms of nature and in terms of the legal status assigned to them by law. Immovable property is considered to be an asset that cannot be transferred from one place to another without changing its purpose and substantially reducing its value (Mikelėnas, 2001, p. 216), whereas digital assets do not have such properties and can be transferred from one medium to another with the help of technology. The fact that this category of property is not classified as immovable property by law, such as ships or aircraft can be explained that legal registration of digital property is not mandatory. The mere fact that digital assets can change location with the help of technology also does not constitute a basis for claiming that they are movable. The characteristics of digital assets, such as the replication and uniqueness of digital asset objects, which will be discussed in detail later in this article, do not allow these assets to be classified as movable property in their entirety. In view of this, given we cannot assign digital assets to any of these categories, we can start talking about digital assets as another category of tangible assets, i.e. tangible assets are movable, immovable and digital.

5. The concept of digital assets

The term "digital assets" encompasses a multitude of different resources, such as e-mail and social media accounts, digitally-formatted items such as music releases, videos, and books, and even accumulated points by participating in a particular shopping platform (Lehavi, 2019, p. 200). Due to the fact that so many different digital objects can take the form of digital assets, it is not easy to provide a comprehensive definition of digital assets. This may be one of the reasons why there is still no uniform definition of digital assets (Connor, 2010, p. 3).

Digital assets can have a wide range of uses. For example, a cryptocurrency, such as Bitcoin or Ethan (the best known examples of cryptocurrencies), can perform the function of digital means of payment (Zuckerman, 2020, p. 10). Digital assets can also be used for identification, such as online accounts.

Although the category of digital assets has been known for a relatively long time, its emergence is associated with the emergence of the Internet. The beginning of the Internet, which marks the emergence of the digital age, can be symbolically linked to the 1950s, when the Eisenhower administration established the Advanced Research Projects Agency which aimed to ensure that the United States overtook the Soviet Union with its technological capabilities during the Cold War (Cohen-Almagor, 2011). 46). The emergence of digital assets has been the result of a long-lasting technological progress, electronic networking and information sharing. The emergence of infrastructure and the ability to transmit information, as well as digital assets over the Internet, have paved the way for the development of digital assets and the various types of these assets.

In the most general sense, a digital asset is an asset that has value in being in the digital form. While this definition may seem too broad, it should be noted that the need for such a broad definition has been driven by the inclusion of everything that is truly a digital asset. Therefore, we consider digital assets to be any form of digital documents that a person creates (such as Microsoft Word, Excel, or PowerPoint), domain names, all legally downloaded files (such as MP3 music files and films), and any personal online accounts that can be accessed by entering a username and password (e.g., social networking accounts, email, electronic accounts that store personal information; e.g., online banking accounts and online trading accounts, etc.) (Connor, 2011). Metadata are also attributed to digital assets (Băbeanu *et al.*, 2009, pp. 318-319). Digital assets do not include the physical media themselves (electronic or digital devices, such as telephones, computers, or servers), but include information that is stored on a specific medium (Hopkins, 2013, p. 211).

Digital assets can still be understood in another way as information in a digital format, such as an electronic book, or of a digital nature, such as a cryptocurrency, that has value. We can only digitize information, for example, we cannot digitize a car, but we can digitize the information about a car.

The subject is new and not yet completely understood, therefore we are confronted with cyclical definitions, for example, digital assets are assets that exist in the digital format and are expressed in binary form (Hopkins, 2013, p. 211). Another example is when a digital asset is defined without specifying that it must have value, for example, when a digital asset is a digitally stored content or an online account owned by an individual (Romano, 2011). According to the latter definition, a patent certificate in pdf format (which is a digital document) is neither an independent unit of property nor has value.

Another definition of digital assets has been provided by Dosch, N. J., and Boucher, J. W., who argue that digital assets are: 1) any online accounts and 2) any files stored on a personal computer or server (Dosch, 2010). The meaning of this definition is explained as follows: first of all, digital assets can include many different online accounts consisting of a wide range of personal digital items related to emails, social networking sites, photo sharing sites, and any online accounts that contain personal user information and content. It can be stated that virtual goods such as game currency / bitcoins, items and the like can fall into this category. Second, digital assets can include files that are stored on a personal computer or on a cloud services server, such as Mozy, Google Plus, or Dropbox. Digital photos and documents stored on a personal computer, mobile / smartphone, portable device, or cloud service company server are typical examples of digital content. Ebooks or iTunes songs also fall into this category (Park et al., 2019). This definition provides knowledge of the form in which digital assets are commonly found, but does not say anything about the digital assets themselves, therefore, in order to define them, it is appropriate to analyse the characteristics of digital assets.

6. Features of digital assets and the challenges they pose

The main features characteristic of digital assets are distinguished as follows: a digital form (Băbeanu et al., 2009, pp. 318-319) and value of digital assets (Hopkins, 2013, p. 221). With regard to the problems posed by the digital form of property, the issue of ownership of digital property and the resulting problem of civil turnover of property, the issue of accessibility of digital assets and the related issues of digital property storage are highlighted.

6.1. Digital assets exist only in the digital form

Digital assets exist only in the digital form (Maeschaelck, 2018, pp. 37-41). It is this form that determines an asset to be considered digital. When the form of a digital asset is changed, the digital asset expires, for example, when you print a digital photo on a printer, and the printed photo is no longer considered a digital asset.

6.2. Replication and uniqueness of digital assets

A digital asset is an unusual form of a tangible asset that can be both potentially and actually replicated an unlimited number of times, and each unit of a digital asset copied is inherently identical to the one copied. In other words, in the case of digital assets, the concepts of the original and the copy disappear. An e-book can be given as an example. Anyone who acquires it in one way or another has an inherently identical version of the mentioned e-book.

6.3. Value of digital assets

Related to this feature of digital assets is the fact that digital assets have value only in the digital form. As digital assets expire when their digital form disappears, so does the value as a digital object. An already new form of an object, which is no longer a digital asset, acquires the value. Another feature of digital assets is the rapid transfer of value worldwide.

In the absence of an established market for digital assets, there are problems with the value of these assets and their determination, such as what criteria should be used to determine the value of a particular person's online account and the information stored in it. Also, it is clear that digital assets, for example, a software license, have value but can these assets be included in the total mass of assets and are they subject to recovery?

Digital assets have the characteristics of having economic value, but the question arises as to whether all digital assets have the property of civil turnover, i. e. whether in all cases the ownership of the digital assets can be transferred to another owner, can he/she inherit the digital property.

6.4. Storage of digital assets on physical media and its accessibility

Another specificity of digital assets is that all digital assets, without exception, must be stored on a physical medium (Hopkins, 2013, p. 211) that belongs to the owner of the digital asset, a third party, or are stored in the cloud. The creation of the cloud has made it possible for the digital content to be stored online. As a result, many digital assets are stored in special online accounts, which are

accessed by entering a unique username and password. Therefore, specific requirements with regard to anonymity, data protection and proper data transfer have emerged.

Another problematic issue observed when examining digital assets is the possibility of their access. The most important feature of property law as a right in rem is its absoluteness. It manifests itself in the possibility of the right holder to exercise his/her right without taking into account the actions of other persons (Pakalniškis, 2002, p. 72). Most commonly, the owner must not be subject to any restrictions on the exercise of his or her property rights and the availability of property, whereas in the case of digital assets, the availability of digital assets often depends on the Virtual Asset Service Provider such as an Internet service provider or server service provider. The activities of these entities in the context of property rights may be assessed ambiguously, as they determine the real availability of specific digital assets and the exercise of rights to digital assets.

It is appropriate to mention here the story related to the privacy issues of an email account of a dead family member (Olsen, S., 2005). John Ellsworth, the father of the deceased marine, asked *Yahoo!* to allow him access to his deceased son's email account in order to create a memorial in his son's honour. *Yahoo!* refused to grant such an access and only the court adopted a ruling to allow such a possibility, although in the case of property in general, the right to manage the deceased person's property should pass to the heirs in accordance with the law and no third party should be able to interfere. Thus, in terms of digital assets, a new category is emerging - the Virtual Asset Service Provider, which has not been encountered in the classical sense of assets.

6.5. Ownership and management of digital assets

The question of whether digital assets can be understood as assets in the general sense and what property rights would be attributed to such assets, and to what extent, requires a detailed analysis of the category of digital assets in terms of the concept of property right ownership and normative dimension (Lehavi, 2019, p. 200).

The object of a right in rem (property right) must be clearly defined and its boundaries should be generally known so that no one raises any questions in the cases where an object of another person's right of ownership is under threat (Lehavi, 2019, p. 201). Meanwhile, digital assets, such as digital books, which cannot be objectively distinguished from each other because they have an identical digital expression, are not clearly defined by their external features.

Another important question is whether digital assets can qualify for legal protection of the rights in rem and, if so, to what extent that protection should apply. In terms of digital assets, it could be worth considering specific cases of management, use and disposal of digital assets, such as access, use and control of these assets (Lehavi, 2019, p. 201). For example, standard agreements concluded with users of social platforms (such as *Facebook*) define the terms on how you can access, use your account, and other access rights. Another example is companies that prohibit the transfer of digital assets, such as *Yahoo!*, which have included in their service agreements a clause on the termination of accounts after the death of their users (Banta, 2019, p. 576).

The issue of ownership of digital assets is still under discussion, especially when it comes to granting of licenses for software. For example, users of software have the right to use the software under a license for a certain period of time, but the question arises as to whether legal relations of ownership of this digital asset should not arise. There are scholars who believe that the prohibition to transfer or leave digital assets as an inheritance is a restriction of the right to property (Banta, 2017, p. 1104).

This situation may be well illustrated by the case that received a wide coverage in the media in 2012, when Bruce Willis intended to sue Apple company in order to defend his right to leave the iTunes collection as an inheritance to his children (Schmitz, 2019, p. 177). Although no legal proceedings have been instituted, that situation has raised a number of questions regarding the restrictions on the exercise of the right to digital property.

It must be made very clear that in the cases where license is granted to use a computer program, read an e-book, create and use an account on a social network or perform similar actions in the digital space, we mean that certain rights were granted, but not acquisition and transfer of the ownership of digital assets. This does not mean to prove that digital assets are not subject to ownership, on the contrary, digital assets can be transferred in the same way as any other assets, depending on the specific form of those assets. Evidently, the creators of a digital asset, for example, a company who has granted the permission to read a digital book, has the right to dispose of the digital asset they have created and to exercise all their property rights, whereas the person who acquires the right to read the mentioned book acquires only part of the rights specified in the agreement but not the property rights to the digital asset he/she uses. Therefore, doubtful is the debate on whether the inheritance of digital assets or the desire to direct the recovery of digital assets that are owned and used to a lesser extent than property rights.

However, there is also a different view on the scope of ownership of digital assets made available by digital product manufacturers under licenses or other civil agreements. The fact that digital assets such as the right to read an electronic book cannot be inherited is a restriction on the right to property that prevents the full exercise of the right to property (Banta, 2017, p. 1133). In the light of the above arguments, this position lacks justification, as no one disputes the property rights of digital creators, which they can exercise in principle without any restrictions. And one of them is the right to give other people access to the digital assets it creates. In the event that the grant of permission to read a digital book would also constitute a transfer of ownership, i. e. the owner of the digital asset would transfer the ownership of the digital asset, he/she should retain neither the digital asset itself nor the ownership of that asset. Consequently, in the event of a change in the owner of a digital asset, the original owner should delete the code from the server or other media on which that digital asset was stored. The right to property is indivisible and is characterized by the property of unity (one thing is one property) (Storme, E. M., 2004, pp. 22-23). This means that the object of the rights in rem is unified and the property right existing

in relation to that object is unified (Birštonas, 2013, p. 1083). Therefore, it is not possible that by transferring an object for somebody else's use, part of the ownership is transferred and part of the ownership remains and the existing ownership can be further divided.

Another important aspect when it comes to the issue of ownership of digital assets is that it is not enough to identify the owner of a digital asset. As discussed earlier, due to the specificity of these assets, the existence of digital assets is associated with specific cases of disposal, such as accessibility, use and control. Therefore, even after determining who is the owner of a particular digital asset, special conditions may be imposed on the basis of civil agreements that limit the full use of one's digital asset. An example is the storage of digital files on an online platform whose manager sets the rules for how the owner of those files can access their files. Such a restriction of the right to property on the basis of civil agreements is named as "digital feudalism" (Banta, 2017, pp. 1147-1156).

7. Digital assets are characterized by service-specific features

Digital assets can be understood not only as assets but also as services (Štītilis et al., 2016, p. 139). The main feature that distinguishes goods from services is that the ownership of goods can be exercised, and in the case of services, the legal category of ownership does not apply. A digital service, such as the right to access and read a book, is a property right in general. A service is usually understood as an activity or process rather than a specific thing.

A feature that brings digital assets closer or even equates to services is the unclear ownership status of digital assets. An example to illustrate this situation could be the purchase of an e-book, for example through the Kindle system. But are we really acquiring the book in this way, or are we only gaining the right to read or otherwise use it as specified in the agreement? Obviously, we cannot talk about ownership in its entirety, because the terms of use of the Kindle book provide only a limited number of devices from which the book can be accessed, the person who "bought" the book depends on the service provider and can only access the book in the way foreseen by the service provider, as well as a transfer of rights to the book is limited (You Don't Own Your Kindle ..., 2012).

On the other hand, digital assets can be stored, destroyed, copied or transferred to others and the like, while it is difficult to imagine a service that can be preserved or destroyed (Štītilis et al., 2016, p. 142), thus classifying digital assets as services unequivocally does not make sense either.

Thus, the scope of ownership of a digital asset is not the same as the acquisition of any other asset. The features of digital assets allow us to conclude that digital assets, while recognized as assets, also have service-specific characteristics. It might be worthwhile to start discussing digital assets as quasi-assets, but this assumption requires a more detailed investigation.

Conclusions

1. In the absence of a universally accepted definition of a digital asset, it is proposed to use a generic name that derives from the main features of this type of an asset: a digital asset is an asset that has value in the digital form. Another reason for the proposed definition of digital assets in the broadest possible sense is the non-exhaustive and constantly updated list of types of digital assets.
2. The information in a digital format that has value can be considered as a digital asset. Therefore, not everything that is expressed in the digital form can be considered a digital asset, because the prerequisite for such an asset category is the possession of value.
3. The main issue that raises the debate on the status of digital assets as assets in general is the question of ownership of these assets. However, not all forms of digital property can be acquired by ownership or property rights are restricted accordingly under licensing or other civil agreements, therefore digital property as an object of ownership can be considered in a restrained way.
4. This asset could be distinguished from the traditional concept of ownership by the fact that a digital asset can be replicated an unlimited number of times where each unit is inextricably identical and it no longer makes sense to speak of the original or a copy of a particular object.
5. Digital assets meet the requirements for assets in the general sense, i. e. they have value and can participate in civil turnover, but in its essence and indefinite ownership status, has properties attributable to services as well. It might be worthwhile to start discussing digital assets as *quasi-assets*, however, this assumption requires a more detailed investigation.

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Relations between the European Public Prosecutor's Office and the non-participating EU Member States

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The article presents output of the research project APVV-18-0421 „The European Public Prosecutor's Office in Connections of the Constitutional Order of the Slovak Republic as Strengthening of the European Integration through Law“

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Abstract

The European Public Prosecutor's Office ("the EPPO"), as a body of the EU, has been granted with the competence to combat crimes affecting the financial interests of the EU, as this task can be better and more effectively achieved at the Union level. In carrying out its activities and for the performance of entrusted tasks, which usually have a transnational dimension, the EPPO works closely with a wide range of partners, therefore the EPPO Regulation (Regulation (EU) 2017/1939) sets out a legal framework for the relations of the EPPO with its partners in Articles 99 to 105. The partner for the EPPO, with which the EPPO may establish and maintain cooperative relations, may be an institution, body, office and agency of the EU, Member State, which decided not to participate in enhanced cooperation on the establishment of the EPPO, third country or international organization. Besides the general common provisions for the relations of the EPPO with its partners, the EPPO Regulation provide also more detailed rules for relations of the EPPO with the non-participating EU Member States. The EU Member States, which decided not to participate in enhanced cooperation on the establishment of the EPPO, have a specific position because of the territorial competence of the EPPO. The crimes falling under the competence of the EPPO may have a close link to the non-participating Member State, this Member State may have an evidence or suspects or accused persons may be located in this Member State. The paper aimed to analyze the legal framework of the relation of the EPPO with the non-participating EU Member States, with a focus on the content of these relations and their elements stemming from Art. 105 of the EPPO Regulation. The attention is paid to the working agreement and to the legal instrument relating to judicial cooperation in criminal matters between the EPPO and the national authorities of the non-participating Member State.

Keywords: EPPO, non-participating Member States, judicial cooperation, working arrangements, criminal matters

1. Introduction

The European Public Prosecutor's Office was established under enhanced cooperation by Council Regulation (EU) 2017/1939 of 12 October 2017 ("the EPPO Regulation"). The main task of the EPPO is to combat crimes affecting the financial interests of the Union (*Art. 86 (1) TFEU*). To fulfil its main task, the EPPO is responsible for investigating, prosecuting and bringing to judgement the perpetrators of, and accomplices to, criminal offences affecting the financial interests of the Union. The establishment of the EPPO, as a Single European Prosecution Office, significantly changed the area of criminal justice of the EU, as the EPPO has become responsible for combatting crimes affecting the financial interest of the EU. Not all of the EU Member States were convinced about the idea of the Single Prosecution Office of the EU, which is the reason why the EPPO was established under enhanced cooperation. Nowadays twenty-two EU Member States are participating in the enhanced cooperation¹ and just five EU Member States are non-participating².

The EPPO, as a new body of the EU, will not operate as an isolated actor. Instead, it will have to integrate itself in the existing network of the EU institutional structure (*Tzortzi, 2018*). In order to facilitate the exercise of its function and for the performance of entrusted tasks, which usually have a transnational dimension, the EPPO works closely with a wide range of partners, such as an institutions, bodies, offices and agencies of the EU, EU Member States, which decided not to participate in enhanced cooperation on the establishment of the EPPO, third countries or international organizations (*Preamble of the EPPO Regulation, p.100*). As the EPPOs relations to its partners are of considerable importance, their legal framework have to be clear and coherent. The legal framework of the EPPOs relations with its partners is set in the EPPO Regulation, namely in Articles 99 to 105. Article 99 of the EPPO Regulation sets

¹ EU Member States participating in enhanced cooperation on the establishment of the EPPO are Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Finland, France, Germany, Greece, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Romania, Slovakia, Slovenia and Spain.

² EU Member States, which do not participate in enhanced cooperation on the establishment of the EPPO, are Denmark, Ireland, Hungary, Poland and Sweden. Denmark and Ireland have an opt-out from the area of freedom, security and justice.

out a common legal framework for the establishment and maintenance of the cooperative relations between the EPPO and its partners. The object of Articles 100-105 is to provide specific provisions for the relations of the EPPO with selected partners such as Eurojust (*Art. 100*), OLAF (*Art. 101*), Europol (*Art. 102*), EU institutions (*Art. 103*), third countries and international organizations (*Art. 104*) and EU Member States which do not participate in enhanced cooperation on the establishment of the EPPO (*Art. 105*).

After analyses of the general common legal framework of the EPPOs relations with its partners and their essential elements, attention is paid to the EPPOs relations with EU Member States which do not participate in the enhanced cooperation on the establishment of the EPPO (further as “*non-participating Member States*”) as they have a specific position because of the territorial competence of the EPPO and the competence on the basis of the active personality principle.

2. Common provisions on the Relations of the European Public Prosecutor’s Office with its partners

Article 99 of the EPPO Regulation governs the general legal framework of the EPPOs relations with its potential partners. Steaming from Article 99 par. 1 of the EPPO Regulation the relations of the EPPO with its partners are based on the principle of cooperation.³ The scope of such cooperation is not defined in this article, which means it is not limited to specific forms of interaction between the EPPO and its partners. The scope of the cooperation between the EPPO and its partners may be related to operational, strategic or administrative matters if they are related to the performance of the EPPO tasks (*Brodowski, 2021*). The EPPO’s tasks are investigating, prosecuting and bringing to judgement the perpetrators of, and accomplices to, criminal offences affecting the financial interests of the Union. From the wording of Art. 99 par. 1 of the EPPO Regulation is clear, that the EPPO may cooperate with its partners in all matters related to the performance of the EPPO’s tasks if it is necessary, but not beyond the scope of the entrusted tasks.

Even the EPPO Regulation in Art. 99 does not concern a long list of specific forms of the cooperation between the EPPO and its partners and leave an open space for different forms of cooperation, in par. 2 and par. 3 are enshrined specific forms of cooperation between the EPPO and its partners, specifically the exchange of information and the conclusion of working arrangements. Due to the Art. 99 par. 2 of the EPPO Regulation, the EPPO may directly exchange all information with its partners, if it is relevant to the performance of its tasks. Since the entire cooperative relation between the EPPO and its partners is limited by the fact that the cooperation must relate to the performance of the EPPO’s tasks, this limitation also applies to the exchange of information between the EPPO and its partners. The EPPO and its partners may only exchange information, which are related and relevant for investigations and prosecutions under the EPPO’s competence. The other limitation to the exchange of information is, that personal data are excluded from this general exchange of information and Art. 99 par. 2 cannot serve as a legal basis for the transfer of personal data. The exchange of personal data are also exclude from the scope of working arrangements concluded between the EPPO and its partners.⁴

One of the most important form of the cooperation between the EPPO and its partner are working arrangements. The EPPO may conclude working arrangements with institutions, bodies, offices and agencies of the EU, EU Member States, which decided not to participate in enhanced cooperation on the establishment of the EPPO, third countries or international organizations. The purpose of working arrangement is to set out a rules and framework of the cooperative relation between its parties, specifically between the EPPO and its partner. Working arrangements are of a technical and/or operational nature with the aim to facilitate cooperation and defined its forms, as well as to facilitate the exchange of information. Steaming from the wording of Art. 99 par. 3 of the EPPO Regulation is it clear, that working arrangement cannot be a legal basis for the exchange of personal data. It is necessary to realize that working arrangements between the EPPO and its partners have legally binding effects only between parties, so they do not have legally binding effects on the European Union or its Member States. As Art. 99 par. 3 of the EPPO Regulation is of general nature and does not cover the way of a conclusion of such working arrangements; the general rules on working arrangements are enshrined in Internal rules of procedure of the EPPO. The main role in conclusion of working arrangements has the European Chief Prosecutors, as she identifies the need to conclude working arrangements, informs the College, sets out guidelines for the negotiations as well as she may enter into negotiations on the working arrangements. At the end of this process is the College, as the working arrangements are adopted by the College.⁵

³ Art. 99 par. 1 EPPO Regulation: “*In so far as necessary for the performance of its tasks, the EPPO may establish and maintain cooperative relations with institutions, bodies, offices or agencies of the Union in accordance with their respective objectives, and with the authorities of Member States of the European Union which do not participate in enhanced cooperation on the establishment of the EPPO, the authorities of third countries and international organizations.*”

⁴ Art. 99 Commentary. Online: [Article 99 - EPPO-LEX](#)

⁵ Art. 66 of the Internal Rules of Procedure of the EPPO (College Decision 003/2020) on the Internal Rules of Procedure – amended by College Decision 085/2021)

3. Relations between the European Public Prosecutor's Office and the non-participating Member States

The EU Member States, which decided not to participate in enhanced cooperation on the establishment of the EPPO, have a specific position because of the territorial competence of the EPPO⁶ and the competence based on the active personality principle⁷. The crimes falling under the competence of the EPPO may have a close link to the non-participating Member State, this Member State may have an evidence regarding the case under the competence of the EPPO or suspects or accused persons may be located in this Member State. The position of the non-participating Member States is also different from position of other partners of the EPPO because of the fact, that even when the EPPO Regulation does not bind them, they still have some obligations stemming from the EU law. The non-participating Member States have the duty of sincere cooperation stemming from Article 4 (3) TEU, which means that the Union and the Member States shall, in full mutual respect, assist each other in carrying out tasks which flow from the Treaties. In case of the EPPO it means, that non-participating Member States are expected to cooperate with the EPPO and to accept the EPPO as a competent authority in relation to Union acts on judicial cooperation in criminal matters (*Franssen, 2018*). The link to the duty of sincere cooperation is explicitly mentioned the EPPO Regulation, mainly for the area of judicial cooperation in criminal matters between the EPPO and non-participating EU Member States. Stemming from Article 325 TFEU, the non-participating EU Member States also have an obligation to counter fraud and any other illegal activities affecting the financial interests of the Union through measures, which have to be the same as the measures they take to counter fraud affecting their own financial interests. The EU Member States, participating or non-participating in the enhanced cooperation on the establishment of the EPPO, shall coordinate their actions with the aim to protect the financial interests of the Union against fraud.

Because of this specific position of non-participating EU Member States, the EPPO Regulation in addition to general common framework of the EPPO's relations with its partners, defines in Article 105 a specific legal framework for relations between the EPPO and the non-participating Member States. Article 105 of the EPPO Regulation concerns and defines specific aspects of the cooperation between the EPPO and non-participating Member States such as working arrangements, contact points of the EPPO in the non-participating Member States and forms of judicial cooperation in criminal matters. While the first two listed forms of cooperation between the EPPO and non-participating EU Member States stemming from the general provisions on cooperation between the EPPO and its partners, the last one listed, the area of judicial cooperation in criminal matters is a specific issue in relation between the EPPO and non-participating EU Member States.

3.1 General forms of cooperation with non-participating Member States

Conclusion of working arrangements between the EPPO and non-participating Member States is based on general form of cooperation between the EPPO and its partners. Subsequently, in case of the working arrangements between the EPPO and non-participating Member States, Article 105 par. 1 defines, that the purpose of working arrangements may in particular concern the exchange of strategic information as well as the secondment of liaison officers from non-participating Member States to the EPPO, which can ease cooperation between them and make it more effective. Until this day, the EPPO has concluded the working arrangement with only one non-participating Member State, specifically with Hungary. The Working arrangement on cooperation between the European Public Prosecutor's Office and the Office of the Prosecutor General of Hungary⁸ entered into force in April 2021 with purpose to facilitate the practical application of the existing legal framework for judicial cooperation in criminal matters, to exchange strategic information and to establish other forms of operational and institutional cooperation. The working arrangement covers these forms of cooperation: the judicial cooperation in criminal matters, contact points for the EPPO in Hungary, secondment of liaison officer to the EPPO, exchange of strategic and other information, organizing of meetings and other events at both operational and administrative levels.

The other form of cooperation between the EPPO and non-participating Member States is designation of contact points of the EPPO in the non-participating Member States. For the EPPO it may be useful to have a contact point in the non-participating Member State to serve as a facilitator for judicial cooperation. It is not the EPPO, who determines who shall serve as a contact point, but it is the tasks of the non-participating member state to determine who of its officials or which of its national authorities will be a contact point (*Brodowski, 2021*). The existence of contact points in non-participating Member States is important mainly because of territorial competence of the EPPO, as crimes falling under the competence of the EPPO may have a close link to the non-participating Member State, this Member State may have an evidence regarding the case under the competence of the EPPO or suspects or accused persons may be located in this Member State.

⁶ Art. 23 EPPO Regulation: „(a) The EPPO shall be competent for the offences referred to in Article 22 where such offences were committed in whole or in part within the territory of one or several Member States.”

⁷ Art. 23 EPPO Regulation: „(b) The EPPO shall be competent for the offences referred to in Article 22 where such offences were committed by a national of a Member State, provided that a Member State has jurisdiction for such offences when committed outside its territory.”

⁸ Online: [Working arrangement EPPO-HU 0.pdf \(europa.eu\)](#)

2.2 Judicial cooperation in criminal matters

The judicial cooperation of the EPPO and non-participating Member States will be crucial in order to ensure that the EPPO contributes effectively to the fight against crimes affecting the financial interests of the EU⁹ (Tzortzi, 2018). The basis of judicial cooperation in criminal matters between the EPPO and the non-participating Member States is defined in Article 105 par. 3 of the EPPO Regulation. The wording of Article 105 par. 3 is an interim solution that has obviously helped reach a compromise for this crucial issue of judicial cooperation in criminal matters between the EPPO and the non-participating Member States (Franssen, 2018). This provision contains two possibilities for judicial cooperation between the EPPO and the non-participating Member States.

The first option offered by Article 105 par. 3 is the adoption of a separate legal instrument relating to cooperation in criminal matters and surrender between the EPPO and the competent authorities of the non-participating EU Member States. The possible legal basis for adoption of this separate legal instruments may be Article 82 TFEU or previously mentioned Article 325 TFEU. According to Article 325 par. 4 TFEU “the European Parliament and the Council shall adopt the necessary measures in the fields of the prevention of and fight against fraud affecting the financial interests of the Union with a view to affording effective and equivalent protection in the Member States”. According to Article 82 par. 1 TFEU “the European Parliament and the Council shall adopt measures to facilitate cooperation between judicial or equivalent authorities of the Member States in relation to proceedings in criminal matters and the enforcement of decisions”.¹⁰ On the basis of Article 105 par. 3 of the EPPO Regulation could also existing legal instruments be amended to address judicial cooperation between the EPPO and national authorities in non-participating Member States (Brodowski, 2021).

As an example of resolving the issue of judicial cooperation in criminal matters between the EPPO and the non-participating Member State, the wording contained in the Working arrangement on cooperation between the European Public Prosecutor’s Office and the Office of the Prosecutor General of Hungary¹¹. Article 3 of this Working Arrangements laid down, that “*in accordance with Article 105 par. 3 of the EPPO Regulation, the Parties shall grant each other the widest possible assistance in the application of the relevant legal instruments for judicial cooperation in criminal matters. At operational level, the Parties shall cooperate directly. Requests for assistance or judicial decisions addressed to the EPPO shall be sent to the Central Office. Requests for assistance or judicial decisions addressed to the Office of the Prosecutor General of Hungary shall be sent to the Department of Priority, Corruption and Organised Crime Cases.*”

The second option of judicial cooperation between the EPPO and non-participating Member States enshrined in Article 105 par. 3 of the EPPO Regulation is: “*in the absence of a specific legal instrument relating to cooperation in criminal matters and surrender between the EPPO and the competent authorities of the non-participating Member States, the participating Member States shall notify the EPPO as a competent authority for the purpose of implementation of the applicable Union acts on judicial cooperation in criminal matters in respect of cases falling within the competence of the EPPO, in their relations with non-participating Member States*”. This means that the EPPO would be able to rely autonomously on existing EU instruments on judicial cooperation in its relations with non-participating Member States. As it was already mentioned the EPPO Regulation does not have legally binding effects on non-participating Member States, therefore the EPPO Regulation can not impose obligations on them. Currently, there is no other legal framework of the Union that would regulated the judicial cooperation of the EPPO and non-participating Member States, expect from Article 105 par. 3 of the EPPO Regulation which regulates, as the only EU provision, judicial cooperation in criminal matters between the EPPO and non-participating Member States. The area of judicial cooperation between the EPPO and non-participating Member States, specifically the question of the EPPO as a competent authority, is exactly the area, where the EPPO must rely on and refer to the principle of sincere cooperation enshrined in Article 4 par. 3 TEU (Ondrejová, 2018). The non-participating Member States duty of sincere cooperation means that the Union and the Member States shall, in full mutual respect, assist each other in carrying out tasks, which flow from the Treaties as well as facilitate the achievement of the Union’s tasks and refrain from any measure, which could jeopardise the attainment of the Union’s objectives.¹² In case of the EPPO, Article 105 par. 3 of the EPPO Regulation requires the participating Member States to notify the EPPO as a competent authority to the non-participating Member States in cases falling within the competence of the EPPO. Then, based on the principle of sincere cooperation, the non-participating Member States and their national authorities are expected to accept the EPPO as a competent authority and accept the validity of requests by the EPPO (Franssen, 2018; Brodowski, 2021). As with other forms of cooperation between the EPPO and non-participating Member States (e.g. exchange of information, working arrangements), the same limitation applies in this case as well. The EPPO may be notify as a competent authority and may be a competent

⁹ Criminal offences affecting the financial interests of the Union are provided for in Directive (EU) 2017/1371

¹⁰ Art. 82 par. 1 TFEU: „*Judicial cooperation in criminal matters in the Union shall be based on the principle of mutual recognition of judgments and judicial decisions and shall include the approximation of the laws and regulations of the Member States in the areas referred to in paragraph 2 and in Article 83. The European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall adopt measures to:*
 (a) lay down rules and procedures for ensuring recognition throughout the Union of all forms of judgments and judicial decisions;
 (b) prevent and settle conflicts of jurisdiction between Member States;
 (c) support the training of the judiciary and judicial staff;
 (d) facilitate cooperation between judicial or equivalent authorities of the Member States in relation to proceedings in criminal matters and the enforcement of decisions.”

¹¹ Online: Working arrangement EPPO-HU_0.pdf (europa.eu)

¹² Art. 4 par. 3 TEU

authority only in respect of cases falling within the competence of the EPPO, never cases that do not fall within the competence of the EPPO.

The other question raising from Article 105 par. 3 of the EPPO Regulation is the question of the applicable Union acts on judicial cooperation in criminal matters. From the words used in this Article “the applicable Union acts on judicial cooperation in criminal matters” could be deduced that all existing legal acts and instruments on judicial cooperation in criminal matters are involved, as well as all future legal instruments on judicial cooperation in criminal matters will be involved. The applicability of Union acts on judicial cooperation in criminal matters depends on the prerequisites: the non-participating Member State is legally bound by the Union act; the case fall within the competence and tasks of the EPPO; specific requirements for judicial cooperation between the EPPO and the non-participating Member State; and the EPPO can be considered as a competent authority in the respective Union act (*Brodowski, 2021*).

As examples of Union acts on judicial cooperation in criminal matters, in which the participating Member States considered the EPPO as a competent authority are *Directive 2014/41/EU of the European Parliament and of the Council of 3 April 2014 regarding the European Investigation Order in criminal matters (EIO Directive)*¹³ or *Regulation (EU) 2018/1805 of the European Parliament and of the Council of 14 November 2018 on the mutual recognition of freezing orders and confiscation orders*¹⁴.

4. Conclusions

The legal framework of relations between the EPPO and the Member States of the EU which do not participate in enhanced cooperation on the establishment of the EPPO (non-participating Member States) are defined in Article 105 of the EPPO Regulation. These relations are of cooperative nature. General forms of cooperation such as exchange of information, conclusion of working arrangements, secondment of liaison officers to the EPPO or designation of contact points of the EPPO in non-participating Member States aimed to facilitate cooperation between the EPPO and the non-participating Member States as well as to ensure the effectiveness of activities of the EPPO. The third paragraph of Article 105 of the EPPO Regulation governs the judicial cooperation between the EPPO and the non-participating Member States. The first, and preferred, option of judicial cooperation between the EPPO and non-participating Member States are legal instruments relating to cooperation in criminal matters and surrender between the EPPO and the competent national authorities of the non-participating Member-states. Even though legal instruments are preferred, nowadays it seems, that it is not easier way and the second option of judicial cooperation in criminal matters between the EPPO and non-participating Member States enshrined in Article 105 par. 3 has a bigger chance for success. The second option means, that in the absence of a legal instruments relating to cooperation in criminal matters and surrender, the participating Member States shall notify the EPPO as a competent authority for the purpose of implementation of the applicable Union acts on judicial cooperation in criminal matters in respect of cases falling within the competence of the EPPO, in their relations with non-participating Member States”. The application of this provision for judicial cooperation between the EPPO and non-participating Member States is based on the obligation of sincere cooperation stemming from Article 4 par. 3 TEU. Other problems which could occurred are connected with the question of applicability of Union acts on judicial cooperation in criminal matters or question if the EPPO could be considered as a competent authority.

It would seem that Article 105 par. 3 of the EPPO Regulation could guarantee effective judicial cooperation in criminal matters between the EPPO and the competent national authorities of the non-participating Member States. However, the situation and (non) cooperation between the EPPO and Poland, the EU Member State which do not participate in enhanced cooperation on the establishment of the EPPO, shows something different. In February 2022, The European Chief Prosecutor has addressed a letter to the Commission pointing at Poland’s refusal to cooperate with the EPPO. In the letter, she pointed out *that the cooperation between the EPPO and competent judicial authorities in Poland still has to rely on the existing instruments for judicial cooperation and mutual recognition. Even though, all participating Member States notified the EPPO as a competent authority for the application of existing instruments for judicial cooperation, Poland has conditioned the signature of a working arrangement with the EPPO to a prior approval of an amendment of the Polish Criminal procedure code that would allow recognition of the EPPO as a competent authority. The practical consequence of Poland’s refusal to recognize participating Member States’ notifications of the EPPO as a competent authority without prior national law modification is that Poland has been consistently rejecting the EPPO’s requests for judicial cooperation since the start of its operations. The consequences are, that the EPPO is unable to obtain evidenced located in Poland, which is important for a criminal investigation of a cross-border nature.*¹⁵

¹³ See for example: Notification by Austria pursuant to Article 33 of Directive 2014/41/EU regarding the European Investigation Order in criminal matters (online: [EJN | Judicial Library \(europa.eu\)](#)); Notification from the Republic of Bulgaria in accordance with Article 105 (3) of Council Regulation (EU) 2017/1939 of 12 October 2017 implementing enhanced cooperation on the establishment of the EPPO (online: [EJN | Judicial Library \(europa.eu\)](#)); Germany -Declaration on application – Council Regulation (EU) 2017/1939 of 12 October 2017 implementing enhanced cooperation on the establishment of the EPPO (online: [EJN | Judicial Library \(europa.eu\)](#)).

¹⁴ See for example: Luxembourg - Notifications to the European Commission/ EPPO as the competent authority under Directive 2014/41/EU of the European Parliament and of the Council of 3 April 2014 regarding the European Investigation Order in criminal matters and Regulation (EU) 2018/1805 of the European Parliament and of the Council of 14 November 2018 on the mutual recognition of freezing orders and confiscation orders (online: [EJN | Judicial Library \(europa.eu\)](#)); Czech Republic - Notifications pursuant to Article 105 (3) of the Council Regulation (EU) 2017/1939 of 12 October 2017 implementing enhanced cooperation on the establishment of the European Public Prosecutor’s Office form 19 March 2021 (online: [EJN | Judicial Library \(europa.eu\)](#)).

¹⁵ Letter sent to European Commission regarding Poland’s refusal to cooperate with the EPPO. Published on 16 February 2022. Online: [Letter sent to European Commission regarding Poland’s refusal to cooperate with the EPPO | European Public Prosecutor’s Office \(europa.eu\)](#)

In the light of actual situation in Poland as well as in the light of pointed problems connected with application of the second option offered by Article 105 par. 3 of the EPPO Regulation it seems, that legal instruments relating to cooperation in criminal matters and surrender between the EPPO and the competent authorities of the non-participating Member States could be a better and more effective way.

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Binnendifferenzierung im DaF- Unterricht (am Beispiel einer Unterrichtsstunde)

Internal differentiation in German lessons. The example of a lesson.

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Abstract

The concept of internal differentiation comes from school didactics and has been considered there since the 1960s. In the classroom, teachers meet people with different prior knowledge, different interests and different motivations. With standardized content and learning goals that are the same for all learners, you won't get anywhere as a teacher, you have to differentiate. The diverse learning arrangements and methods are aimed at helping the learner to achieve the optimal learning success for himself. The aim of this work is to show how one can work internally differentiated in teaching, to explain the recommended criteria for this concept according to scientists and to lead a lesson according to this concept. The aspects that are dealt with in the theoretical part are primarily intended to provide an overview of internal differentiation, the role and implementation options in DaF teaching. With the help of the lesson observation, an insight into the teaching practice is given. Then the methodology and the implementation of the case study are explained. Practically implemented, the goals, questions and hypotheses of the work are explained first. The exercises used are explained individually and a lesson plan is presented for the internally differentiated lesson. Based on the analysis and a critical evaluation, the results of the case study are summarized.

Keywords: Differentiation, Evaluation, Lesson, Observation, German, Learner.

Das Konzept der Binnendifferenzierung entstammt der Schuldidaktik und wird dort seit den 1960er Jahren berücksichtigt. Im Unterricht finden Lehrende Menschen vor, die unterschiedliches Vorwissen, unterschiedliche Interessen und eine unterschiedliche Motivation mitbringen. Mit standardisierten, für alle Lernenden gleich gestalteten Inhalten und Lernzielen kommt man da als Lehrkraft nicht weiter, man muss differenzieren. Differenzierungsformen innerhalb einer gemeinsam unterrichteten Gruppe von Lernenden – also vielfältige Methoden, um mit den Unterschieden der Lernenden umzugehen, ohne die gesamte Gruppe dauerhaft aufzuteilen (in Anlehnung an Klafki & Stöcker, 1991). Die vielfältigen Lernarrangements und Methoden zielen darauf ab, den Lernenden zu helfen, den für sich optimalen Lernerfolg zu erreichen. Ziel dieser Arbeit ist es zu zeigen, wie man im Unterrichten binnendifferenziert arbeiten kann, die empfohlene Kriterien für dieses Konzept nach Wissenschaftlern zu erläutern und nach diesem Konzept eine Unterrichtsstunde zu führen. Die Aspekte, die im theoretischen Teil behandelt werden, sollen in erster Linie einen Überblick zu Binnendifferenzierung, die Rolle und Umsetzungsmöglichkeiten im DaF-Unterricht verschaffen. Mithilfe der Unterrichtsbeobachtung wird ein Einblick in die Unterrichtspraxis gegeben. Danach werden die Methodik und die Durchführung der Fallstudie erläutert. Praktisch umgesetzt werden zuerst die Ziele, die Fragestellungen und Hypothesen der Arbeit erläutert. Die Beschreibung der Durchführung der Unterrichtsbeobachtung mit Deutschlernenden. Die verwendeten Übungen werden einzeln erklärt und es wird ein Unterrichtsentwurf über die binnendifferenzierte Unterrichtsstunde dargestellt. Anhand der Analyse und einer kritischen Auswertung werden die zentralen Ergebnisse der Fallstudie zusammengefasst.

Schlüsselwörter: Binnendifferenzierung, Deutschlernende, DaF-Unterricht, Unterrichtbeobachtung, Auswertung

1. Einleitung

Im Unterricht werden wir immer wieder mit einem oder mehreren Lernenden konfrontiert, die nicht gut im Vergleich zu den anderen Lernenden mitkommen. Bedeutet das, dass sie mehr Zeit zu bestimmten Aufgaben brauchen oder auch mit den beauftragten Aufgaben nicht im bestimmten Zeitraum fertig sein könnten? Solche Lernende sind mehr frustriert im Unterricht und haben auch nicht viel Spaß mitzumachen. Auf der anderen Seite werden wir auch mit Lernenden konfrontiert, die sehr fleißig sind und die Aufgaben sehr schnell als die anderen lösen. Lehrwerke, die binnendifferenziertes Übungsmaterial anbieten, sind eine gute Lösung, um mit diesem Verfahren umzugehen. Aber Verbesserungsmöglichkeiten zur Unterstützung für den Unterrichtsverlauf gibt es immer. Lehrkräfte können eine Diagnose der individuellen Lernvoraussetzungen der "betroffenen" Lernenden stellen und die Übungen und Aufgaben im Unterricht entsprechend an die Bedürfnisse der einzelnen Lernenden anzupassen.

Ziel dieser Arbeit ist es zu zeigen, wie man binnendifferenzierend unterrichten kann, die empfohlene Kriterien für dieses Konzept nach Wissenschaftlern zu erläutern und nach dieses Konzept eine Unterrichtsstunde zu führen.

Dieser Beitrag widmet sich sowohl dem theoretischen als auch dem praktischen Teil. Zunächst Mithilfe der Unterrichtsbeobachtung wird ein Einblick in die Unterrichtspraxis gegeben. Danach werden die Methodik und die Durchführung der Fallstudie erläutert. Nachdem die beobachtete Lerngruppe und die Lehrerin vorgestellt wurden, erfolgt unter Punkt die Auswertung der Fallstudie anhand folgender Kategorien: Verständnis von Binnendifferenzierung, Unterrichtsbeobachtung, Übungstypologien für die durchgeführte Unterrichtsstunde, Kriterien zur Auswahl der Übungen/Aufgaben im binnendifferenzierten DaF- Unterricht, Befragung der Schüler und am Ende eine Zusammenfassung und kritische Beobachtung des Falles bezüglich der zentralen Ergebnisse der Fallstudie.

2. Binnendifferenzierung im albanischen DaF-Unterricht

Im Rahmen einer Unterrichtsstunde wurde mit Schülern der 10. Klasse an der „Elite“- Gymnasium in Tirana binnendifferenzierend nach Aufgabenstellung gearbeitet. Dies zielte darauf ab, zu Ergebnissen zu gelangen, und diesbezüglich wurde einen Fragebogen in Form von Aussagen zu den Übungen erstellt. Die Lernenden haben jeder individuell den Fragebogen ausgefüllt. Was die Unklarheiten im Fragebogen betrifft, ist jede Frage auch in Muttersprache erklärt worden und die Schüler waren offen, jederzeit über weitere Klarheiten nachzufragen.

Die Aussagen bezogen sich auf die differenzierten Übungen. Wobei jeder Schüler ankreuzen sollte, inwieweit die auf denen treffen durch Antwort ja, teilweise, nein. Jeder Fragebogen war anonym, d.h. jeder Schüler hat nur die Gruppe markiert, in der er war. Diese Einteilung in Gruppen erfolgte in Zusammenarbeit mit der Lehrerin entsprechend ihrer Noten, aber auch nachdem sie gruppiert waren, hatten sie die Möglichkeit, selbst zu wählen, ob sie mehr Übungen wollten. Auch für Unklarheiten/Hilfe waren sie offen, sich gegenseitig zu helfen oder von der Lehrerin.

Diese schriftliche Form der Ausarbeitung des Fragebogens wurde aufgrund der geringen Kenntnisse von den Schülern gewählt, eine mündliche Befragung durchzuführen und auch um zu genaueren schriftlichen Ergebnissen zu kommen.

Insgesamt waren sechs geschlossene Fragestellungen in Form von Aussagen, wo die Schüler mit Ja/Teilweise / Nein antworten konnten. Im Folgenden werden kurz diese Aussagen erläutert.

1. Aktivität:

- **Ich war aktiv bei der Bearbeitung der Übung**

Durch diese Aussage wollten wir wissen, ob sich die Schüler, mit denen der Unterricht durchgeführt worden ist, beteiligt und aktiv beim Geben und Empfangen von Informationen gefühlt haben.

2. Selbsteinschätzung:

- **Die Übungen entsprachen meinen Kenntnissen und meinem Sprachniveau**
- **Die Übungen waren schwierig für mich**
- **Die Übungen waren leicht für mich**

Bei dieser Aussage wollten wir wissen, wie wohl sich die Schüler in Bezug auf die Schwierigkeit der Übungen fühlen. Ob die Übungen für ihr Niveau angemessen waren. Diese Fragen beziehen sich auf Selbsteinschätzung.

3. Komplexität:

- **Ich hatte Schwierigkeiten bei der Erledigung der Aufgaben**

Bei der Aussage 3 wollten wir herausfinden, ob die vorgegebenen Aufgaben in der Art und Weise, wie sie für ihr Niveau aufgebaut sind, schwierig sind oder nicht. Praktisch hat dies mit der Klarheit der Fragen für jeden Schüler zu tun.

4. Zeit

- **Ich musste auf die anderen warten**
- **Die anderen mussten auf mich warten**

Zeit spielt eine ebenso eine wichtige Rolle bei der Lösung von Aufgaben. Da sich die Schüler in einem Klassenzimmer befinden, in dem nur die ersten 45' und die zweiten 45' verfügbar sind, zählt jede Minute und jede Übung hat eine festgelegte Zeit. Es ist für uns wichtig, durch diese Aussage zu verstehen, wie wichtig die Zeit ist, die den Schülern für die Hausaufgaben zur Verfügung gestellt wird.

5. Produktivität:

- **Ich bin mit den Ergebnissen dieser Arbeitsform zufrieden**
- **Ich habe noch Fragen zu diesem Thema**

Bei der Aussage 5 möchten wir wissen, wie produktiv das Lernthema für die Schüler war. Ob sie sich mit dieser Art von vorbereiteten Übungen bequem gearbeitet haben und ob sie noch Fragen zum Thema und zu Unklarheiten haben. Dies zeigt ihrerseits Interesse, gefolgt von Konstruktion und Fragen zu den Übungen oder zum Thema.

6. Zufriedenheit:

- **Diese Arbeitsform hat mir gut gefallen**
- **Ich würde solche Übungen öfter machen**

Dies ist die letzte Aussage an den Schülern. Durch diese wollten wir Informationen darüber erhalten, wie differenzierte Übungen auf Schüler zugehen. Ob es deren Wunsch ist, öfter mit dieser Art von Übung in der Schulzeit zu arbeiten.

Die Ergebnisse zu diesem Fragebogen werden bei der Auswertung der Fallstudie präsentiert. Die Binnendifferenzierung im Unterricht ist ein schwieriger, aber nicht unmöglicher Prozess. Für uns ist die Meinung der Schüler sehr wertvoll, als Feedback zur geleisteten Unterrichtsstunde und zur Verbesserung in der Zukunft.

3. Ergebnisse und Analyse der Untersuchung

Aus allem, was wir in dieser Arbeit, in der Unterrichtsbeobachtung auch im Kontakt mit Lehrern und Schülern beobachten konnten, lässt sich sagen, dass binnendifferenziertes Lernen heute eine große Herausforderung für das moderne Lernen ist. Es wurden abwechselnde Sozialformen im Unterricht angewendet. Bei der Unterrichtsbeobachtung konnten wir direkt sehen, wie die Lehrerin sich bemühte, den Schülern gerecht zu werden. Alle waren sowieso konzentriert, um alles zu hören und schreiben, was die Lehrerin gab. Manche haben auch wiederholt und konnten schnell merken, wobei andere nur zugehört haben und sie wollten zu Hause die neuen Wörter lernen.

Die kooperativen Lernformen haben wir nach Leistung, Aufgabentypen, Komplexitätsgrad der Schüler geteilt. Die gegenseitige Schülerunterstützung stellte sich automatisch vor. Dies, um bei der Teilung der Schüler nicht zu Missverständnissen zu kommen. Die Schüler wurden bei jeder Aufgabe unterstützt. Die Lernzeit wurde individuell und bestmöglich genutzt. Es gab auch extra Übungen und Zusatzaufgaben.

In Bezug auf die Hypothesen und Fragestellungen dieser Arbeit werden hier direkt zwei von den Fragen analysiert:

Fragestellung: *Wird Binnendifferenzierung in Albanischen unterrichtet realisiert?*

Hier kann man sagen, dass es unbewusst passiert, wenn ein Schüler überhaupt nicht konzentriert ist oder wenn ein anderer Schüler hohe Leistung hat. Der Lehrer gibt sich mühe, um alle im Unterricht einzubeziehen. Oder in manchen Fällen besprechen sich die Lehrer auch miteinander, um Lösungen zu finden. In dieser Unterrichtsstunde in Albanien wurde versucht heterogen differenzierend zu arbeiten, aber eine Unterrichtsstunde homogen nach Binnendifferenzierung ist nicht öfter der Fall.

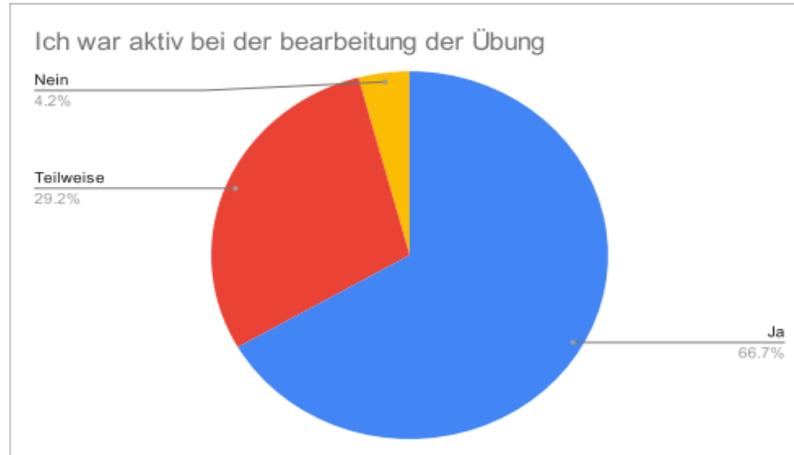
Fragestellung: *Welche Schwierigkeiten gab es bei der Umsetzung von Binnendifferenzierung im Unterrichtspraxis?*

Was uns direkt eingefallen ist, wollten manche Lernenden in einer Gruppe mit Freunden/Freundinnen sein, aber leider waren sie verschiedene Niveaus bei der Note. Um sie zufriedenzustellen, dürften einige der Schüler am Ende nach Erlaubnis bitten und zu anderen Gruppen zu gehen und die Übungen zusammen zu schauen.

4. Auswertung der Fallstudie

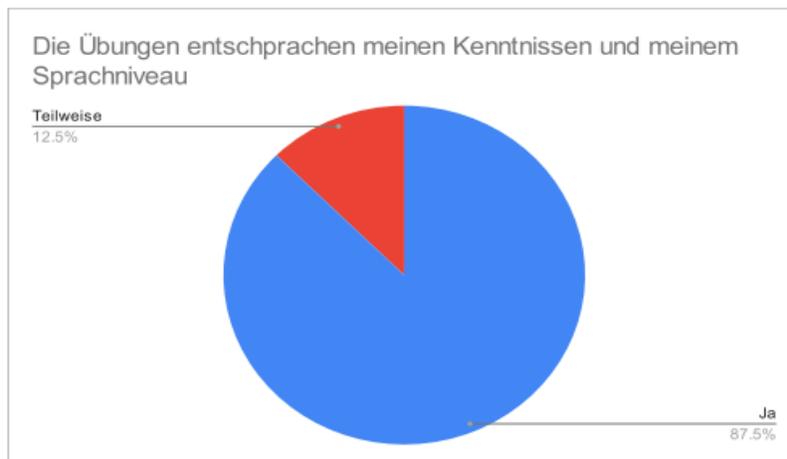
Mit den Fragebogen sollten allgemeine Informationen über die Befragten erhoben werden. Den Fragebogen haben die anwesende 24 Schüler ausgefüllt. Sie waren in drei Gruppen geteilt: Gruppe 1 mit leichten Übungstypen, Gruppe 2 mit mittelleichten Übungstypen und Gruppe 3 mit schwierigen Übungstypen.

Nach der verlaufenen Forschung und wie die Figur 1 zeigt, die erste Aussage "Ich war aktiv bei der Bearbeitung der Übung" haben die meisten Schüler, genauer 66.7% mit *Ja* markiert, insgesamt 16 Schüler. Die anderen 7 Schüler, in Prozent 29.2%, haben *Teilweise* und nur 1 Schüler, 4,2%, hat *Nein* markiert. Fast alle Schüler waren aktiv, auch die die *Teilweise* als Antwort gegeben haben waren sowohl aktiv, als auch auf ihre eigene Lösung der Aufgaben konzentriert.



Figur 1. Aktivität

In den Abbildungen 2, 3 und 4 geht es um die Selbsteinschätzung der Schüler. Zu dieser Haltung wurden 3 Aussagen gegeben. In der ersten Aussage "Die Übungen entsprechen meine Kenntnisse und meinem Sprachniveau" haben 21 Schüler, 87.5%, mit *Ja* geantwortet und 3 Schüler, 12,5%, mit *Teilweise*. Hier ist es deutlich, dass alle Schüler sich selbst bei der Übungen gefunden haben.



Figur 2. Selbsteinwätzung

Bei der zweite Aussage in der Figur 3 "Die Übungen waren schwierig für mich" können wir sehen, dass die Übung für die meisten nicht schwierig waren. Hier haben 15 Schüler, 62.5%, mit *Nein* geantwortet, 7 Schüler, 29.2% mit *Teilweise* und 2 Schüler, 8.3% mit *Ja*.



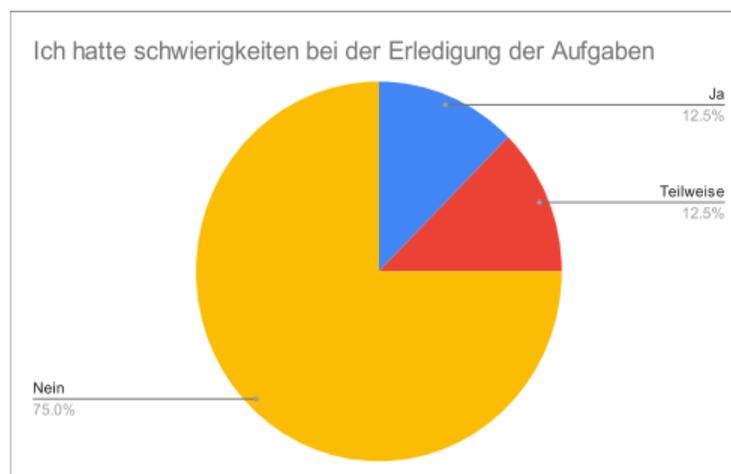
Figur 3. Selbsteinwätzung

Und die dritte Aussage zur Selbsteinschätzung “ Die Übungen waren leicht für mich” zeigt, dass für 15 Schüler, 62.5%, die Übung *Teilweise* leicht waren. Für 6 Schüler, 25%, waren die leicht und für 3 Schüler, 12.5% nicht leicht.



Figur 4. Selbsteinwätzung

Die folgende Abbildung stellt die Komplexität der Aufgaben dar. Zur Aussage “ Ich hatte Schwierigkeiten bei der Erledigung der Aufgaben” haben 18 Schüler, 75%, keine Schwierigkeiten bei der Erledigung der Aufgaben gehabt. Für die anderen 3 Schüler waren die Übungen *Teilweise* schwierig und für andere 3 Schüler schwierig.



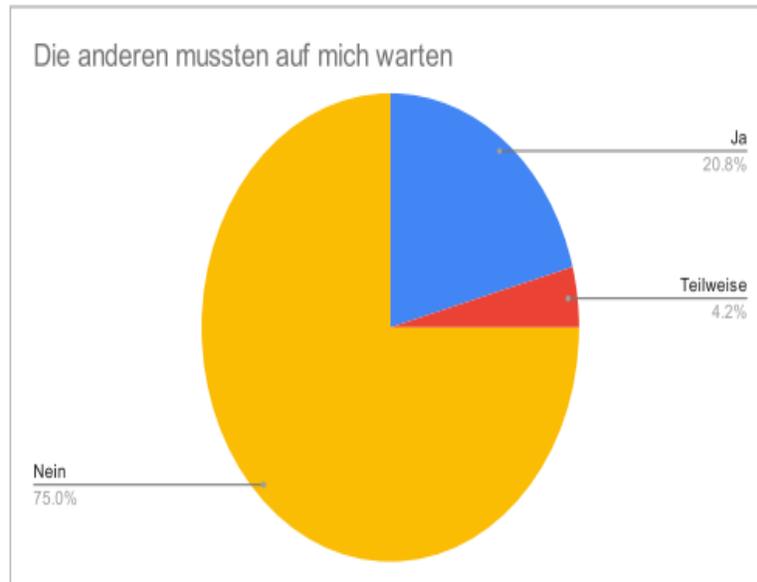
Figur 5. Komplexität

In den Abbildungen 6 und 7 geht es um die Zeit, die die Schüler für die Erledigung der Übungen zur Verfügung hatten. Die Aussage "Ich musste auf die anderen warten" haben die Hälfte der Schüler, genauer 50% mit *Ja* markiert, insgesamt 14 Schüler. Die anderen 9 Schüler, in Prozent 32.1%, haben *Teilweise* und 5 Schüler, 17.9%, haben *Nein* markiert. Dies bezieht sich auf die Zeit, die die Schüler für jeder der Übungen benötigt haben, in der gleichen Zeitraum. Die Zeit hat für alle gereicht, manche waren schneller fertig und haben den anderen geholfen, manche haben Zusatzübung gemacht.



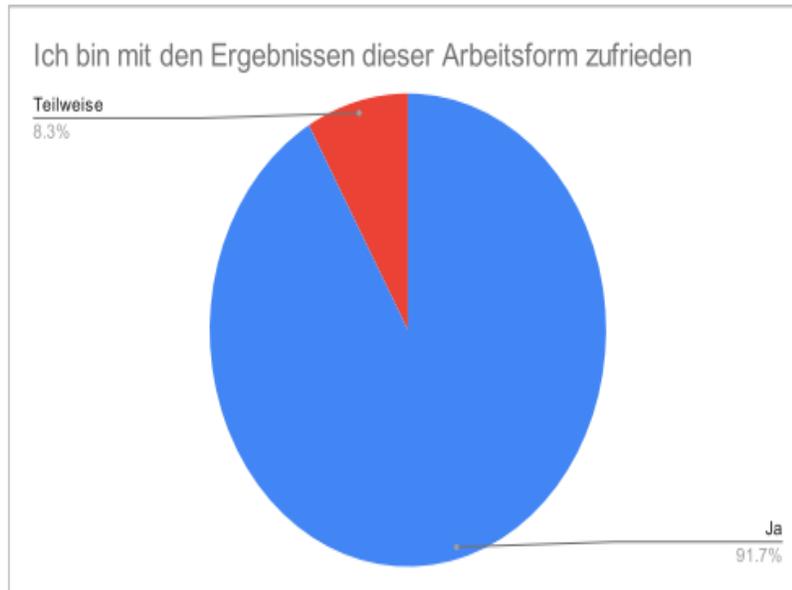
Figur 6. Zeit

Bei der zweiten Aussage "Die anderen mussten auf mich warten" können wir sehen, dass 18 Schüler, 75% mit *Nein* geantwortet haben, 5 Schüler, 20.8% mit *Ja* und 1 Schüler, 4.2% mit *Teilweise*.



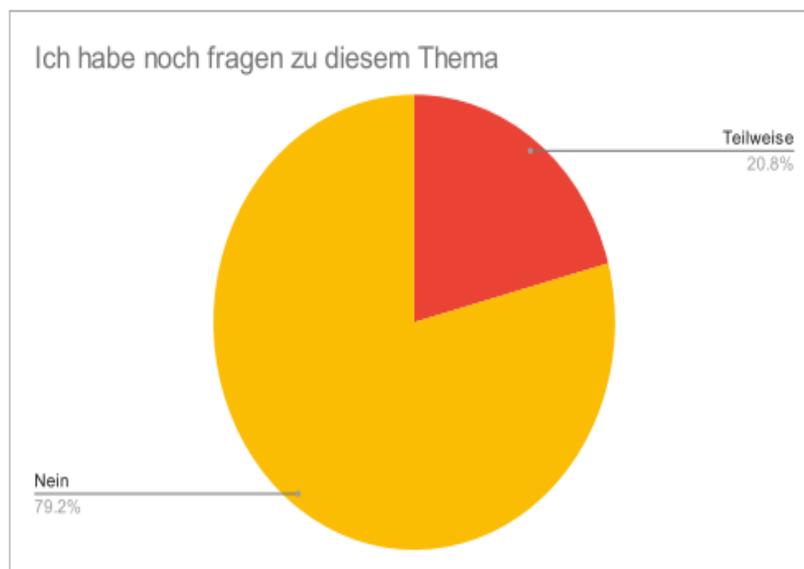
Figur 7. Zeit

In der Abbildung 8 und 9 wird die Produktivität der Übungen geschätzt. Die Aussage "Ich bin mit den Ergebnissen dieser Arbeitsform zufrieden" wurde von 22 Schüler, wie im Grafik gezeigt wird 91.7%, mit *Ja* geantwortet und nur 2 Schüler, 8.3% haben mit *Teilweise* geantwortet.



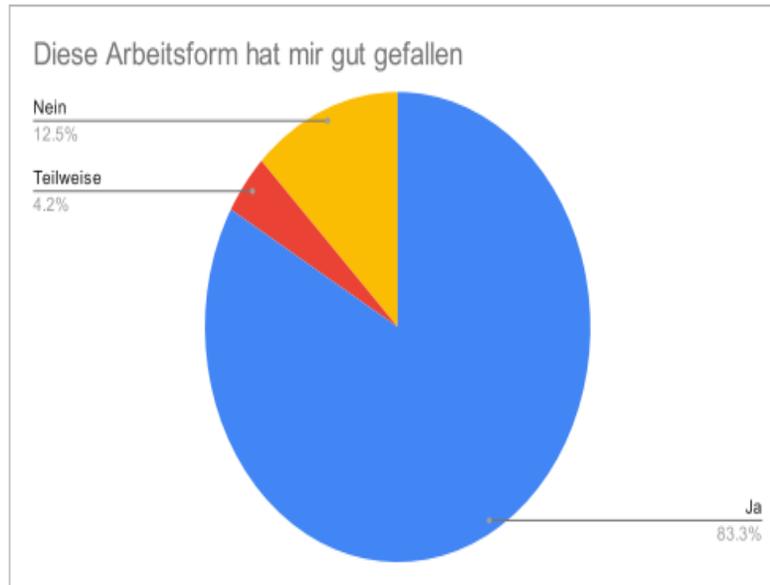
Figur 8. Produktivität

Bei der zweiten Aussage in der Abbildung 9 "Ich habe noch fragen zu diesem Thema" können wir sehen, dass für die meisten Schüler das Thema klar war. Hier haben 19 Schüler, 79.2%, mit *Nein* geantwortet, und 5 Schüler, 20.8% mit *Teilweise*.



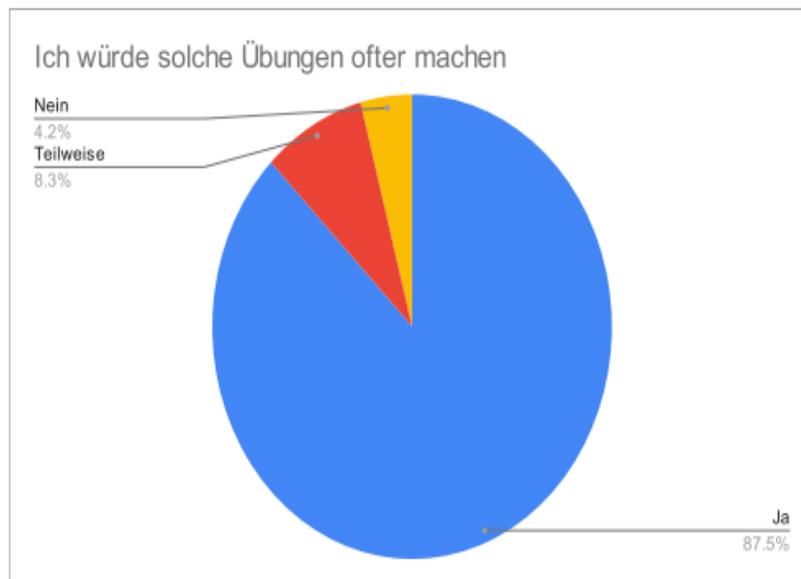
Figur 9. Produktivität

In der Abbildung 10 und 11 wird die Zufriedenheit der Schüler dargestellt. Zur Aussage "Dieser Arbeitsform hat mir gut gefallen" haben 20 Schüler, 83.3%, mit *Ja* geantwortet. Von den anderen, 3 Schüler haben diese Arbeitsform nicht gut gefallen und einen Schüler, 4.2% teilweise hat ihm gefallen.



Figur 10. Zufriedenheit

Bei der zweiten Aussage in Grafik 11 “Ich würde solche Übungen öfter machen” können wir sehen, dass die meisten Schüler mit dieser Übungen öfter arbeiten würden. Hier haben 21 Schüler, 87.5%, mit *Ja* geantwortet, 2 Schüler, 20.8% mit *Teilweise* und ein Schüler mit *Nein*.



Figur 11. Zufriedenheit

5. Schwierigkeiten bei der Umsetzung von Binnendifferenzierung

Generell kann man sagen, dass der differenzierte Unterricht besser aufgenommen wurde, als wir es im Voraus gedacht hatte. Dies auf Basis von den Antworten der Schüler bei der Befragung und von der Lösung der Aufgaben. Folgend werden einige Probleme aufgelistet, die aus unserer Sicht solche im Unterricht waren.

- die Ablenkung der Schüler beim gegenseitigen Helfen
- Überforderung für die Lehrerin bei der Erstellung individueller Materialien

- Überforderung für die Lehrerin gleichzeitig Gruppen mit unterschiedlichen Bedingungen zu verwalten.
- Kontrollhilfe war öfter nötig
- Die Gruppeneinteilung war nach Leistung der Schüler; worüber sie sich am Anfang nicht sehr gefreut haben

Hier als Lösung für die Lehrer bei der Realisierung von Binnendifferenzierung, würden wir Teamarbeit empfehlen, um die Konflikte in dem Unterricht zu bewältigen. Noch dazu den Unterricht spielerisch zu gestalten.

Eins der Probleme, die Wischer (2008, 715) nennt, hat mit der Note der Schüler zu tun, denn wir hier nicht als Problem gesehen haben. Nämlich wenn die Schüler Aufgaben angepasst nach seinen Niveau bekommen und jeder schreibt gute Ergebnisse. Wie werden die Schüler benotet? Die Übungen im Unterricht und auch in der Prüfung beginnen von den einfachsten bis zu den schwierigsten. Hier hat der Schüler die Möglichkeit, Übungen seines Niveaus zu machen und bekommt die Note, wofür er geschrieben hat. Obwohl wir alle Schüler gleichermaßen wertschätzen und motivieren, werden sie nach Leistung bewertet. Ein Problem wäre, wenn alle Schüler die gleichen Übungen in gleichen Schwierigkeitsgrad bekommen. Hier wäre die größte Möglichkeit, schlechte Leistung zu haben.

6. Schlussfolgerungen

Diese Arbeit widmet sich dem binnendifferenzierten Lernen, das im Fremdsprachenunterricht realisiert wird. Es geht auf die Probleme der Schüler ein, indem es sie als Chancen gesehen werden, differenziertes Lernen zu verwirklichen. Indem wir auf jedes individuelle Problem des Schülers eingehen, können wir es schaffen, alle Schüler individuell zu behandeln.

Differenzierung, sei es homogen oder heterogen, ist ein sehr komplexes Unterfangen. Diese Arbeit hat gezeigt, dass Unterschiede als Chancen für Barrieren verstanden werden können und dass den Schülerinnen und Schülern die Möglichkeit gegeben wird, miteinander und voneinander zu lernen. Diese Unterschiede können gezielt hervorgehoben und positiv und produktiv genutzt werden. Lehrer und Schüler müssen zusammenarbeiten, damit diese gemeinsame Anstrengung funktioniert.

Die in diesem Beitrag erwähnten Methoden implizieren, dass differenziertes Lernen innerhalb des Klassenzimmers während einer Lernstunde möglich ist. Die freie Wahl durch verschiedene Sozialformen, Lernen mit differenzierten Übungen, kritisches Beobachten der Eigenheiten jedes einzelnen Schülers, der Fokus der Lehrer auf das Entwickeln und Erreichen von Zielen im Unterricht sind nur einige Beispiele, die hier behandelt würden für eine wirksame Binnendifferenzierung.

Jede Klasse hat ihre eigenen Merkmalen, unterschiedliche Probleme, eine deutliche Differenzierung zwischen den Schülern oder vielleicht auch homogene Klassen. Wie wir im theoretischen Teil zum Ausdruck gebracht habe, gibt es viele Studien, die heute bei der Umsetzung dieses Konzepts helfen.

Anschließend lässt sich noch sagen, dass es vielen Lehrkräften möglicherweise nicht leicht fällt, ihre Herangehensweise des Unterrichts zu ändern und an die angestellten Anforderungen und Ansprüche nach offenem Unterricht, Differenzierung und Individualisierung anzupassen. Im albanischen DaF-Unterricht, in diesem Fall, war Binnendifferenzierung keine bevorzugte oder häufig verwendete Methode im Unterrichtsverlauf.

Zu erwähnen ist es auch, dass die Unterrichtsstunde, die wir mit differenzierten Übungen nach Schülerniveau entwickelt haben, ziemlich erfolgreich war. Die Übungen waren jeden gerecht und die Schüler bearbeiteten die Übungen innerhalb der vorgegeben Zeit. Auch dem ausgefüllten Fragebogen zufolge, würden die Schüler gerne weiter in diese Weise arbeiten. Der Fragebogen hat auch dazu gedient, die Möglichkeiten zur Verbesserungen der binnendifferenzierten Unterrichts zu erkennen.

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Fragebogen für die Schüler

Liebe Schülerinnen und Schüler, vielen Dank, dass Sie sich die Zeit nehmen diesen Fragebogen auszufüllen!

1. Ich habe Übungen mit folgendem Schwierigkeitsgrad bearbeitet: * leicht - ** mittelschwer
- *** schwer

Gruppe 1 _____ Gruppe 2 _____ Gruppe 3 _____

	JA	TEILWEISE	NEIN
1. Aktivität: - Ich war aktiv bei der bearbeitung der Übung	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Selbsteinschätzung: - Die Übungen entsprachen meine Kenntnisse und meinem Sprachniveau - Die Übungen waren leicht für mich - Die Übungen waren schwierig für mich	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
3. Komplexität: - Ich hatte schwierigkeiten bei der Erledigung der Aufgaben	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Zeit: - Ich musste auf die anderen warten - Die anderen mussten auf mich warten	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
5. Produktivität: - Ich bin mit den Ergebnissen dieser Arbeitsform zufrieden - Ich habe noch fragen zu diesem Thema	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
6. Zufriedenheit: - Diese Arbeitsform hat mir gut gefallen - Ich würde solche Übungen öfter machen	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

Forms of financing startup enterprises

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Abstract

The development of startups in Albania is still in an embryonic stage creating the impression of a non-existent system. Startups usually operate in two ways, in the first case they can be more radical starting from the market demands and manage to give a totally new product being tried to meet market demand and in the second case these ventures choose to offer an existing product or service but by improving or simplifying the use of his.

This study attempts to give an overview over the operation of startup enterprises although not yet in a consolidated phase. The purpose of this the paper is an explanation and information on the forms of financing most often used by startup enterprises to finance their activity. Startups mainly use financing from internal while external financing is used to a lesser extent. Lack of financial market in Albania is one of the reasons for the lack of alternative sources of financing.

Also this study tries to underline the influence of firm specific firm's factors like: indicators of profitability, liquidity, size and embodiment of assets in the decision of the structure of capital. Through statistical and empirical analysis we will try to give a qualitative and quantitative estimate on the relationship that exists between specific factors and the capital structure.

Keywords: start-up, financing, capital structure, profitability, liquidity, embodiment, size, angel investors, venture capital (VC)

1. Introduction

The principle of Startups is related to the concept of innovation and progress. These are new businesses that have just started their operation as small businesses (Bronwyn, 1995). Startup businesses are new businesses and seed capital is raised by an individual or the founders of the startup.

Start-up companies usually work in two ways, in the first case they can be more radical starting from the market demands and manage to provide a totally new product trying to fulfill the market demand and in the second case these businesses choose to offer an existing product or service but improving or simplifying its use.

Startups are enterprises that have influence and play a rather important role in promoting economic growth. Start-up businesses are small firms in the initial process of operation, but are numerous in number, influencing economic growth by reducing the unemployment rate by creating jobs. In addition to the positive impact they have on the economy, this journey does not seem to be easy due to the fact that entrepreneurs face difficulties in obtaining financing from alternative forms, due to the fact that financial and capital markets do not exist.

The startup sector faces many difficulties where the emphasis is on the institutional lack of external forms of financing, specifically alternative ways such as angel investors and venture capital. If these forms existed institutionally in developing countries as well, the progress of startups and their path to success would be much easier.

In Albania, the venture capital sector is still fragile with unconsolidated forms and institutions. Part of the startup process is the expertise of angel investors on idea or performance analysis and further investment. This expertise is a great help for these companies, but when they are located in an uncertain environment, for these investors there would be a loss up to the invested capital. This is one of the reasons why in developing countries the forms of financing startups are not complete, making the countries unable to benefit from the development of such businesses.

This study, first explains the financing methods in order to understand the capital structure. The capital structure is a mix of long-term liabilities, short-term liabilities, common stock and preferred stock of the company. Capital structure is an important research area where most studies have focused on listed firms and few on unlisted ones. From the research, I have not found that there are studies on startups in particular.

2. Startups in Albania

In Albania there are several ecosystems that make up the network of startup communities. However, they are still fragile compared to sister networks around the world, which have already taken more secure steps. Experts in this field say that through them, young people have opportunities to develop ideas and to find ways of bringing them to life in a product or service.

2.1 The Potential of Albanian Startups: There are two main pillars that will develop the startup environment in Albania: a good idea and its financing. There is no shortage of ideas in the field of technology startups. Rather, they are in the technological field, since compared to startups in agriculture or service, it is easier for an idea in the field of Information Technology to become a reality, with fewer risks. Of course, in Albania we have a non-existent or embryonic system of startups, where the actors are informal and rarely understand the advantages of being included in such a system, non-standardized processes where contracts still remain at the levels of an exchange economy and where the planning of an idea in business plan is still concept for university banks.

But being in this situation why should we try to develop a Startup system? What good does it bring?

Typically, startups operate in two macro-paths, in the case of an incremental (partial) innovation they take an existing process and try to simplify or make it different by improving one aspect of the product/service, and in the case of a radical innovation, entrepreneurs start from a still unaddressed market need and try to offer a product or service to satisfy this demand.

In both cases, it is clearly understood that startups bring to the market products/services with improved characteristics (in price or quality), or totally new products, competing paradigms existing and thus setting in motion mechanisms that significantly increase the dynamism of the respective sectors.

2.2 Problems of the Sector: One of the biggest problems of Albanian startups and the environment in Albania is the fact that there is no well-defined strategy in this area, to give priority to these startups or ideas, to encourage them to develop more in a market that still has a lot to give. The domestic market needs many good business models, as abroad, and these opportunities should be taken advantage of, as long as foreign giants have not entered Albania. A genuine strategy in this context would aim to create a network of businesses in the field of the future.

Financing – Creating a more suitable and welcoming environment for business angels (Business Angles) and capital companies (Venture capitals) through fiscal incentives, attracting foreign capital. The financial crisis has created certain conditions for investors to see investment opportunities outside the world of alternative finance, and Albania can be one of these.

The legal framework is another issue. "The use of the term startup is missing, this is because there is no accurate data related to startups. There is a lack of government-university-private sector cooperation (triple helix model) that would create a more stable entrepreneurial environment for young people. There is no legal ease for the creation of new innovative startups. The funds that are given to start new businesses or for the early stages of the business are small and determine in most cases, the budget lines for which they should be spent.

3. Data Description and Analysis of Financing Situation

3.1 Methodology: The population of the empirical study on which I obtained all the quantitative data is the totality of all startup businesses operating in Albania. I obtained the data from a public site where our main source was the National Business Center (NCB) where they are registered almost the majority of startup firms. The sample consists of 20 companies, it can be considered a small number that cannot represent the entire population, but I have reached such a number since not all startup companies have published their financial statements on the NCB website. These startup companies that have selected belong to a greater percentage of the technological sector (ICT) that operate more in the field of marketing or consulting. The data for the construction of the econometric model are secondary quantitative data where it was used stratified sampling, the stratum is a subset of the population that has at least one common characteristic, which in our case is the element of years of operation in the market. All the firms of the sample are firms which have operated for at least 3-5 years in the market.

3.2 Descriptive Statistics:

Table 1. Descriptive Statistics

	SHT_Debt	LT_Debt	T_Debt
Mean	0.693273	0.157518	0.850791
Median	0.422487	0	0.532982
Minimum	0	0	0
Maximum	8.047113	8.898355	9.508153
Std.Dev	1.161858	1.409538	1.80108
Skewness	4.667287	5.208365	3.425399

Kurtosis	28.45928	29.50937	14.62675
Jarque-Bera	1838.274	2028.138	455.2871

Source. Author, 2022

From the data in the table above, we can understand that the average ratio of total debt to financing is 0.8507 or 85%. This value for our sample shows that startups use debt to finance their activity to the extent of 85%.

The standard deviation is very close to the three reports where it results for the long-term debt ratio to be 1.801.

Meanwhile, the ratio of total debt consists of short-term and long-term debt, respectively in the values of 69.32% and 15.75%.

Regarding the median, it is presented in values of 0.42 for the short-term debt ratio and 0 for the long-term debt ratio, as well as 0.53 for the total debt.

The maximum for the short-term overdraft ratio is 8.047, for the long-term debt ratio 8.89, and for the total from the observations of the quantitative data and their processing has resulted in 9.50%. while the minimum values of the three ratios are clearly clear, all three values are 0.

From this conclusion it is understood that during the observation there were firms that resulted with a debt ratio of 0, which means that there are many startups that choose not to be financed with debt.

3.3 Correlative Analysis: The following table presents the correlative relationship of the variables with each other in order to measure the strength of the relationships between the variables taken in the study.

Table 2. Correlative Analysis

	T_Debt	ShT_Debt	LT_Debt
T_Debt	1	0.622911	0.764326
ShT_Debt	0.622911	1	-0.02834
LT_Debt	0.764326	-0.02834	1

Source. Author, 2022

The correlation coefficient is an element of descriptive statistics that provides information about the strength of the relationship and the direction of the relationship.

The direction of the relationship is understood if it is a positive or negative value, in the case of a negative coefficient there is a negative relationship, if one of the variables increases the other will decrease. In the case of a positive coefficient, there is a positive relationship, if one of the variables increases, the other variable will also increase.

The strength of the connection is represented by the percentage value of the correlation coefficient. It is conventionally accepted that a coefficient that fluctuates in the intervals:

- 0%-25% connection is considered weak
- 25%-75% connection is considered medium strength
- 75%-100% connection is considered strong

From the correlative analysis we see that there is a positive relationship between the debt ratios among them. This result was for sure to happen based on the fact that debt is the main way of giving life to the startup. What is important to notice is that both; short and long term debt have positive connection with total debt, forcing the first idea that there is no differences between short and long term debt in the decision making when finding the funds for giving life to the business. This means that for the investors of startups is important to find the funds to begin, not the kind of funds. This is a very risky decision because financing with short term debt means difficulties in repaying it and that is the reason that many times the startups do not exceed the first year. That is why the studies or the actors involved should direct the investors of startup towards long term debt.

4. Conclusions and Recommendation

4.1 Conclusion

- Start-up (small) businesses have a very important impact on the economic growth of a country. The impact which is given quite clearly through the employment opportunities they have created. This shows the importance of startups in an economy.
- The long-term growth and competitiveness of startup enterprises are compromised by limitations in their access to alternative forms of financing, among other systemic and institutional problems in developing countries.
- Most start-ups seek to avoid bank loans as they are usually associated with complex procedures and are given based on the credit history and wealth of the company or individual. Since start-ups are usually founded by young people who, in many cases, have no property, it is difficult to get a bank loan.
- From the results of the analysis, we can understand that the firms follow the principle of the order of choice, being financed first with their own capital and then with debt. On average, our firms finance their assets to the extent of about 85%, where

69.32% belong to short-term debt and 15.75% belong to long-term debt. This shows that startups rely more on supplier loans than bank loans.

- One of the biggest problems of Albanian startups and the environment in Albania is the fact that there is no well-defined strategy in this area, to give priority to these startups or ideas, to encourage them to develop more in a market that still has a lot to give.

4.2 Recommendation

- The innovation ecosystem in Albania has a real need for a visible hand of the state because it is true that market uncertainty is inevitable but policy uncertainty in an economic system is deadly.
- Banks should facilitate lending procedures, applying lower interest rates as well as special loans for start-ups. As the lack of financing can significantly affect the business climate.
- In order for startups to be able to secure alternative financing methods, special conditions must be created for the operation of venture capital and angel investors, realizing their institutionalization.
- Creating a more suitable and welcoming environment for business angels and capital companies through fiscal incentives.

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ISO 9001 its role in the business development between Kosovo and EU

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Abstract

Kosovo has a potential to provide advanced services in the field of information technology and customer support services for various companies in Western Europe. This is due to the fact that the youth of Kosovo have very good knowledge of skills in the field of information technology (ICT) and knowledge of foreign languages. With this in mind, many companies have been established which provide services to companies around the world but with special emphasis on the EU as well as companies which provide customer support services known as BPO (Business Process Outsourcing) companies.

However, international clients to cooperate with Kosovar companies have some requirements in relation to the processes organized in Kosovar companies in order to ensure that the services they receive from these companies have a quality if not the same as those of EU countries, at a level which is acceptable to EU companies.

This paper will present the requirements which derive from the ISO 9001 standard and how this certification affects the possibility of increasing cooperation with companies in the EU.

Keywords: ISO, Kosovo, Certification, ISO 9001, business relations between Kosovo and EU.

1. Introduction

Kosovo is a small country located in the Western Balkans which faces difficulties of various natures that all countries in this region face. One of the problems facing Kosovo is economic development and high unemployment. A report by the Statistical Office of Kosovo shows that the unemployment rate in the first quarter of 2021 is 25.8%, while from this percentage over 54% of unemployment is among young people. It has also been observed that there is an imbalance between the labor market and the skilled workforce. Kosovo young people have potential and especially in recent years there is an advanced level in information technology and customer service. So, Kosovo has a potential to provide advanced services in the field of information technology and customer support services for various companies in Western Europe. This is due to the fact that the youth of Kosovo have very good knowledge of skills in the field of information technology (ICT) and knowledge of foreign languages. With this in mind, many companies have been established which provide services to companies around the world but with special emphasis on the EU as well as companies which provide customer support services known as BPO (Business Process Outsourcing) companies.

However, international clients to cooperate with Kosovar companies have some requirements in relation to the processes organized in Kosovar companies in order to ensure that the services they receive from these companies have a quality if not the same as those of EU countries, at a level which is acceptable to EU companies.

This paper will present the requirements which derive from the ISO 9001 standard and how this certification affects the possibility of increasing cooperation with companies in the EU.

2. ISO, a short history

An important milestone in the ISO history, marking the extension of the scope of ISO work from the technical/engineering domains to processes of general nature and management/organizational matters, was the publication in 1987 of the famous ISO 9001. ISO 9001, "Quality systems: Model for quality assurance in design, development, production, installation and servicing" tackles the need for internationally-recognized quality management standards, for instance to help companies to assess the quality management of their suppliers and be able to get their supplies from other companies around the world.

Five different versions of ISO 9001 have been published by ISO until now. The 1987 version of the ISO 9000 series of standards included three standards for quality assurance: ISO 9001, ISO 9002 and ISO 9003.

ISO 9001:1987 is the model for quality assurance in design, development, production, installation and servicing.

ISO 9002:1987 is the model for quality assurance in production, installation and servicing. It is almost entirely identical to ISO 9001:1987 but it does not cover the creation of new products. ISO 9003:1987 is the model for quality assurance in only final inspection and testing.

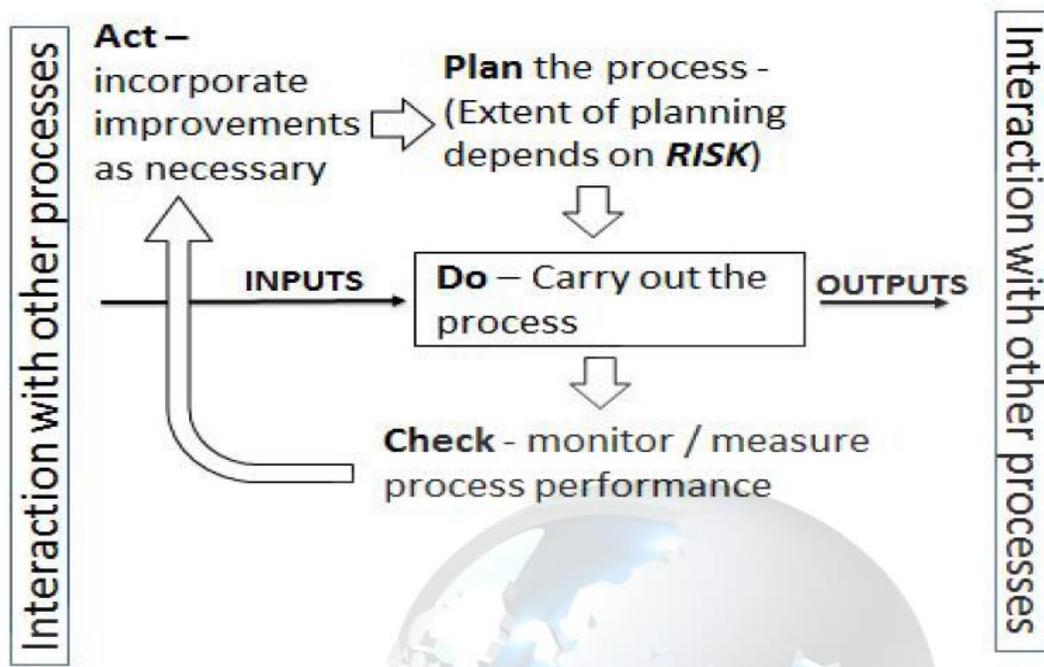
The second version of the ISO 9000 series was released in 1994. It stressed the importance of preventive actions.

The third version combines ISO 9001, 9002 and 9003 into one standard, ISO 9001:2000. In this version a broader concept of quality management has been introduced. Improving customer satisfaction has become one of the performance measurements. Additionally, it puts more emphasis on the process approach and on active involvement of management. ISO 9001:2008, the last version, is basically the same as the previous one. It aims to explain the existing requirements in a clearer way.

ISO 9001:2015 version focuses on the identification of risk and risk control. Moreover, it requires top management to take a more active role in aligning quality policies with business needs.

The ISO 9001 quality management standard has been implemented by more than one million organizations in 187 countries since its introduction in 1987. Quality management system (QMS) is planned and established by documenting procedures for the processes of organization to fulfill the needs and expectations of internal and end customers. The international standard, ISO 9001, specifies the requirements of quality management system (QMS) to consistently provide products that meet customer and applicable statutory and regulatory requirements. The standard is applied by many organizations throughout the world. ISO 9001 QMS processes are organized representing the four steps of Plan-Do-Check-Act (PDCA) cycle.

Figure 1. PDCA methodology (ISO, 2015a, p. 6)



The decision and implementation of an organization's quality management system is influenced by the context of the organization and changes in that context, particularly with respect to:

- Its specific objectives;
- The risk associated with its context and objectives;
- The needs and expectations of its customers and relevant parties;
- The products and services it provides;
- The complexity of processes its employees and their interactions;
- The competence of persons withing working on behalf of organization;
- Its size and structure.

The context of organization can include internal factors such as organizational structure, and external factors such as socio-economic conditions; consequently, all the requirements of this International Standard are generic but the ways in which they are applied can differ from one organization to another. Accordingly, it is not the intent of the this standard to imply the need for uniformity in the structure

of different quality management systems, or uniformity of documentation to align to the clausula structure of this International Standard, or to impose terminology to be used within organization but its requirements are complementary for products and services.

In conclusion:

- Applying the ISO 9001 Standard requirements enables an organization to demonstrate its ability to consistently provide products or services that meet customer requirements.
- Applying the ISO 9001 Standard requirements enables an organization to demonstrate its ability to consistently provide products or services that meet applicable statutory or regulatory requirements.
- Applying the ISO 9001 Standard requirements enables an organization to enhance customer satisfaction through the use of quality management instruments that include methods for planning and improvements of processes and ensuring conformity to customer and applicable statutory and regulatory requirements.
- The requirements of this standard are generic and apply to any sector and area of business and may be implemented in any organization regardless of its size or the type of its products or services.

3. Principles and documented of ISO 9001

Documentation refers to writing procedures or instructions for carrying out the processes of organization. Every organization, small or large, practices the requirements of a documented quality management system (QMS) for processing customer orders. Quotes for customer enquiries, order acceptance, availability of controlled engineering drawings, purchase orders on suppliers with appropriate purchasing information, identification system for the storage of products and displaying work instructions in manufacturing areas are some of the examples of practicing the requirements of documented QMS. The existing process procedures and the documents of organization are improved and aligned to the requirements of ISO 9001 for establishing QMS for the organization. The needs and the basic considerations for preparing QMS documents are explained.

Quality management principles given in the international stand and ISO 9001:2015, Quality management systems – Requirements significantly differ from the previous version, both in the formal and substantive terms. Unlike earlier international-al standards, this standard identifies seven quality management principles: customer focus, leadership, engagement of people, process approach, improvement, evidence-based decision making, and, relationship management.

- **Customer focus** – the primary focus of quality management is to meet customer requirements and to strive to exceed customer expectation.
- **Leadership** – leaders at all levels establish unity of purpose and direction and create conditions in which people are engaged in achieving the quality objectives of the organization.
- **Engagement of people** – it is essential for the organization that all people are competent, empowered and engaged in delivering value.
- **Process approach** – results are achieved more effectively and efficiently when activities are understood and managed as interrelated processes that function as coherent system.
- **Improvement** – improvement is essential for an organization to maintain current levels of performance, to react to changes in its internal and external conditions and to create opportunities.
- **Evidence -based Decision Making** – facts, evidence and data analysis lead to greater objectivity and confidence in decision made.
- **Relationship Management** - To achieve sustainable performance, the organizations manage their relationships with interested parties also known as stakeholders. The principle of this type of management states that managers have ethical obligations toward their stakeholders

Figure 2: Autor (Publication of Autor)



As seen in Figure 2, a significant difference in the principles that used to be designated as “Continual improvement” and “Mutually beneficial supplier relationships” is that they are now referred to as “Improvement” and “Relationship management”, respectively. The documentation of the ISO 9001 is another ongoing process. The team within organization have to prove continually their documented work during the certification and audit process. Mandatory requirements need to be complied with, while non-mandatory requirements may be submitted for documentation purposes. To be certified compliant with ISO 9001:2015, the following documents must be submitted.

ISO 9001 Mandatory Requirements — Documents and Records

1. Monitoring and measuring equipment calibration records
2. Records of training, skills, experience and qualifications
3. Product/service requirements review records
4. Record about design and development outputs review
5. Record about design and development inputs
6. Records of design and development controls
7. Records of design and development outputs
8. Design and development changes records
9. Characteristics of product to be produced and service to be provided
10. Records about customer property
11. Production/service provision change control records
12. Record of conformity of product/service with acceptance criteria
13. Record of nonconforming outputs
14. Monitoring measurement results
15. Internal audit program
16. Results of internal audits
17. Results of the management review
18. Results of corrective actions

Non-Mandatory Requirements — But Often Included

1. Procedure for determining context of the organization and interested parties;
2. Procedure for addressing risks and opportunities;
3. Procedure for competence, training and awareness;
4. Procedure of equipment maintenance and measuring equipment;
5. Procedure for document and record control;
6. Sales procedure;
7. Procedure for design and development;
8. Procedure for production and service provision;
9. Warehousing procedure;
10. Procedure for management of nonconformities and corrective actions;
11. Procedure for monitoring customer satisfaction;
12. Procedure for internal audit;
13. Procedure for management review;

The analysis of 98 studies processed by Aurélie in 2007 on the impacts of the ISO 9001 standard, reveals that the implementation of the ISO 9001 standards has an impact on operational, quality, strategy and managerial management. While the most marked contingency factors in this standard are the initial motivation to adopt the approach (voluntary or binding), the involvement of managers and employees.

4. How does certification with ISO 9001:2015 affects in the business developing between EU and outside companies/ Kosovo?

Kosovo is blessed with young, multilingual and motivated individuals with a widespread knowledge of main European languages and IT skills. With 70 percent of the population being under the age of 35, Kosovo is considered to have the youngest population in Europe. Although this represents a great development potential, it is at the same time a great challenge, since during the next five years over 150,000 youngsters are expected to enter the labor market while local absorption capacities are far from meeting this demand.

On the other hand, due to favorable location factors, beneficial demographics and high availability of multilingual and IT-savvy workforce, Kosovo has the potential to become one the most attractive location for ICT and BPO outsourcing in Europe. The ICT sector in Kosovo is developing quickly and represents the most promising sector for generating economic growth. Given its potential, the Government of Kosovo has recognized and listed the ICT sector among the six top priority sectors that contribute to economic development. The sector has proven to be a highly promising sector for generating new jobs for young male and female Kosovars as well as for increasing the overall level of the country's exports. In fact, the ICT sector is among the few sectors within the Kosovo economy that is characterized by a positive trade balance, whereby around 78% of already existing companies export their services.

In order to fully unlock the potential of the ICT sector, Kosovo will need to tackle to main obstacles for its development i.e. skills gap and limited business contacts in foreign markets. The skill shortage and skill gap can be largely attributed to the current education system in Kosovo which is characterized by absent linkages to private sector and labor market, budget limitations, and incompetent teaching staff.

The measures foreseen within this project aim to tackle the challenges faced by Kosovo economy in general and ICT/BPO industry in particular. Through direct employment measures, the project contributes to reduction of the unemployment rate and mitigates the migration tendency of the population in Kosovo. In addition, the project aims to increase employment, competitiveness and internationalization in the entire BPO industry in Kosovo through skills development of youngsters and returnees and promotional measures, thus contributing to increased business activity and start-up development, higher disposable income and service exports.

The current challenge for Kosovar companies lies in the business relationship with companies in the EU. They often have to prove the quality of their work in order to reach the connection with business relations. The challenge is not only in the quality test of work but these companies have to prove their quality of work through advanced quality management systems so that all processes which are established within the company, are in compliance with the requirements of international standards accepted around the world.

This is achieved through ISO standards which have unified the processes and which ensure that Kosovar companies are acting in accordance with the requirements of the clauses specified in ISO.

One of these basic ISOs which has to do with the basic work processes is ISO 9001, which is a standard that offers quality in the management of the company.

To prove their quality of work to be certified with ISO standards. Among the first requirements from EU companies are whether the company is certified with ISO standards and since ISO 9001 is a standard for quality management work, it is among the most required standards. This standard, as we saw during the presentation, enables a unification of processes in addition to the requirements of the clauses in a unique document.

ISO 9001 certification has undoubtedly increased the intensity of work between Kosovo and European companies and is seen as a kind of legal compliance with international requirements.

If in the field of legislation, we have an Aquis Communitare, we can freely say that the growth of business relations between Kosovo and the EU is being done through certification with ISO standards and especially with the standard ISO 9001 which offers a guarantee that all work processes within the company conform to the requirements of the ISO 9001 standard.

5. Conclusions

ISO 9001 provides a basic assurance for the functioning of the organization within the internationally accepted frameworks which is established in a document such as the ISO standard.

The development of ISOs has enabled companies between countries to develop businesses. ISO certification has enabled EU companies to increase their business activity by enabling them to outsource a portion of their services. This has had a positive impact on the growth of Kosovar companies which have the human potential to operate in various fields but with special emphasis in the field of services such as IT and customer support. Today, many reputable companies in the field of IT and BPO have opened their offices in Kosovo and at the same time many Kosovar companies have been established in these service industries. Kosovo has tremendous human potential to provide services in these industries. ISO certification, especially ISO 9001, has provided security to companies in the EU to perform part of their services through the outsourcing process having a double effect as in the possibility for them to grow even more with a cheaper workforce and at the same time increase employment in a country like Kosovo which has qualified youth but whose level of employment is very low.

If this trend continues, I think we will have the potential for a very large increase in EU-Kosovo business relations which has benefits on both sides.

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Teacher Competence in Relation to the Overconfidence Effect

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The paper was prepared within the solution of the project VEGA 1/0084/21 "Personal, cognitive and motivational predictors of professional competencies of teachers in undergraduate training and in practice"

Abstract

In this study, we focused on whether the teacher's competence influences the tendency to underestimate or overestimate. Research sample consisted of teachers ($n = 223$), who were randomly allocated into one of the three groups, two groups were experimental and one was a control group. Each group of participants filled the Reading Literacy Test from Slovak language and questions on the Overconfidence effect. We found that among participants with teaching qualification there were significantly more competent (57%) than among participants without teaching qualification (21%), $\chi^2(1) = 29.02$, $p < .001$, $\phi = .36$. In addition, in the first test, participants with teaching qualification (Mdn = 7, IQR = 3) had significantly higher scores than participants without teaching qualification (Mdn = 5, IQR = 2), $M-W U = 3733.0$; $p < .001$; $rm = 0.33$, and also in the second one (Mdn = 7, IQR = 3 Mdn = 5, IQR = 3), $M-W U = 3158.0$; $p < .001$; $rm = 0.41$. Furthermore, we found that Slovak language teachers tended to be underestimated within the OPE, within the OE they were quite adequately estimated. Non-Slovak language teachers tended to be overestimated within the OPE, and were also slightly overestimated within the OE. In the first measurement of the Overestimation effect, non-Slovak language teachers were overestimated ($M = 1.7$, $SD = 2.1$) and Slovak language teachers' estimates were relatively close to reality ($M = 0.5$, $SD = 2.4$), with a significant and medium difference between groups, $t(221) = 3.98$, $p < .001$, $d = 0.54$. In the second measurement of the Overestimation effect, the estimates of non-Slovak language teachers ($M = 0.29$, $SD = 2.1$) and estimates of Slovak language teachers ($M = -0.11$, $SD = 2.00$) were close to their real score, $t(221) = 1.46$, $p < .146$, $d = 0.20$. In conclusion, we can say that competent participants are better calibrated than less competent participants.

Keywords: Teachers, Overconfidence effect, Kruger – Dunning effect

1. Introduction

The results of research by Gilovich, Griffin and Kahneman (2002), Kahneman, Slovic and Tversky (1982), Kerr, MacCoun and Kramer, (1996), Nisbett and Ross (1980), Pohl (2005) and others point out that human judgment often does not reach normative ideals and that people systematically make various cognitive errors in the decision-making process. One of them is the effect of excessive self-confidence, which is one of the most common mistakes that people make in the decision-making process (Sternberg, 2006; Blake, 2009). It has been a longtime truth that people are overconfident in evaluating their own performance (Kruger & Dunning, 1999; Kahneman, Slovic & Tversky, 1982; Koriat, Lichtensteinová & Fischhoff, 1980; Buehler, Griffin & Ross, 1994; Debondt & Thaler, 1994). Not only people think they are better than they really are (Russo & Schoemaker, 1992), but they also often think that they are better than the other people. The research results of Dunning et.al. (2003), McGraw, Mellers and Rit (2004), Ferrar (2010), Whitlestone (2012), Debondt and Thaler (1994), Simons (2013), Lichtenstein, Fischhoff and Phillips (1982), Maratolli and Richardson (1998) and o. pointed out that people are overconfident in general when it comes to their perception of their abilities and knowledge. Whereas the results of research by Pompian (2006), Oskamp (1965), Svenson (1981), McGraw, Mellers and Rit (2004), Kruger and Dunning (1999) have shown that the less competent people are, the more they overestimate their skills and knowledge. People who are objectively more competent tend to underestimate their ability. The aim of our study was to monitor whether Slovak language teachers are more competent than teachers with other approvals and also whether it is true that competent individuals will tend to be underestimated and incompetent individuals will be overestimated.

2. Methods

Participants

The research sample ($n = 223$) aged 24–69 years ($M = 45.48$, $SD = 10.13$) consisted of Slovak teachers from primary schools ($n = 120$), secondary schools ($n = 95$) and colleges ($n = 8$).

Procedure

All participants started filling in the questions identifying the Overconfidence effect, specifically its two constructs – Overestimation effect (OE) and Overplacement effect (OPE). In the question of the Overestimation effect, the participant's task was to estimate how many answers from the next 10 tasks he would have correctly. We found out the overplacement effect so that the participant's task was to estimate where he thought he would be placed in terms of the number of correct answers, and was estimated on a scale of 1-100 (1 = best placement, 100 = worst placement). After answering the questions on OE and OPE, participants completing the first part of the Reading Literacy Test, which consisted of 10 questions related to what the participants read. After reading and then answering all the questions, the participants again filled in the questions on OE and OPE.

Materials

Overestimation effect

In the question of detecting OE, we compared the individual's judgment of his performance with his objective and real performance.

Overplacement effect

When we asked about the OPE, we monitored how an individual evaluates their knowledge and skills compared to other participants, while measuring it by monitoring the evaluation of a participant's abilities in the Reading Literacy Test compared to other participants.

3. Results

We found that among participants with teaching qualification there were significantly more competent (57%) than among participants without teaching qualification (21%), $\chi^2(1) = 29.02$, $p < .001$, $\phi = .36$. In addition, in the first test, participants with teaching qualification (Mdn = 7, IQR = 3) had significantly higher scores than participants without teaching qualification (Mdn = 5, IQR = 2), $M-W U = 3733.0$; $p < .001$; $r_m = 0.33$, and also in the second one (Mdn = 7, IQR = 3 Mdn = 5, IQR = 3), $M-W U = 3158.0$; $p < .001$; $r_m = 0.41$. Furthermore, we found that Slovak language teachers tended to be underestimated within the OPE, within the OE they were quite adequately estimated. Non-Slovak language teachers tended to be overestimated within the OPE, and were also slightly overestimated within the OE. In the first measurement of the Overestimation effect, non-Slovak language teachers were overestimated ($M = 1.7$, $SD = 2.1$) and Slovak language teachers' estimates were relatively close to reality ($M = 0.5$, $SD = 2.4$), with a significant and medium difference between groups, $t(221) = 3.98$, $p < .001$, $d = 0.54$. In the second measurement of the Overestimation effect, the estimates of non-Slovak language teachers ($M = 0.29$, $SD = 2.1$) and estimates of Slovak language teachers ($M = -0.11$, $SD = 2.00$) were close to their real score, $t(221) = 1.46$, $p < .146$, $d = 0.20$.

4. Conclusions

We can state that participants with teaching qualification in Slovak language were significantly more competent than participants without teaching qualification in Reading literacy test. We should emphasize that participants who were competent, they tended to slightly overestimated and less competent participants they tended to be overestimated. We found out that Slovak language teachers tended to be underestimated within the OPE and Non- Slovak language teachers tended to be overestimated within the OPE.

Our research confirms the results of Kruger and Dunning (1999), that the less competent people are, the more they overestimate their skills and knowledge.

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The evolution of the residential block design, Tirana case

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Abstract

The existing built environment represents a challenge for the urban regeneration of cities because it already occupies a relevant part of it and there must be undertaken some proceedings that better integrate all distinct parts. The transformation of the built environment in Albanian territory is influenced by on-changing economical, socio-cultural, environmental and technological aspects. After the '90, with the changing of the political regime, Albania is still facing a 'transition' phase which has an influence in the built environment, where the context is crucial to understand the main issues. The residential blocks built during the communism and after the '90 presents different characteristics and design evolution during years. The case study for this research will be the residential areas of Tirana city, which encompasses specifics that can be found even in other cities of Albania. The residential blocs development during communism was done by same typologies, repeated around the country. The development of residential development, nowadays, is focused more in the areas around Tirana because this city is continuously growing. The paper aims to make a multi-criteria analysis and comparison of communist and post-communist residential blocks, trying to put in evidence the weaknesses and the opportunities for the future use of them. The methodology used for this paper is a combination of analytical data and empirical observations. The paper aims to evidence the positive and negative aspects of the typologies taken in consideration as an attempt to undertake a first step towards the preparation of future operational design strategies.

Keywords: Housing, common spaces, living comfort, community sense.

1. Introduction

With the collapse of the dictatorial regime, Albania experienced a difficult transition period of deconstruction of the state. The functioning, the role and the power of the state were put into question, in a strong contrast with a previous fully centralized state that operated during the socialist period. Although the undeniable progress of Albania, the transition from a total isolation, where everything was under a paranoid control of the state, in a free society that tries to establish a healthy democratic basis, apparently is not that easy.

As a natural contra-reaction towards the hyper-control, after the fall of the former dictatorial system, the phenomena of spontaneous initiatives started to appear, guided from the market forces and individual interests. The difficulty of the state instruments to control transition phenomena is clearly evident in the way of the development of the territory, especially in areas of high interest to build, because of the high demand for housing (Aliaj, Lulo, & Myftiu, 2003).

Before the '90, in Albania, every territorial development was planned and controlled in a very rigid way; a known phenomenon in countries with totalitarian governments. Central research institutes were the only actors involved in planning, design and construction, which should stay in line with the political ideology of the time. On the national level, there was an anti-urban policy that aimed keeping in equilibrium the distribution of the population in the whole territory of the country (Velo, 1998). The free location of people on settlements of their choice was not allowed. With the overthrow of the regime people were free to move. As a result of this freedom, a massive demographic migratory phenomenon took place. It was characterized by a population flow from the rural to urban areas; resulting, in nowadays, with a high concentration of population in the central and costal region, mainly Tirana-Durres area (Aliaj, Lulo, & Myftiu, 2003).

Tirana follows the worldwide trend of urbanization and resembles more and more a dynamic and complex metropolis. It is the magnet city of Albania. Beside the center, which even if in a continuous process of change somehow has a consolidated urban form, the other parts of Tirana have an impermanent urban structure. Tirana is a city of twin fantasies of order and chaos, of the attempt for rationalization (rational urban planning of Italian and Socialist period) and laissez-faire attitude (Pllumbi, 2013).

The comparison of the residential urban blocks before and after the '90s aims to make a multi-dimensional assessment, including soft and hard aspects, as a reflection on the quality of urban residential blocks. A multi-criteria comparison methodology is used to give an evaluation for each criteria and come out with conclusions on positive and negative aspects of each urban block. The big contrast of

the procedural models within completely contradictor political regimes and lifestyles was the reason of the choice of the two case studies, understanding the impact of various factors on the physical configuration and operation of the residential blocks in these two periods of time. After the first step of selecting the case studies that represent each period, the comparison of them according the pre-defined criteria is made based on a critical observation of facts, surveys and estimations. The ultimate conclusion is not an absolute one; instead it aims to put in evidence characteristics of each case study.

Four macro-criteria are used for the comparison of the chosen urban blocks:

1. Development Process and Procedures
2. Architectonic aspect
3. Technological aspect
4. Social aspect

2. Development process and procedures

The first macro-criteria have to do with procedural model used to develop residential blocks in the two periods of time, the localization and the positioning in relation to the whole city, the management of infrastructure, etc. The specific criteria used for the assessment are the following:

2.1 Urban form: As in many other dictatorial states, the procedural model for the development of the communist residential block was completely centralized and the decision making process was a top-down one. Detailed urban studies and rational plans were made from Design Bureaus within the Institution for the Construction Sector. The Design Bureau was composed by selected experts who controlled the whole territory. The location of the residential blocks was made and justified after a holistic study of the cities of all the Albanian territory. Despite the quality of the studies, urban planning was used as a tool to orient the development of the urban area of Tirana (Miho, 1987). The extinction of private property in Albania gave free hand to planners, since the only actor in urban development was the state. The tendency was to keep the city compact and not spread it towards the peripheries, since the only transportation means were public transport (few lines), cycling and walking. Cars were few in number, because private ownership of them was not allowed. It is important to mention that people who worked for the building of the structures were not only workers of the construction state enterprise but also “forced volunteers” as future inhabitants, prisoners, etc.

After the '90s, when the demographic phenomenon of migrating towards costal and central Albania started (still continues with lower rates), the increased demand for housing caused a boom in construction sector that the state found difficulties to control. The restitution of the private property made the process more complex, since now the actors engaged in development were more than one. For a long time, the economic market forces were strong and new residential blocks were built depending on the agreements of the developers with private owners and not based in any strategic urban studies. This is why it cannot be defined any order on the location and distribution of the new buildings after the '90s (Misja & Misja, 2004). These new multifamily dwellings were built in the periphery as well as in the inside city. In the periphery were build entire residential neighborhoods, instead in the inner city new buildings were inserted in the existing urban fabric causing the change of the urban structure.

As mentioned before, cars came in use after the '90 in Albania. This influenced the spread of the city towards the peripheries. The number of the cars increased extremely. The car is still seen as a status and other transportation manners are seen as for low income people. Tirana results now as one of the most polluted cities in Europe. Recently there is improvement in the conditions of public transportation and increase of bike lanes in order to encourage alternative transportation ways. Beside the expansion in territory; the distances remain modest compared with the other metropolises in the world. This is why transportation problems in Tirana are management issues.

2.2 Contextualization: The palimpsest metaphor finds its best application in Tirana (Corboz, 1983). The history of Tirana is the history of a city where the existing context never mattered. The image of Tirana was used from political ideologies to construct images of a progressing city despising what already existed. Starting from the colonialist architecture that operated in a non-contextual manner with the aspiration to create a Western Tirana from an existing Ottoman city, continuing with Communist architecture that in many cases was concerned with building by the streets to create the image of a new city for the “new socialist man”, and ending with the latest transition period when building had nothing to do with the context. Linking and respecting the context was never a concern on the development of the “Tirana palimpsest”.

2.3 Common space management: There were local government utilities that had to take care about the public space in communism, but at the same time, it was a combination with “bottom-up” policies. The common space inside the residential block was proclaimed as everybody's and there were periodic volunteering actions to take care and maintain this common space. Most of the time it was a ‘forced volunteering’ and not a natural will of people.

This ‘forced volunteering’ was probably the main reason why people after the '90s considered public space as nobody's. Not only there was no concern for maintaining it, on the contrary, a common spirit to profit individually from the common good flourished. The official management of the maintenance of this common space is a top-down way (Kolevica, 2004). Citizens and building firms pay taxes for the maintenance of green areas inside the city and the built of infrastructure.

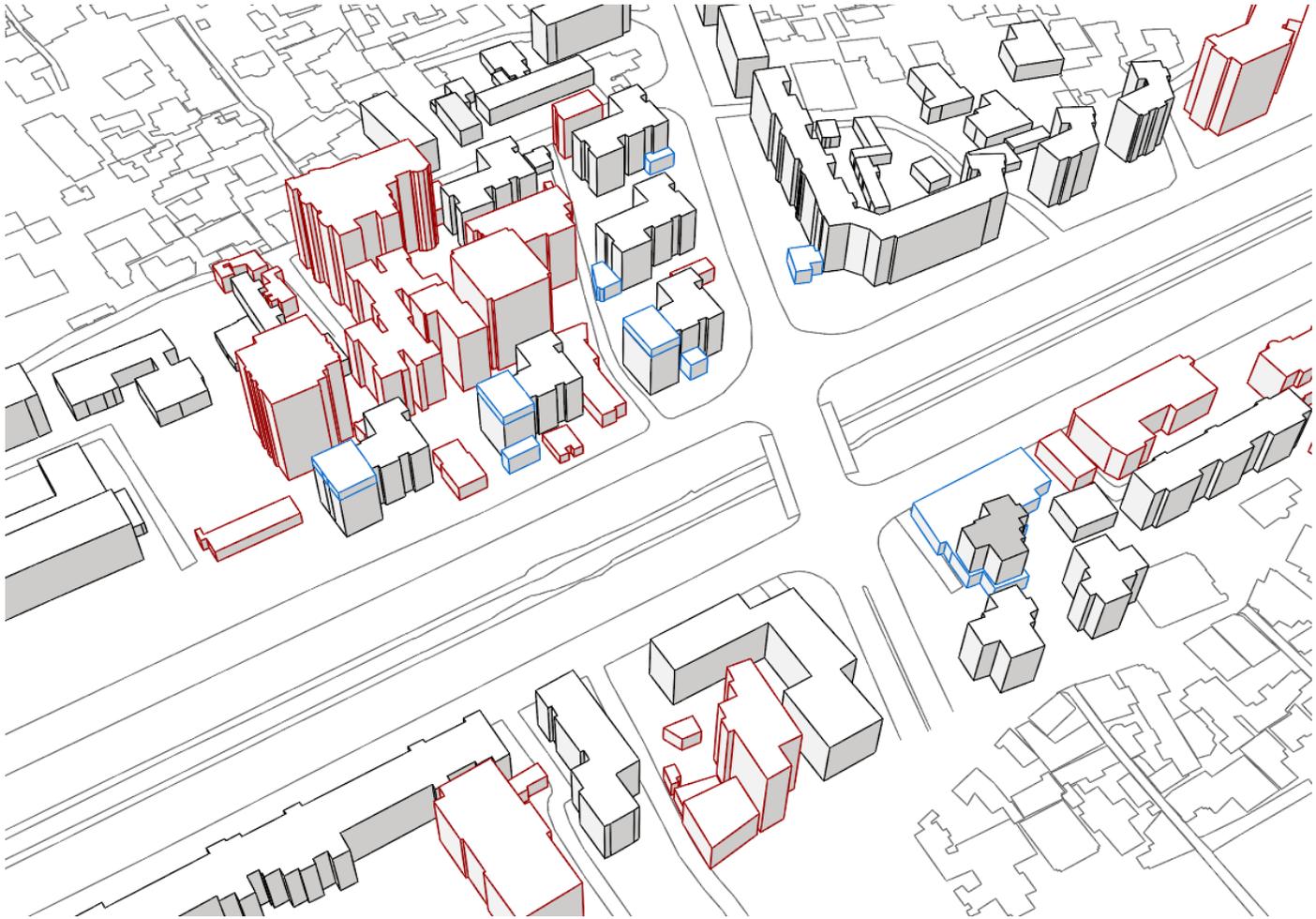


Figure 1. Contextualization – (red) new buildings after and (blue) additions, after ‘90s

3. Architectural composition

3.1 Morphology: In terms of architectural composition, the typologies of residential blocks designed before the 90’s, present a clear and well-studied composition plan not only related to the building itself. The morphology of the site where the residential block had to be inserted, in most of the cases, was designed with limited and poor urban furniture and green areas (Faja & Alimehmeti, 1983). In most of the cases, there was a particular attention on the creation of the common space which was considered as space for people. In these areas no parking place was designed, at the time only public transport was allowed. The residential buildings during this period, due to the technological and economical limits, were low-rise buildings, 3-6 floors; this makes the residential blocks more on human scale.

The morphology of the residential areas after the 90’s presents a different picture, due to the interventions done by the developers, guided by the maximum profit. This process influenced the architectural composition of the plans, which are adapted and shaped by the boundary of the private properties. This interdependence is guided by the maximum use of the surface, forgetting the common spaces for the inhabitants. The development of the construction technology allowed the developer to build high-rise residential blocks which tended to go higher (maximum profit) (Bego, 2009). This kind of late development brought to the vertical growth of the city. The recent legislation obligates local governments to make urban studies that define urban morphologies, clear distances and height.

3.2 Functional aspect: The multifamily dwellings during communism period were designed as mono-functional and the common spaces were for community. After the ‘90s to those buildings were added new functions, meeting the needs of market economy. The old buildings adapted the ground floor on business activities.

The post-communist residential blocks are designed as mixed used. The large presence of the cars and the business activities on the ground floor of the residential blocks transformed totally even the use of the common space, not for people anymore.

3.3 Dwelling units: In the past there was need for housing, but with the economical restrictions, it was decided to build many small apartments rather than big ones, with some exceptions for the leaders. The distribution was good for the needs of the time, in most of the cases in all the rooms there was present natural light and cross ventilation, good standards referring to them of that period. The apartment size was not enough for a good standard of life; this is highlighted today by people with all the extensions on the existing residential buildings, done informally. The typology designed by the centralized design unit, was seemed as a standard, the same typology was built in different places (Faja & Alimehmeti, 1983).

The new residential blocks today present more variety of apartment's size; this gives more choice and answer to the need of the market. More variety on size doesn't mean necessary a good distribution inside respecting the standards of a good quality of life; we can notice not good use of natural light, orientation and ventilation too.

4. The technological aspects of the residential blocks

4.1 Technological solution: During the communist period the construction technology used was principally the load bearing walls (masonry), a limited technology, realized with the volunteer work mainly from the future residents, not always qualified in building. The residential buildings were more fragmented, simple shaped and with repeated typologies. This technological solution limited the height of the buildings. During this period the residents could not make any changes or adaptations inside, the construction sector was led by the state.

After the '90s the construction sector was based mainly on the reinforced concrete structure. This technological solution gave to the developers the possibility to go higher and build more apartments. This doesn't mean necessarily a better quality of life or a better comfort, but actually is a quick answer to the high demand for housing; Tirana city has become four times bigger than before 90's. The structural columns gave the possibility to the residents to change and adapt the apartments according their needs, this make the dwelling unit more flexible.

After the '90s, even the existing buildings presented different adaptation and changes inside the apartments. The use of metal and concrete structures allowed the residents to make extensions, new balconies, to rearrange the interior and distribution of the apartments.

Another technological achievement that influenced the design of the residential blocks is the elevator. During the socialist period in none of any residential blocks the elevator was present.

This factor has changed lately; the elevator in most of the cases is present to the new high-rise buildings, but not always respecting the standards. The new residential blocks seem to have a good accessibility.

4.2 Economy and technology: The economical limits of the socialist period dictated different choices on the residential blocks; all the constructions were done by the government, not having a prosperous economy this brought on not implementing different technological solutions. The building envelope did not present the use of plaster, not ensuring the necessary comfort inside (thermal, acoustic, etc.).

Even in the new building blocks, constructed by private owners, there are different problems, spending less - earning more, creating same problematic. There are although different well designed buildings that have applied better technological solutions. The lack of control from the public administration, during the transitional phase, is another factor that allowed the developers to make the more convenient choice to their own.

In both periods, the technological choices were limited because of the economical constrains, in the first case by the state and in the second one, by decision of each developer.

4.3 Bioclimatic aspects: In the past, the energy efficiency of the building was not in the focus of the construction sector, anyway some passive techniques were used, like the cross ventilation lowering the need for cooling energy, some tentative to use shading elements, etc. The orientation was mainly good, trying to orient the main facades on east and south, to use the sun exposition during winter. Even if there were high limits on technological choice and the focus was to provide shelter, the designers made relatively successful attempts to adapt the buildings to the site regarding orientation and ventilation. Different technological solutions, as insulation for instance, were not applied, causing energy loose during winter, and over-heating during summer (Bergman, 2012).

Although the knowledge and the technology are different in our days, the majority of the developers do not take in consideration any principal of bioclimatic architecture, not trying to build more efficient buildings in terms of energy. The shape of the building is highly influenced from the boundary of the property, without taking in consideration any other aspects like sun, ventilation etc.

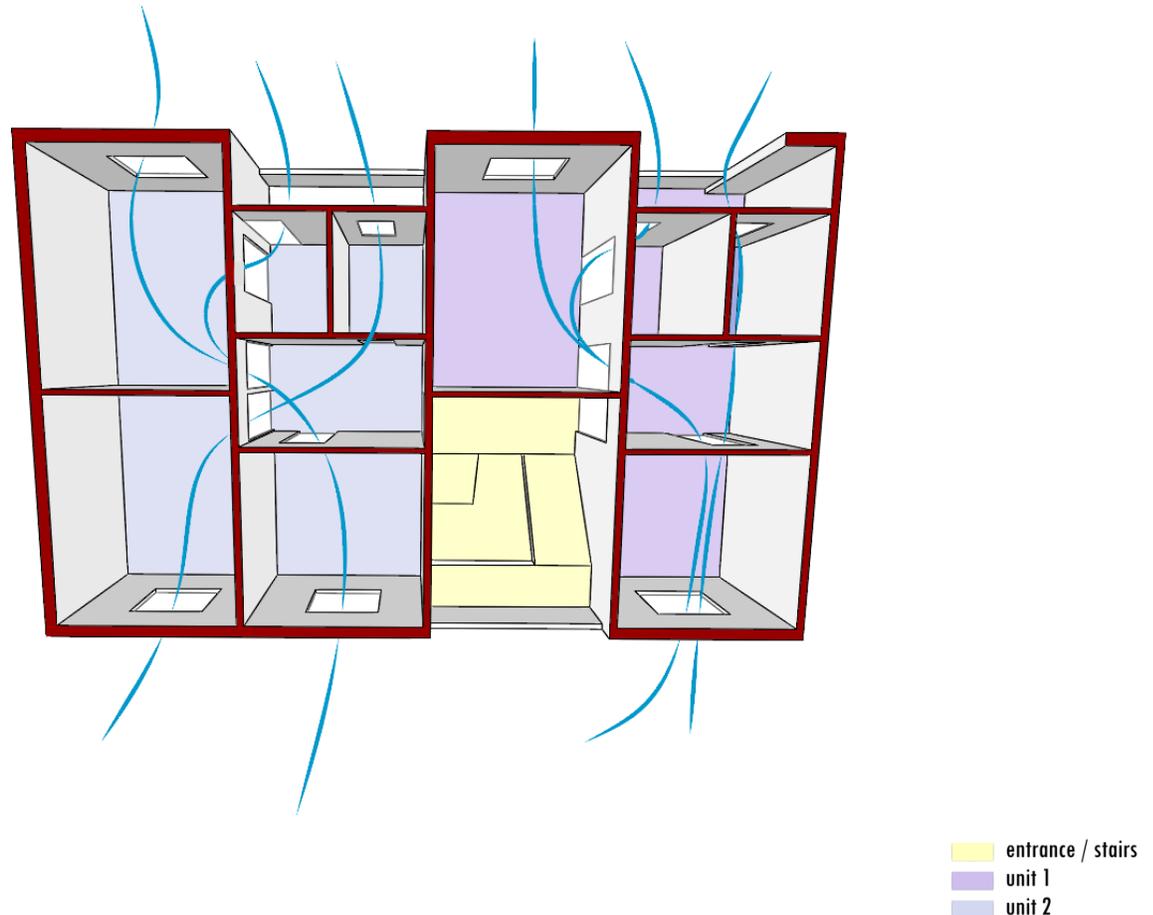


Figure 2. Dwelling unit, before '90s

The existing building stock shows that the developers have only a short-term strategy, just build and sell. This limits the architectural solutions and the technologies used. Residents are adapting individually different possible solutions, changing so the behavior of the building, caring only for their own apartment unit. Individual initiatives done by the residents in their own apartment are in many cases visible in the facades, without considering the holistic function of the building that should work as an organism.

The staircase of the block before the '90s was open, with natural light, ventilated. Today this space is transformed, in most of the cases we have the presence of the elevator too, both of them surrounded by apartments, limiting the possibilities to use natural light and ventilation.

5. Social Aspect

5.1 Community: When talking about the urban block before the '90s, because of the character and ideology of the period, there was the presence of a compact community, a sense of living together and sharing common space which in nowadays is lost. Even if most of the times were considered to be "forced" organized, periodic actions of cleaning and maintaining of the common space were moments of flourishing of these communities. People of all ages used to live the outdoor space. Children of that time have memories of physically active games in the neighborhood. Because of the low economic incomes, children used to play with low cost games created by them with creativity spirit. The common space was used by all the ages as meeting place and playgrounds since it was free of cars and well equipped with green areas, spaces that after the '90 became totally invaded by cars. The absence of motorized vehicles was the major reason why people used to access more the common space by walking, running or cycling. This was a predisposition for the existence of the communities.

The architecture of the buildings had as an evident component the open staircase, in contrast with the buildings built after the '90s where stairs are closed and there are gates with interphone for safety reasons. The opened staircase element played a major role in social interactions. It was a place for people to sit, stay and chat.

With the new individual lifestyle and the demographic changes, after the '90s, the communities that used to exist, now are waned. The common space is not a concern for anybody anymore. It became a normal habit to make building extinctions starting from the ground floor, which reduced the surface of the common community space. There are individual initiatives of people who live in the ground floor to take care of the space in front of their apartment, which usually became a walled-privatized space. The same phenomenon

of informally privatizing and then taking care of the space in front of the ground floor occurred when these ground floors were transformed into businesses, usually cafeteria. There is a café culture in Albania, as in all the Balkans, that before the '90s happened inside the apartments or in the staircase where people used to gather. After the '90s this café culture explains the flourishing of the neighborhood cafeterias. Today, there is no official networking in the neighborhood that works as community organizer and takes the responsibility to guarantee the participation of the community in the process of decision-making.

The infrastructure and facilities in both compared urban blocks are not adopted for people with reduced mobility and abilities in general.

Except for very few particular cases, in the after '90s urban block there is little concern to create and give importance to the areas of social interaction. There are no rules and standards, and sometimes when they are, there is no control from governance for their fulfillment. There is no concern on this issue from the developers, from the architects that fulfill the requirements of their clients that are not the residents but the builders that want to maximize their economical profits, and there is no concern from the local governance to guarantee the quality of the life of the inhabitants. Because of this lack of community life and complete alienation of the relationship of the citizens with the common space, beside the bad collective taste that communism has left, recently, from the interviews made to people, there is a nostalgia for the times when communities existed.

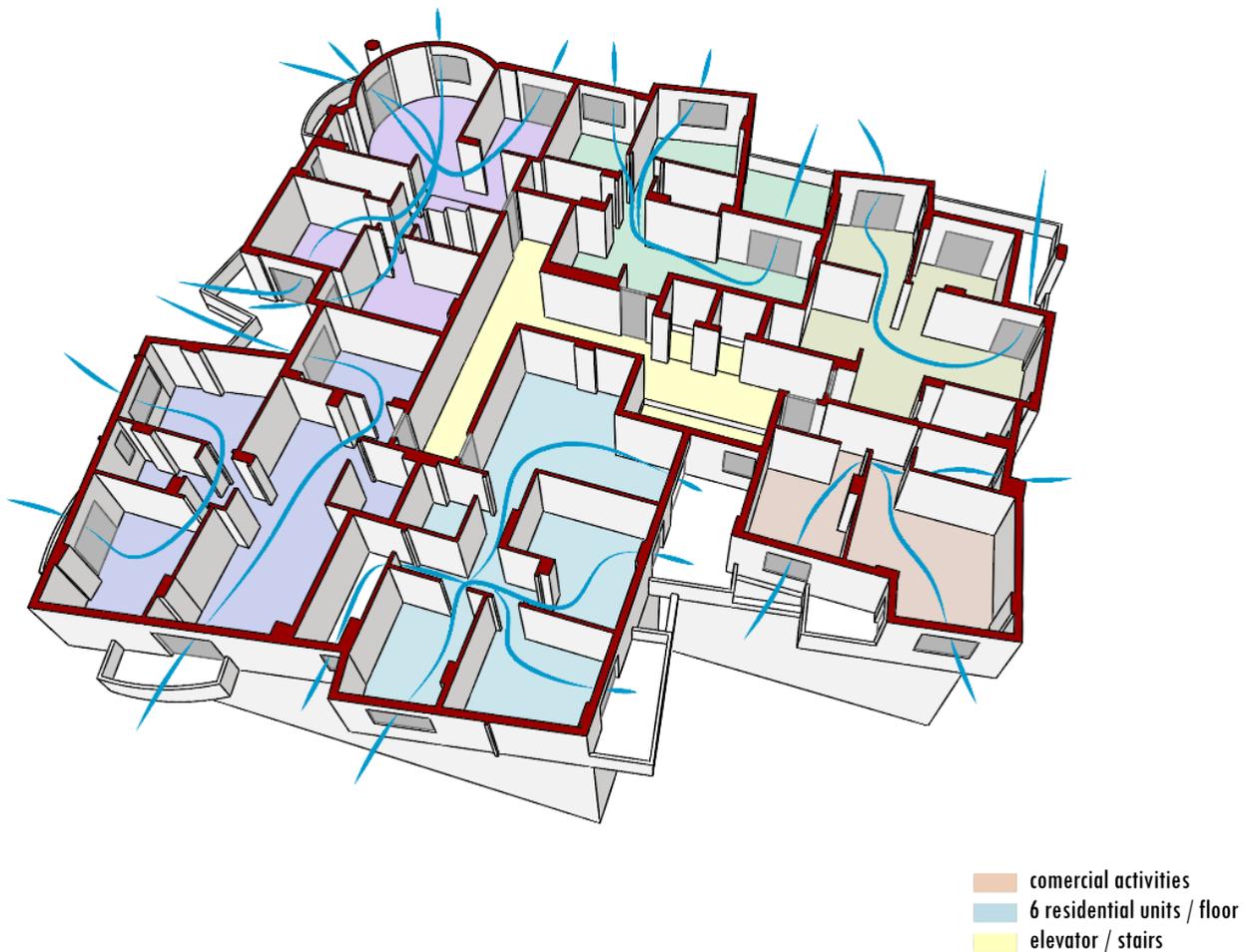


Figure 3. Dwelling unit, after '90s

6. Conclusions

The paper aims to analyze and put in evidence the positive and negative aspects of the typologies taken in consideration as an attempt to undertake a first step towards the preparation of operational strategies and as a help for the decision making process.

After analyzing and evidencing all the criteria that were the most significant aspects to assess a multi-criteria evaluation table, the evaluation is done for each of the aspects, reflecting the above explanation.

Table 1. The multi-criteria comparison of communist and post-communist residential blocks

Macro-criteria	Criteria	Before '90s	After '90s	Based on:
Development process and procedures	<i>Urban form</i>	5	2	Facts
	<i>Contextualization</i>	1	1	Estimation
	<i>Common Spaces Management</i>	4	2	Facts
Architectural composition	<i>Morphology</i>	4	1	Facts
	<i>Functional aspect</i>	3	4	Estimation
	<i>Dwelling unit</i>	3	2	Facts
The technological aspects of the residential blocks	<i>Technological solution</i>	2	4	Estimation
	<i>Economy and technology</i>	2	3	Estimation
	<i>Bioclimatic aspects</i>	3	1	Survey
Socio Aspect	<i>Community</i>	4	1	Survey

Evaluation (1-5) 1 - very bad 5 - very good

The result shows that new operational strategies are needed to regulate the building sector for the future, in order to build following the standards to create more comfortable and livable environment and to take advantage of the development of the technology, our history and culture. Strategies are needed even for the existing building stock, renovation of common spaces and retrofitting of the buildings, without forgetting the strong relation of the building with the surrounding, and the human factor.



Figure 4. Residential building and space transormtion, after '90s**References**

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The similar subject between two tales and a novel in verse in the Albanian literature

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Abstract

The issue this paper aims to bring into light is the connection between the first Albanian novel in verse "Erveheja" written in the beginning of the twentieth century, and the two fairy tales with a common subject to it entitled respectively 'Faithful to Marriage' and "One of a kind Lass", collected in the beginning of the twentieth century in the Albanian Catholic North.

The questions this article poses are: Is it possible that the novel in verse spread to the north of Albania and became a fairy tale? Why was it not present in verse in the North? Why was it a narration there? Did both the subject of "Erveheja" and that of the fairy tales, come from the same paratext?

This paper was put together after the researchers had already studied the connection between "Erveheja" and "Faithful to marriage" nevertheless, this study adds another fairytale entitled "One of a kind Lass" similar to these literary works and tries to give a new dimension on the existing scientific opinion. While reasoning on the comparison of the fairytales and the novel in verse, we have come to the conclusion that even if the subject of "Erveheja" changed into a narration, the motives of such narration have been strong and active in the folklore of the North. So "One of a kind Lass" can be an additional argument to the hypothesis of a common basis of these creations, although not of the whole subject.

Keywords: novel in verse, fairy tale, the source of the subject, the similarities and differences, motives.

Introduction

What fascinates us is the fact that the subject of a novel in verse entitled "Erveheja", written by Muhamet Kuçuku (an imam), around 1820, in the southern part of Albania, is completely similar to the subject of a fairy tale named "Besa e kunorës" ("Faithful to Marriage") and also similar to another tale whose title is "Çika e pakund shoqe" ("One of a kind Lass"), both collected in the catholic North of Albania, at the beginning of the XX century. The questions that arise are as follows: Is "Faithful to Marriage" the narration of the novel in verses "Erveheja" or is the novel in verses "Erveheja" inspired by the tale "Faithful to Marriage"? Or do they both have a common paratext? Since we have another tale similar to "Faithful to Marriage", entitled "One of a kind Lass", then what does this fact mean?

If we look for the answers of the above mentioned questions, we need to recognize the author and the work "Erveheja", scholar's opinions on them, the issues created over different data, the explanatory role of the fairy tales, especially the one about "One of a kind Lass".

About the Author

Muhamet Kuçuku (Çami) is an Albanian writer, born in Konispol (a remote southern part of present-day Albania, one km away from the Albanian-Greek border) in 1780 and who died in Konispol in 1844. He attended the first ten years of school (4 in primary school, 6 in madrasas- Islamic religious school) in his village and later his family sent him to continue his studies in Cairo which at the time was ruled by Mehmet Aliu, an Albanian from Opari (a province of southern Albania), who had created a kind of autonomy from the Sultan with the Albanian support. He stayed in Cairo for 11 years, until he finished his studies. He returned to Konispol as an imam, got married and spent his life studying, praying and writing. There is evidence which led to the conclusion that a considerable part of his work, in the form of handwritten copies of manuscripts has been lost. What we are left with today by Muhamet Kuçuku (Çami) are 7 handwritten copies of manuscripts and 2 translations. His literary works were written using the Cham dialect and the Arabic alphabet.

About work "Erveheja"

"Erveheja" was not published while the author was alive, nor were the other literary works he wrote; the original was found as a handwritten copy around the 1950s and is kept in the National Library in Tirana. Kuçuku is thought to have finished writing Erveheja

around 1820 (Akademia e Shkencave e Shqipërisë, 2021, p. 328). It was first published by Jani Vreto (Albanian Orthodox, writer, publisher, an important figure of the Albanian Renaissance movement) in 1888, based on a copy of Mulla Hodo Asqeriu of Gjirokastra (a poor imam, who was loved and respected by the people and who spent his time in the tombs, where he recited Turkish and Albanian poems and sometimes even wrote some). They both meddled in Kuçuku's work, that is why in our study, we refer to the original writing of Erveheja, transliterated by Osman Myderrizi. The original work "Erveheja" has 214 stanzas of 4 verses each, i.e. 856 verses.

Researchers about "Erveheja"

Erveheja has been cited to be the first novel in verse and has attracted special attention among the other works of Kuçuku. The writer himself, Muhamet Kuçuku, from the first stanza, tells us that he took the subject from a book with short stories in Turkish entitled "Revza" ("The Garden"). The scholar Osman Myderrizi tells us about a book written by Abi-l Kasem Belhi (who died in 1070), entitled "Revza" in Arabic, which contains two thousand strange verses, a thousand poems and a thousand hadiths. He is not convinced though, whether this literary work translated into Turkish is the one.

The scholar Arbëresh Giuseppe Schiro in "Della lingua Albanese e della sua letteratura" points out the fact that Erveheja is brought from the Arabic language by Muhamet Çami (Studi Albanesi, 1932)

The researcher Klara Kodra quotes from the Young Zef Skiroi the fact that he considers the subject of Erveheja a "widespread subject in Hindi, Persia, Saudi Arabia and Turkey and also in the West, where the theme appears in the XV century in Gesta Romanorum, in Florence and Rome, in the summary of the Miracles of the Virgin, in the short story of Crescens, and in that of Hil Degard". (Akademia e Shkencave e Shqipërisë, 2021, p. 183)

The Arbëresh writer Luigji Lorecchio compares the novel in verse with Bokaccio's tenth novel, while the researcher Klara Kodra notices a greater similarity of the novel with the ninth novel of Bokaccio's second day. The researcher Klara Kodra mentions that... *there is no doubt that according to the novel it is a "migratory subject", spread mainly in oriental literatures, but traces of which can also be found in Western literatures... Similarities with Bokaccio's text may have their source to the same oriental paratext...* (Akademia e Shkencave e Shqipërisë, 2021, p. 184).

The researchers noticed the similarity of the novel with the tale "Faithful to marriage", but they don't mention a sentence that says "N'at vend tha ishte zakon asokohe, qi kur tw gjindej keq grueja me e shti gjallw nw dhé..."¹ (Franciscan Library 'At Gjergj Fishta', 2013) that is related to killing women with stones that in Albania was never a tradition. We know that interestingly a widespread similar writing of "Erveheja" was found, which was part of oral songs heard in Konispol and written by Ibrahim D. Hoxha, in 1959-1960 (Akademia e Shkencave e Shqipërisë, 2021, p. 155), which has as many verses as the original and which is almost the same as the original (with a few differences, which are often reflexes of spoken language). This means that the work was memorized by different Albanian people and so had the novel been circulating for over 100 years.

The issues created over different data

Then is it possible that the novel in verse spread to the north of Albania and became a fairy tale? Then, why was it not present the same verse form in the North as well? Why was it a narration there? Or, does the subject of "Erveheja" and that of the fairy tales, come from the same paratext? Would it help us to answer some of these questions if we considered the existence of another tale "One of a kind lass" that is similar to "Erveheja" but not identical with it. The comparison between "One of a kind lass" and "Erveheja" may be of some interest because it may give us some information that will help us to get some possible conclusions.

The commonalities and differences of "One of a kind lass" and "Erveheja"

Comparing the fairy tale "One of a kind lass" to "Erveheja" we noticed that:

In "Erveheja" and "One of a kind lass" we have the motive of emigration. But in the first the husband leaves the country and in the second the father and brother leave the country.

In both literary works, the woman is the one to be left behind, who in the novel is left in the care of her brother-in-law and in the fairy tale in the care of the neighbor.

In "Erveheja", the woman is at home, in the fairy tale the girl is locked in the tower.

In both stories, the woman is the one to be seduced, but in the novel the woman is seduced by her brother-in-law, whilst in the fairy tale the girl is seduced by the neighbor.

In "Erveheja", the brother-in-law proposes to her and then threatens her, while in "One of a kind lass" the neighbor makes a long ladder to climb up the tower to the girl and, when he fails to enter the tower, he uses a beggar, behind whom he hides. Then the lass pretends to obey, persuades the neighbor to take a bath, throws soap in his eyes and gets him out of the place. ("One of a kind lass" also uses deception to send away the neighbor)

¹ Back then, in that region, it was customary to bury the wife alive if she had committed adultery

In the novel in verse, when the brother-in-law realizes that he will not be able to persuade Erveheja, he pays false witnesses to sentence her to death by stoning. Even the neighbor of the "One of a kind lass", like Erveheja's brother-in-law, spreads rumors about the girl, but not sending her to court, but he writes such rumors in a letter to her father and brother.

In "Erveheja" we have a trial with false witnesses, whilst in the tale we have the brother who returns and tries to look into the matter of his sister. (For 5 days he calls on her door by introducing himself using the names of the men she was accused to have been with according to the rumors of the neighbor, but she refuses to open the door. On the sixth day the brother introduces himself by his real name, but she does not open the door without him showing her the talisman she has given him. Her brother is not convinced yet and does not hug her, but shows her the letter of the neighbor. The sister then tells him the truth.)

"Erveheja" is punished (by throwing stones at her) and the "One of a kind lass" is also punished. (The brother decides to leave her in the woods to die, tying her hands to an oak).

Erveheja is saved by the Arab. The lass is saved by the King, who has gone hunting in the mountains rescues the little girl and he sees a girl that shines brighter than the sun.

Erveheja goes to the house of the Arab who saves her and the lass goes to the house of the King who saves her.

Erveheja does not become the wife of the Arab. The girl becomes the King's wife.

"Erveheja" is seduced by the Arab's servant. The "One of a kind lass" (now the King's wife) is seduced by the King's clerk on the way to see her father and brother.

Since Erveheja refuses him, the Arab's servant kills the Arab's son, and accuses Erveheja of the crime. Since the lass (now the King's wife) refuses the King's clerk, he kills their eldest son to punish the lass.

In "Erveheja" the Arab and his wife are the ones to help Erveheja, in "One of a kind lass" it is she herself, who deceives the King's clerk and runs away from him.

Then Erveheja rescues a bad man who then sells her and puts her in another provocative situation with the captain and the sailors, The lass is in constant provocation by the clerk who kills her second son and threatens to kill their third son, until she deceives him and runs away and hides.

Erveheja dresses like a boy, the Lass changes her clothes with a poor shepherdess.

Erveheja takes refuge in the King's court and heals people. The Lass settles in a good inn and works there.

Erveheja becomes sovereign and is joined by her husband and his brother (who was now blind); the lord with the clerk (also blind) and the one who had sold her (also blind). The Lass in the inn is joined by her father, brother, neighbor, beggar and the King with the clerk.

Erveheja gathers the people and tells the blind that she cannot heal them if they do not tell the truth, whilst the lass tells them that she will not tell beautiful stories, unless the King closes the door. In "Erveheja", it is Erveheja who decides, in "The one of a kind lass" it is the King who decides. Erveheja forgives all those who had harmed her, while in "The one of a kind lass" the King does not harm her father whilst her brother has his right hand cut off; but the neighbor, the beggar and the clerk are slaughtered. The king gives a good reward to the landlord of the inn.

Erveheja leaves the throne to her husband. The Lass reigns at the King's side and keeps her father and brother close to her.

The explanatory role of "The one of a kind lass"

It is noticeable that the fairy tale "One of a kind lass" has more archaic motifs than the fairy tale "Faithful to Marriage" and "Erveheja". They appear as elements of the fantastic tale, such as: the girl who is locked in the tower, the neighbor who climbs up with the ladder, the unfaithful wife, the punishment of the innocent, the wise girl, the talisman, the king as savior, and so on. This leads us into thinking that the fairy tale "One of a kind lass" may be older than both the fairy tale "Faithful to Marriage" and the novel in verse "Erveheja". Thus, their similarity can be related to a common paratext, or "a migratory subject".

Secondly, it is apparent that the tale "One of a kind Lass" has a structure very similar to "Faithful to Marriage" and "Erveheja", it also has motives that sometimes appear to be the same as those of the two works and other times only similar to them, but on the whole it has different syuzhets from them.

This leads to an idea that reinforces the first thought that: their similarity is related to the common paratext or "the migratory subject", or that the story of the novel may have been narrated with motifs of the fantastic fairy tale existing in the North. So, "Erveheja" is narrated in two variants: one that has remained most faithful to "Erveheja" in verse and the other that is narrated in the style of a fantastic tale (not very liable opinion).

The known facts are insufficient to let us choose between the options.

If we refer to the similarity of "Erveheja" with Boccaccio's ninth novel, we notice that there are several motives they have in common: the motive of the husband's migration, hiding the identity of the characters for a while, being faithful, reuniting, etc. These motives are found also in Homer's work "Odysseus" and in "Jusuf" narratives in the Bible and Quran. While Erveheja's resemblance to Boccaccio's tenth novel lies mainly in the structure as a repetition of the motive of the woman's ordeal. Even from the Albanian Arbëresh author of the Renaissance, De Rada, we have two parallel literary works whose subject is the ordeals of Milosao and Serafina Topia. Such vivid motifs have existed and circulated in the literature coming from people. This shows to some extent that, even if the subject of "Erveheja" has changed into a narration, the motives of such narration have been strong, active motives in the folklore of the North. So "One of a

kind Lass” can be an additional argument of the hypothesis of the researcher Klara Kodra, for a common basis of these creations, although not of the whole subject.

Conclusions

If we refer to the resemblance of “Erveheja” to Boccaccio's novels, it is apparent that they have several motives in common: the motive of the husband leaving, hiding the identity of the characters for a while, maintaining fidelity, reuniting, the continuous ordeals and difficulties, etc. (We find these motifs in Homer's Odyssey, in the story of Yusuf in the Qur'an and in the Bible, in some of the Albanian fairy tales, and in the Arbëresh romantic De Rada, in two analogous literary works whose subject is the constant ordeals of the main characters: Milosaos and Serafina Topia etc). So such motives have existed and spread by the people in literature.

It is claimed that “Erveheja” and other poems by the same author, Çami, were copied and memorized by the people and spread to Delvina, Gjirokastra and beyond. The answer to the question why they did not spread to the North in the form of a novel in verse, as in the South, is probably related to the existence of other variants of “Erveheja” as fairy tales, or to the existence of vivid active motifs that "converted" “Erveheja” into a fairy tale.

It is apparent that giving reliable answers to the connection of the novel in verse with the two tales, requires further integrated study, but one thing we can say for sure: delving into this object can tell us about basic (perhaps metaphysical) protomotives that stand at the core of the creation and communication of cultivated literature and folklore, even of motifs that produce new syuzhets with different cultural outfits.

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Challenges of Financing Albanian Media Companies: Web TV vs Traditional Media

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Abstract

Television industry transformations have made indispensable new financing models and a reconsideration of the media business. As television is evolving from linear broadcasting to on-demand models, world practices show that the advertising-based television business model is likewise changing in favor of direct public funding according to crowdfunding models, subscriptions, etc. In the case of Albania, television companies reflect lack of financial resources diversification. In this context, the study aims to answer the research questions: Why technological developments of digital platforms of Albanian TV websites is not accompanied by their diversified financial management? Which are the factors hindering the application of new financing models? In order to conduct the study we relied on the quantitative data obtained from a period of one week monitoring websites of the six main Albanian televisions that represent different typologies: RTSH, Klan TV, Top Channel, TV News 24, Euro News Albania, Syri TV as well as on the analyses of the interviews with the media managers of these broadcasting televisions. The study findings show that the main factors hindering the emergence of new financing models are: the practice of consuming media content for free, the low level of average income of the Albanian consumer which translates into low will and paying power, the economic crisis in the background, the preference of advertisers to invest in linear television versus web platforms, etc.

Keywords: business model, diversification, audience, web TV.

1. Introduction

The television industry has been globally affected by profound structural, managerial, financial and professional changes that are made absolutely necessary predominantly by technological advances. In 2015, Doyle predicted that the migration towards a multi-platform approach will yield economic benefits to media companies by providing new creative and business opportunities.¹

While in the article "Transformation and Innovation of Media Business Models" Villi & Pickard (2019) present some of the main problems of media operating with outdated business models and the need to embrace new models due to digital transformation and change the behavior of the audience, especially the way they consume media content. According to the authors, media companies following a traditional business model are no longer as profitable as they used to be, and this does not involve only the print business model but also the television industry. The transition from linear to on demand television is accompanied by a new business concept. Specifically, the on demand television business model is based on the concept of customer satisfaction and consequently, advertisers have less influence than before. The authors emphasize that digitalization and platform are two major influential factors in the media business model. Digitalization affects the entire operational chain of the industry from content production to content distribution and consumption. In the digital media space, old/traditional media compete for audience time and money with a range of new digital players such as Netflix, Hulu, Amazon and Youtube. The challenge of TV companies is how to deal with these new digital players that cannot be called "small" in any sense, as they often have much larger resources than those of old TV companies. Regarding digital transition, the main challenge for media companies is not always the production of media content, but rather the distribution and monetization of content (Picard, 2011).

Thus, operating in the digital environment is not simply a matter of content and distribution but it should be clearly pointed out that the nature of the product and the way of consumption differ significantly and necessitates new strategies and business

¹ Doyle, Gillian (2015). 'Multi-platform media and the miracle of the loaves and fishes', *Journal of Media Business Studies*, 12:1, 49-65.

models. In these circumstances, media companies have to invest in technology, software as well as human resources. While thanks to platform (Gillespie, 2010; Helmond, 2015), establishment of relationships between media companies and social media companies, the latter can control the involvement of audiences and reap most of the financial benefits (Mitchell, 2015). Media companies lose control over distribution and thus control over the connection to their audiences and access to the data that the audience provides. When content is accessed through third parties such as Facebook, obtaining useful data is difficult because it is in Facebook's interest to retain much of this data only for personal use. In addition, most media companies - if not all - are at a disadvantage compared to platform companies when it comes to size and resources (Villi & Picard 2019).

Social media platforms represent the biggest shift in the strategic environment for many media organizations: while they bring access to potentially huge audiences, they also compromise revenues, control over the context in which content is consumed, contact with audiences, and quality of content data (Küng, 2017). In this context, media organizations need not only to re-conceptualize business models by adapting them to the digital world, but it is essential that they adapt them to their individual markets and customers, not simply duplicate others' practices.

The key issue with contemporary media business models is not just about revenue, but increasingly about customer relationships (audiences), value creation, and continuous product and service improvement. Meanwhile creating a new business model is not as easy as making the decision to change it. This means taking risks as well as accepting failures. Today, not taking risks is dangerous in itself because it leads to the loss of opportunities and the inability to grow and develop in new ways, forcing the firm to live according to existing business models, practically weakened business models. At the moment they may seem quite good but in reality they are "failing slowly", which in the end leads to a final 'death spiral' from which there is probably no turning back (Villi & Picard 2019).

The key point about contemporary media business models is that they are not just about revenue, but increasingly about relationships with consumers, value creation, and continual product and service improvement. Establishing a new business model or models is not as simple as deciding to change the model. Accepting failure is a huge challenge for most media organizations because they have not needed to take risks in their business models for generations. Today, as legacy media products decline and change, not taking risks is dangerous in itself because it leads to lost opportunities and inability to grow and develop in new ways, forcing the firm to live on existing, weakening business models. They might seem to be doing well enough for the time being, but are actually "failing slowly", which in the end leads to a final "death spiral" from which there probably is no return. (Villi & Picard 2019).

By using the world practice as its point of reference, the paper addresses the following questions: Why technological developments of digital platforms of Albanian TV websites are not accompanied by their diversified financial management? Why new business models based on direct funding from the public such as crowdfunding, are not applied by Albanian TVs? Is there any relation between (external) environmental factors such as the incomes level and the underdevelopment of new media business models? In this context, the paper elaborates on the engagement of the media consumer the fundamental driver of value creation in the business strategies of media companies.

In order to carry out the study, we relied on quantitative data obtained from the monitoring the websites of six Albanian televisions: RTSH, TV Klan, Top Chanel, News 24, Euro News Albania, Syri TV during a period of one week and on the assessments made by focus groups.² Another component of the study were the interviews conducted with executives of the media that were part of the research.

2. Audience involvement and its impact on the media business model

The media industry is changing by adapting to an environment characterized by fragmentation, competition for attention as well as audience empowerment. Audience involvement has become the key to success for many media companies. The main idea is that the consumption of media content can be increased based on data and audience involvement, thus creating value for both the audience and the media. For media companies the challenge is how this value can be consistently monetized as technology advances and audiences continue to demand more.

In addition to business models based on advertising, subscriptions and transactions there are other innovative approaches to how to make money in the digital environment from media content. Focusing on the notion of audience value, we see how knowledge about the audience can be turned into money as a form of business model.

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² Monitoring conducted by the Department of Journalism and Communication, University of Tirana, with the financial support of AMA, June 2021

idea is that the consumption of media content can be increased based on data and audience involvement, by creating value for both, the audience and the media. For media companies the challenge is how this value can be consistently monetized as technology advances and audiences continue to demand more.

In addition to business models based on advertising, subscriptions and transactions there are other innovative approaches on how to make money in the digital environment from media content. Focusing on the notion of audience value, we see how knowledge about the audience can be transformed into money as a form of business model.

Studies show that audience value is more obvious in the case of direct funding of media content. The media that use this business model emphasize the values of journalistic independence and editorial freedom, their commitment to providing free, with no ads and high-quality content. Consumer interest for content, attractiveness and/or specific causes are the prerequisites for implementing this business model. In addition, maintaining good producer-consumer relations is very important for the sustainability of media companies relying on the crowdfunding model.

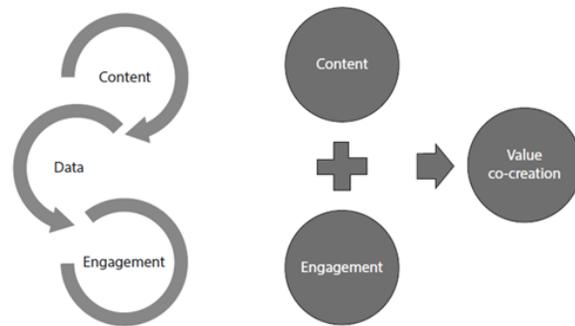


Figure 1: Content, data and engagement in value co-creation³

In the digital environment, media companies need deep audience insights to improve and market their products, and become the knowledge partner to advertisers. Audience value can also be created from carefully managed audience communities, social media connections, and content co-creation. There are abundant opportunities to grow this triangular relationship into potential e-commerce type of interactions, benefiting both the media and marketers, as well as satisfying engaged audience communities.⁴

3. Results and Discussion

The study on the economic models of the television industry in Albania (2017) identified a lag in the business models of television companies. While large media companies are applying increasingly hybrid business models, in Albania the lack of financial diversification is obvious in all televisions and their websites, part of this study, despite their specifics. The practice of direct funding from the public according to the *crowdfunding* model is non-existent as all the content offered on the TV website is 100% free access content, (See Table 1), while content with subscription access, and with pay to watch access as well as content of freemium format are completely missing. The data clearly show that Albanian television companies continue to be far from monetizing their webcasts by moving in the opposite direction to global trends. Naturally, the questions arise: why the technological developments of the digital platforms of the Albanian TV websites have not been accompanied by their diversified financial management? What hinders the application of new business models that rely on direct public funding of media content? On one hand, there seems to be a reluctance on the part of media managers to move towards new forms of financing, as 62.5% of respondents think that in the future the budget should be guaranteed by advertising versus 10.7% who think that direct payments from the public may constitute another alternative solution.⁵

³ Chan-Olmsted, S. & Wang, R. (2019). *Shifts in Consumer Engagement and Media Business Models - Making Media: Production, Practices, and Professions* Amsterdam University Press B.V, Amsterdam.

⁴ Idem.

⁵ Idem.

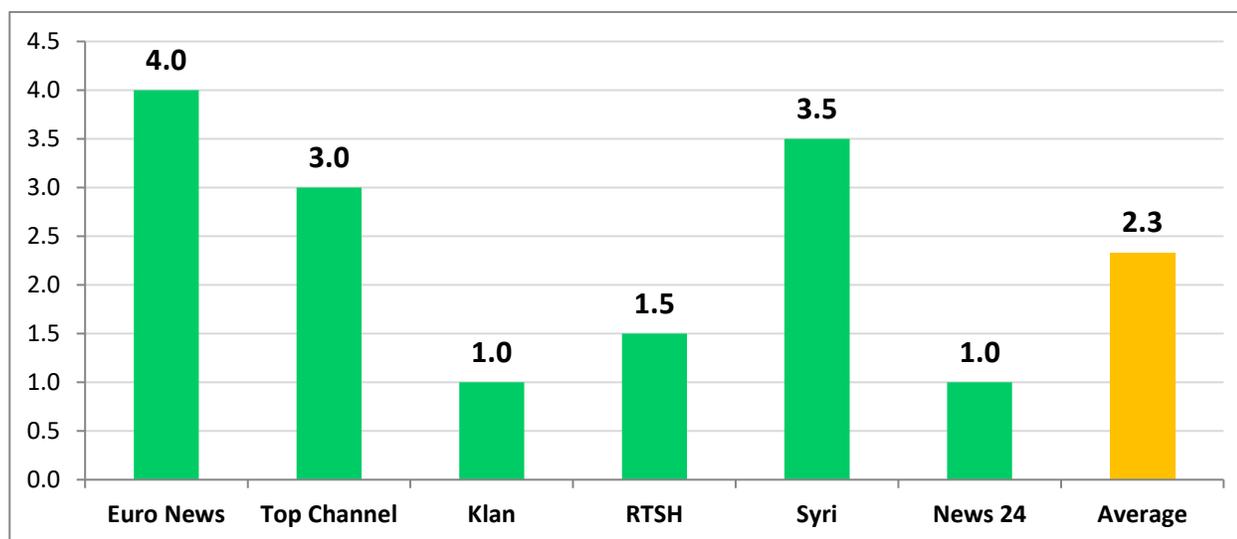
Table 1: Financial plan of daily & weekly information of TV websites, 2021

Content	Euro News	Top Channel	Klan	RTSH	Syri	News 24
Free access content	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Content with subscription access	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
pay to watch content	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Freemium access content	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Dependence on advertising as a major source of funding is very problematic for the television industry, especially in times of economic crisis when on one hand companies tend to cut marketing budgets, advertising being part of it, and on the other hand, consumers tend to reduce consumption. In addition, the constant fragmentation of advertising in traditional media and new media makes it indispensable to find other funding alternatives. “Youtube is a good financial source for the media and that explains the investment they have made to pay more attention to videos. During the last two years when advertising revenue dropped, youtube revenue is a good compensation for the media. Given the trend that society follows in terms of time spent on social networks, channels like youtube will be “gold mines” for media in our country”.⁶

Meanwhile, studies show that media operating in a low-income environment have opportunities to diversify revenue but this is limited by the low purchasing power of the consumer. In Asia, Latin America and Southern Europe the focus continues to be on advertising as the main source of revenue while the willingness or ability of the audience to pay for content is more limited (Newman, 2017). In Albania, the average monthly consumption expenditure in the “Communication” category in 2020 is 3.7% of the total household budget, a figure that is low and almost the same compared to 2019. The largest decrease in average expenditure for monthly consumption, in 2020, was noticed in the category “Entertainment and Culture” with 26.4% compared to 2019.⁷

In addition to the financial aspect there are a number of other issues that limit the ability of companies to provide paid content. For the editor-in-chief of social networks in Tv News 24 Adi Shkëmbi, a media outlet before offering paid content must solve some problems in advance, some not depending on their will. First of all, it is necessary to have a good legal framework for the authorship of articles. But even when this problem is solved, it is unlikely that the mentality of local readers will easily agree to pay for an article. This model works very well in the US, Great Britain or elsewhere but can hardly work in Albania. However, the paid articles model may work for the diaspora. Readers outside Albania who want to read an interesting opinion, investigation or interview will be willing to pay 1 dollar or euros for it. Being a new field for the Albanian media, it can initially be experimented with readers abroad.⁸



⁶ Shkëmbi, Adi. Editor in Chief of social networks TV News 24, interview dated. 9.11.2021

⁷ Household Budget Survey, 2020. <http://www.instat.gov.al/media/9072/abf-2020.pdf>

⁸ Shkëmbi, Adi. Editor in Chief of social networks TV News 24, interview dated. 9.11.2021

Figure 2: Interactivity: from 1 to 10 (where 1 means "absolutely" and 10 "maximally"), to what extent is interactivity with television audiences realized? Is there a dialogue?

As highlighted above, the development of new business models on one hand is related to the behavior of the audience, more specifically to the willingness to pay for the highest quality or *premium* information, its relationship with information technology and on the other hand to the quality of the content provided by the media, in our case the television website. The data show that the added value of information and mass communication in these websites and social networks compared to the information on the screens of the respective televisions is low, namely 4.9 is the average value for all the six monitored websites, out of 10, which is the maximum rating. Likewise, the question of how specific is the content of the websites and social networks of TV channels from news portals from 1 to 10 (where 1 means "not at all" and 10 "maximally"), the focus group responded by rating it on average 5.5 points, a relatively low value. Meanwhile, the level of interactivity and dialogue with television audiences is even lower, averaged 2.3 points (see Figure 2). Such a model which involves almost no audiences at all or at best very only a limited one, cannot create value let alone claim to generate revenue from audiences.

4. Conclusions

The Albanian television industry is characterized by a lack of diversification of financial resources. The old advertising model that relies on advertising is still functional for private televisions while monetizing broadcasts on their websites remains an unknown practice.

Numerous of factors hinder the emergence of new business models, including forms of direct financing from the public such as *crowdfunding*, among which we single out: the low average level of income of the Albanian consumer which translates into low level of willingness to pay and low paying power; economic crisis in the background, the practice of consuming free media content, the preference of advertisers to invest in linear television versus platforms on social networks and the web, etc.

In the situation when all monitored television websites and social networks are characterized by the lack of added value of information and mass communication, the lack of specific content as well as the high level lack of interactivity and dialogue with their audiences makes us think that in the short term, the strategy to generate revenue from audiences will be almost unfeasible.

The reluctance of media managers to experiment with new business models can lead to the loss of opportunities and inability to grow and develop in new ways, and compel media companies to operate according to existing business models.

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Albanian Student Entrepreneurship 2021: Insights from 6 Universities

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Abstract

Student entrepreneurship has a significant economic and social impact in every country, especially when it comes to unusual and difficult times such as the COVID 19 pandemic situation. This paper is based on the findings of the GUESSS Project (Global University Entrepreneurial Spirit Students' Survey) with a particular focus on the contribution of European University of Tirana, as the GUESSS country team for Albania for 2021.

This study aims to assess students' entrepreneurial intentions and to analyze these intentions depending on the entrepreneurial university education. The study includes six Albanian universities and 434 students overall. The methodology is based on the GUESSS¹ survey tools. The survey has been distributed to students via e-mail and social media. The findings of the paper are relevant and contribute groups such as students, universities and society at large while inspire further research on student entrepreneurship and entrepreneurship in general.

Keywords: entrepreneurial intention, students, Albanian universities, GUESSS survey

1. Introduction

“Which are entrepreneurial intentions of Albanian students?”, this is a quite important question as the students represent the future of the entrepreneurs’ generation; their entrepreneurs’ intentions and their future career plans will constitute the future of the society and its economic development. The above question has raised a great interest from different actors, such as academics, policymakers and by students themselves, as it may help build their future career choices and realize how many of them intend to become entrepreneurs and the way their entrepreneurship intentions are measured.

This paper is based on GUESSS project, which means “Global University Entrepreneurial Spirit Students ‘Survey’” and it is one of the largest entrepreneurship research projects in the world, it is organized and managed through a cooperation of the University of St. Gallen and the University of Bern. The main research focus is students’ entrepreneurial intentions and activities and every 2–3 years, a global data collection effort takes place. For every participating country, there is one responsible country team which coordinates data collection in that country.

Albania is part of 3 editions in GUESSS and the authors of this paper are part of GUESSS - Albania team.

Below we present some of the reasons for the motivation of this paper as part of a research project that aims to determine the career choices and goals for student entrepreneurship.

- Based on the new strategies of the European Union of the new millennium, European Commission has identified 8 key competences in the shape of knowledge, skills and attitudes that are fundamental for each individual in a knowledge-based society. These competences provide added value to the labor market, social cohesion and active citizenship and they are presented through: “i) communication in mother tongue; ii) communication in foreign languages; iii) mathematical competence and basic competences in science and technology; iv) digital competence; v) learning to learn; vi) social and civic competences; vii) sense of initiative

- In the report of 2020-2021 for the Global Entrepreneurship Monitor, another important project on global entrepreneurship states that the entrepreneurs in their initial entrepreneurship phases are more from 18 - 34 years old; age which coincides with the age of students (Global Entrepreneurship Monitor, 2021) emphasizing the importance of studying students' entrepreneurial goals.

- Very fast developments in the field of information technology, have made hundreds and thousands of products to be "produced" by young people, some turn into startups which grow rapidly and bring great transformations, and some do not succeed. Turning ideas into entrepreneurship requires competence, but initially requires aiming to set up the enterprise.

¹<https://www.guesssurvey.org/>

- There is a pressing need for careful, authoritative and evidence-based assessment of the pandemic's impacts on levels of entrepreneurial activity across the world, as well as on attitudes and intentions;

This paper aims to evaluate the entrepreneurship intentions among UET students, through three degree levels: Bachelor, Master, and Doctoral, but with the main focus on the first two levels.

The objectives of the study are:

- observing entrepreneurial intentions and activities of students;
- observing and evaluating the academic offer and activities in the university in relation to the entrepreneurial education of students

The research question: What are the intentions and activities towards entrepreneurship for the Albanian students?

This research aims to create added values to different stakeholders:

- for the universities, in order to understand the entrepreneurial intentions of the students;
- for the universities, in order to evaluate its academic offer in the entrepreneurial context;
- for the politicians and the public, who are sensible towards business in general and entrepreneurship in particular, and who can identify the need to take action;
- for the students, who stand to benefit from certain actions in the long-term.

The survey of this research paper is based on the model of GUESSSS survey, whose foundation is the Theory of Planned Behavior (Ajzen, 1991). In this paper, we are focused on career choice intentions in general and entrepreneurial intentions in particular.

The GUESSSS survey was distributed via e-mail and social media. The respondents are 434 students from six Albanian universities: European University of Tirana; Tirana University; Polytechnic University of Tirana; "Aleksandër Moisiu" University of Durrës; Agriculture University of Tirana; Mediterranean University of Tirana.

There are *two limitations* in this paper: firstly, on line compilation does not allow the stratification of the sample and the second, 64 % of the sample female

2. Literature and definition of core concepts

Entrepreneurship contributes in the economic development by creating new jobs, new technology, new industries, new markets, and net increases in real productivity (Bhave, 1994). Global researches on entrepreneurship and innovation focus on the people's intentions to become entrepreneurs, so, it is crucial to get a better understanding of the relationship and the implication of this concept with the practice of teaching entrepreneurship (Souitaris et al., 2007) and widely develop and enhance more entrepreneurial culture into our society (Uddin & Bose, 2012).

According to Schumpeter (1934), *entrepreneurship* is the "spirit" to innovate. Referred to Uddin & Bose (2012), both Parker (2004) and Gartner (1989) quote *entrepreneurship* as the process of identifying opportunities in the market place; and committing actions and resources necessary to exploit the opportunities for long term personal gain. Entrepreneurship is defined as a risk-taking behavior which has been carried out for future benefit and gaining independence and self-control.

According to Uddin & Bose (2012), Krueger (1993) defines *entrepreneurial intentions* as the commitment to starting a new business. This intention indicates the potentiality of an entrepreneur to start a business in the future. Entrepreneurship intentions are important variables to forecast entrepreneurship behavior, but researchers could not give a sole definition. Some literature represents notions related to career orientation (Francis & Banning, 2001) and the nascent entrepreneur (Koruntka et al, 2003) Entrepreneurship intentions could be measured through one variable method and multivariable method. The first one evaluates entrepreneurship intentions depended on one variable, such as individual expectations, preferences, plans or behavior evaluation. It seems to be simple and distinct, but its reliability and validity is often under discussion. The multivariable method is used to improve the validity and the reliability of the findings.

Many researchers have striven to throw some light on the factors that impact on entrepreneurship aims of an individual, and they have come up with different models to analyze such aims, Theory of Entrepreneurial Model by Shapero&Sokol (1982), Theory of Planned Behavior by Ajzen (1991) and the Revised Model of Krueger (Krueger, 1993; Krueger & Brazeal, 1994).

The existing literature defines entrepreneurial career intentions as related to starting an entrepreneurial career, such as creating a new firm or taking over an existing firm (Laspita et al. 2012). Such intentions primarily stem from perceptions of the desirability and feasibility of entrepreneurship as a credible career choice (Krueger 1993). Perceived desirability and feasibility are regarded as necessary and sufficient conditions for intentions (Shapero&Sokol 1982). Perceived desirability is the degree to which one finds the prospect of becoming an entrepreneur to be attractive; it reflects one's affect toward entrepreneurship (Krueger 1993) and depends on an individual's values, which in turn stem from her or his social and cultural environment (Shapero&Sokol 1982). Perceived feasibility is an individual's perceived ability to execute a target behavior—that is, the perceived self-efficacy or the degree to which an individual feels capable of becoming an entrepreneur (Krueger et al. 2000).

The theory of planned behavior (Ajzen 1991), another commonly applied theoretical framework in the entrepreneurial intentions context, also sees desirability and feasibility perceptions as key antecedents to entrepreneurial intentions.

Based on the theory of planned behavior (Ajzen, 2002; Fishbein & Ajzen, 1975), behavior outcomes or objectives are influenced by three main factors:

Attitude toward behavior, which reflects desired perceptions from performing a certain behavior. At the very foundation are the convictions about the possible results of a given behavior (for example, choosing to be the successor in the family business) and the expressed aims or orientations are the expression of a positive or negative evaluation of those results (Armitage & Conner, 2001).

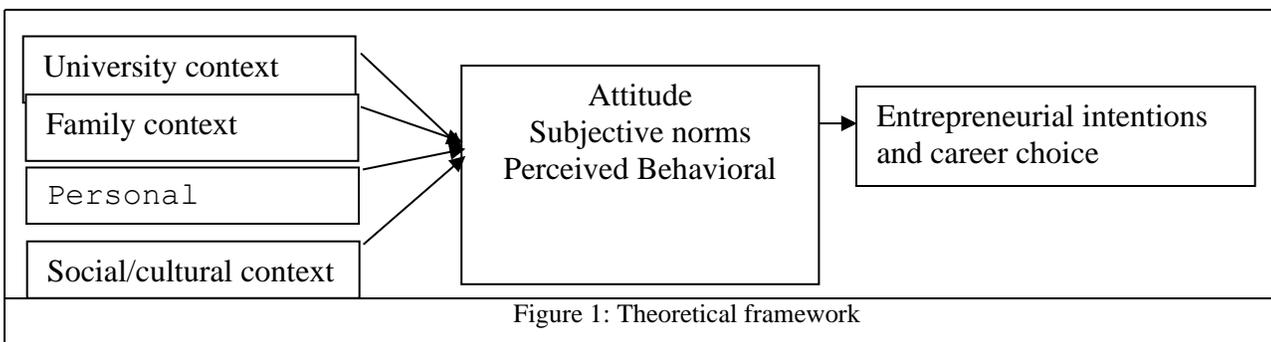
Subjective norms or opinion of others, which represent the expected reaction of others (for example, of family members) when a certain action is performed and evaluated based on those expected reactions.

Perceived behavioral control, which refers to the perception of a person's ease or difficulty of performing a certain behavior (Ajzen, 1991). It also includes the concept of enterprising self-efficacy (self-assurance in entrepreneurship skills) and focus of control (the perception that somebody is in control of his own fate) (Ajzen, 2002).

According to these models, factors which impact on the entrepreneurship aims are divided into three categories: personal or psychological factors, family background factors, and social and environmental factors.

3. Methodology

The theoretical foundation of our paper is the Theory of Planned Behavior developed by Ajzen (1991, 2002). Our research is focused on entrepreneurial intentions and career choice of Albanian students and we investigated the impact of the university context and role. Our theoretical framework is illustrated in the figure 1.



A special place in this paper is dedicated to the comparison of career choices of Albanian students, immediately after their graduation and 5 years later, for three periods of time 2015/2018 and 2021. On the one hand this comparison serves to assess the progress in years of career choice and entrepreneurship goals of students, but on the other hand to understand whether the year 2021, due to its peculiarity, shows significant deviations, which will have to be the subject of further studies.

In this research paper the entrepreneurship intentions are defined as projected orientations, similar to desires, hopes, inspirations that influence their choice in entrepreneurship career choice.

Participants and Sample – The questionnaire designed by GUESSS is distributed to students of 6 Albanian universities participating in this project via email (from a lecturer - contact point in each university) or through social media. The data were collected by the GUESSS project manager and his partner university for Albania (European University of Tirana) and sent to him the database of Albania for 2021. The authors of this paper are part of the GUESSS project and thus have the database of data for Albania. In this paper, the authors have presented only a part of the findings of the GUESSS project for Albania, mainly the career choices and entrepreneurial goals of Albanian students and the influence of the university in promoting entrepreneurship among students. Below are the main data of the sample taken in the study, of 434 students.

Student demographics - A closer look at the demographic characteristics of our respondents shows that the majority (64%) of them are female; while the students aged 20-22 years old represent 46% of the sample.

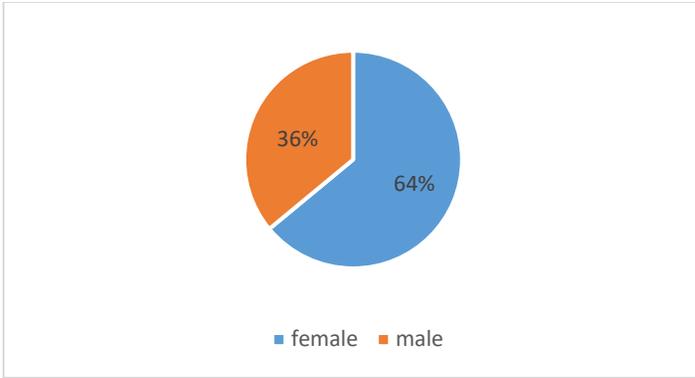


Figure 2: Gender

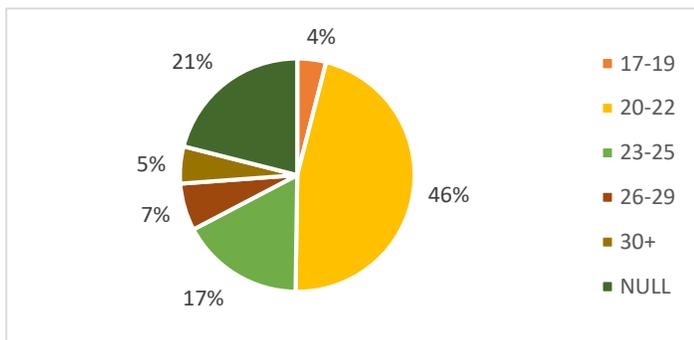


Figure 3: Age

University studies - Based at the student characteristics with regard to their actual studies, we note that 60% of all students are undergraduate (Bachelor) students, with 35 % being graduated (Master) students. The share of students on other levels (Ph.D - 1%) is negligibly small.

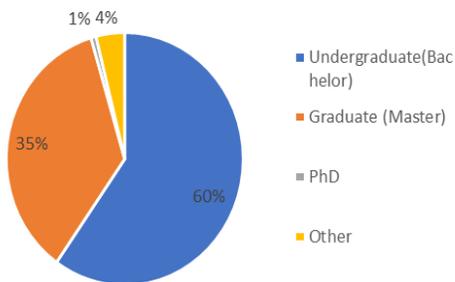


Figure 4: Students study level

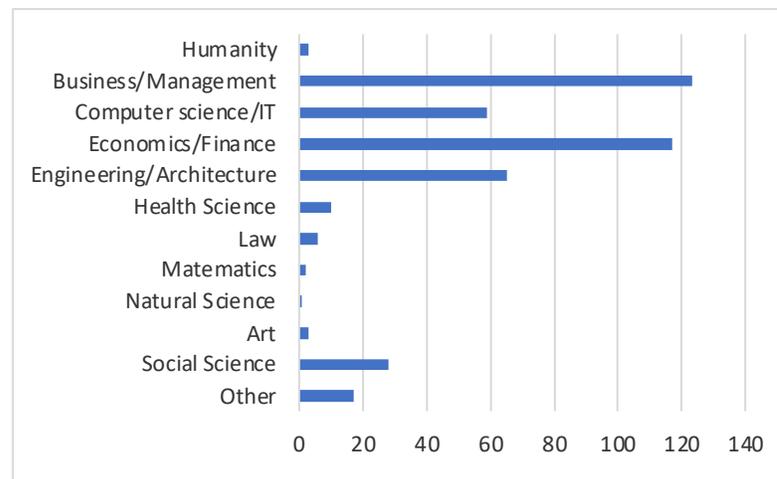


Figure 5: Study fields

Regarding the field of study, most of the students in the sample study in the field of Business / Management, Economics / Finance; Engineering / Architecture and Computer science / IT. Their highest participation is related to the study programs that the participating universities have, but also to the fact that these study programs are closer to entrepreneurship, innovation and management.

4. Conclusions

Career Choice Intentions - One of the key questions of this survey is what students intend to do after their studies. What do they want to do directly after finishing their studies, and what is their long-term career plan? Students are faced with several alternatives in their career choices, which are presented below:

1. an employee in a small business (1-49 employees);
2. an employee in a medium sized business (50-250 employees);
3. an employee in a large business (> 250 employees);
4. an employee in a nonprofit organization;
5. an employee in academia;
6. an employee in public service;
7. a founder working in my business;
8. a successor working in my parent business;
9. a successor working another business;
10. other/do not now yet

We reported the career paths of the students in our sample right after completion of their studies (blue bars) and 5 years later (red bars) as below (Fig.6). The first six options illustrate career paths as an employee, whether it is in the private sector, in the public sector, academia or in a non-profit organization. Directly after studies, the most preferred options are “An entrepreneur working in my own company – 27%” and “An employee in a large company- 18%”. Referring to five years later, we see that attractiveness toward entrepreneurship increases significantly – 45%.

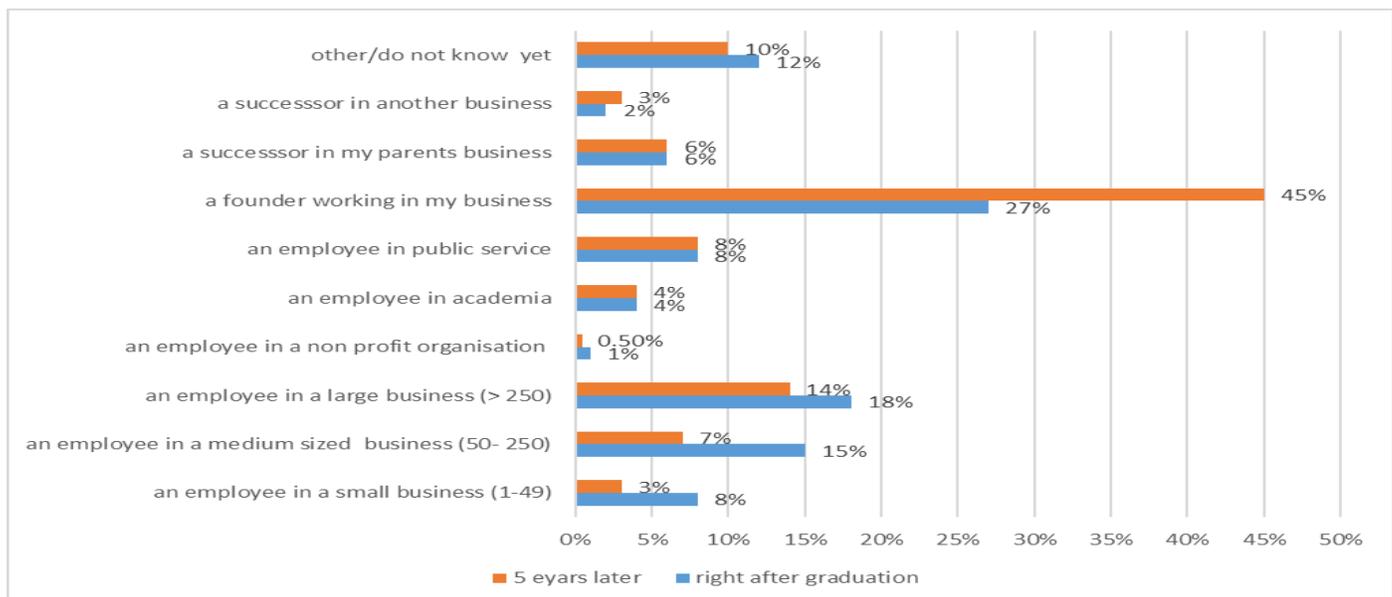


Figure 6: Career choice intentions right after graduation / 5 years later

We grouped the different career options into “Employee”, “Founder”, and “Successor” and “Other”. 53% of all students intend to work as an employee right after studies; 5 years later, this is true for only 36%. Almost all “short-term employees” who want

to leave employment after a few years intend to become founders. These findings approve the consistence of the pattern “first employee, then founder”.

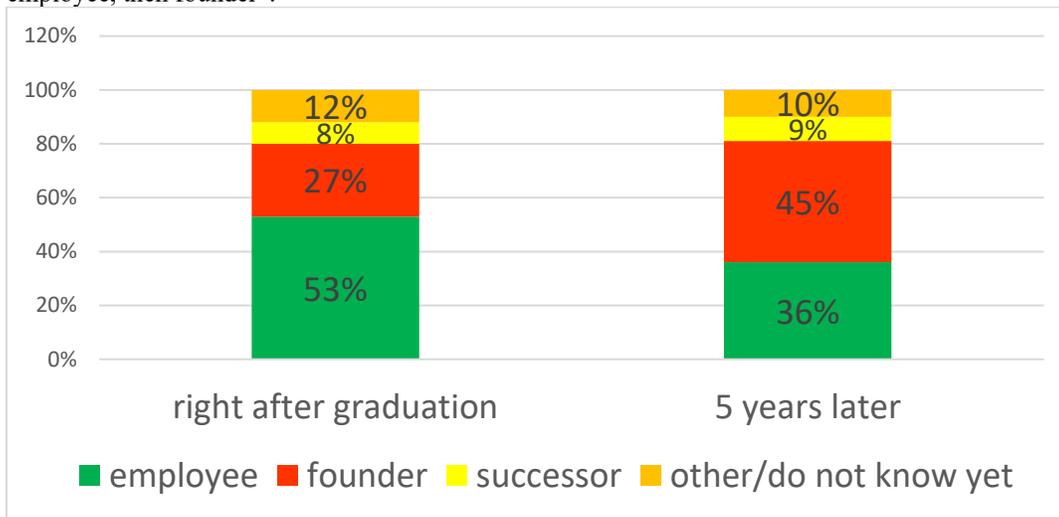


Figure 7. Different career options grouped into “Employee”, “Founder”, “Successor” and “other/do not know”

If we compare the results of Albania with those of GUESSS 2021 (Sieger, Raemy, Zellweger, & Fueglistaller, 2021) the career goals in relation to entrepreneurship of Albanian students are over the mean. Albanians tend to be more founders compare to GUESSS Global Report, after the completion of studies with 27 percent compared to 17.3 percent from GUESSS. After 5 years, Albanian have 45 percent compared to 32.3 percent from GUESSS Global Report -2021.

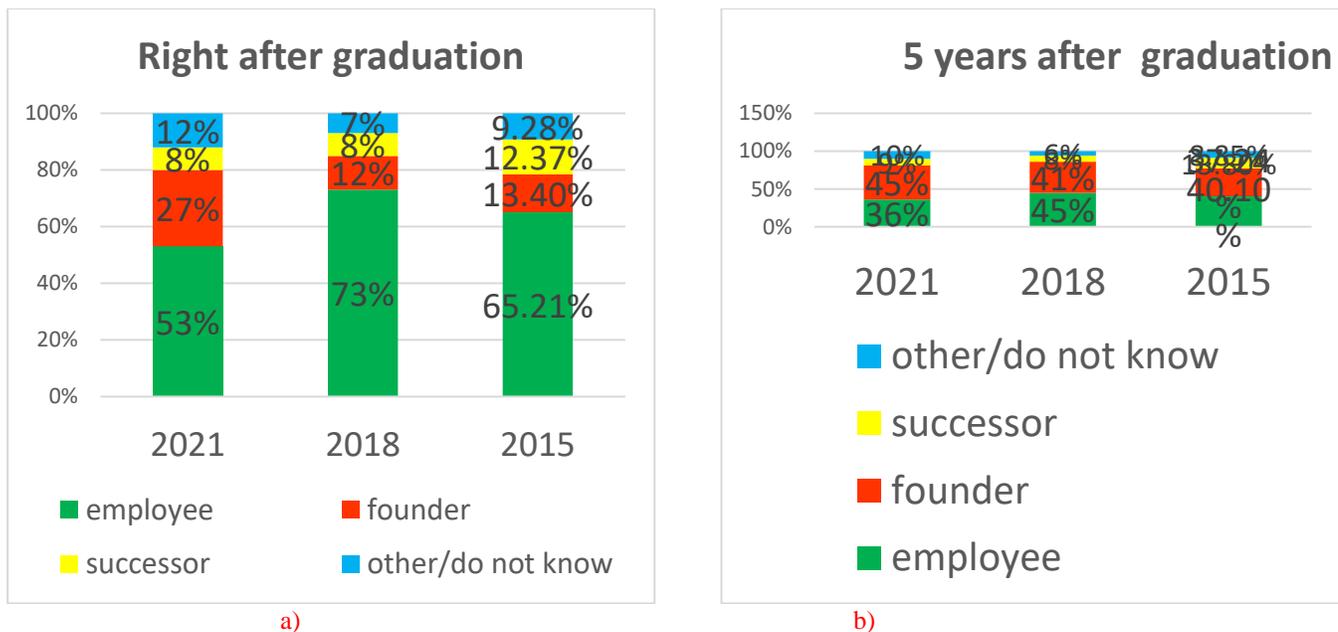


Figure 8. Comparisons of different career options grouped into “Employee”, “Founder”, “Successor” and “other/do not know” – year 2015/2018/2021

If we compare the career choices in 3 years which the authors of this paper have data 2015/2018/2021, we note that immediately after graduation Fig.8.a. for 2021 we have an increase in the percentage of students aiming to be entrepreneurs. Also, important is the percentage of students who are not clear about their choice in 2021, immediately and 5 years later. If we refer to the graph of fig. 8.b. There is a proportional increase from one year to the other in the choice of entrepreneurship as a career, while the uncertainty in "Other / do not know" increases from 6% in 2018 to 10% in 2021. Referring to 2015, it is evident that the number

of students who want to be a follower in the family business is important, over the years it seems that students aim more and more to establish their own business.

The university context is one of the four factors of the Ajzen model (Fig.1) that influences career choices and student entrepreneurship goals. The university courses raise some attitudes and the overall entrepreneurial intention and that inspiration - a construct with an emotional element - is the university's most influential benefit (Souitaris et al., 2007). Students are faced with 5 alternatives:

- I am studying a specific program in entrepreneurship;
- I have attended at least one compulsory course in entrepreneurship during my studies;
- I have attended at least one elective course in entrepreneurship during my studies;
- I did not attend any entrepreneurship courses;
- I chose to study at this university mainly because of the firm reputation of the entrepreneurship.

According to the data collected (fig 9), 41 % of students did not attend any course on entrepreneurship so far, 14 % of them have attended at least one entrepreneurship course as elective, 12 % attend at least one entrepreneurship course as a compulsory course and studying in a specific program of entrepreneurship - 15% and 44 percent study at this university because of the good reputation on entrepreneurship.

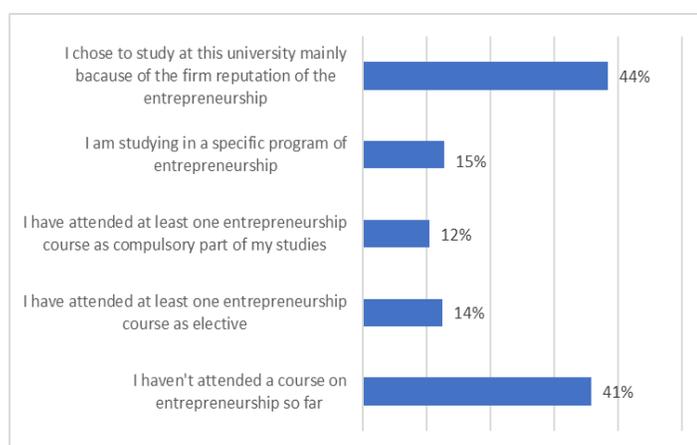


Fig. 9. Attendance of entrepreneurship courses.

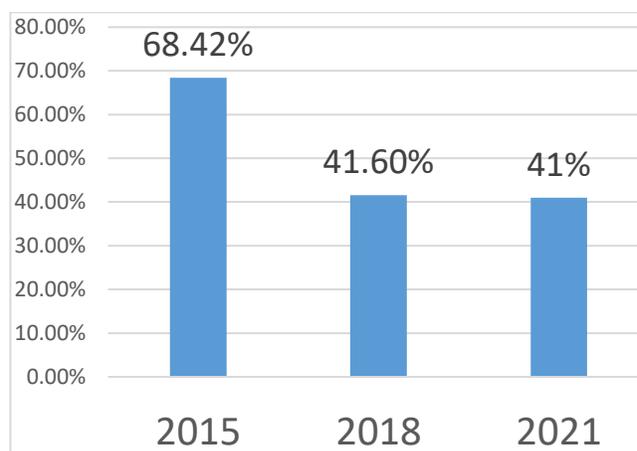


Fig.10. Nonattendance of entrepreneurship courses

Figure 10, presents a comparison regarding the alternative "I did not attend any entrepreneurship courses", between the years 2015/2018/2021 which clearly shows the reduction of "non-attendance" from 2015 to 2018. It should be said that in 2015 there was several changes in higher education and due to the entry into force of the new Law on Higher Education² in the Republic of Albania based on the reform undertaken by the Albanian Government. Universities have made efforts to encourage students in creating startups, their enterprises and have approached pro-cooperation with business and this is one reason to choose the university, as evidenced in Fig.9.

In the GUESSS report for 2021 (Sieger, Raemy, Zellweger, & Fueglistaller, 2021) we find estimated "the university climate" for Albania, through the Likert scale from 1-7. It is noticed that the average is 4.4 / 7 (graph 11) indicating that the climate in the university has room for improvement to be more focused on motivating students' entrepreneurial goals. It should be noted in fact that the average "university climate" is at the same value - 4.4 and for GUESSS Global Report 2021 (Sieger, Raemy, Zellweger, & Fueglistaller, 2021).

²<https://www.parlament.al/Files/ProjektLigje/20181212114134ligji%20ekzistues%20per%20arsimin%20e%20larte%20ne%20RSH.pdf>

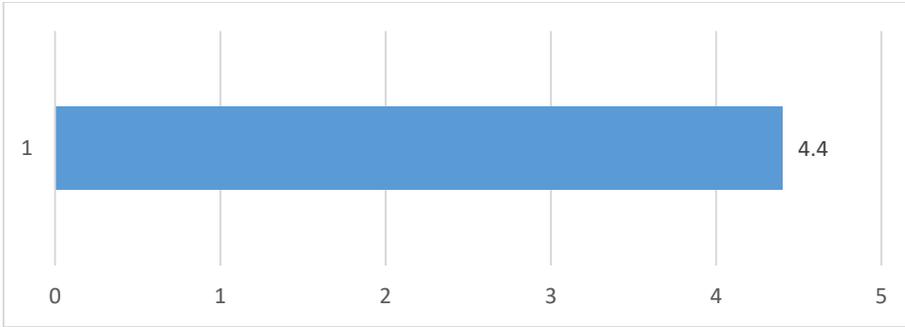


Fig. 11. The university climate

We were not only interested in students’ attendance of entrepreneurship classes and in their perceptions regarding the entrepreneurial climate at the university, but also in how much they have been learning at the university with regard to entrepreneurship. They were asked to indicate the extent to which they agree to a few statements about their learning progress during their studies. Students are asked to indicate how much they agreed with the statements below, with a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) (Fig. 12). The five questions start with “My University...” against the following alternatives:

1. ... have enhanced my understanding of entrepreneurs’ attitudes, values, and motivations,
2. ... have increased understanding of the actions to be taken to start a business,
3. ... have strengthened my practical management skills to start a business,
4. ... have enhanced my ability to build networks,
5. ... have increased my ability to identify a business opportunity.

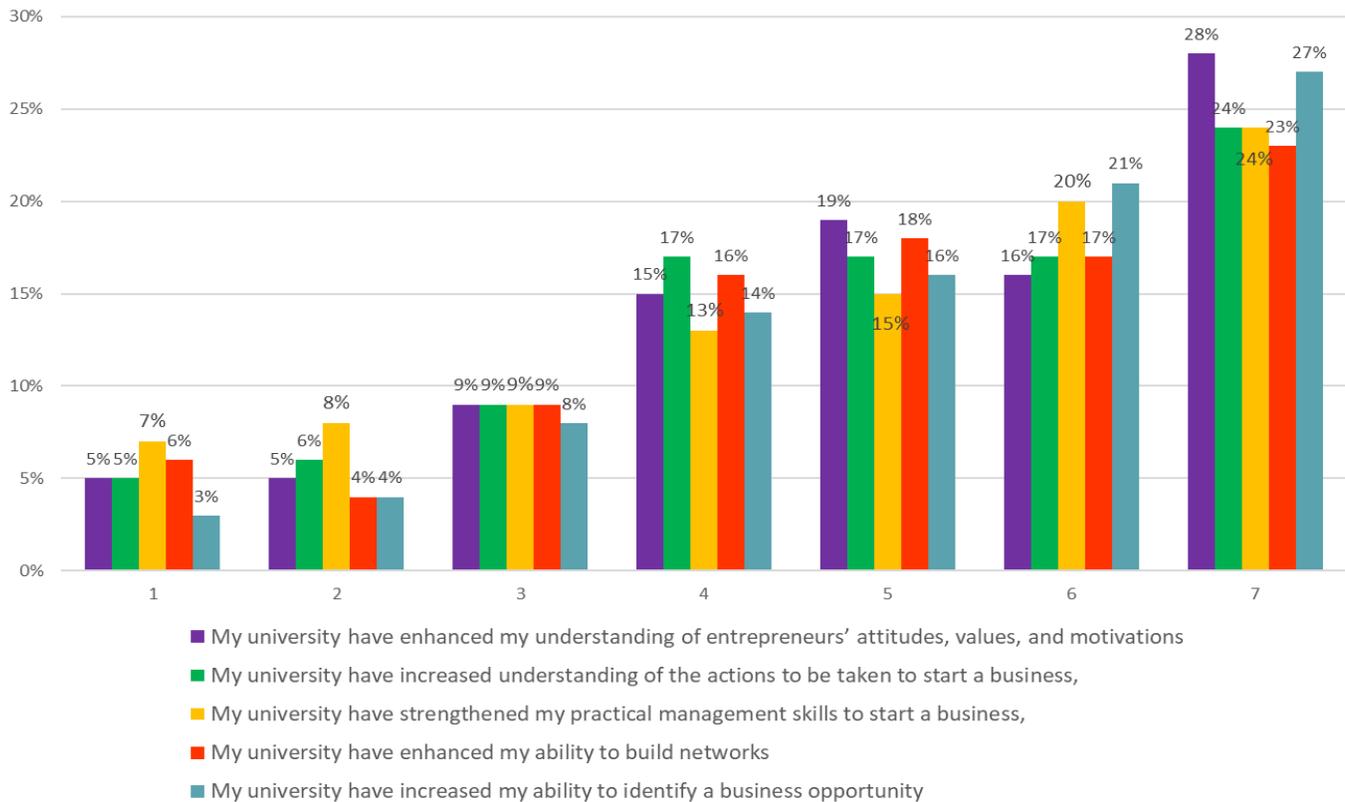


Fig.12 The role of the University in promoting entrepreneurship.

The graph of fig 12 shows that over 40% of students are "strong agree" and "agree" with the formulations presented above, showing how important they perceive the role of the university in which they study to promote their entrepreneurship.

The *entrepreneurial climate* within the university was then explored through the following questions (with a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree)):

1. The atmosphere in the university inspires me to develop ideas for new businesses,
2. The university has a favorable climate for becoming an entrepreneur,
3. At university students are encouraged to engage in entrepreneurial activities,

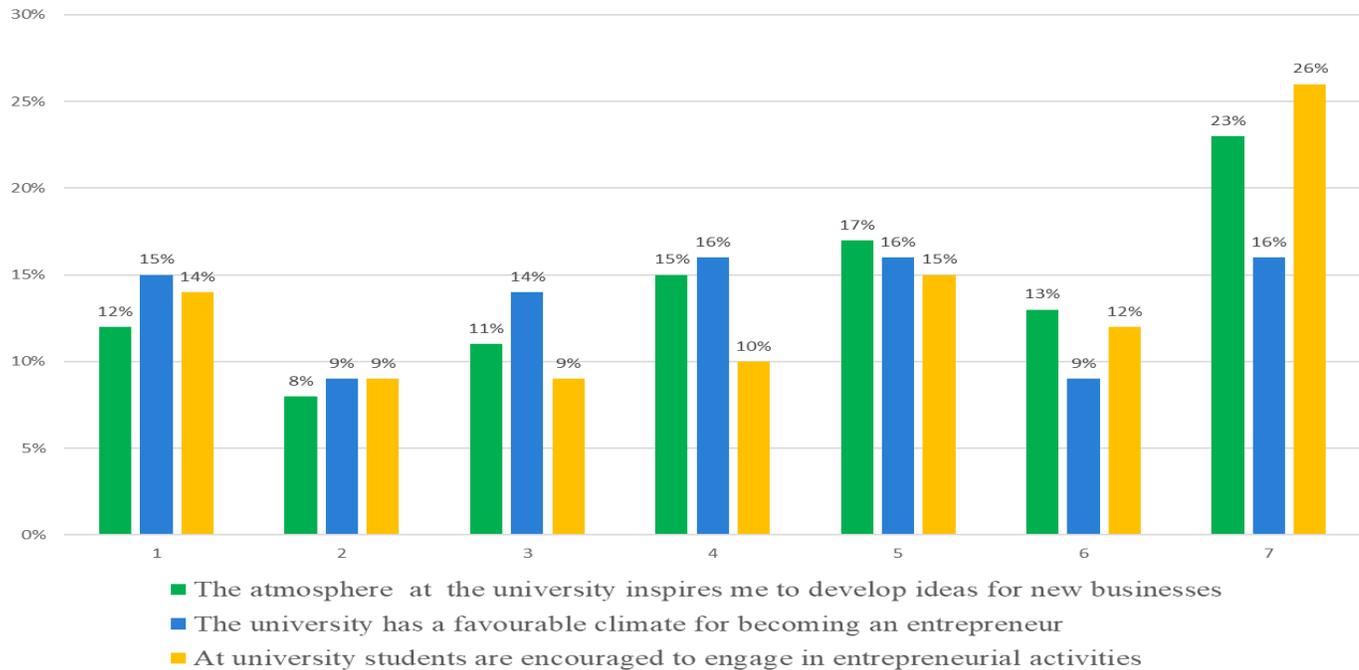


Fig. 13. Students appraising the University Environment as conducive to Entrepreneurship

In the graph of fig. 13 it is assumed that we have a distribution of responses from "strong disagree" to "strong agree". For the three alternatives presented above, the answers "agree" and "strong agree" range from 25-38%, while the answers for "strong disagree" and "disagree" range from 20-24%.

We were not only interested in students' attendance of entrepreneurship classes and in their perceptions regarding the entrepreneurial climate at the university, however we are interested in the opportunities that the university provides, collaboration with industries, the sustainable development, the green economy etc. The students were asked to indicate the extent to which they agree to the following statements, with a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) (fig.14). These statements started with - My university:

- 1 ... developing green practices to mitigate climate change;
- 2 ... improves, develops and supports the innovation development, entrepreneurship;
- 3 ...cooperating with the authorities and firms in order to provide employment for the students;
- 4 ... students must have participation, representation and voice in the university decision makin
- 5 ...improving the knowledge and skills in order to promote stable development
- 6 ...provides for the students, the same approach in front of the education

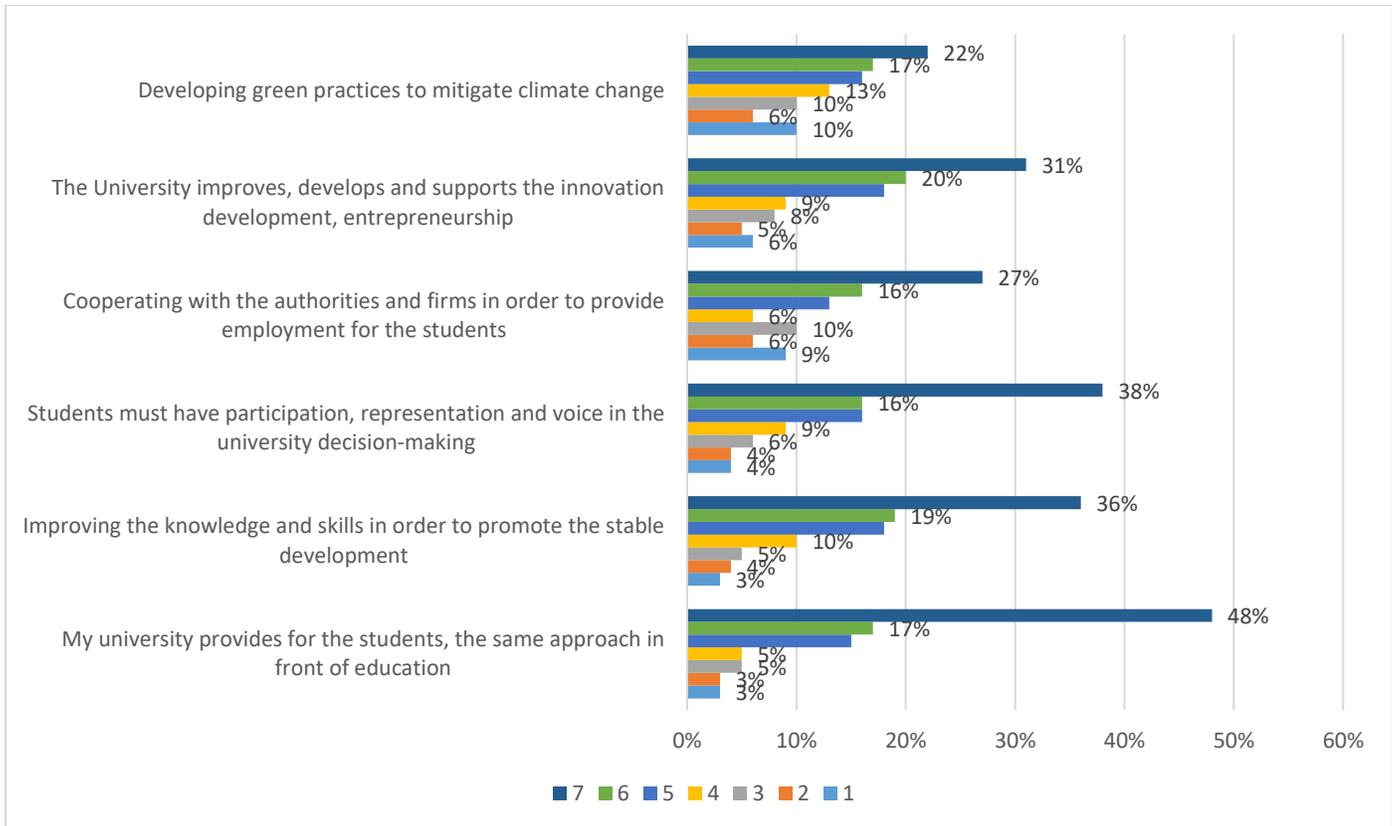


Fig. 14. The university opportunities

If we refer to Fig.14, the distributions show that in the perception of students Albanian universities create good opportunities regarding the alternatives that are offered, the answers "agree" and "strong agree" range from 39% to 65%. Distributions show that in relation to "developing green practices to mitigate climate change" and "cooperating with the authorities and firms in order to provide employment for students: there is room for more attention from university management staff.

5. Conclusions and Recommendations

This research paper presents and discusses a number of findings insights into students’ career choices and the role of the university in entrepreneurial intentions. In the following, we will highlight a few key conclusions.

-Starting a business is a conscious and very inspiring act of an individual, which is influenced by a number of factors. Ajzen's Theory of Planned Behavior lists the 4 most important factors in career choice and student entrepreneurial goals: Personal motivation; the family context, the economic and social context, and the university context. The GUESSS Project - Global University Entrepreneurial Spirit Students ‘Survey is also based on Ajzen's theory. GUESSS is organized and managed through a collaboration of the University of St.Gallen and the University of Bern. The GUESSS 2021 edition was attended by 58 countries, including Albania.

-The results of the choice of career and entrepreneurial goals confirm a central and stable pattern “first employee, then founder. There is an increase in the number of students intent to be founder, immediately and 5 years after graduation, comparing the years: 2015, 2018 and 2021. The career goals in relation to entrepreneurship of Albanian students are over the mean of GUESSS Global Report 2021 (27% versus 17.3% after graduation and 45% versus 32.3% - 5 years later). The comparison of career choices for the years 2015/2018/2021 also shows an increase in the uncertainty of young people expressed in the alternative "Other / do not know", which goes from 6% in 2018 to 10% in 2021, uncertainty which It is worth studying starting from a series of social phenomena that are accompanying the apparent emigration of Albanian youth.

-Entrepreneurship education and the entrepreneurial climate at the university are key determinants of entrepreneurial intentions and activities. Our research shows that the university environment in general and entrepreneurial learning at the universities, in particular, seems critical especially related to the low extent of entrepreneurship related courses attendance. The role of the

university and the university opportunities look more positive compared to the entrepreneurial climate assessment. The university climate in general and entrepreneurial learning at the universities in particular seems to be improved (mean 4.4/7)

- The share of students who have not attended an entrepreneurship course is decreasing from 2015 to 2018 and remains almost unchanged in 2021

Based on those findings, we present a few key recommendations to different stakeholders.

Our findings illustrate the crucial importance of universities in the development of entrepreneurial intentions. We call for more, wider and better entrepreneurship education offerings, encouragement of start-ups and policies and the environment.

As a general message for students, we encourage them to explicitly consider an entrepreneurial career path. We believe that everyone should ideally consider if creating an own firm or taking over an existing one is a viable option that matches one's skills, motives, and general preferences. As universities more and more offer entrepreneurship-related courses and lectures, we encourage students to attend them to be better able to evaluate entrepreneurship as a possible career path.

For researchers, we encourage them for further studies to understand the impact of the pandemic on student career goals and especially on entrepreneurial intentions.

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CHALLENGES OF CONTEMPORARY EDUCATIONAL LEADERSHIP IN NORTH MACEDONIA

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Abstract

Looking back several years, when discussing and debating education, great interest is placed on its quality. The interest in improved quality is influenced by the increased awareness and culture of the people, starting from the authorities in the Ministry of Education and Science, employees of educational institutions to parents and students.

An important step forward for better education institutions is globalization whose primary goal is to improve people's quality of life by acquiring broader knowledge's, forming positive attitudes, creating good habitués and mastering new skills. It also attracts great disagreement among intellectuals about the division of positive and negative attitudes. In addition, it is necessary and inevitable to influence and guide the leader by bringing a positive climate and achieving better education for future youth.

In this paper, based on the above facts, we will analyze the pros and cons of globalization in society, the challenges facing contemporary leaders and the impact of globalization on educational institutions. Using the survey questionnaires that were distributed in the schools in the two sites of North Macedonia (one in western and one in eastern part of the country), it will be analyzed how much global trends are present in the schools or how the contemporary leader manages the educational institution.

Keywords: global trends, globalization, challenges, educational institution, leader

1. Introduction

Each coming period brings with it new changes and challenges. Whether it was positive or negative, acceptable or unacceptable to us. But, in spite of that, it is in the nature of every human being to hope and strive for something better. Thus, with the advent of the modern 21st century, in recent years a great deal of emphasis has been placed on the corresponding globalization in society. A new notion or a new process, which brought divided thoughts in the society.

According to more optimistic and modern views from a cultural point of view, globalization (global trends) has the task of creating a process that will bring improved harm. To be an example of a driving force and a creator for adapting the various possibilities, benefits and values in a new culturally socialized transformation. A transformation that would work on removing the mental barriers to people and accepting the different cultural world (Cheese P. Tomas R. Craig E., 2008). Opening a new cosmopolitan view of a society that will be equal for all.

On the other hand, the thoughts of many estimate that with such a fast pace of exchange of goods and information, the long cultural heritage of the people themselves would be lost. The introduction and exchange of technology, experience and foreign products have as much a positive effect in the competition, as they have a negative effect by contributing to falling prices and values in the domestic market (Fortain *et al*, 1995).

To increase the positive and reduce the negative effects of globalization, many analysts have concluded that educational institutions should be a good starting point. Starting from where, teachers could start encouraging and educating children about the beginning of their faith and support.

Therefore, the education system in recent years can boast of new changes called global trends. New innovative trends in educational institutions that will have the task of opening new paths for acceptance and understanding of a rapidly growing culture.

New global trends with their own challenges and challenges that teachers, and above all leaders, must face and contribute to their effective and sustainable application. The modern educational leader must be a person who will work diligently to modernize the institution, as well as encourage and support it.

2 Theoretical approaches to the problem of research

To be a part of today's dynamic and global education, and above all a leader, at the same time presents a privilege but also a huge challenge. A world that will suffer for the connection of all peoples and states, regardless of whether they are powerful, rich and weak, famous or poor. To equip the students with the necessary skills for the use of the new science and the new technical achievements. Belief as a key factor in communication, the development of creativity, research, decision-making through the decision (Rizvi & Linger *et al*, 2001).

The leader who is in charge of the managerial function has the main responsibility to deal with this new modern globalized time. The most important thing would be to use his power and his influence which will create a positive climate for his employees. And the educational practitioners with his help will be able to find and maintain new educational goals (Rizvi & Linger *et al*, 2001). Objectives, whose task will be to support the public in young people for the importance and development of citizens and democrats.

2.1. Global trends (globalization)

Globalization and technological development continue to take place at a rapid pace in countries around the world. They influence the nature of the workplace and the profession, as well as the vision and character of the skills they seek. These changes due to their structure can also cause unemployment in certain areas and a larger inequality. These are the challenges in creating the new architecture of economic development and education. If these challenges are accepted and if the planned change is implemented, then new opportunities will arise.

Vocational education and training is a system that is affected by the global transfer processes, which have a great influence on the Republic of Macedonia. Technological innovations cause rapid changes in the type of workplaces and the content of the work in the national economy, with permanent benefits. The complex of the demand for new skills on the labor market imposes new and flexible changes in the structure, organization and structure.

An important step forward for better education institutions is globalization, whose primary goal is to improve people's quality of life by acquiring broader knowledge's, forming positive attitudes, creating good habits and mastering new skills. It also attracts great disagreement among intellectuals about the division of positive and negative attitudes. In addition, it is necessary and inevitable to influence and guide the leader by bringing a positive climate and achieving better education for future youth.

In this paper, based on the above facts, we will analyze the pros and cons of globalization in society, the challenges facing contemporary leaders and the impact of globalization on educational institutions. Using the survey questionnaires that were distributed in the schools in center parts of North Macedonia, it will be analyzed how much global trends are present in the schools or how the contemporary leader manages the educational institution.

Globalization and global trends in education begin as early as one and a half decades after the recommendations of Resolution 1318 (Harman C. Breaded *et al*, 2000). The program for the Global Education for the Threatening of Public Criticism to the Citizens was presented and promoted on that council.

In view of this and in our education, globalization has begun to be treated as an important tool in the practice of quality education.

2.2. Global education

While global learning cannot be achieved without specialist knowledge, the acquisition of knowledge is not its goal. Global learning is defined as comprehensive, anticipatory, participatory, superimposed on a person, citation, based on caution. It is a kind of learning aimed at problems, based on self-motivation and unusual labour.

Global education aims to alleviate tensions, especially those that arise as the subject of contact, between (Harvey *et al*,1996):

- Globalization and local action potential
- Complexity and the inevitable overstatement
- life experience, universalization and individualization
- Insecurity and the need for security
- the future orientation and preservation of historically established events and processes
- Acquisition of knowledge and development of social competencies

2.3. Pedagogical Challenges of Global Education

Teaching and learning about global issues in formal education raises important pedagogical challenges, as shown below (Whitaker *et al*, 1995):

- How can global education design meaningful school projects that focus on local-global interaction, but not the other way around?
- How can a balance be struck between resorting to "conventional" methods based on traditional pedagogy and new methods?
- How much time can be allocated to global education in school programs?
- These challenges should be considered in relation to what is related to school activities, including teaching materials, counseling and training.

We hold the view that in many of its cases of good practice, global education, proves its reform potential and that as far as education is concerned, not just one pedagogy, but different pedagogies adapted to specific contexts. In this way, cultural and political pluralism as a global educational principle is shown in school practice as a pedagogical pluralism. This is exactly the pedagogical pluralism that must be given to the students in the definition of the programs and the specific activities.

Global education as a broad intervention tool should be promoted in a separate learning environment, which heals the stagnant development of the senses of the curious and the pleasure of discovery and enables the acquired knowledge to be known.

3 Research questions

The subject of this research will be the accepted and represented of the global trends (globalization) in today's education. What is global education, its methods and goals, more specifically how today's leaders can influence the changes and challenges and their names.

- The research was directed and guided to the following aspects:
- Determination of the accepted and represented of the globalization in the schools in RNM
- The attitudes of the teachers (practitioners) related to globalization, challenges and leadership in the schools in Velec
- The attitudes of the principals (leaders) related to globalization, challenges and leadership in the schools in Velec

3.1. Objectives of the research

The objectives of this study will be to establish the characteristics of the new approaches to global education that need to make a transformation of the colors of our social life, namely:

- Creating health, security, a democratic environment and opportunities for learning and development of all students
- To strengthen the overall work of the global education for the development, improvement and maintenance of strategies on the floor of the building.
- Raising the European education level for global challenges and solidarity through modern education programs
- To enable the global education of young people to become an intercultural dialogue of the diverse who will understand the social, ecological, ecological.
- The role of education to become a positive force in the prevention of ethnic, religious and linguistic prejudices.
- Raising and accepting the European identity, without changing the specific identity
- To motivate teachers and students through innovative programs and practices to build and demonstrate developmental alternatives for their personal development, cultural choice for better functioning
- To create internal policies, procedures and instruments and to ensure the free and constructive inclusion of students in the life of the school
- Encourage them to strategically consider and build a vision for better personal and team development
- . Young people should start to think critically and become more aware of their activities which may have an impact on the change for the right and the right.
- To anticipate and enable better living conditions together

4 Research methodology

The basic method in this pedagogical research is the analytical-descriptive method.

First of all, the technical analysis of the documentation was used, during which the reports from the international scientific and political collections were analyzed, as well as the contents of the table. His predecessors, weaknesses, possibilities and threats. In the same way, the analysis of the documentation for specific models for the development plans of the education, educational strategic plans, functions is performed.

4.1. Population and sample of research

The population in this research is closed, and here fall the principals and teachers in five primary schools in the town of Velec and around. The sample of principals from these schools was appropriate, the views and opinions of the two principals from each school were taken, the last one and the previous one. The sample of teachers is by random selection from the listed schools. After 10 copies of the questionnaires were sent to each of the listed schools. Teachers from each school fill in the teacher questionnaire.

4.2 Variables of research

The independent variables in this research, the views and opinions of some of the previous directors, as well as the current directors, recently teaching global education and keeping the modern leader up to date with the new educated challenges. The depend variables in the research are the established characteristics of the global education and the preservation of the current leader in the new education challenges in the schools in Veles.

4.3. Hypotheses of research

The following hypotheses are analyzed in this research paper:

1. What is the extent of global trends in the Republic of Macedonia? Macedonia (analysis of several schools in the city of Veles)
2. How the current leader of the educational institution can help with the preservation of the new challenges in the educational system, later with the management of the educational institution (surveyed previous and current principals and surveyed teachers)

5 Results and discussion

Analyzing the society that is developing at an enormously high pace and the educational institutions faced with the new challenges that preceded them, introduces various innovations in technology, set inter-ethnic and intercultural standards to improve effective and quality education for the future.

Starting from here, the main goal of this research was the analysis of the meltdown of global trends present in the schools in the Republic of Northern Macedonia. That is, as the current leader of the educational institution can help with the maintenance of the new challenges in the educational system with the management.

Surveying questionnaires were created for conducting the research, grouped into five, ie six levels containing 15-20 questions, and were divided into 60 respondents from different categories of working experience employed in educational institutions in the city of Velec (located in the central part of the republic). In view of the working position of the respondents during the analysis and processing of the results, no statistical operations were performed.

The questionnaire contained questions according to which the views and opinions of the directors and teachers could be considered. On the characteristics of global education in the republic of North Macedonia the global trends, but especially the open-ended questions, where the respondents have the opportunity to intervene.

Material satisfaction with material loans and equipment in all five schools is satisfactory in a certain measure, where there are opportunities to practice or apply certain activities that will contribute to the advancement of global education.

All respondents, both principals and teachers, believe that the power and influence of the leader in the educational institution can bring a lot of success.

They also share a similar view that the character of a leader is of great importance for managing the school itself by taking and practicing courageous actions that will motivate employees to work on the basis of strong values.

Who are aware that in order to motivate and motivate the employees, it is necessary to create a good climate that will result in cooperation and teamwork between the employees, creating conditions for accepting and implementing global changes in the schools as well as identifying reforms.

Only 30% of the participants are well acquainted with the term global education, while among the teachers we still have a grade point average of 70%.

The survey questionnaires intended for principals and teachers were identical. Divided into five parts, ie six parts in the questionnaires for principals, because they as leaders of the institution itself had to emphasize their views on the climate and professional development of school staff.

In the first and general part, in addition to the years of work experience and the years of experience as a principal in that school, they had the primary and important task to answer whether they are familiar with the term "global education" and list some basic features of global education.

Well, according to the answers to that, how many practitioners, starting from directors, are known by the term "global education", the percentages of the answers were disappointing.

6 Conclusion

We should point out that a large percentage of directors organize trainings for professional development of employees. However, it would be desirable for some percentage to increase the realization of such trainings related to the progress of the employees in the school.

At the same time, parents and students receive active involvement and democratization in the teaching process for contributing to mutual benefits.

With the conducted research on this topic for the coverage and acceptance of global education as well as the ability of the leaders in the educational institution, we can state with sufficient satisfaction that we enabled the practitioners in the schools to analyze and check their views, understandings, reflections and practices on the listed topics and challenges that are already deeply ingrained, both in everyday life and in educational work in schools (Marushic *et al*,1994).

The solid descriptions that are given can define that in the surveyed schools the characteristics and trends of the global education are close, but it is also contradictory that where and despite their application, some of the directors and teachers are not recognized by the term globally or they are not informed that the innovations introduced in education fall into the global education, or are part of the global education.

Especially important and emphasized in the answers is the positive attitude that for the development of globalization in the schools, along with the principals, teachers, students and parents provide a rich source of information through creative, interactive and dynamic methods.

Based on this, this paper should be a starting point and a small contribution to a better understanding of the terminology related to global education in these schools, because given their answers we can see that the participants and practitioners themselves apply the global methods in their schools and are not sufficiently aware or familiar with it.

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Designing Specific Language Tests for Negotiating English and German in the Thai Context

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Abstract

The main purpose of this study is to shed light on the concept of how second foreign language (L2) and third foreign language (L3) can be compared for foreign language studies in Thailand. In this regard, Negotiating English and Negotiating German are focused and examined regarding a comparative study in the context of non-native speakers, specifically in Thai context. The following aspects are considered: 1) How to design specific language tests for *Negotiating English and Negotiating German* in the Thai Context? 2) How to relate the cultural skills to the language skills for cross-cultural communication? It is suggested in this study that comparing the knowledge of German with what learners have learned previously, namely the knowledge of English, can enhance the competence of learners to their fullest potential when learning German. In terms of test design, two tests of both English and German which consist of five parts: 1) Language functions; Part; 2) Setting objectives; Part; 3) Making a proposal and a new offer; Part 4) Dealing with problems, compromising, and finding solutions; and Part 5) Closing the deal are used. However, only the part for *Dealing with Problems, Compromising, and Finding Solutions* is discussed in this paper. Some practical recommendations are provided to foreign language teachers concerning producing others related materials and effective language pedagogy. Additionally, the writer also provides guidance how to create a test in relation to cultural aspects when teaching negotiating across cultures.

Keywords: Test, Negotiating, English, German

1. Introduction

When considering the situation of foreign language learning in Thailand and in many countries, learners may transfer the previously gained knowledge (English) and relate their learning styles, experience, obstacles or problems to their learning of other foreign languages to acquire the third language effectively and efficiently. In this regard, relating the knowledge of learners to their previously gained knowledge may enable them to learn successfully. Prior to German, it is obvious that Thai learners learn English as a first foreign language (L2). Thus, comparing the L3 knowledge (German) with the L2 knowledge (English) can be an efficient learning strategy as these two languages have some language features in common which will cause learners to find some similarities for their language studies.

To enhance the English proficiency of students, Khon Kaen University in Thailand has launched the new policy in terms of using English as a means of instruction. This means that some courses taught in English should be offered to students to prepare themselves for the workplace. To reinforce this notion and to support the policy, the Faculty of Humanities and Social Sciences as one of the organizations attached to Khon Kaen University also planned to organize a training course for the lecturers to provide insight into the concept of English-medium teaching and how to design a course when being taught in English. Inevitably, the lecturers of the Language Programs (French, German, Spanish, Japanese, Chinese, and Korean) are expected to provide some courses taught in English to foster the ability of students as well as to develop the competence of students to their fullest potential.

Apart from this, the era of globalization entails cross-cultural and transnational communication. Global communication does not merely require global language but also the cultural sensitivity which includes cultural awareness (recognizing differences) and cultural flexibility (overcoming ethnocentricity). The writer as a German lecturer has considered the situation of the job search process in Thailand that graduates who majored in German language have to encounter the requirements in the job announcements that they have to possess good command of both English and German. Without English proficiency, the recruiter

may not offer a job to them. However, German can be advantageous for their success in terms of job application. In other words, these two languages can complement each other to lead graduates to succeed in their future career.

2. Review of the Literature

In relation to the concept of teaching foreign languages for specific purposes, Dudley-Evans and St John (1998) mention that English for Specific Purposes (ESP) has become a vital and innovative activity within *the Teaching of English as a Foreign Language Movement* (TEFL/TESL). For much of its early life ESP was dominated by the teaching of English for Academic Purposes (EAP); most of the materials produced, the course descriptions written and the research carried out were in the area of EAP. English for Occupational Purposes (EOP) played an important but nevertheless smaller role. However, the massive expansion of international business has led to a huge growth in the area of English for Business Purposes (EBP).

(Dudley-Evans & St John, 1998)

In recent years, the concept of ESP has been related to teaching other foreign languages when considering the situation of teaching foreign languages in Thailand.

Specifically, the comparative study in this study between English and German for specific purposes should be conducted in the context of non-native speakers.

In this regard, Hufeisen (2010) mentions the role of L2 for L3 learning as follows:

Beim Lernen einer zweiten Fremdsprache tritt nicht nur eine weitere Fremdsprache hinzu, sondern das Lernen einer Fremdsprache wiederholt sich und bedeutet den erwähnten *qualitativen* Unterschied zum Lernen einer L2.

[...] Erfahrungen mit dem Lernen der ersten Fremdsprache können auf das Lernen der zweiten übertragen werden (wenn sie sich z. B. als gut funktionierend und erfolgreich erwiesen haben) oder völlig vermieden werden (wenn sie beispielsweise als ungeeignet empfunden wurden); Vergleiche zwischen den Lernprozessen und/oder den Sprachen können helfen. Der gezielte Einsatz bestimmter Lernstrategien bei typischen Fremdsprachenaufgaben [...]

(Hufeisen, 2010, pp.20)

From the citation, English as L2 can affect L3 learning. Learners may transfer the previously gained knowledge and relate their learning styles, experience, obstacles or problems to their L3 Learning to acquire the third language effectively and efficiently.

To place an emphasis on this study, Hufeisen & Marx (2007) conduct a research on how DaFnE and EuroComGerm can contribute to the concept of receptive multilingualism. In this study, they stress the role of English (L2) that it can have a great impact on learning German:

Researchers in DaFnE (Deutsch nach Englisch = German L3 after English L2, third-language acquisition / tertiary language learning) and specifically in *EuroComGerm* combine the concept of receptive multilingualism with the idea of the polyglot dialogue or plurilingual discourse in order to assist communication among EU citizens. They study linguistic processes which underlie such communication patterns and search for methods to prepare and enable speakers/hearers to tackle this challenge.

(Hufeisen & Marx, 2007, p. 308)

Similarly, Watcharakaweelip (2015) studies *Teaching German through English in the Thai context*. He focuses on the topic *Telephoning* in his study based on the concept of Content and Language Integrated Learning (CLIL). In this study, he compared the language expressions between the two languages as follows:

German

Was kann ich für Sie tun?
 Ich möchte bitte mit Herrn Kümmel sprechen.
 Würden Sie mich bitte Frau Klein verbinden?
 Ich verbinde Sie.
 Frau Schön ist nicht im Haus.
 Ich rufe sie nochmal an.

English

What can I do for you?
 I'd like to talk to Mr. Kümmel.
 Would you connect me to Mrs. Klein?
 I'm connecting you.
 Mrs. Schön is not in the office.
 I'll call you again.

(Watcharakaweesilp, 2015)

From this study, it is obvious that comparing vocabulary of the two languages can foster the language skills of students.

In terms of global business transactions, it is suggested that intercultural sensitivity can be improved by recognizing *contextual differences* as noted by Bovee, Thill & Schatzman (2003):

“In a high-context culture such as South Korea or Taiwan, people rely less on verbal communication and more on the context of nonverbal actions and environmental setting to convey meaning. A Chinese speaker expects the receiver to discover the essence of a message and uses indirectness and metaphor to provide a web of meaning. In high-context cultures, the rules of every life are rarely explicit; instead, as individuals grow up, they learn how to recognize situational cues (such as gestures and tone of voice) and how to respond as expected”.

“In a low-context culture such as the United States or Germany, people rely more on verbal communication and less on circumstances and cues to convey meaning. An English speaker feels responsible for transmitting the meaning of the message and often places sentences in chronological sequence to establish a cause-and-effect pattern. In a low-context culture, rules and expectations are usually spelled out through explicit statements such as “Please wait until I’m finished” or “You’re welcome to browse.” Contextual differences are apparent in the way cultures approach situations such as decision making, problem solving, and negotiating”.

Negotiating Styles

Canadian, German, and U.S. negotiators tend to take a relatively impersonal view of negotiations. Members of these low-context cultures see their goals in economic terms and usually presume the other party is trustworthy, at least at the outset. In contrast, high-context Japanese negotiators prefer a more sociable negotiating atmosphere that is conducive to forging personal ties as the basis for trust. To high-context negotiators, achieving immediate economic gains is secondary to establishing and maintaining a long-term relationship.

(Bovee, Thill & Schatzman (2003): pp.52-59)

In relation to *Language and Cultural Studies*, Dudley-Evans and St John (1998) also discuss using language for cross-cultural communication. A sensitivity to differences between cultures is necessary for successful business communications in matters such as the purpose of meetings, the use of direct or indirect negotiation tactics, the structuring of information or the use of politeness strategies in letters or meetings. Concerning the extent to which the language taught is appropriate for the context of a particular culture, language learners should decide what is suitable in a given situation, and understand how it will affect the language used. Class activities need to raise these issues in the preparation phase so that learners can decide on their approach and assess their communication accordingly.

(Dudley-Evans, & ST John, 1998, pp. 69-70)

This indicate that cultural aspects are important for negotiating in addition to the language skills to enable negotiators from different cultures to successfully negotiate.

Based on the literature review in this part, the insights gained from these previous studies can lead to the new teaching approaches and methods of conducting research which lies on the instruction in the context of L2 and L3.

3. Research Questions

Specifically, this study mainly focuses on the following research questions:

- 1) How to design specific language tests for *Negotiating English and Negotiating German* in the Thai Context?
- 2) How to relate the cultural skills to the language skills for cross-cultural communication?

4. Instrumentation

Specific tests and tasks based on the concept of a comparative study between negotiating English and German in the context of L2 and L3 were employed.

5. Designing Specific Language Tests for Negotiating English and German

Research question 1: How to design specific language tests for *Negotiating English and Negotiating German* in the Thai context?

When considering the situation of designing tests or materials in class for *Negotiating English and German*, the writer has designed his own purposive tests for *Negotiation* consisting of the following parts:

Part 1: Language Functions: Learners have to match the language functions with the sentences below.

Part 2: Setting objectives and arranging a meeting: Learners have to choose the most appropriate expressions to complete the conversation.

Part 3: Making a proposal and a new offer: Learners have to complete the conversation for successful negotiating situations.

Part 4: Dealing with problems, Compromising, and Finding Solutions: Learners have to complete the conversations by filling in the blank with an appropriate word that makes sense in the context of the situations.

Part 5: Closing the Deal: Learners have to choose the most appropriate answer to complete the conversation.

However, in this paper, only Part 4 (Dealing with problems, Compromising, and Finding Solutions) is illustrated and discussed and the following test is suggested:

Test in English

Instructions: Complete the conversations by filling in the blank with an appropriate word that makes sense in the context of the situations.

1. A: How should we go about making a final ...(solution).... ?

B: Well, I think we ought to investigate all of the alternatives and compare their advantages and disadvantages.

2. A: How would you deal with an urgent order?

B: As ...(agreed)..... in the contract, you will receive compensation in case of any delayed shipment.

3. A: We are pleased to inform you that there was a slight increase of 10% in our sales in the last year.

So, If you place your order today, I can give you a 10% discount. All prices include VAT.

B: I find this ...(acceptable)..... and please ship it as soon as possible.

Test in German

Aufgabe: Ein passendes Wort fehlt hier.

1. A: Wie können wir eine gute ...(Lösung)... finden?

B: Gerne würden wir über konkrete Einzelheiten mit Ihnen sprechen.

2. A: Ist Ihre Firma in der Lage, kurzfristig große Aufträge auszuführen?
 B: Wie ..(vereinbart).., versichern wir Ihnen, dass wir auch Ihre zukünftigen Aufträge zu Ihrer Zufriedenheit ausführen werden.
3. A: Alle unsere Preise verstehen sich zuzüglich Mehrwertsteuer. Wir rechnen fest mit dem Eingang Ihrer Zahlung bis zum 30. Oktober, wofür wir Ihnen schon heute danken.
 B: Das finde ich...(akzeptabel).. Würden Sie uns einen Rabatt von 10% geben, wenn ich den Vertrag heute unterschreibe?
 In dieser Angelegenheit komme ich Ihnen gern auf halbem Weg entgegen.

Purposively, this German test is designed based on the English test to enhance the ability of learners regarding the specific vocabulary and language expressions. It is obvious that the comparable and equivalent vocabulary for negotiation of the two languages is illustrated: (1 solution = Lösung / 2 agreed = vereinbart / 3 acceptable = akzeptabel).

To conclude, this example shows how to construct a test for negotiation in English and an equivalent German test. From the examples, learners have to complete the conversations by filling in the blank with an appropriate word in the situations.

6. Language and Culture

In this part, I would like to base my assumptions in relation to research question 2 (*How to relate the cultural skills to the language skills for cross-cultural communication?*) on the notion that speakers should learn to adjust the way that they speak when interacting with those who are from other cultures to facilitate successful communication and prevent or minimize communication breakdowns. This may further lead to discussion: *How can learners in Thailand use proper language when negotiating in the context of Thai culture and what do they have to consider when negotiating with people from other cultures?* In doing so, tasks for discussion activities in class are designed as follows:

Task 1: What do you have to consider when negotiating with people in your country?

Task 2: What can be some different aspects when negotiating with people from other cultures?

This can be useful for learners if instructors can relate the language test to cultural aspects. In this regard, learners in Thailand can recognize their own culture which is related to intercultural communication skills. In short, the communication competence cannot be ignored and should be enhanced to develop the competence of students to their fullest potential to enable them to compete with graduates from other institutions and countries.

7. Conclusion

I would like to conclude that it is important that language instructors should consider social, cultural and linguistic aspects based on the tests designed in this study as the insights gained in the various research studies discussed previously in the part of the literature review according to Dudley-Evans & St John (1998) and Hufeisen & Marx (2007).

Class instructor, researcher, and evaluator, may use or apply these suggested tests if he or she wishes to enhance the skills of learners in relation to a comparative study between the two languages. Apart from this, language educators also need to be aware and consider how they can challenge it by promoting curricula that allows all learners the opportunity to critically think about their environment, express their own views and identity in addition to the specific language patterns necessary for business communication.

In terms of language and culture, cultural technique (developing written / oral skill) and cultural exposure (studying other cultures) should be considered as crucial factors when using a foreign language to communicate across cultures as mentioned by Dignen (2011). When considering the situation in Thailand, it cannot be denied that teaching *Negotiating English and German* for Thai learners requires both language and cultural aspects if Thai negotiators have to communicate with people from other countries who have different ways of thinking. As non-native speakers, Thais may wish to effectively communicate with people from other cultures, but not necessarily like native speakers. In this regard, they need to learn how to possess cultural competence.

Once we can recognize cultural elements and overcome ethnocentrism, we are ready to focus directly on our intercultural communication skills. To communicate more effectively with people from other cultures, we need to study other languages and

cultures, overcome language barriers, and develop effective intercultural communication skills, both written and oral. For global business transactions, many companies recognize that they must be able to conduct business in languages other than English. Thus, the test design in this study can lead to new teaching approaches and methods of conducting research in the context of non-native speakers based on comparative studies between English as L2 and German as L3.

8. What practical recommendations can be provided to teachers concerning effective language pedagogy?

In relation to comparative studies between English and German, vocabulary for learners at the fundamental level should be taken into account. Specific term for business in English and German (according to parts of speech) should generally be illustrated to Thai learners to create general pictures in their mind and to enable them to compare their L2 with their L3.

The following are some examples:

Find the missing words and the comparable words between the two languages.

English	German
1) to make a decision	eine Entscheidung...(?)...
2) to solve this problem	dieses Problem ...(?)...
3) to find a solution	eine Lösung ...(?)...
4) Can we ...(?)... a compromise?	Können wir einen Kompromiss finden ?

Key: Item 1 = treffen / Item 2= lösen / Item 3 = finden / Item 4 = reach

Additionally, instructors may recommend some new commercial books or some relevant and useful websites based on comparative studies between English and German for business purposes.

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Future trends in Interior Architecture Pedagogy

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Abstract

The future of education is shifting towards the term of “21st Century Education”. Role of educator is shifting from teacher to facilitator; providing knowledges, inspiring creativity, encouraging critical thinking, and empowering the abilities of communication. With rapid changing world, the methodology of interior architecture pedagogy is undoubtedly require to adjust from design learning base to multidisciplinary and cross-disciplinary educations, where interior architecture educations can be obtained beyond traditional design. This paper analyses the traditional interior architecture education and identified the new pedagogy that can cultivate interior education with 21st century skills.

Keywords: Interior Architecture, 21st Century skills, Multidisciplinary, Cross-disciplinary.

Introduction

The inevitable changing world is the key accelerator to adaptability and agility. Education is one of the aspects that have been affected and essentially required to adjust to comply with the forthcoming 21st century educations. The objective of this paper is to identify the future trends in interior architecture pedagogy regarding the 21st century education concept that students can acquaint for lives, careers skills, and competencies they need to thrive in the forthcoming future.

Thailand has reformed its curriculum from content-based which emphasized on rote learning to standardize learning where one should be able to know and do in each subject (Oecd/Unesco , 2016). To direct the pedagogy towards the future, Thailand education system are planning to correspond with 21st century education ecosystem(Hugh Delaney, 2019). The concept of 21st century education is to prepare students to be able to respond to societal, economical, technological shifts. Educators are changing from knowledge giver to facilitator that provide curriculums that fosters skills and competencies; inspire and cultivate creativity, critical thinking, communication skills, technology skills, and mindsets. (T Wrahatnolo and Munoto, 2018)

Interior Architecture is consisted of several related subjects that affects the human beings and creatures. To be able to design decent interior architectures, one should understand the necessities and conditions of the projects; skills and knowledges are required to develop ideas to interpret into reality. To understand the projects, interior architecture designers or students require to research on histories, contexts, cultures, psychologies, constructions & laws, and other related aspects; synchronize the research with design theories, creativity, and technology abilities to generate the products. With many aspects to perform, interior architecture could be acknowledged as multidisciplinary curriculum. To improve design education, the introduction to cross-disciplinary learning can encourage and strengthen the ideas and possibilities of interior architectural designs and educations.

In response to multidisciplinary and cross-disciplinary pathway, personalized learning could be utilized for learning system. By applying the concepts of personalized learning, one can managed the ability to learn in favor to their times and places. The flexibility allowed students to have more independence; to be able to construct the management skills and active learning from themselves. Personalized pathway is the system that emphasized the core concept of 21st century education, where teachers generated curriculums that motivated progressive learners , teacher and learners co-created and discussed, and finally learner generated. (A. Zmuda B. Kallick, 2020). The system has accentuated 21st century skills; required basic knowledges and applied skills.

Methodology

The paper is described in 2 phases: scope of the paper and the frameworks that conducted the information. The scope of this paper described the setting of pedagogy in the next 20 years regarding strategic planning of department of interior architecture, Chulalongkorn University Thailand. The department has developed strategic planning for the next 20 years on pedagogy and foresee the importance of adaptation and improvements in pedagogy to keep pace with the constantly changing contexts.

The frameworks are conducted in this paper are based on megatrends scanning through the use of STEEPV analysis; STEEPV is an abbreviation for: Social, Technological, Economical, Environmental and Political. (Figure 1). Trend scanning are collected from research, surveys with Thai interior related professions that are based in Thailand, Germany, and USA. Surveys are also conducted from Thailand based interior designers, alumni, and professors/faculties from Department of Interior architecture Chulalongkorn University. Scanned trends have provided the possibilities of scenarios that predict the future of the interior architecture in both professional practice and education terms. Scanned trends are assigned into baseline future tables by using the impacts x uncertainty matrix; the matrix is the process of arranging trends regards to importance and possibilities that could affect future scenarios in various directions.

SOCIAL	TECHNOLOGY	ENVIROMENT
<ul style="list-style-type: none"> Ageing Society Public health / Wellbeing Tourism Inequality / Inclusive Design Sustainable behaviors 	<ul style="list-style-type: none"> Social Media E-Learning Digital Modelling Additive Manufacturing (3D Printing) Augmented Reality / Virtual Reality 	<ul style="list-style-type: none"> Retrofitting (ใช้ของเดิม) Recycling Renewable energy Air Quality / Environment Pollution Bio Design Resource Scarcity (วัสดุจำกัด)
<ul style="list-style-type: none"> Infectious Diseases Community Cohesion (การอยู่ร่วมกัน) Digital lifestyle Entrepreneurship / SMEs Diversity Urbanization (การเติบโตของเมือง) 	<ul style="list-style-type: none"> Automation Internet of Things Artificial Intelligence Cloud Technology Digital Economy Mobile Working Intelligent Buildings 	<ul style="list-style-type: none"> Climate Change Environmental Awareness Decarbonization Water management Sea-Level Rise Ecosystem Services Green Infrastructure
ECONOMIC	POLITICS	VALUE
<ul style="list-style-type: none"> Circular Economy (เศรษฐกิจหมุนเวียน) Skills Shortages (ขาดแคลนบุคลากรที่ตรงตามสายงาน) Globalization 	<ul style="list-style-type: none"> Building Standards Public-Private Partnerships (ร่วมมือกับระหว่างรัฐ & เอกชน) Stakeholder Engagement Environmental Policy 	<ul style="list-style-type: none"> User Experience / User Centricity Critical Thinking Adaptability & Resilience Self motivate & Wellness Self confidence Cross-functional talent Demand for Customization / DIY Movement
<ul style="list-style-type: none"> Self-sufficiency Responsible Business Sharing Economy (การเป็นเจ้าของร่วม) Economic growth Resource Price Volatility (การผันผวนของราคารูปโภค) 	<ul style="list-style-type: none"> Public Opinion Public Space Global Politics 	<ul style="list-style-type: none"> Analytical Leadership Continuous iteration (การทำซ้ำเพื่อผลลัพธ์ที่ดีที่สุด) Work-plan development Partnership Models Transparency / Nationalism

Figure 1: Megatrends Scanning Table

From the results of megatrend scanning, the relative topics are narrowly focused concerning uncertainty and impacts to the department of interior architecture, *Chulalongkorn University*

	LOW	MEDIUM	HIGH
IMPACT HIGH	<p><u>CRITICAL PLANNING ISSUES</u></p> <ul style="list-style-type: none"> Ageing Society Public health/ Wellbeing Infectious Diseases Sustainable behaviours Digital lifestyle Additive Manufacturing Digital Modelling / AR Social Media / E Learning Energy Efficiency Artificial Intelligence Intelligent buildings Circular Economy 	<p><u>IMPORTANT SCENARIO DRIVERS</u></p> <ul style="list-style-type: none"> Education Tourism Demand for Customization DIY Movement 	<p><u>CRITICAL SCENARIO DRIVERS</u></p> <ul style="list-style-type: none"> Environmental Extreme Weather Sea-Level Rise
IMPACT MEDIUM	<p><u>IMPORTANT PLANNING ISSUES</u></p> <ul style="list-style-type: none"> Community Cohesion Entrepreneurship / SMEs Diversity Urbanization Inequality Automation IOT Cloud Technology Self-sufficiency Digital Economy Sustainable investment Gig Economy 	<p><u>IMPORTANT PLANNING ISSUES</u></p> <ul style="list-style-type: none"> Climate change Resource Scarcity Environmental Awareness Bio design Public-Private Partnerships Multidisciplinary Craftmanship Historical Value Culture 	<p><u>IMPORTANT SCENARIO DRIVERS</u></p> <ul style="list-style-type: none"> Mobile working Crowdsourcing Sharing Economy Resource Price Volatility Stakeholder Engagement Environmental Policy Analytical Leadership Continuous iteration Work-plan development Partnership Models
IMPACT LOW	<p><u>MONITORABLE ISSUES</u></p> <ul style="list-style-type: none"> Sensors & Data Smart Infrastructure Responsible Business Renewable energy 	<p><u>MONITORABLE ISSUES</u></p> <ul style="list-style-type: none"> Housing Concentration of Wealth Economic growth Decarbonisation Water management Green Infrastructure Ecosystem Services Non-Motorised transport Public Opinion Public Space Transparency 	<p><u>ISSUES TO MONITOR AND REASSESS IMPACTS</u></p> <ul style="list-style-type: none"> Nationalism

Figure 2: Baseline future chart: focused low uncertainty , medium impact, and high impact to department of interior architecture, *Chulalongkorn University, Thailand.*

The baseline future/ Impact x uncertainty matrix table(*Figure2*) translates the related concerns to predicted scenarios; scenarios were concluded from analysis of professors within department of interior architecture regarded to baseline future. The analysis from baseline future could be summarized into 10 projections: (1) Flexibility in learning (2)Using technology in education (3)Real projects-based learning (4)Life-long learning (5)Data informed (6)Discussion-based learning (7)Role of learners to co-created (8)Personalized learning (9)Multidisciplinary & Cross-disciplinary Learning (10) Hard & soft skill competencies



Figure 3: Projection of scenarios in 2x2 matrix

Projections are analyzed and expanded to scenarios, which defined into 2 main axes: (1) Future career paths in interior architecture (2) Trends of Interior architecture design (*Figure3*)

The first axis focused on future career path in interior architecture, which can be addressed in 2 opposite directions; (1) Professionalization, where one is based on interior architectural license, and (2) Free market or gig economy where freelancer are commonized and licensed are not compulsory.

Second axis accentuated on interior architecture design trends in 2 directions: (1) Fast interior, where technology and fast design are the key concepts in interior architecture industry and (2) Tailor-made interior, where uniqueness is the primary element that empower the designs.

Projected scenarios are described in to 4 different settings, which required different skill sets. The 4 scenarios are (1) Professionalization with fast interior, (2) Professionalization with tailor-made interior, (3) Tailor-made interior with free market, and (4) Fast interior with free market

- **Scenario 1**, professionalization with fast interior; This scenario has identified interior architecture design industry to be fast for mass production and required legalized license. Curriculums will require skills involved technology, professional practice in education, entrepreneurship skill, critical thinking skill, and management skills to support future career path.
- **Scenario 2**, professionalization with tailor-made interior; This scenario has identified interior architecture professional practice to be directed with uniqueness and creativity and legalized license is mandatory. Curriculum require education with knowledge for professional practice i and hard skills are essential for production of unique works.
- **Scenario3**, Tailor-made interior with free market; This scenario has identified interior architecture with core concept of freedom & creativity; Curriculum has directed in multidisciplinary and cross-disciplinary pathway to supports flexibility in learnings and inspirations, while professional practice is focused on unique and creativity in design without the limitation from legal license.
- **Scenario 4**, fast interior with free market; This scenario has identified interior architecture design industry trends to be fast pacing with distinctiveness. Curriculums are encouraged to be both focused on professional practice in interior architecture, technology, entrepreneurship, and creativity.

Conclusion

Department of Interior Architecture, Chulalongkorn University has drafted strategic planning on pedagogy in the next 20 years, which require curriculum adjustment that response with 21st century education. The pedagogy of interior architecture is intended to design a solid interior fundamental core, and developed personalized learning pathways as the system to assist the primary curriculum.

With this pathway, students will have more flexibility in learning, thus, create unique learning experience for each individual. The curriculum provides students for broader knowledge beyond the interior architecture through multidisciplinary and cross-disciplinary learning; students could be able to synchronize new information with interior architecture designs and cultivates constructivism learning environment

The planning of curriculum adjustment allows the upcoming plan for short courses & lifelong learning; short courses from related field within the faculty or from other faculties allow skills and competencies of interior architecture students to expand their knowledge and allow other who are interests to reskill or upskill as life-long learning education.

In conclusion, by using Thailand as the main context of this paper, the future trends of pedagogy in interior architecture education may only complied within the interior architecture in Thailand. Different backgrounds, cultures, and contexts could provide other megatrends and result in other possible scenarios of the predicted future. To make the new pedagogy possible, the higher education should initialize curriculum that enhanced 21st century skills in order to guide students to be prepared as a transition to 21st century university education. By implying 21st century skill with pedagogy, learners or students are being prepared to become a lifelong learners and contributor to the constantly changing world.

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Polymer composite based on basalt fiber

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Abstract

Polymer composite materials have a special place in modern engineering. This of course as well applies to wind energetics. Wind powerplant rotors are mainly are manufactures using these materials, as they successfully meet the high-strength and lightweight requirements. Glass fiber is used as a reinforcement material for small wind generators, and carbon fiber is used for large wind power plants. For the first time, we used basalt fiber that is produced in Georgia, for small power plants. In the article is presented the influence of woven with different texture of basalt fiber in the composition of the fiber material and the binding matrix. The optimal option is selected that would be used to manufacture wind rotor blades.

Keywords: Wind generator, basalt fiber, polymer composite, blade of rotor.

1. Introduction

Following the progress of technological processes that is a historically consistent process for mankind, the issue of reducing the mass of items has always been relevant. Naturally, this problem would be solved only under the conditions of maintaining the performance of the product as well as most important in this regard is the strength of the product. Composite materials and especially polymer composites have made very visible achievements in terms of compatibility of sufficient strength and low mass of the products [1,2]. This has certainly been achieved due the development of technological processes.

Due to the intensive implementation of composite materials for the specialists, a non-standard situation has been created in practically all fields of mechanical engineering that requires the development of new structure by a specialist should begin with the design of composite materials. This involves not only the rational selection of starting components, such as fiber reinforcement and binder-filler materials, but also the formation of an optimized structure for the final result of the composite [3]. To manufacture wind generator wingblades we apply a basalt fiber woven that is a relatively new material in the production of these types of details. This fiber, woven and basalt wool are made in the city of Rustavi (Georgia) by the enterprise "Basalt Fibers".

2. Body of Manuscript

The enterprise manufactures different types of basalt fiber woven materials that vary from each other in the rowing diameter of the fiber and the texture of woven. Woven are classified by so-called marks: R-380, R-475 and R-600. The numerical indicators of each mark indicates the weight per square meter of basalt woven material of (specific gweight).

With respect of our working on the technology of manufacturing wind generators blades using basalt fiber composite, it is necessary to test the strength of the given material. To obtain the items for strength test, is developed a special device (Fig. 1), due that were manufactured items for tensile strength test, with a number of layers of woven material of basalt fiber from 10 to 100 (Fig. 2). The parameters of the items are - length $L = 250$ mm and width - $b = 45 \div 45.5$ mm. They are manufactured for all three types of woven that at the same time vary from each other in the number of woven layers. Because they are woven from different rowing yarns with different texture of woven, they also differ in the amount of polyester binding resin.



Figure 1. Device for samples manufacturing



Figure 1. Samples of basalt polymer composite

One of the most important issues in the technological process of wind rotor blades manufacture is the correct selection of the type of fiber woven material. Here the frequency of the canvas is woven into the forefront. Coarsely woven canvas binder material such as polyester will be placed in larger quantities and vice versa in thin woven fabric its quantity will be less. Moreover, thin woven fabrics can not be completely impregnated with a binding resin and a woven would be without polymer (it should be mentioned that the binding resins are viscous liquids). In such case, the strength of the polymer composite material will definitely be reduced that will negatively affect on the reliability of the wind generator blades. Therefore, the is arose the issue of determining the frequency of canvas woven, depending on the amount of polyester resin that will be arranged between the canvas layers of the sample.

Determining the amount of binder in a polymer composite with sufficient accuracy practically is complex. It is therefore advisable to use the indirect method. The weight quantity of the woven basalt fiber in the sample would be determined by the length-width of sample, specific weight of the fabrics and the number of layers. Lt the samples would be weighed, and we did this with the exact scale in the physics lab to with precision of hundredth of a gram (Fig. 3).

If we subtract from the whole mass of the sample obtained by the computation total mass of woven, we will have the weight of the binder material used to manufacture the sample. Accordingly we have the formula: $G_{bin}=G_{sam}-G_{bas}=G_{sam}-L\times b\times z\times\mu$. In the stated formula, G_{sam} – is the weight of the sample, G_{bas} – is the total weight of the basalt woven, G_{bin} – is the weight of the binder. It is noteworthy that these calculations were performed on items designed to determine the bending strength, as they contain up to 100 basalt woven canvas layers. To obtain a binder for layers of the same number of different marks of basalt canvas, we apply the amount of polyester resin using the grapho-analytic method (Fig. 4).

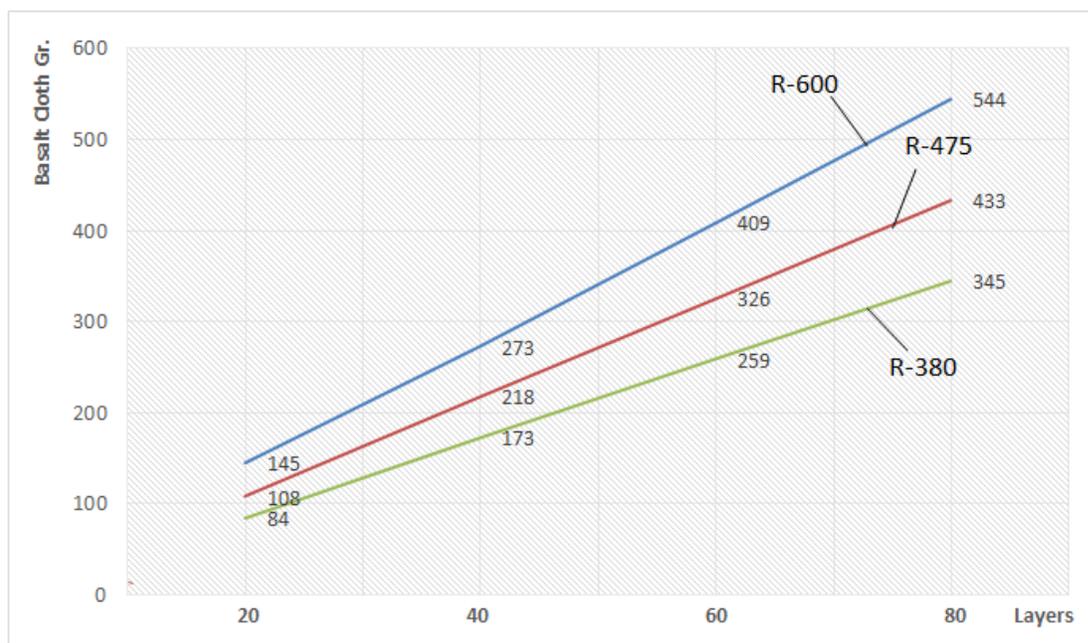


Figure 1. Total amount of basalt woven material in the samples ($L = 250$ mm; $b=45 \div 45,5$ mm) depending on the amount of layers

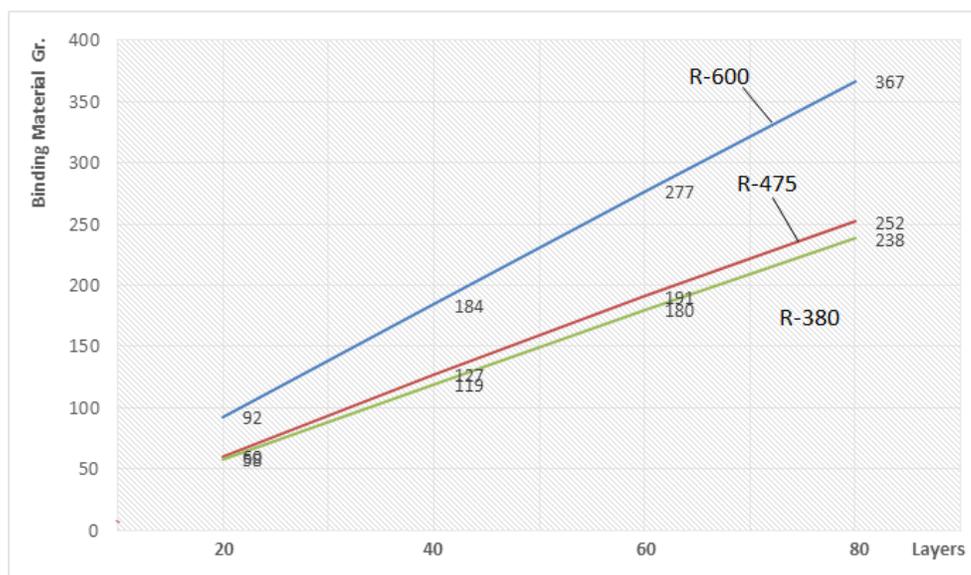


Figure 1. In the basalt polymer composite samples ($L = 250$ mm; $b=45 \div 45,5$ mm) the amount of binder (polymer) depending on number of layers

We have molds manufactured to form the blades of wind generator; in that many layers of basalt fiber woven canvas are arranged into a mold are embedded. Each layer is covered with filler resin, and after the polymerization is completed, the given workpiece blanks are carried. It should be mentioned that for each blade we have two molds, one for the front surface and one for the back surface. After cutting the contours, the front and back surfaces are glued and covered longitudinally [4]. The manufactured molds gives the possibility to produce wind rotor blades with following lengths: 1 m., 1.9 m., 2.3 m., 4 m.

From the graphs in Fig.3 it is clear that the amount of basalt woven or reinforcing material in the samples varies regularly for the samples of all three marks. As for the amount of filler (binder), it is sharply increased in the case of R-600 woven canvas (Fig. 4). This is due to the high porosity of the R-600 canvas, due that a large amount of polyester resin is placed in it. The same

graphs show that R-380 and R-475 woven fabrics "consume" the filler in a logical and proportionate amount in the form of polyester. The blades of our generator's are manufactured exactly from these woven.

The blades of the wind generator undergo severe deformations. This is due the blades are a shell-shaped body, i.e. they have a hollow body. Therefore, due to the wind pressure, tensile stresses are generated on the front surface, while compressive stresses occur on the rear surface. But the loaded area in the working wing is the attachment point where the bending stresses are maximal. Due this manufactured samples firstly are tested on bending loads. The tests were performed on a universal press in a materials strength laboratory.

On the Fig. 6 is presented the wind rotor blades manufactured using the proposed method.

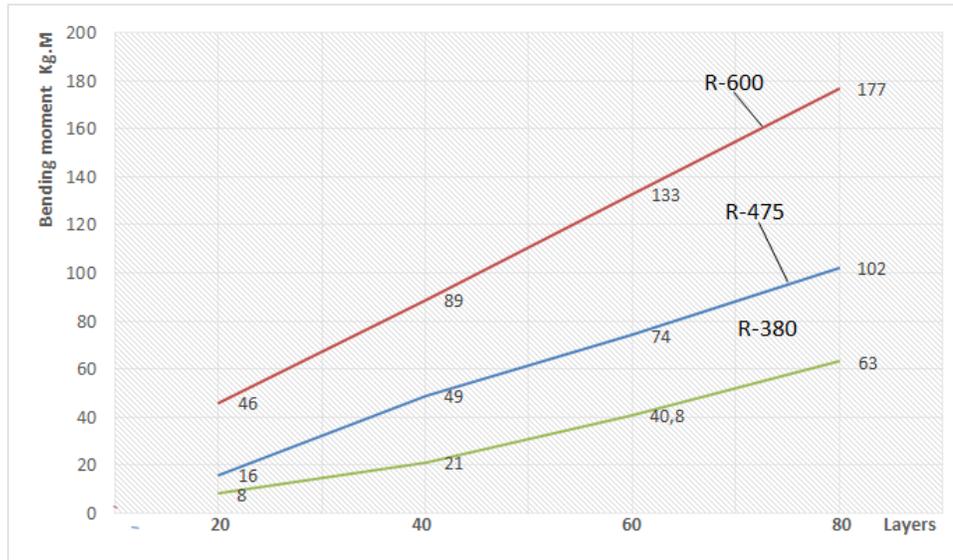


Figure 1. Ultimate bending moments in the basalt composite sample depending on the quantity of layers



Figure 1. Basalt composite blades in length up to: 1 m, 1,8 m, and 2,3 m.

4. Conclusions

In the presented paper is determined the properties of the polymer composite material from basalt fiber woven canvas. Using this material it is possible to manufacture wind rotors for personal, small capacity wind generators. Georgia is rich in wind energy resources that is a good precondition for the development of wind energetics [5]. We use basalt fiber produced in Georgia as raw material to manufacture wind rotor. We have developed the appropriate technology. The work carried out gives the possibility to fully manufacture wind generators as well. This will be the foundation for the production of small wind generators in Georgia in the future.

Appendix

Acknowledgment. This paper is funded by Shota Rustaveli National Science Foundation of Georgia # **AR-18-613** Manufacture of pilot samples of wind small power plants with application of basalt fibers, installation, test, determination of operational parameters

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The principle of contradictoriness under the perspective of article 6 of the European Convention of Human Rights

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Abstract

The right to a fair trial represents one of the elements of the principle of ensuring the rule of law in a democratic society. Article 6 of the European Convention on Human Rights, entitled “Right to a fair trial”, designates, on the one hand, all the procedural guarantees set out expressly by that provision and, on the other hand, the general and implied guarantee to a fair trial. The broader concept of a “fair trial” encompasses both the guarantee of equality of arms and the fundamental principle of contradictoriness. According to the principle of contradictoriness, the parties must have the opportunity to acknowledge all the documents in the file, to discuss them in an appropriate manner and to have sufficient time to prepare their arguments.. The principle of contradictoriness concerns many aspects of the trial but the most important is the administration of evidence.

Key words: European Convention on Human Rights, proceedings, fair trial, the principle of adversarial proceedings, the principle of equality of arms, case law, the administration of evidence.

I. Introduction

This article proposes an analysis of the implied procedural guarantees enshrined in art. 6 of the European Convention on Human Rights. The paper is centred around the principle of contradictoriness. The article begins with a chapter that contains some general information concerning the right to a fair trial. The next chapter offers a more detailed analysis of the text of art. 6 of the Convention with focus on the principle of contradictoriness. This chapter presents the implied guarantees of the right to a fair trial based on their scope and content. The chapter is based on the ECtHR interpretation and has references to the legal literature. The final chapter presents two of the most illustrative case law in which the European Court condemned two Member States for breaching the art. 6 by violating the principle of contradictoriness.

II. General aspects regarding the European Convention on Human Rights and the right to a fair trial

Article 6 of the European Convention on Human Rights¹ has its origins in the texts of art. 10 and art. 11 (1) of the Universal Declaration of Human Rights. According to art. 10 of the Declaration, “Everyone is entitled in full equality to a fair and public hearing by an independent and impartial tribunal, in the determination of his rights and obligations and of any criminal charge against him.” and article 11 (1) provides that “Everyone charged with a penal offence has the right to be presumed innocent until proved guilty according to law in a public trial at which he has had all the guarantees necessary for his defence.”

The Convention must be regarded as a system of objective protection of human rights.² The constant concern of the ECtHR is to protect rights that are “practical and effective as opposed to theoretical and illusory”.³ This means giving priority to the effectiveness of the protection rather than to legal formalism. The Convention regulates, in principle, rights with a substantially “material” content, which can be invoked directly in the internal order of the Contracting States. In addition to these substantial rights, such as the right to life, liberty and security, the right to freedom of thought, conscience and religion, etc., the Convention regulates two procedural rights, which do not take into account certain freedoms of a person, but it consists in guarantees regarding the enhancement of the rights and freedoms that are recognized before the courts.

¹ Hereinafter referred to as the Convention;

² ECtHR, case of Spjorn and Lonnroth v. Sweden, Case No. 7151/75, point 12;

³ ECtHR, case of Mehmet Eren v. Turkey, Case No. 32347/02, point 50;

The right to a fair trial is one of the components of the principle of ensuring the rule of law in a democratic society. As the ECtHR pointed out, the Member States have decided to take all necessary measures to effectively defend the rights enshrined in the Universal Declaration of Human Rights, “because of their sincere attachment to the principle of the rule of law.”⁴

Art. 6 enjoys a significant autonomy within the national laws of the Contracting States, including its substantive as well as procedural provisions. Therefore, a procedural error within the meaning of national law will not necessarily amount to a breach of the art. 6. Art. 6 is essentially concerned with whether an applicant was afforded ample opportunities to state his case and contest the evidence that he considered false, and not with whether the national courts reached a right or wrong decision.⁵

Article 6 does not enable the ECtHR to act as a supreme (high) court which may re-establish the facts of the case or re-examine the alleged breaches of national law⁶, nor to rule on admissibility of evidence.⁷ The jurisdiction of the ECtHR is governed by the principle of subsidiarity. However, the ECtHR has occasionally found violations of art. 6 on the account of the persistence of conflicting court decisions on the same issue made within a single court of appeal, or by the different district courts’ ruling on appeal, stressing that the “profound and long-standing” nature of the divergences at issue was incompatible with the principle of legal certainty in its broad meaning. At the same time, the Grand Chamber stressed that it was not the Court’s function under art. 6 to compare different decisions of national courts – even if given in apparently similar proceedings – save in cases of evident arbitrariness.⁸

The right established by the text of art. 6, in relation to its substance, is a procedural right but seen as an obligation of the Member States, it can also be analysed as a real substantive right, with the specific sanction - the international liability of the states concerned - in case of non-compliance with one of its components. Contracting States are required by Article 1 of the Convention to organise their legal systems to ensure compliance with art. 6.⁹ According to the principle of autonomous interpretation of Article 6, the ECtHR decides the question of applicability of this provision under civil rights and obligations. Applicability of this article to pre-trial, appeal and other review stages is established based on non-autonomous criteria and depends to a large extent on the existence of accessible remedies in national law.¹⁰

III. Article 6 of the European Convention on Human Rights and the principle of contradictorality

Article 6 paragraph 1 provides:

“In the determination of his civil rights and obligations or of any criminal charge against him, everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law. Judgment shall be pronounced publicly but the press and public may be excluded from all or part of the trial in the interests of morals, public order or national security in a democratic society, where the interests of juveniles or the protection of the private life of the parties so require, or to the extent strictly necessary in the opinion of the court in special circumstances where publicity would prejudice the interests of justice.”

The main difference between the requirement of “fairness” and all the other elements of art. 6 is that “fairness” concerns the procedure as a whole and not just in the light of a particular incident or a procedural error.

The concept of “fairness” has autonomous meaning being irrelevant the meaning of this concept under the national law system of the Member States. Therefore, there may be situations in which, although there is a violation of the domestic procedural rules - even a flagrant one – from the perspective of the Convention the trial would be considered fair and vice versa.¹¹

There were also situations in which the Court declared the national proceedings unfair due to the cumulative effect of the procedural errors, although each error considered individually would not have constituted a violation of art. 6.¹²

When analysing whether the condition of “fairness” is met, the ECtHR is concerned with verifying whether the parties have had sufficient opportunities to prepare and defend their case, leaving the Member States a considerable margin of discretion regarding the procedural rules if the trial itself, as a whole, is not affected and meets the conditions laid down by the Convention. In the system established by the European Convention, the right to a fair trial can be viewed in a broad sense, but if we limit ourselves strictly to the first paragraph, we observe that it contains a list of general guarantees - the right to a fair trial, the right to public hearing within a reasonable time by an independent and impartial tribunal established by law. These procedural guarantees can be divided into two categories, namely express guarantees and implied guarantees.

⁴ Corneliu Bîrsan, *Convenția europeană a drepturilor omului. Comentariu pe articole, volumul II, Drepturi și libertăți*, Ed. C.H. Beck, București 2005, p. 357;

⁵ ECtHR, case of *Karalevičius v. Lithuania*, Case No. 53254/99;

⁶ ECtHR, case of *Bernard v. France*, Case No. 22885/93, points 37-41;

⁷ ECtHR, case of *Schenk v. Switzerland*, Case No. 10862/84, points 45-49;

⁸ Orsolya Rónai, *A general overview of Article 6 I. of the European Convention on Human Rights*, available on [researchgate.net](https://www.researchgate.net);

⁹ Corneliu Bîrsan, *Convenția europeană a drepturilor omului. Comentariu pe articole, ediția 2*, Ed. C.H. Beck, București 2010, p. 357;

¹⁰ ECtHR, case of *Delcourt v. Belgium*, Case No. 2689/65, points 23-26;

¹¹ ECtHR, case of *Gafgen v. Germany*, Case No. [22978/05](https://www.echr.coe.int/), points 162-188;

¹² ECtHR, case of *Barbera, Maessegh and Jabardo v. Spain*, Case No. 10590/83;

The first category includes: the right to be judged within a reasonable time; the right to be judged by an independent and impartial tribunal established by law; the publicity of the procedure (except in cases where access to the courtroom is prohibited to the press, the public or a party to the proceedings, in the interests of morality, public order or national security, in order to protect the interests of minors or the privacy of the parties involved in the proceedings, or when advertising could harm the interests of justice). These guarantees are expressly stated in art. 6 and can be considered absolute in the sense that depriving a person of such rights would inevitably lead to an unfair trial.

Guarantees that are not expressly mentioned by the text of art. 6, stems from its interpretation and were developed by the ECtHR through its case law. The implied guarantees are: the right to have access to justice, the principle of contradictoriness, the principle of equality of arms, the right to a reasoned decision, the obligation to ensure the enforcement of the judgment. These guarantees are not absolute hence non-compliance or limitation of this rights in some situations does not automatically lead to an unfair trial. Moreover, the ECtHR has emphasized in many of its judgments that its role is to determine whether the procedure as a whole was fair. It does not replace a national court and does not analyse the merits of the case, it does not become a jurisdiction of fourth degree, but analyses strictly aspects related to procedural issues.

Concerning the implied guarantees, no precise distinction can be made between them. Moreover, the case law of the ECtHR is not consistent in making a clear distinction between the principle of equality of arms and the principle of contradictoriness. The ECtHR pointed out that the principle of equality of arms is an element of the broader notion of a fair trial, which also encompasses the fundamental principle of contradictoriness, emphasizing that the principle of equality of arms does not exhaust the entire content of paragraph 1 of art. 6. Equality of arms is only one aspect of the much broader notion of a fair trial before an independent and impartial tribunal.

According to the principle of equality of arms, each party involved must have a reasonable opportunity to present its case, under conditions which do not place it at a substantial disadvantage vis-à-vis the opposing party.¹³

Conversely, the principle of contradictoriness, as provided by art. 6, essentially represents the possibility for the parties to take note of and discuss all the documents and requests submitted to the judge, even those that would come from an independent magistrate, likely to influence the judge's decision.¹⁴

The Court distinguishes the application of the two principles based on the manner in which the parties are informed regarding all the documents submitted. Thus, if one party have acknowledged about a piece of document while the other party was not informed about it, the Court will examine the issue in the light of the principle of equality of arms.¹⁵

On the contrary, if both parties have been deprived to the same extent of the possibility of acknowledging the content of useful information presented to the judge, without being able to discuss it, this situation is to be examined based on the principle of contradictoriness. The imbalance created between the parties shall be analysed in accordance with the principle of equality of arms, while when both parties are deprived by their procedural rights the issue shall be analysed based on the principle of contradictoriness.¹⁶

A difference between the two principles would also be given by the fact that the principle of equality of arms concerns only the way in which the court treats the parties. It does not apply in the relationship between the parties and the court. The principle of contradictoriness, on the other hand, concerns both the parties and the magistrates (prosecutor, judge).

The principle of equality of arms requires that the parties be treated in the same manner as they are on an equal position and the principle of contradictoriness involves the ability of the parties to acknowledge and evaluate every piece of evidence submitted to the judge.

Contradictoriness must be conducted in an effective manner. The parties must be able to familiarize themselves with the evidence, to submit conclusions regarding them in an appropriate manner and have sufficient time to prepare his arguments.¹⁷

If necessary, the party should even be given the opportunity to obtain an adjournment in order to take notes of all the documents. Only the parties to the dispute can decide whether they want or not to submit conclusions regarding the documents submitted to the court or the evidence provided. In fact, the possibility to submit conclusion regarding any element in the file makes the parties to trust in the functioning of justice.¹⁸

IV. The approach of the principle of contradiction by the European Court of Human Rights

The principle of contradictoriness has been analysed and developed by the ECtHR through its own case-law. Two emblematic cases in this respect are *Khamidov versus Russia* and *Alexe versus Romania*. In the first case the principle of contradictoriness

¹³Dovydas Vitkauskas, Grigoriy Dikov, Respectarea dreptului la un proces echitabil în temeiul CEDO, Ghid informativ despre protecția drepturilor omului realizat de Consiliul European, Strasbourg 2012, p. 53;

¹⁴Corneliu Bîrsan, Convenția europeană a drepturilor omului. Comentariu pe articole, ediția 2, Ed. C.H. Beck, București 2010, p.406-497;

¹⁵Corneliu Bîrsan, Convenția europeană a drepturilor omului. Comentariu pe articole, ediția 2, Ed. C.H. Beck, București 2010, p.497;

¹⁶Frédéric Sudre, Droit européen et international des droits de l'homme, 12 edition mise a jour, Ed. Presses Universitaires de France, Paris 2015, p. 586 (personal translation);

¹⁷ ECtHR, case of *Krcmar and others v. Czech Republic*, Case No. 35376/97, point 42;

¹⁸ ECtHR, case of *Niderost-Huber v. Swiss*, Case No. 18990/91, point 29;

is directly connected to the administration of evidence and in the second one the principle of contradictoriness is examined through the lens of the *ex officio* conduct of the judges.

In the case of *Khamidov versus Russia*¹⁹, the applicant, Mr. Khamidov - of Chechen origin, brought an action for damages against Russia seeking material and non-material damage he had suffered during the Russian occupation of Chechnya. On 13 October 1999 his property was occupied by a Russian police unit which denied the Mr. Khamidov's access to his property. Due to this, Mr. Khamidov and his family were forced to spend the winter in a tent, in a refugee camp, during which time the applicant's nephew died due to poor living conditions.

Before the national court, Mr. Khamidov brought a lot of evidence concerning his property title and the fact that Russian armed forces occupied it. Mr. Khamidov brought also a document issued by the local administration, stamped, and signed by the president of the local council and the military commander of the district. This document confirmed the presence of Russian troops on Khamidov's property from 13 October 1999 to 26 May 2000.

The national court disregarded all the evidence submitted by Mr. Khamidov and held that Mr. Khamidov had not presented any official document issued by the military authorities confirming the armed occupation and the damage suffered.

Mr. Khamidov brought the case before the ECtHR which stated that the national court carried out the administration of evidence in an obviously unfair and arbitrary manner. The ECtHR considered that the authenticity of the documents and reports submitted by Mr. Khamidov was not disputed, moreover, the national court did not rule on the admissibility or inadmissibility of the reports attesting the damage suffered but chose to remain silent on those evidence. The ECtHR was surprised by the ruling of the national court which considered that the documents provided by Mr. Khamidov were not sufficient to prove the existence of the occupation of the Russian army.

In the ECtHR's view, the unfairness of the national court's conclusion is so obvious that the decision delivered is truly arbitrary. In this respect, the ECtHR held that Mr. Khamidov would not have had the slightest chance to obtain the evidence as the national courts demanded. This is the reason why the ECHR considered that the national procedure did not comply with art.6. The ECtHR has consistently held that the admissibility, administration and relevance of evidence are matters which are governed by the rules of national law and it is for the national judge to assess them. The ECtHR is not able to overrule the conduct of national courts in this matter but it is able to examine whether the proceedings in question, as a whole, including the administration of evidence, are compliant to the Convention.

The Convention does not regulate the regime of evidence. Therefore, the ECtHR cannot reject in principle and *in abstracto* the admissibility of evidence which has been administrated without complying with the relevant national rules.

However, even if the assessment of evidence remains at the discretion of the national courts, the ECtHR is able to engage Member States' liability when such an assessment is made in an arbitrary and unfair manner.

Another important case in which the Court has found a violation of art. 6 para. 1 of the Convention because of the violation of the principle of contradictoriness is the case of **Alexe versus Romania**²⁰.

In fact, the former tenant of Mrs. Alexe - the claimant in front of the ECtHR, brought a lawsuit in front of the national court asking the judge to oblige Mrs. Alexe to pay the value of the repair works made. The tenant did not indicate any legal basis in support of his claim²¹.

Mrs. Alexe filed a counterclaim stating that, based on Law no. 10/2001, she could not be obliged to pay for the repair works because the building had been abusively nationalized and, according to Law no. 10/2001, the state has the obligation to compensate in case of repairs.

The national judge of first instance ordered Mrs. Alexe to pay to the tenant the sum of RON 15,661. The decision was appealed by Mrs. Alexe.

The court of last resort stated that during the trial, the Law no. 10/2001 was amended by Law no. 1/2009 and according to the latter the obligation to bear the costs are in charge of the owner to whom the property was returned. Therefore, the court of last resort upheld the contested decision.

In front of the ECtHR, Mrs. Alexe claimed that the domestic court of last resort infringed the principle of contradictoriness since during the trial, the court did not put forward to the parties the applicability of the amending law. Therefore, Mrs. Alexe invoked in front of the ECtHR that she was deprived of her right to submit conclusions concerning the scope of the amending law and also of the right to raise the exception of unconstitutionality of the amending law.

The ECtHR stated that the concept of "fair trial" includes the right of the parties to a trial in which they are informed with regard to all the elements concerning their dispute and moreover they are able to submit conclusions concerning all matters brought to the judge's attention and which could influence the decision.

The ECtHR noted that the judge himself must respect the principle of contradictoriness, especially when deciding a dispute based on an *ex officio* legal basis or an *ex officio* exception. It held that the principle of contradictoriness requires the domestic

¹⁹ ECtHR, case of *Khamidov v. Russia*, Case No. 72118/01;

²⁰ ECtHR, Case of *Alexe v. Romania*, Case No. 66522/09;

²¹ Ionuț Militaru, Mihaela Vasiescu, Roxana Maria-Călin...; coord.: Dragoș Călin, *Dreptul la un proces echitabil. Aspecte civile. Hotărâri ale Curții Europene a Drepturilor Omului pronunțate în cauzele împotriva României*, volumul II, Ed.Universitară, București 2016, p. 768.

courts to deliver rulings only on matters of fact or law which have been called into question by the parties during the proceedings.

The particular aspect of this case lays on the fact that Law no. 10/2001 was amended only after the court of first instance gave its ruling. Although, in principle, the legislature is not prevented from regulating in civil matters with retroactive effect on rights deriving from existing laws, the principle of the rule of law and the autonomous notion of a fair trial precludes the interference of the legislature in the administration of justice to influence the rulings of disputes.

Regarding the principle of contradictoriness, the ECtHR held that the principle of contradictoriness was not respected since the parties were not informed that the court of last resort intended to deliver a judgment based on art. 48 para. 1 of Law no. 10/2001, as it was modified during the trial.

V. Conclusions

It follows from the foregoing that the national courts enjoy procedural autonomy, and that, the principle of subsidiarity is fully effective even when analyzing the conformity application of art. 6. In respect to the administration of evidence, national courts enjoy a wide margin of appreciation. The obligation of the Member States to respect the principle of equality of arms and the principle of contradictoriness is a general obligation which seeks to ensure that the trial as a whole is fair. The concern of the ECtHR is procedural fairness and not the substance of the disputes or the specific procedural mechanism of the trial. Its role is to determine whether the national procedure, as a whole, was fair. The ECtHR does not judge the cases on the merits, nor does it become a fourth degree of jurisdiction, but relates strictly to procedural issues.

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War and Museums: A Sociological Approach

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Abstract

Does anyone think culture could play a role when there is a nuclear threat, the danger of cyber-attacks, or even the choice of harsh financial penalties in cases of rapid deterioration of interstate relations? A purely technocratic answer would probably be negative. Recent European history, however, has disproved such a belief. The Russian invasion of Ukraine in February 2022 provoked a wave of reactions. The West imposed a peculiar artistic boycott. They used the arts in an attempt to denounce the military choices of Russian President Vladimir Putin. As early as March 2022, they excluded Russian artists, musicians and filmmakers from major European festivals and competitions. Museums quickly followed the same path. Cultural diplomacy has come to a standstill. This paper highlights the relationship between culture and foreign policy and how theory differs from practice. What are the tools of cultural diplomacy? Where has culture functioned effectively as a "diplomatic weapon" in historical times? Can museums play an active role during a war? Does the choice of Russian and Western museums to stop any cooperation immediately after the beginning of war, making cultural institutions mere observers of modern history?

Keywords: museums, war, cultural diplomacy, foreign policy.

1. Introduction

November 10, 2018. On the occasion of the 100th anniversary of the end of World War I, Emmanuel Macron invited 85 leaders to Paris. At the Orsay Museum, the French President took his colleagues on a tour of Picasso's Blue and Pink periods. Leaders then attended a dinner to honour the most remarkable human achievement, peace (Λασκαράτος, 2021). Four years later, one of the interlocutors of that night, Vladimir Putin, brought the war back to Europe and a dark period in modern history.

March 4, 2022. With a simple post on social media, the same museum, the Orsay Museum, sent a message of support to the Ukrainian people. The Paris Museum published a photograph -a detail of Van Gogh's work "La Méridienne"- which referred to the colours of the Ukrainian flag. Standing up to the horrors of war, the museum had already taken part in the Cultural Forum of the National Institute of Art History, honouring Marie Baskirchev, the Ukrainian feminist painter. She died prematurely at the age of 24 in 1884.

In the period after the Russian invasion of Ukraine, a peculiar artistic boycott took place by the West. They immediately barred Russian artists, musicians and filmmakers from major European festivals and competitions. The Cannes Film Festival and the European Film Academy excluded Russian entries, the Biennale organisers officially banned Russian delegations' participation and Eurovision excluded Russian participation in the European Song Contest. Furthermore, the Royal Opera House in London has cancelled the famous Moscow Bolshoi Ballet's summer performance. Disney suspended its operations in Russia and even individuals - such as the pro-Russian German pianist Lars Vogt - refused to appear in Russia (Reucher Gaby, 2022, April 3).

How obvious was such a situation? Was it the 'only choice' to cut every cultural channel? Were there any hasty moves? The tools of civilisation are certainly not enough to end an armed conflict. However, are these negligible? People seem to have ostentatiously ignored the power of cultural diplomacy at the start of this war. Could it be done differently? In times of peace, states seem to realise the power of civilisation. They invest time and money to strengthen their bonds, using culture as a 'vehicle'. Why, with the outbreak of this war, did they immediately turn their back on this 'weapon'? We will first attempt to define 'cultural diplomacy' to answer these questions. We will also examine the difference between 'cultural diplomacy' and 'hard diplomacy' that starts or stops a war. At the same time, we will take a closer look at how museums reacted to the Russian invasion in 2022 as opposed to 2014, when we had the events in Crimea.

2. Cultural diplomacy: Terms and reality

In recent decades, the new term "cultural diplomacy" has emerged, describing a practice that is not new but, in modern societies, contributes decisively and systematically to the part of international interaction. Political scientist and author Milton Cummings had described cultural diplomacy as "the exchange of ideas, information, values, systems, traditions, beliefs and other aspects of culture, to promote mutual understanding" (2003: 1). In his definition, Shizuru Saeki (2005) includes exchanging ideas, information, arts and culture to promote mutual understanding between citizens of different countries. Giannaras writes that this is the name of the "methodical use of elements (or features of particularity) of a country's culture in the exercise of management of its external (international) relations" (Γιανναράς, 2003: 13-14). As tools of foreign policy, which cultural diplomacy uses, he mentions -among other things- the expansion in the international arena of the number of people who know and use the language of a nation, its cultural achievements, history and the current level of culture. Vassiliadis, on the other hand, states that cultural diplomacy "is nothing more than the exercise of legitimate influence through the path of civilisation" (Βασιλειάδης and Μπουτσιούκη, 2015: 15).

The New Zealand Ministry of Culture and Heritage defines cultural diplomacy as "the international presentation of a state's cultural activities to improve the understanding of its cultural life and to create a favourable image to facilitate improved diplomatic and trade relations" (Ministry for Culture and Heritage, 2000). According to ICD, the Institute for Cultural Diplomacy, founded in 1999 in the USA, "*Cultural Diplomacy may best be described as a course of actions, which are based on and utilise the exchange of ideas, values, traditions and other aspects of culture or identity. Whether to strengthen relationships, enhance socio-cultural cooperation, promote national interests and beyond; Cultural diplomacy can be practised by either the public sector, private sector or civil society.*" (ICD, xx & Chakraborty, 2013:30). The international, not-for-profit, non-governmental organisation, which has headquarters in the USA and Berlin, insists that cultural diplomacy is critical to fostering peace and stability worldwide.

Cultural diplomacy is, in fact, a kind of soft diplomacy. The term 'soft power' was coined quite early in the 1990s by Harvard University professor Joseph Nye. He described soft power as the ability to persuade through culture, values and ideas. He even contrasted with the harsh diplomacy, which, through military force, conquers and forces (Nye, 2004). The term cultural diplomacy is now internationally accepted. However, as Artemis Zenetou aptly observes, sometimes it seems preferable to use terms such as "cultural exchanges" and "cultural cooperation" because the word diplomacy makes many people wary. They treat the whole process as a cultural "invasion", in the sense of gradual penetration into a foreign, closed cultural system, especially when this happens in small countries with a minimal role in international and regional developments (Αντωνιάδου, Μαυραγάνη and Πούλιος, 2015). She also argues that cultural diplomacy "*should aim and promote the cultivation of common bonds, as well as the creation of bonds of peace, friendship and understanding between peoples*" (Αντωνιάδου et al., 2015: 29). Eleni Tzoumaka explains that "*cultural diplomacy continues the foreign policy efforts of one or more states or a human group, when other paths, the more traditional, are not enough or, in some special cases, have ceased to be open.*" (Τζουμάκα, 2005: 9). Moreover, she points out that "foreign cultural policy" determines the goals of a state's foreign relations, while "cultural diplomacy" offers the means to fulfil these goals (Τζουμάκα, 2005: 112).

3. Cultural dialogues, interaction and mutual understanding

The relationship between culture, national societies and transnational relations is not new. Although a few decades ago, concepts such as "culture" and "politics" were not easily combined in the same sentence - cultural policy, as a method of mutual understanding, has been a practice of states for centuries. The Roman Empire is an emphatic example. The gifts offered by the Byzantine missions to the rulers of other countries in order to impose the universality and power of the empire are monumental (Γιανναράς, 2003: 35-36). As Georgili (Γεωργιλί, October 16, 2014) aptly points out, in the campaigns of Alexander the Great, in those of generals and successors in Byzantium emerged the techniques of cultural diplomacy. Furthermore, the 17th-century efforts of great powers such as France aimed to impose a dominant diplomatic language and establish educational and cultural institutions abroad. Even in new states, such as the United States, cultural dialogues for diplomacy have emerged relatively early.

Krenn (2017) would say that he locates the first sample in the work of Thomas Jefferson: "Note on the situation in Virginia", written in 1781. In this text, the author tried to reverse the derogatory image created by the Europeans for his country because of Buffon's theory that claimed - neither more nor less - that America's climate was responsible for the degeneration of all life on the other side of the Atlantic. Jefferson, after all, could be given an early modern definition of such a practice. To justify his enthusiasm for the arts, as far back as 1785, he said, "it is an enthusiasm for which I am not ashamed. Its purpose is to improve the taste of compatriots, increase their reputation, reconcile with them the respect of the world and give their praise." (Scheider, 2003: 1)

In recent years, in America, the power of civilisation has been realised early. In 1940, for example, Nelson Rockefeller, as Commercial and Cultural Coordinator, launched a face-to-face exchange program with Latin America inviting 130 Latin

American journalists to the United States, while in 1946, Arkansas Sen. J. William Fulbright founded the eponymous global educational exchange. These two flagship initiatives were some of the forerunners of establishing the Office of Educational and Cultural Affairs, which was finally implemented in 1961 (Bureau of Educational and Cultural Affairs, xx). British, in 1934, founded the British Council, which is based in more than 100 countries worldwide, emphasising the arts, culture and the spread of the English language (British Council, xx). In 1951, the Goethe Institute was founded. It is a world-class cultural institution of the Federal Republic of Germany, which aims to promote the German language and the contemporary cultural, political and social life of Germany worldwide (Goethe Institut, xx). Even earlier, at the beginning of the 20th century, the French Institute was founded, having in Athens one of its first seats in 1907. Today, there are almost 150 French institutes and cultural centres. They are under the Ministry of Foreign and European Affairs of France. Their purpose is to promote the French language and contemporary French-language artistic creation worldwide (Institut Francais, xx). Other states made similar choices with a few decades' delay. Spain, in 1991, founded the Cervantes Institute, named after the author Miguel de Cervantes, and quickly expanded to 4 Continents to promote the Spanish language (Atenas Cervantes, xx). Even more recently, to become a global superpower of the 21st century, China has established in 140 countries more than 1,500 centres for the teaching of Chinese language and culture, the so-called "Confucius Institutes" (Μητροπούλου, 2018, July 25). The value of culture and the possibility of penetration in foreign countries seem to be perceived by world systems of power. That is why nowadays, a consistent policy is aimed at an ongoing, fruitful and lively cultural dialogue. However, are the choices of states in times of war the same as those of peace?

4. The role of museums in the outbreak of the Russo-Ukrainian war

Despite what we theoretically captured, with the outbreak of war, as we mentioned at the beginning of this paper, there was an artistic boycott. The arts were instrumentalised, and the museums soon followed the same path. After 30 years of continuous cooperation, the Hermitage Museum in Amsterdam severed ties with the famous Hermitage Museum in St. Petersburg, stating that although it wanted to be politically neutral, "*Russia's recent attack on Ukraine means that neutrality is no longer tolerated*" (Reuters, 2022, March 3). As shapers of public opinion, museums took their place in multiple ways. The National Gallery in London has changed the name of Edgar Degas' famous painting "Russian Dancers" to "Ukrainian Dancers". This choice was based on the fact that the female protagonists of the pastepiece wore blue and yellow ribbons in their hair referred to the national colours of Ukraine. The gallery even urged all art galleries to reconsider the "lazy" misinterpretations of Ukrainian art and heritage, as, for many decades, the term Russian art was used as an easy "umbrella" (Quinn Ben, 2022, April 3).

International Council of Museums (ICOM) sounded the alarm. It strongly condemned the violation of the territorial integrity and sovereignty of Ukraine. It noticed that it was especially concerned about the risks faced by museum professionals and the threats to cultural heritage because of this armed conflict and reminded of the Hague Convention for the Protection of Cultural Property of 1954 (ICOM, 2022, February 22). ICOM's fears were confirmed early. In the first 100 days of the war, 29 museums, 133 churches and 66 theatres and libraries were destroyed in Ukraine, according to the country's Ministry of Culture (Datskevych, 2022, June 1).

Russia's response came almost immediately. Through its Ministry of Culture, the Russian Federation has asked the Gallerie d'Italia in Milan to return 23 works of art borrowed from four Russian museums for the "Grand tour: Italy's dream from Venice to Pompeii" exhibition. Mikhail Piotrovsky, director of the Hermitage, also sent a letter to the Palazzo Reale Museum in Milan requesting the return of two paintings by Renaissance artist Tiziano (Legoranno Giovanni & Sylvers Eric, 2022, March 10). Even Russian oligarchs became involved in this "culture diplomacy" that erupted due to the Russian invasion of Ukraine. Vladimir Potanin, one of the wealthiest men in Russia and a longtime donor to the Guggenheim Museum in New York, resigned from the foundation's Board of Directors in early March (Bowley Graham & Stevens Matt, 2022, March 2). Russian billionaire Peter Aven has also resigned as Commissioner at the Royal Academy in London amid EU sanctions to close associates of Russian President Vladimir Putin (Quinn Ben, 2022, March 1).

Museums became a 'weapon' in the hands of states and their administrators. They became a means of pressure, policy production, and message carriers but also the formers of public opinion. Sometimes they followed the line of the West. Other times, the orders of the Russian invader. However, always the 'narrative' of the land that hosts them. If this situation seems obvious to many people, after the Russian choice to invade an independent country, recent history comes to refute us. In 2014, after the events in Crimea, the same geographical area was again in the middle of an intense diplomatic crisis as EU sanctions against Russia were in force. The British Museum, however, chose at that time to lend to the Hermitage in St. Petersburg the headless statue of the river Ilissos stolen from the western gable of the Parthenon, to be exhibited in the Russian institution on the occasion of its 250 years of operation (Erlanger, December 5, 2014). It was the first time that part of the masterpieces of Pericles's time came out of Britain. At this juncture, an emblematic museum of a European country - as BREXIT had not yet taken place - helped keep communication channels open with a blatantly "diplomatic loan". Eight years ago, this "diplomatic loan" served as an oxygen cylinder in the intensive care unit, keeping the hope of improving weak transnational relations alive. Today, this oxygen cylinder is in the next room.

5. Conclusions

“2022 is not 2014. The energy crisis is temporarily dimming the light of civilisation—the darkness of war reigns. Cultural diplomacy seems inactive, as the “pie” is redistributed and the “big players” of the planet, such as America and China, seem to enjoy geopolitical games. The administrations of the museums have an opportunity to raise the switch of foreign cultural policy themselves” (Λασκαράτος, 2022, May 16).

Although the museums were not utilised, with the outbreak of war, to reduce the “gap” between Russia and the West, their message was not insignificant. They took a stand on the facts. They sided with the struggling people. They fought for peace through exhibitions dedicated to the victims of war. They defended the good of independence. Voices in favour of the war were isolated. They also taught moral lessons, as they did not put the money of the Russian oligarchs above the value of the human being. So museums -even though they were not used as a “bridge of communication” at the beginning of the conflict - played a crucial role in inspiring citizens as true ‘public opinion shapers’.

Once, for another matter, it was observed that “cultural diplomacy may not be able to offer the absolute way out of the crisis, but it can essentially contribute to its better management” (Κοντοχρήστου, Ζερβάκη, Μεντζελοπούλου, 2018: 184). So today, museums may not be able to end the war, but they can help shape a society with better values, greater empathy and sensitivity.

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GENERALIZATIONS OF GRADED PRIME IDEALS OVER GRADED NEAR RINGS

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Abstract

This paper considers graded near-rings over a monoid generalizations of the graded rings over groups, introduces certain innovative graded weakly prime ideals, and graded almost prime ideal as a generalizations of graded prime ideals over graded near-rings, and explore their various properties and their generalizations in graded near-rings.

Keywords: Graded rings, graded near-rings, graded prime ideals, graded weakly prime ideals, and Graded almost prime ideals.

1. Introduction

Throughout this article, G will be an abelian group with identity e and R be a commutative ring with nonzero unity 1 element. R is called a G -graded ring if $R = \bigoplus_{g \in G} R_g$ with the property $R_g R_h \subseteq R_{gh}$ for all $g, h \in G$, where R_g is an additive subgroup of R for all $g \in G$. The elements of R_g are called homogeneous of degree g . If $x \in R$, then x can be written uniquely as $\sum_{g \in G} x_g$, where x_g is the component of x in R_g . The set of all homogeneous elements of R is $h(R) = \bigcup_{g \in G} R_g$. Let P be an ideal of a G -graded ring R . Then P is called a graded ideal if $P = \bigoplus_{g \in G} P_g$ i.e., for $x \in P$ and $x = \sum_{g \in G} x_g$ where $x_g \in P_g$ for all $g \in G$. An ideal of a G -graded ring is not necessarily a graded ideal (see [1]). The concept of graded prime ideals and its generalizations have an indispensable role in commutative G -graded rings.

Near-rings are generalizations of rings in which addition is not necessarily abelian and only one distributive law holds. They arise in a natural way in the study of mappings on groups: the set $M(G)$ of all maps of a group $(G; +)$ into itself endowed with point-wise addition and composition of functions is a near-ring. For general background on the theory of near-rings, the monographs written by Pilz [7] and Meldrum [6] should be referred. The definition of a near-ring $(N, +, \times)$ is a set N with two binary $+$ and \times that satisfy the following axioms:

- (1) $(N, +)$ is a group.
- (2) (N, \times) is semi group. (semi group: a set together with an associative binary operation).
- (3) \times is right distributive over $+$ (i.e. $(a + b) \times y = ay + by$).

The graded rings were introduced by Yoshida in [8]. Also, graded near-rings were introduced and studied by Dumitru, Nastasescu, and Toader in [4]. Let G be a multiplicative monoid (an algebraic structure with a single associative binary operation) with identity. A near-ring N is called a G -graded near-ring if there exists a family of additive normal subgroups $\{N_\sigma\}$ of N satisfying that:

- (1) $N = \bigoplus_{\sigma \in G} N_\sigma$.
- (2) $N_\sigma N_\tau \subseteq N_{\sigma\tau}$ for all $\sigma, \tau \in G$.

A graded ideal P of a G -graded ring R is said to be a graded prime ideal of R if $ab \in P$, where $a, b \in h(R)$, then $a \in P$ or $b \in P$. Graded prime ideals have been generalized to graded weakly prime ideals and graded almost prime ideals. In [2], a graded ideal P of R is said to be graded weakly prime ideal of R if $0 \neq ab \in P$, where $a, b \in h(R)$, then $a \in P$ or $b \in P$. We say that a graded ideal P of R is a graded almost prime ideal of R if $ab \in P - [P^2 \cap R]$, where $a, b \in h(R)$, then $a \in P$ or $b \in P$ (see [5]).

Bataineh, Al-Shorman, and Al-Kilany in [3] defined the concept of graded prime ideals over graded near-rings. A graded ideal P of a graded near-ring N is said to be a graded prime ideal of N if whenever $IJ \subseteq P$, then either $I \subseteq P$ or $J \subseteq P$, for any graded ideals I and J in N . In Section Two, we introduced the concept of graded weakly prime ideals in graded near-rings. We

say that \overline{P} is a graded weakly prime ideal of \overline{N} if whenever $\{0\} \neq IJ \subseteq P$, then either $\overline{I} \subseteq P$ or $\overline{J} \subseteq P$, for any graded ideals \overline{I} and \overline{J} in \overline{N} . In Section Three, we introduce the concept of graded almost prime ideals in graded near-ring. We say that \overline{P} is a graded almost prime ideal of \overline{N} if whenever $\overline{IJ} \subseteq P$ and $\overline{IJ} \not\subseteq (P^2 \cap N)$, then either $\overline{I} \subseteq P$ or $\overline{J} \subseteq P$, for any graded ideals \overline{I} and \overline{J} in \overline{N} .

2. GRADED WEAKLY PRIME IDEALS OVER GRADED NEAR RINGS

In this section, we introduce graded weakly prime ideals graded over near-rings concept and study their basic properties.

Definition 2.1. Let G be a multiplicative monoid group with an identity element and N be a G -graded near-ring. A graded ideal \overline{P} is a graded weakly prime ideal of \overline{N} if whenever $\{0\} \neq IJ \subseteq P$, then either $\overline{I} \subseteq P$ or $\overline{J} \subseteq P$, for any graded ideals \overline{I} and \overline{J} in \overline{N} .

Example 2.2. Consider the ring $(\overline{Z_{12}}, +, \times)$ is a near-ring with $\overline{G} = \{0, 1\}$ is a group under $(\overline{+})$, where $(\overline{+})$ defined as $\overline{0} + \overline{0} = \overline{0}$, $\overline{0} + \overline{1} = \overline{1}$, $\overline{1} + \overline{0} = \overline{1}$ and $\overline{1} + \overline{1} = \overline{1}$.

Let \overline{N} be a G -graded near-ring defined by $\overline{N}_0 = \overline{Z_{12}}$, and $\overline{N}_1 = \{0\}$. Note that the graded ideals $\overline{P}_1 = \{0\}$, $\overline{P}_2 = \{0, 2, 4, 6, 8, 10\}$, and $\overline{P}_3 = \{0, 3, 6, 9\}$ are graded weakly prime ideals of \overline{N} .

Remark 2.3. Every graded prime ideals over graded near-rings is a graded weakly prime ideals over graded near-rings. However, the converse is not true. For Example 2.2, \overline{P}_1 is a graded weakly prime ideal of \overline{N} but not a graded prime ideal of \overline{N} .

The following theorem and corollary state that graded weakly prime ideals of N are graded prime ideals of N when certain conditions are met.

Theorem 2.4. Let N be a G -graded near-ring and P be a graded weakly prime ideal of N . If P is not graded prime ideal of N , then $\overline{P^2} \cap N = \{0\}$.

Proof. Suppose that $\overline{P^2} \cap N \neq \{0\}$. It is observed that P is graded prime ideal of N . Let I and J be a graded ideals of N such that $\overline{IJ} \subseteq P$. If $\overline{IJ} \neq \{0\}$, then $\overline{I} \subseteq P$ or $\overline{J} \subseteq P$ since P is a graded weakly prime ideal of N . So, it could be assumed that $\overline{IJ} = \{0\}$. Since $\overline{P^2} \cap N \neq \{0\}$, so there exists $\overline{p}, \overline{q} \in P$ such that $\overline{p} > \overline{q} > \neq 0$ and so $\overline{(I + \overline{p} >)(J + \overline{q} >) \neq \{0\}}$. Suppose that $\overline{(I + \overline{p} >)(J + \overline{q} >) \not\subseteq P$, then there exists $\overline{i} \in I, \overline{j} \in J, \overline{p}_0 \in \overline{p} >$ and $\overline{q}_0 \in \overline{q} >$ such that $\overline{(i + \overline{p}_0)(j + \overline{q}_0)} \notin P$ which implies that $\overline{i(j + \overline{q}_0)} \notin P$, but $\overline{i(j + \overline{q}_0)} = \overline{i(j + \overline{q}_0)} - \overline{ij} \in P$ since $\overline{IJ} = \{0\}$. This is a contradiction. Thus, $\{0\} \neq \overline{(I + \overline{p} >)(J + \overline{q} >) \subseteq P$ which implies that $\overline{I} \subseteq P$ or $\overline{J} \subseteq P$.

Corollary 2.5. Let N be a G -graded near-ring and let P be a graded ideal of N such that $\overline{P^2} \cap N \neq \{0\}$. Then P is graded prime ideal of N if and only if P is graded weakly prime ideal of N .

Proof. Let P be a graded ideal of N such that $\overline{P^2} \cap N \neq \{0\}$. By Theorem 2.4, if P is a graded weakly prime ideal of N , then P is a graded prime ideal of N . Also, by Remark 2.3, if P is a graded prime ideal of N , then P is a graded weakly prime ideal of N .

Remark 2.6. It is not necessary that P is graded weakly prime ideal of N such that $\overline{P^2} \cap N = \{0\}$. Let N be a graded near-ring which is defined in Example 2.2 and let $\overline{P} = \{0, 6\}$. Note that $\overline{P^2} \cap N = \{0\}$, but P is not graded weakly prime ideal of N .

The next proposition gives an interesting case where graded weakly prime ideals lead to graded prime ideals in a graded near-ring.

Proposition 2.7. Let N be a G -graded near-ring and P be a graded ideal of N . If P is a graded weakly prime ideal of N and $\{(\{0\} : P) : P\} \subseteq P$, then P is a grade prime ideal of N .

Proof. Suppose that P is not a graded prime ideal of N , then there exists $\overline{I} \not\subseteq P$ and $\overline{J} \not\subseteq P$ satisfying that $\overline{IJ} \subseteq P$, where I and J are two graded ideals of N . If $\overline{IJ} \neq \{0\}$, then it is completed. So, it is assume that $\overline{IJ} = \{0\}$. Note that $\overline{IJ} \subseteq P$ since if an element belongs to $\overline{I}P$, then it belongs to both N and P . Consider $\overline{I(J + P)} \subseteq P$ if $\overline{I(J + P)} \neq \{0\}$, then either $\overline{I} \subseteq P$ or $\overline{J} \subseteq P$, this is a contradiction. Otherwise, $\overline{I(J + P)} = \{0\}$, then $\overline{I}P = \{0\}$ implies $\overline{I} \subseteq (\{0\} : P) \subseteq P$.

Theorem 2.8. Let N be a G -graded near-ring and P be a graded weakly prime ideal of N . If $\overline{IJ} = \{0\}$ with $\overline{I} \not\subseteq P$ and $\overline{J} \not\subseteq P$ where I and J are two graded ideals of N , then $\overline{I}P = \overline{J}P$.

Proof. Suppose that there exists $\overline{p} \in P$ and $\overline{i} \in I$ such that $\overline{ip} = 0$. Then $\{0\} \neq \overline{I(J + \overline{p} >) \subseteq P$. But $\overline{I} \not\subseteq P$ and $\overline{J + \overline{p} >} \not\subseteq P$, which contradicts that P being graded weakly prime ideal of N .

Lemma 2.9. Let N be a G -graded near-ring. If $\overline{P}, \overline{I}$ and \overline{J} are graded ideals of N such that $\overline{P} = \overline{I} \cup \overline{J}$, then P equals I or J .

Proof. Suppose P does not equal I nor J . Let $\overline{x} \in P$ such that $\overline{x} \in I$ but $\overline{x} \notin J$ and $\overline{y} \in P$ such that $\overline{y} \in J$ but $\overline{y} \notin I$. Since P is a graded ideal of N , $\overline{x - y} \in P$. This implies $\overline{x - y} \in I$ or $\overline{x - y} \in J$. If $\overline{x - y} \in I$, then $\overline{y} \in I$ since I is a graded ideal of N , this is a contradiction. If $\overline{x - y} \in J$, then $\overline{x} \in J$ since J is a graded ideal of N , this is a contradiction. Therefore, P equals either I or J .

Proposition 2.10. Let N be a G -graded near-ring and P be a graded ideal of N . Then the following are equivalent:

- (1) For $\overline{x}, \overline{y}$ and $\overline{z} \in N$ with $\overline{0} \neq \overline{x} < \overline{y} > + < \overline{z} >$ $\subseteq P$, $\overline{x} \in P$ or \overline{y} and $\overline{z} \in P$
- (2) For $\overline{x} \in N$ but $\overline{x} \notin P$ we have $\overline{(P : < \overline{x} > + < \overline{y} >)} = P \cup (0 : < \overline{x} > + < \overline{y} >)$ for any $\overline{y} \in N$.
- (3) For $\overline{x} \in N$ but $\overline{x} \notin P$ we have $\overline{(P : < \overline{x} > + < \overline{y} >)} = P$ or $\overline{(P : < \overline{x} > + < \overline{y} >)} = (0 : < \overline{x} > + < \overline{y} >)$ for any $\overline{y} \in N$.
- (4) P is a graded weakly prime ideal of N .

Proof. (1) \rightarrow (2): Let $t \in N$ and $t \in (P : \langle x \rangle + \langle y \rangle)$ for any y and x belongs to N but $x \notin P$. Then $t(\langle x \rangle + \langle y \rangle) \subseteq P$. If $t(\langle x \rangle + \langle y \rangle) = 0$. Then $t \in (0 : \langle x \rangle + \langle y \rangle)$. Otherwise $0 \neq t(\langle x \rangle + \langle y \rangle) \subseteq P$. Thus, $t \in P$ by hypothesis.

(2) \rightarrow (3): It is following directly from Lemma 2.9.

(3) \rightarrow (4): Let I and J be a graded ideal of N such that $IJ \subseteq P$. Suppose that $I \not\subseteq P$ and $J \not\subseteq P$. Then there exists $j \in J$ with $j \notin P$. Now, it is claimed that $IJ = \{0\}$. Let $j_1 \in J$, then $I(\langle j \rangle + \langle j_1 \rangle) \subseteq P$, which implies $I \subseteq (P : \langle j \rangle + \langle j_1 \rangle)$. Then by assumption, $I(\langle j \rangle + \langle j_1 \rangle) = 0$ which gives $Ij_1 = \{0\}$. Thus $IJ = \{0\}$ and hence P is a graded weakly prime ideal of N .

(4) \rightarrow (1): If $0 \neq x(\langle y \rangle + \langle z \rangle) \subseteq P$, then $\{0\} \neq \langle x \rangle (\langle y \rangle + \langle z \rangle) \subseteq P$. Since P is a graded weakly prime ideal of N , there is $\langle x \rangle \subseteq P$ or $\langle y \rangle + \langle z \rangle \subseteq P$. By assumption, x, y , and $z \in N$. Hence $x \in P$ or y and $z \in P$.

Theorem 2.11. Let N be a G-graded near-ring and P be a graded ideal of N . Then the following are equivalent:

(1) P is a graded weakly prime ideal of N .

(2) For any ideals I and J in N with $P \subset I$ and $P \subset J$, then there is either $IJ = \{0\}$ or $IJ \not\subseteq P$.

(3) For any ideals I and J in N with $I \not\subseteq P$ and $J \not\subseteq P$, then there is either $IJ = \{0\}$ or $IJ \not\subseteq P$.

Proof. (1) \rightarrow (2): Let I and J be two graded ideals of N with $P \subset I, P \subset J$ and $IJ \neq \{0\}$. Take $i \in I$ and $j \in J$ with $i \notin P$ and $j \notin P$, which implies that $\{0\} \neq \langle i \rangle \langle j \rangle \not\subseteq P$ and hence $\{0\} \neq IJ \not\subseteq P$.

(2) \rightarrow (3): Let I and J be a graded ideals of N with $I \not\subseteq P$ and $J \not\subseteq P$. Then there exists $i_1 \in I$ and $j_1 \in J$ such that $i_1 \notin P$ and $j_1 \notin P$. Suppose that $\langle i \rangle \langle j \rangle \neq \{0\}$ for some $i \in I$ and $j \in J$. Then $(P + \langle i \rangle + \langle i_1 \rangle)(P + \langle j \rangle + \langle j_1 \rangle) \neq \{0\}$ and $P \subset (P + \langle i \rangle + \langle i_1 \rangle)$ and $P \subset (P + \langle j \rangle + \langle j_1 \rangle)$. By hypothesis, $(P + \langle i \rangle + \langle i_1 \rangle)(P + \langle j \rangle + \langle j_1 \rangle) \not\subseteq P$. So, $\langle i \rangle (P + \langle j \rangle + \langle j_1 \rangle) + \langle i_1 \rangle (P + \langle j \rangle + \langle j_1 \rangle) \not\subseteq P$. Hence there exists

$i' \in \langle i \rangle, i'_1 \in \langle i_1 \rangle, j', j'' \in \langle j \rangle, j'_1, j''_1 \in \langle j_1 \rangle$ and $p_1, p_2 \in P$ such that $i'(p_1 + j' + j'_1) + i'_1(p_2 + j'' + j''_1) \notin P$. Thus $i'(p_1 + j' + j'_1) - i'(j' + j'_1) + i'(j' + j'_1) + i'_1(p_2 + j'' + j''_1) - i'_1(j'' + j''_1) + i'_1(j'' + j''_1) \notin P$. But $i'(p_1 + j' + j'_1) - i'(j' + j'_1) \in P$ and $i'_1(p_2 + j'' + j''_1) - i'_1(j'' + j''_1) \in P$. This implies neither $i'(j' + j'_1)$ nor $i'_1(j'' + j''_1)$ belongs to P . Therefore, $IJ \not\subseteq P$.

(3) \rightarrow (1): Follows directly from the definition of graded weakly prime ideals of N .

Proposition 2.12. Let N be a G-graded near-ring, A be a totally ordered set, and $\{P_\alpha\}_{\alpha \in A}$ be a family of graded weakly prime ideals of N with $P_\alpha \subseteq P_\beta$ for any $\alpha, \beta \in A$ with $\alpha \leq \beta$. Then $P = \bigcap_{\alpha \in A} P_\alpha$ is a graded weakly prime ideal of N .

Proof. Let I and J be two graded ideals of N with $\{0\} \neq IJ \subseteq P$, which implies for all $\alpha \in A$ there is $IJ \subseteq P_\alpha$. If there exists $\alpha \in A$ such that $I \not\subseteq P_\alpha$, then $J \setminus \text{subseteq} P_\alpha$. Hence for all $\alpha \leq \beta$ there is $J \subseteq P_\beta$. If there exists $\beta < \alpha$ such that $J \not\subseteq P_\beta$, then $J \subseteq P_\beta$ and then $J \subseteq P_\alpha$, this is a contradiction. Hence for any $\alpha \in A$, there is $J \subseteq P_\alpha$. Therefore, $J \subseteq P$.

Proposition 2.13. Let N be a G-graded near-ring and P be an intersection of some graded weakly prime ideals of N . Then for any graded ideal I of N satisfying that $\{0\} \neq I^2 \subseteq P$ there is $I \subseteq P$.

Proof. Let $\{P_\alpha\}$ be a set of graded weakly prime ideals of N , P be the intersection of $\{P_\alpha\}$ and I be a graded ideal of N such that $\{0\} \neq I^2 \subseteq P$. Then I^2 is a subset of each P_α since P_α is graded weakly prime ideal of N there is $I \subseteq P_\alpha$. Therefore, $I \subseteq P$.

Next Example and Theorem 2.16, show that the pre-image of a surjective homomorphism map of graded weakly prime ideal of N is not necessary to be graded weakly prime ideal of N , while the image of a surjective homomorphism map of graded weakly prime ideal of N which contains the kernel is graded weakly prime ideal of N .

Example 2.14. Let G be the multiplicative monoid defined in Example 2.2 and $N = Z_8$ and $M = Z_4$ be two G-graded near-rings where $N_0 = Z_8, N_1 = \{0\}, M_0 = Z_4$ and $M_1 = \{0\}$. Consider $\phi: N \rightarrow M$ where $\phi(x) = x$ is a surjective homomorphism map. However, $\{0\}$ is a graded weakly prime ideal in M although $\phi^{-1}(\{0\}) = \{0, 4\}$ is not a graded weakly prime ideal of N .

Lemma 2.15. Let N and M be two G-graded near-rings and ϕ be a surjective homomorphism from N into M . For any two graded ideals I and J of N if $IJ \neq \{0\}$, then $\phi^{-1}(I)\phi^{-1}(J) \neq \{0\}$.

Proof. Let I and J be two graded ideals of N such that $IJ \neq \{0\}$. Suppose that $\phi^{-1}(I)\phi^{-1}(J) = \{0\}$, then $\phi^{-1}(I)\phi^{-1}(J) = \phi^{-1}(IJ) = \{0\}$. Therefore, $\phi(\{0\}) = I$ which contradiction with the fact that the image of zero is zero for any homomorphism map. Hence $\phi^{-1}(I)\phi^{-1}(J) \neq \{0\}$.

Theorem 2.16. Let N and M be two G-graded near-rings and ϕ be a surjective homomorphism from N into M . Then the image of the graded weakly prime ideal of N which contains the kernel of ϕ is a graded weakly prime ideal of M .

Proof. Suppose that $\{0\} \neq IJ \subseteq \phi(P)$ where I and J are graded ideals of M and P is a graded weakly prime ideals of N . By Lemma 2.15, $\phi^{-1}(I)\phi^{-1}(J) \neq \{0\}$. Hence $\{0\} \neq \phi^{-1}(I)\phi^{-1}(J) \subseteq P + \text{Ker}(\phi) \subseteq P$. However, $\phi^{-1}(I)\phi^{-1}(J) \subseteq N$ then $\phi^{-1}(I)\phi^{-1}(J) \subseteq P$ since P is a graded weakly prime ideal of N , so $\phi^{-1}(I) \subseteq P, \phi^{-1}(J) \subseteq P$. Therefore, $I \subseteq \phi(P)$ or $J \subseteq \phi(P)$. Hence $\phi(P)$ is a graded weakly prime ideal of M .

Next Example and Theorem 2.18, if $I \subseteq P$ and $\pi: N \rightarrow \bar{N} = N/I$ is the canonical epimorphism, then $\pi(P)$ is graded weakly prime ideal of \bar{N} if P is graded weakly prime ideal of N while it is not necessary that P is graded weakly prime ideal in N if $\pi(P)$ is graded weakly prime ideal of \bar{N} .

Example 2.17. Let $\overline{N} = Z_{18}$ be a G-graded near-ring where $\overline{N}_0 = Z_{18}$ and $\overline{N}_1 = \{0\}$. Consider $\overline{\pi}: \overline{N} \rightarrow \overline{N}/I := \overline{N}/I$, where $\overline{\pi}(x) = x$ and $I = \{0, 9\}$. It is easily to check that $\overline{\pi}(\{0, 9\}) = \overline{0}$ is a graded weakly prime ideal of \overline{N} . However, $I \subseteq \{0, 9\}$ is not graded weakly prime ideal of \overline{N} .

Theorem 2.18. Let N be a G-graded near-ring and P, I be a graded ideals of N with $I \subseteq P$. Consider $\overline{\pi}: \overline{N} \rightarrow \overline{N}/I := \overline{N}/I$ is the canonical epimorphism. If P is a graded weakly prime ideal of N , then $\overline{\pi}(P)$ is a graded weakly prime ideal of \overline{N} .

Proof. Let J and K be a graded ideals of N with $\{0\} \neq KJ \subseteq P$, so $\overline{\pi}(J)$ and $\overline{\pi}(K)$ are graded ideals of \overline{N} with $\{0\} \neq \overline{\pi}(J)\overline{\pi}(K) = \overline{\pi}(JK) \subseteq \overline{\pi}(P)$. Since $\{0\} \neq \overline{\pi}(J)\overline{\pi}(K)$ then by Lemma 2.15 $\{0\} \neq \overline{\pi}^{-1}(\overline{\pi}(J))\overline{\pi}^{-1}(\overline{\pi}(K))$ and then $\overline{\pi}^{-1}(\overline{\pi}(J))\overline{\pi}^{-1}(\overline{\pi}(K)) = JK \subseteq \overline{\pi}^{-1}(\overline{\pi}(P)) = P + I = P$. Thus $I \subseteq P$ or $K \subseteq P$. Therefore, $I = \overline{\pi}^{-1}(\overline{\pi}(I)) \subseteq P \subseteq \overline{\pi}^{-1}(\overline{\pi}(P))$ so $\overline{\pi}(I) \subseteq \overline{\pi}(P)$ or $\overline{\pi}(K) \subseteq \overline{\pi}(P)$. Thus $\overline{\pi}(P)$ is a grade weakly prime ideal of \overline{N} .

Note that, from the definition of graded weakly prime ideals, for any graded ideal of N with $I^2 \subseteq P$ where P is a graded weakly prime ideal of N , if $I \not\subseteq P$ then $I^2 = \{0\}$. If there are other special cases that guarantee $I^2 = \{0\}$. Theorem 2.20 gives one case of them but before state it the following lemma is presented.

Lemma 2.19. Let P be a graded weakly prime ideal of N . If I is a graded ideal of \overline{N}/P with $\overline{I} = \{0\}$ for some non-zero graded ideal I of \overline{N}/P . Then there is either $I \subseteq P$ or $PJ = \{0\}$.

Proof. Suppose that $I \not\subseteq P$ and let $p \in P$. Then $\langle \langle p \rangle + I \rangle \not\subseteq P$ and $\langle \langle p \rangle + I \rangle J \subseteq P$ which implies $\langle \langle p \rangle + I \rangle J = \{0\}$ but P is a graded weakly prime ideal of N . Thus $\langle \langle p \rangle + I \rangle = \{0\}$ and hence $PJ = \{0\}$.

Theorem 2.20. Let N be a G-graded near-ring and P be a graded weakly prime ideal of N with $P^2 = \{0\}$. If I is a graded ideal of N and $I^2 \subseteq P$, then $I^2 = \{0\}$.

Proof. Let P is a graded weakly prime ideal of N and for any $x, y \in I$, there is $\langle \langle x \rangle \langle y \rangle \rangle \subseteq I^2 \subseteq P$. Now, the claim is that $\langle \langle x \rangle \langle y \rangle \rangle = \{0\}$. Suppose not, then since P is graded weakly prime ideal of N , there is $x \in P$ or $y \in P$. If both $x, y \in P$, then $\langle \langle x \rangle \langle y \rangle \rangle \subseteq P^2 = \{0\}$. So, it is assumed that only one of them x or y belongs to P . Take $x \in P$ since $\langle \langle y \rangle \langle y \rangle \rangle \subseteq I^2 \subseteq P$ and by Lemma 2.19 we have $\langle \langle x \rangle \langle y \rangle \rangle \subseteq P \langle \langle y \rangle \rangle = \{0\}$ which implies $I^2 = \{0\}$.

Recall that, if N and M is a G-graded near-rings, then $\overline{N} \times \overline{M}$ is a G-graded near-ring.

Theorem 2.21. Let N and M be a G-graded near-rings and P be a graded ideal of N . Then P is a graded weakly prime ideal of N if and only if $\overline{P} \times \overline{M}$ is a graded weakly prime ideal of $\overline{N} \times \overline{M}$.

Proof. (\Rightarrow) Let P be a graded weakly prime ideal of N and $\overline{I} \times \overline{M}, \overline{J} \times \overline{M}$ be graded ideals of $\overline{N} \times \overline{M}$ such that $\{0\} \neq (\overline{I} \times \overline{M})(\overline{J} \times \overline{M}) \subseteq \overline{P} \times \overline{M}$. Then $\{0\} \neq (\overline{I} \times \overline{M})(\overline{J} \times \overline{M}) = (\overline{I} \times \overline{M})\overline{M} \subseteq \overline{P} \times \overline{M}$. So, $\{0\} \neq \overline{I} \subseteq \overline{P}$ but P is a graded weakly prime ideal of N then $I \subseteq P$ or $J \subseteq P$. Therefore, $\overline{I} \times \overline{M} \subseteq \overline{P} \times \overline{M}$ or $\overline{J} \times \overline{M} \subseteq \overline{P} \times \overline{M}$. Thus $\overline{P} \times \overline{M}$ is a graded weakly prime ideal of $\overline{N} \times \overline{M}$.

(\Leftarrow) Suppose that $\overline{P} \times \overline{M}$ is a graded weakly prime ideal of $\overline{N} \times \overline{M}$ and Let I, J be a graded ideals of N such that $\{0\} \neq IJ \subseteq P$. Then $\{0\} \neq (\overline{I} \times \overline{M})(\overline{J} \times \overline{M}) \subseteq \overline{P} \times \overline{M}$. By assumption, we have $\overline{I} \times \overline{M} \subseteq \overline{P} \times \overline{M}$ or $\overline{J} \times \overline{M} \subseteq \overline{P} \times \overline{M}$. So $I \subseteq P$ or $J \subseteq P$. Thus P is a graded weakly prime ideal of N .

Corollary 2.22. Let N and M be two G-graded near-rings. If every graded ideal of N and M is a product of graded weakly prime ideals, then every graded ideal of $\overline{N} \times \overline{M}$ is a product of graded weakly prime ideals.

Proof. Let I be a graded ideal of N and J be a graded ideal of M such that $\overline{I} = I_1 \dots I_n$ and $\overline{J} = J_1 \dots J_m$ where \overline{I}_i and \overline{J}_i is a graded weakly prime ideal of N and M respectively. If the graded ideal is of the form $\overline{I} \times \overline{M}$ then $\overline{I} \times \overline{M} = (I_1 \dots I_n) \times \overline{M}$ can be written as $(I_1 \times \overline{M}) \dots (I_n \times \overline{M})$ which is by Theorem 2.21 a product of graded weakly prime ideals. Similarly, if the graded ideal is of the form $\overline{N} \times \overline{J}$, then it is a product of graded weakly prime ideals. If the graded ideal is of the form $\overline{I} \times \overline{J}$ then it can be written as $(I_1 \dots I_n) \times (J_1 \dots J_m) = ((I_1 \dots I_n) \times \overline{M})(\overline{N} \times (J_1 \dots J_m)) = (I_1 \times \overline{M}) \dots (I_n \times \overline{M})(\overline{N} \times J_1) \dots (\overline{N} \times J_m)$ which is a product of graded weakly prime ideals.

Theorem 2.23. Let N and M be two G-graded near-rings. Then a graded ideal P of $\overline{N} \times \overline{M}$ is graded weakly prime if and only if it has one of the following two forms:

(i) $\overline{I} \times \overline{M}$, where I is a graded weakly prime ideal of N .

(ii) $\overline{N} \times \overline{J}$, where J is a graded weakly prime ideal of M .

Proof. Let P be a graded ideal of $\overline{N} \times \overline{M}$. Then P has one of the following three forms (i) $\overline{I} \times \overline{M}$ where I is a graded ideal of N or (ii) $\overline{N} \times \overline{J}$, where J is the proper ideal of M or $\overline{I} \times \overline{J}$, where $\overline{I} \neq \overline{N}$ and $\overline{J} \neq \overline{M}$. If P is of the form $\overline{I} \times \overline{M}$ or of the form $\overline{N} \times \overline{J}$ then by Theorem 2.21, P is graded weakly prime ideal of $\overline{N} \times \overline{M}$ if and only if both I and J are graded weakly prime ideals of N and M respectively. Let $\overline{P} = \overline{I} \times \overline{J}$ be a graded weakly prime ideal of $\overline{N} \times \overline{M}$ with $\overline{I} \neq \overline{N}$ and $\overline{J} \neq \overline{M}$. Suppose $x \in I$. Then $\langle \langle x \rangle \times \{0\} \rangle \subseteq P$ This implies that either $\langle \langle x \rangle \times \overline{M} \rangle \subseteq P$ or $\langle \overline{N} \times \{0\} \rangle \subseteq P$. If $\langle \langle x \rangle \times \overline{M} \rangle \subseteq P$, then $\overline{M} = \overline{J}$ and if $\langle \overline{N} \times \{0\} \rangle \subseteq P$, then $\overline{N} = \overline{I}$ this is a contradiction. Hence $\overline{I} \times \overline{J}$ can not be graded weakly prime ideal of $\overline{N} \times \overline{M}$ if both I and J are graded ideals.

Theorem 2.24. Let N and M be two G-graded near-rings. Then $\overline{P} = \{0\} \times \{0\}$ is a graded weakly prime ideal of $\overline{N} \times \overline{M}$.

Proof. Let $I = \{0\}$ be a graded ideal of N . Suppose that $x \in I - \{0\}$ then $\langle x \rangle \subseteq P$ and $\langle x \rangle \neq \{0\}$. This implies that either $\langle x \rangle \subseteq M \subseteq P$ or $N \times \{0\} \subseteq P$ then $N = I$ this is a contradiction. So $I - \{0\}$ is empty. Similarly if $J = \{0\}$ where J is a graded ideal of M . Therefore, P is a graded weakly prime ideal of $N \times M$.

Proposition 2.25. Let N be a G -graded near-ring and P, I be two graded ideals of N . If P and I are graded weakly prime ideal of N , then $P \cup I$ is a graded weakly prime ideal of N .

Proof. Let J and K be two graded ideals of N such that $\{0\} \neq JK \subseteq P \cup I$. Then $JK \subseteq P$ or $JK \subseteq I$. Since $JK \neq \{0\}$ and if $JK \subseteq P$, then $J \subseteq P$ or $K \subseteq P$ since P is a graded weakly prime ideal of N . Hence $J \subseteq P \cup I$ or $K \subseteq P \cup I$. If $JK \subseteq I$, then $J \subseteq I$ or $K \subseteq I$ since I is a graded weakly prime ideal of N . thus $J \subseteq P \cup I$ or $K \subseteq P \cup I$. Therefore, $P \cup I$ is a graded weakly prime ideal of N .

3. GRADED ALMOST PRIME IDEALS OVER GRADED NEAR RINGS

In this section, we introduce graded almost prime ideals over near-rings concepts and study their basic properties.

Definition 3.1. Let G be a multiplicative monoid group with an identity element and N be a G -graded near-ring. A graded ideal P of N is called a graded almost prime ideal of N if whenever $IJ \subseteq P$ and $I \not\subseteq (P^2 \cap N)$, then either $I \subseteq P$ or $J \subseteq P$, for any graded ideals I and J in N .

Example 3.2. Consider a G -graded near-ring which is defined in Example 2.2. Note that $P_4 = \{0, 4, 8\}$ is a graded almost prime ideal of N but not graded weakly prime ideal of N . However, $P_5 = \{0, 6\}$ is neither graded weakly prime ideal of N nor graded almost prime ideal of N .

In the previous section, it was observed that if P is graded prime ideal then it is graded weakly prime ideal but the converse is not true for example P_1 in Example 2.2 is not graded prime ideal of N but it is graded weakly prime ideal of N . Also, by Example 3.2, a graded almost prime ideal of N may not implies a graded weakly prime ideal of N . Now, the question is: Does a graded weakly prime ideal give a graded almost prime ideal? The next theorem answers this question.

Theorem 3.3. Let N be a G -graded near-ring and P be a graded ideal of N . If P is a graded weakly prime ideal of N , then P is a graded almost prime ideal of N .

Proof. Let P be a graded weakly prime ideal of N and I, J be two graded ideals of N such that $IJ \subseteq P$ and $I \not\subseteq (P^2 \cap N)$. If P is a graded prime ideal of N then P is a graded almost prime ideal of N . Otherwise, $(P^2 \cap N) = \{0\}$ by Theorem 2.4 $I \not\subseteq \{0\}$ since $I \not\subseteq (P^2 \cap N) = \{0\}$. But P is a graded weakly prime ideal of N . Therefore, either $I \subseteq P$ or $J \subseteq P$ which means that P is a graded almost prime ideal of N .

Proposition 3.4. Let N be a G -graded near-ring and P be a graded prime ideal of N . If P is a graded almost prime ideal of N and $((P^2 \cap N) : P) \subseteq P$, then P is a graded prime ideal of N .

Proof. Suppose that P is not graded prime ideal of N . Then there exist $I \not\subseteq P$ and $J \not\subseteq P$ satisfying that $IJ \subseteq P$ where I and J are two graded ideals of N . If $I \not\subseteq (P^2 \cap N)$ we are done. So, it is assumed $I \subseteq (P^2 \cap N)$. Consider $I(J + P) \subseteq P$ if $I(J + P) \not\subseteq (P^2 \cap N)$ then there is $I \subseteq P$ or $J \subseteq P$ this is a contradiction. Otherwise, $I(J + P) \subseteq (P^2 \cap N)$ then $IP \subseteq (P^2 \cap N)$ which implies $I \subseteq ((P^2 \cap N) : P) \subseteq P$ which is a contradiction. Thus P is a graded prime ideal of N .

Next, some equivalent conditions are given for a graded ideal to be graded almost prime ideal in the G -graded near-ring.

Theorem 3.5. Let N be a G -graded near-ring and P be a graded ideal of N . Then the following are equivalent:

- (1) For x, y and $z \in N$ with $x(\langle y \rangle + \langle z \rangle) \subseteq P$ and $x(\langle y \rangle + \langle z \rangle) \not\subseteq (P^2 \cap N)$ there is $x \in P$ or y and $z \in P$.
- (2) For $x \in N$ but $x \not\subseteq P$, $(P : \langle x \rangle + \langle y \rangle) = P \cup ((P^2 \cap N) : \langle x \rangle + \langle y \rangle)$ for any $y \in N$.
- (3) For $x \in N$ but $x \not\subseteq P$ we have $(P : \langle x \rangle + \langle y \rangle) = P$ or $(P : \langle x \rangle + \langle y \rangle) = ((P^2 \cap N) : \langle x \rangle + \langle y \rangle)$ for any $y \in N$.
- (4) P is a graded almost prime ideal of N .

Proof. (1) \Rightarrow (2): Let $t \in N$ and $t \in (P : \langle x \rangle + \langle y \rangle)$ for any y and x belongs to N but $x \not\subseteq P$. Then $t(\langle x \rangle + \langle y \rangle) \subseteq P$. If $t(\langle x \rangle + \langle y \rangle) \subseteq (P^2 \cap N)$. Then $t \in ((P^2 \cap N) : \langle x \rangle + \langle y \rangle)$. Otherwise, we get $t(\langle x \rangle + \langle y \rangle) \not\subseteq (P^2 \cap N)$. Thus, $t \in P$ by hypothesis.

(2) \Rightarrow (3): It is following directly from Lemma 2.9.

(3) \Rightarrow (4): Let I and J be a graded ideal of N such that $IJ \subseteq P$ and $I \not\subseteq (P^2 \cap N)$. Suppose that $I \not\subseteq P$ and $J \not\subseteq P$. Then there exist $j \in J$ with $j \not\subseteq P$. Now, it is claimed that $Ij \subseteq (P^2 \cap N)$. Let $j_1 \in J$, then $I(\langle j \rangle + \langle j_1 \rangle) \subseteq P$, which implies $I \subseteq (P : \langle j \rangle + \langle j_1 \rangle)$. Then by assumption, $I(\langle j \rangle + \langle j_1 \rangle) \subseteq (P^2 \cap N)$ which gives $Ij_1 \subseteq (P^2 \cap N)$. Thus $Ij \subseteq (P^2 \cap N)$ and hence P is a graded almost prime ideal of N .

(4) \Rightarrow (1): If $x(\langle y \rangle + \langle z \rangle) \subseteq P$ and $x(\langle y \rangle + \langle z \rangle) \not\subseteq (P^2 \cap N)$, then $\{0\} \neq x(\langle y \rangle + \langle z \rangle) \subseteq P$. Since P is a graded almost prime ideal of N , there is $x \in P$ or $\langle y \rangle + \langle z \rangle \subseteq P$. By assumption, x, y and $z \in N$. Hence $x \in P$ or y and $z \in P$.

Theorem 3.6. Let N be a G -graded near-ring and P be a graded ideal of N . Then the following are equivalent:

- (1) P is a graded almost prime ideal of N .
- (2) For any ideals I and J in N with $P \subseteq I$ and $P \subseteq J$, then there is either $IJ \subseteq (P^2 \cap N)$ or $IJ \not\subseteq P$.
- (3) For any ideals I and J in N with $I \not\subseteq P$ and $J \not\subseteq P$, then there is either $IJ \subseteq (P^2 \cap N)$ or $IJ \not\subseteq P$.

Proof. (1) \rightarrow (2) Let I and J be two graded ideals of N with $P \subset I$, $P \subset J$ and $IJ \not\subseteq (P^2 \cap N)$. Take $i \in I$ and $j \in J$ with $i \notin P$ and $j \notin P$, which implies that $\langle i \rangle \langle j \rangle \not\subseteq P$ and hence $IJ \not\subseteq (P^2 \cap N)$ and $IJ \not\subseteq P$.

(2) \rightarrow (3) Let I and J be a graded ideals of N with $I \not\subseteq P$ and $J \not\subseteq P$. Then there exists $i_1 \in I$ and $j_1 \in J$ such that $i_1 \notin P$ and $j_1 \notin P$. Suppose that $\langle i \rangle \langle j \rangle \not\subseteq (P^2 \cap N)$ for some $i \in I$ and $j \in J$. Then

$(P + \langle i \rangle + \langle i_1 \rangle)(P + \langle j \rangle + \langle j_1 \rangle) \not\subseteq (P^2 \cap N)$ and $P \subseteq (P + \langle i \rangle + \langle i_1 \rangle)$, $P \subseteq (P + \langle j \rangle + \langle j_1 \rangle)$. By hypothesis, $(P + \langle i \rangle + \langle i_1 \rangle)(P + \langle j \rangle + \langle j_1 \rangle) \not\subseteq P$. So,

$\langle i \rangle (P + \langle j \rangle + \langle j_1 \rangle) + \langle i_1 \rangle (P + \langle j \rangle + \langle j_1 \rangle) \not\subseteq P$. Hence there exists

$i' \in \langle i \rangle, i'_1 \in \langle i_1 \rangle, j', j'' \in \langle j \rangle, j'_1, j''_1 \in \langle j_1 \rangle$ and $p_1, p_2 \in P$ such that

$i'(p_1 + j' + j'_1) + i'_1(p_2 + j'' + j''_1) \notin P$. Thus

$i'(p_1 + j' + j'_1) - i'(j' + j'_1) + i'_1(p_2 + j'' + j''_1) - i'_1(j'' + j''_1) + i'(j'' + j''_1) \notin P$. But

$i'(p_1 + j' + j'_1) - i'(j' + j'_1) \in P$ and $i'_1(p_2 + j'' + j''_1) - i'_1(j'' + j''_1) \in P$. This implies neither $i'(j'' + j''_1)$ nor

$i'_1(j'' + j''_1)$ belongs to P . Therefore, $IJ \not\subseteq P$.

(3) \rightarrow (1) Follows directly from the definition of graded almost prime ideals of N .

Proposition 3.7. Let N be a G -graded near-ring, A be a totally ordered set, and $\{P_a\}_{a \in A}$ be a family of graded almost prime ideals of N with $P_a \subseteq P_b$ for any $a, b \in A$ with $a \leq b$. Then $P = \bigcap_{a \in A} P_a$ is a graded almost prime ideal of N .

Proof. Let I and J be two graded ideals of N with $IJ \subseteq P$ but $IJ \not\subseteq (P^2 \cap N)$, which implies for all $a \in A$ there is $IJ \subseteq P_a$. If there exists $a \in A$ such that $I \not\subseteq P_a$ then $J \subseteq P_a$. Hence for all $a \leq b$ there is $J \subseteq P_b$. If there exists $c < a$ such that $J \not\subseteq P_c$, then $I \subseteq P_c$ and then $I \subseteq P_a$, this is a contradiction. Hence for any $a \in A$, there is $J \subseteq P_a$. Therefore, $J \subseteq P$.

Proposition 3.8. Let N be a G -graded near-ring and P be an intersection of some graded almost prime ideals of N . Then for any graded ideal I of N satisfying that $I^2 \subseteq P$ but $I^2 \not\subseteq (P^2 \cap N)$ we have $I \subseteq P$.

Proof. Let $\{P_a\}$ be a set of graded almost prime ideals of N , P be the intersection of $\{P_a\}$ and I be a graded ideal of N such that $I^2 \subseteq P$ but $I^2 \not\subseteq (P^2 \cap N)$. Then I^2 is a subset of each P_a since P_a is graded almost prime ideal of N there is $I \subseteq P_a$. Therefore, $I \subseteq P$.

Lemma 3.9. Let N and M be two G -graded near-rings and ϕ be a surjective homomorphism from N into M . For any two graded ideals P, I and J of N if $IJ \not\subseteq P$, then $\phi^{-1}(I)\phi^{-1}(J) \not\subseteq \phi^{-1}(P)$.

Proof. If $I \not\subseteq P$, then $\phi^{-1}(I) \not\subseteq \phi^{-1}(P)$ since $\phi(I) \subseteq \phi(P)$, then $I = \phi(\phi^{-1}(I)) \subseteq \phi(\phi^{-1}(P)) \subseteq P$. Hence if $IJ \not\subseteq P$, then $\phi^{-1}(IJ) = \phi^{-1}(I)\phi^{-1}(J) \not\subseteq \phi^{-1}(P)$.

Theorem 3.10. Let N and M be two G -graded near-rings and ϕ be a surjective homomorphism from N into M . Then the image of the graded almost prime ideal of N which contains the kernel of ϕ is a graded almost prime ideal of M .

Proof. Suppose that $IJ \subseteq \phi(P)$ and $IJ \not\subseteq ((\phi(P))^2 \cap N)$ where I and J be two graded ideals of N and P is a graded almost prime ideal of N . By Lemma 3.9 $\phi^{-1}(I)\phi^{-1}(J) \not\subseteq (P \cap N)$. Hence $\phi^{-1}(I)\phi^{-1}(J) \subseteq P + \text{Ker}(\phi) = P$. Since P is a graded almost prime ideal of N then $\phi^{-1}(I) \subseteq P$ or $\phi^{-1}(J) \subseteq P$. Therefore, $I \subseteq \phi(P)$ or $J \subseteq \phi(P)$. Hence $\phi(P)$ is a graded almost prime ideal of M .

Theorem 3.11. Let N be a G -graded near-ring and P, I be a graded ideals of N with $I \subseteq P$. Consider $\pi: N \rightarrow \bar{N} = N/I$ is the canonical epimorphism. If P is a graded almost prime ideal of N , then $\pi(P)$ is a graded almost prime ideal of \bar{N} .

Proof. Let P be a graded almost prime ideal of N and $\pi(J), \pi(K)$ be a graded ideal of \bar{N} with $\pi(J)\pi(K) = \pi(JK) \subseteq \pi(P)$ and $\pi(J)\pi(K) = \pi(JK) \not\subseteq ((\pi(P))^2 \cap N)$. Since $\pi(J)\pi(K) = \pi(JK) \not\subseteq ((\pi(P))^2 \cap N)$ then by Lemma 3.9 $\pi(K) \not\subseteq \pi(P)$. Therefore, $\pi^{-1}(\pi(J))\pi^{-1}(\pi(K)) = JK \subseteq \pi^{-1}(\pi(P)) = P + I = P$. Hence $J \subseteq P$ or $K \subseteq P$ and hence $\pi(J) \subseteq \pi(P)$ or $\pi(K) \subseteq \pi(P)$. Thus $\pi(P)$ is a graded almost prime ideal of \bar{N} .

Lemma 3.12. Let P be a graded almost prime ideal of N . If \bar{I} is a graded ideal of N/P with $\bar{I}\bar{I} = \{0\}$ for some non-zero graded ideal \bar{I} of N/P . Then there is either $I \subseteq P$ or $PJ \subseteq (P^2 \cap N)$.

Proof. Suppose that $I \not\subseteq P$ and let $p \in P$. Then $\langle p \rangle + I \not\subseteq P$ and $\langle p \rangle + I \subseteq P$ which implies $\langle p \rangle + I \subseteq (P^2 \cap N)$ but P is a graded almost prime ideal of N . Thus $\langle p \rangle \subseteq (P^2 \cap N)$ and hence $PJ \subseteq (P^2 \cap N)$.

Theorem 3.13. Let N be a G -graded near-ring and P be a graded almost prime ideal of N . If I is a graded ideal of N and $I^2 \subseteq P$, then $I^2 \subseteq (P^2 \cap N)$.

Proof. Let P is a graded almost prime ideal of N and for any $x, y \in I$ we have $\langle x \rangle \langle y \rangle \subseteq I^2 \subseteq P$. Now, the claim is that $\langle x \rangle \langle y \rangle \subseteq (P^2 \cap N)$. Suppose not, then since P is graded almost prime ideal of N , there is $x \in P$ or $y \in P$. So, it is assumed that only one of them x or y belongs to P . Take $x \in P$ since $\langle x \rangle \langle y \rangle \subseteq I^2 \subseteq P$ and by Lemma 3.12 we have $\langle x \rangle \langle y \rangle \subseteq P \langle y \rangle \subseteq (P^2 \cap N)$ which implies $I^2 \subseteq (P^2 \cap N)$.

Previous theorem is important in some G -graded near-ring with unique maximal in N (as N is a G -graded near-ring). If this maximal ideal is graded ideal and satisfying that $M \cap M = M^2 \cap N$ like the G -graded near-ring $\bar{N} = (Z_{16}, +, \times)$ with G defined as Example 2.2 where $N_0 = Z_{16}$ and $N_1 = \{0\}$. Note that N as a G -graded ring has unique Maximal ideal $M = \{0, 2, 4, 6, 8, 10, 12, 14\}$ and M satisfies the property $M \cap M = (M^2 \cap N)$. The importance of such G -graded near-rings is explained in the following theorem.

Theorem 3.14. Let N be a G -graded near-ring. If M is the unique maximal ideal of N with $MM = (\overline{M^2} \cap N)$, then for any graded ideal P of N with $\overline{M^2} \cap N \subseteq P$. We have P is a graded almost prime ideal of N if and only if $(\overline{M^2} \cap N) = (\overline{P^2} \cap N)$.

Proof. (\Rightarrow) Let P be a graded almost prime ideal of N . Then there is $\overline{M^2} \cap N = MM \subseteq (\overline{P^2} \cap N)$ by Theorem 3.13. Also, $(\overline{P^2} \cap N) = (\overline{M^2} \cap N)$ since M is the unique Maximal ideal of N .

(\Leftarrow) Let $(\overline{M^2} \cap N) = (\overline{P^2} \cap N)$ we claim that P is a graded almost prime ideal of N . Let I and J be two graded ideals of N with $IJ \subseteq P$. Since M is the unique Maximal ideal of N so $I \subseteq M$ and $J \subseteq M$. Therefore, $IJ \subseteq MM = (\overline{M^2} \cap N) = (\overline{P^2} \cap N)$. Hence P is a graded almost prime ideal of N .

Theorem 3.15. Let N and M be a G -graded near-rings and P be a graded ideal of N . Then P is a graded almost prime ideal of N if and only if $P \times M$ is a graded almost prime ideal of $N \times M$.

Proof. (\Rightarrow) Let P be a graded almost prime ideal of N and $I \times M, J \times M$ be a graded ideal of $N \times M$ such that $(I \times M)(J \times M) \subseteq P \times M$ and $(I \times M)(J \times M) \not\subseteq ((P \times M)^2 \cap (N \times M))$. Then $(I \times M)(J \times M) = (IJ \times MM) \subseteq P \times M$ and $(I \times M)(J \times M) = (IJ \times MM) \not\subseteq ((P^2 \cap N) \times M)$. So, $IJ \subseteq P$ and $IJ \not\subseteq (P^2 \cap N)$ but P is a graded almost prime ideal of N then $I \subseteq P$ or $J \subseteq P$. Therefore, $I \times M \subseteq P \times M$ or $J \times M \subseteq P \times M$. Thus $P \times M$ is a graded almost prime ideal of $N \times M$.

(\Leftarrow) Suppose that $P \times M$ is a graded almost prime ideal of $N \times M$ and Let I, J be a graded ideals of N such that $IJ \subseteq P$ and $IJ \not\subseteq (P^2 \cap N)$. Then $(I \times M)(J \times M) \subseteq P \times M$ and $(I \times M)(J \times M) \not\subseteq ((P \times M)^2 \cap (N \times M))$. By assumption we have $I \times M \subseteq P \times M$ or $J \times M \subseteq P \times M$. So $I \subseteq P$ or $J \subseteq P$. Thus P is a graded almost prime ideal of N .

Corollary 3.16. Let N and M be two G -graded near-rings. If every graded ideal of N and M is a product of graded almost prime ideals, then every graded ideal of $N \times M$ is a product of graded almost prime ideals.

Proof. Let I be a graded ideal of N and J be a graded ideal of M such that $\overline{I} = I_1 \dots I_n$ and $\overline{J} = J_1 \dots J_m$ where I_i and J_j is a graded almost prime ideal of N and M respectively. If the graded ideal is of the form $\overline{I} \times M$ then $\overline{I} \times M = (I_1 \dots I_n) \times M$ can be written as $(I_1 \times M) \dots (I_n \times M)$ which is by Theorem 3.15 a product of graded almost prime ideals. Similarly, if the graded ideal is of the form $\overline{N} \times \overline{J}$, then it is a product of graded almost prime ideals. If the graded ideal is of the form $\overline{I} \times \overline{J}$ then it can be written as $(I_1 \dots I_n) \times (J_1 \dots J_m) = ((I_1 \dots I_n) \times M)(N \times (J_1 \dots J_m)) = (I_1 \times M) \dots (I_n \times M)(N \times J_1) \dots (N \times J_m)$ which is a product of graded almost prime ideals.

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For the etymology of several toponyms in Georgian historical sources

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Abstract

A nation is alive, strong, and capable if the memory of the past lives on in individuals. Naturally, historical sources could not contain information about all members of society in the vocabulary of any language. Onomastics (a science that learns proper names) is a part that is closely related to the socio-historical, socio-economical, and socio-cultural factors of the life of society. The nominative function of their proper names (to identify and differentiate) is due to the fact that in onomastics the history of a country and people are given in a conservative form in one name. For analysis, we present the following toponyms recorded by us in Georgian historical sites. These are: "Makhinjauri", "Chkhutuneti", "Dzegli || Dzeglevi". In this article, we will analyze our view of the etymology of historical toponyms and the motivation of the names. Its history but also its future.

Keywords: Toponym, linguistics, etymology

1. Introduction

Toponyms are an important part of a language vocabulary. Their scientific study is the best way to better understand the culture and history of the people living in a certain area. Georgian historical sources present a very rich material of toponyms. Their study is one of the important directions of Kartvelology.

We would like to present some interesting toponyms proved in Georgian historical sources (**Chkhutuneti**, **Makhinjauri**, **dzegli**, **dzeglevi**) and the motivation of their naming, structural-semantic analysis.

I Chkhutuneti. The toponym "Chkhutuneti" is proved in one of the oldest Georgian manuscripts, known as the "Chronicle of the Souls of Tbeti" (XII-XVII centuries). This manuscript is a list of references to souls, made on the scroll of Etrat (leather) with Nuskha-Khutsuri. It mentions 21 geographical names. The onomasticon of the manuscript depicts mainly the old Georgian historical parts - Shavsheti, Klarjeti and Ajara.

Today **Chkhutuneti** is the name of one of the villages of Adjara (Black Sea coast of western Georgia). According to legend, once upon a time, there was a big mountain on the territory of the village of Chkhutuneti, which had been collapsed and destroyed the settlement. Since then, this place has been called **Chkhutuneti** as "Dachkhotvili Country" (crushed country).

The toponym "**Chkhutuneti**" is a derived form: **Chkhut-un-et-I**.

Chkhutun- the deriving stem;

-un hypocorism-producing suffix;

-et – the most common suffix among the producers of geographical names in the toponymy of Ajara (Mskhaladze, 1954:19).

It is an archaic sign of instrumental case, the formation of which as a toponym began in ancient Georgian (Makalatia, 1976:225).

The lexical root of "**chkhutuneti**" is **chkhut** of *Megrelian-Laz* origin - with the following semantics: "split", "section", "cut".

Megrelian: **Chkhotua** (**Chkhot-u-a**) - to cut, to slit; **Chkhota** (**Chkhot-a**) - steep, sloping; **Gochkhotili** (**Go-Chkhot-il-i**) -

torn, slit (Megrelian Dictionary 2010:209); **Polo Gochkhontili** double hoof of cattle **Chkhotiria (Chkhot-ir-ia)** - a human with a cleft lip (split lip) (Kipshidze, 1994:367-368).

Thus, the toponym "**Chkhutuneti**" should mean a divided, split place. Today, the landscape-wise this place is split into two parts and the rural districts have relevant names: "Upper Chkhutuneti", "Lower Chkhutuneti". (N. Akhvlediani, 2019:21-22).¹

II Makhinjauri. It is the name of a beautiful village area on the Black Sea coast near the city of Batumi. Numerous well-known researchers [S., K. Danelia, Z. Tchumburidze, I. Sikharulidze, G. Bedoshvili, A. Akhvlediani] have been interested in the origin of this toponym. In their research, the segmentation of "**Makhinjauri**" is largely as follows: **Ma-khinj-a-uri**, where **khinj-** root is distinguished, and its semantics are connected with various common names - Bridge, plant, thief, water-borne sediment...

Our segmentation is **Ma-khinja-ur-i. Khinja-** (and not **khinj-**) - the root, which is a word of Zanurian (*Megrelian-Laz*) origin and means: "ironwork", "cinder", "fake" (Tcharaia, 1997:180); **Ma - ur** - toponym-maker affix. This connection seems real considering that: Ajara is a place rich with mineral resources, here we can find both ore and non-ore minerals. Of the ferrous metals, magnetic sands are especially noteworthy (Phutkaradze 2001:10-12); Archaeologists of the Batumi Scientific-Research Institute discovered (2010) an iron-smelting furnace near Makhinjauri; Makhinjauri sulfur waters **contain** a large amount of **iron**. At its base, there is still a Medical-health center.

We share the opinion that the toponym "Makhinjauri" is of anthroponymic origin and we can associate it with the proper name of "Makhunjag", which is recorded in the historical monument "Life of Kartli" of the second half of the XIII century. (A. Akhvlediani, 1961: 4)²

It is difficult to say when Makhinjauri was given this name, at least even a cursory study of some remnants of its toponymy, onomasticon and material culture suggests that it (village, semi-urban settlement) is of ancient origin. As for the etymology of the toponym (the motivation of the naming), it is possible that this nickname was given to a person because of his strong, powerful (iron-like) character.

III. Dzegli, Dzeglevi. "Life of Kartli" is a collection of old Georgian historical compositions. It is the main source of the history of feudal Georgia and presents a number of historical toponyms. We are interested in the toponym "**Dzegli**" (**Dzegli mountain**) mentioned in one of the episodes of the 14th century "Chronograph" ("Life of Kartli", 2012:249-250). According to the text, in the southwestern part of historical Georgia (northwestern part of the Republic of Turkey) in the valley of the river Karchkhali, between the monasteries of Opiz and Midznadzor, there is a mountain called **Dzegli (Dzegli Mountain)**. At its top stands the Church of St. George.

Scientists had not been able to identify this place for a long time. The members of expeditions of Batumi Shota Rustaveli State University discovered that the toponym "Dzegli", where the remains of the church are, is still preserved in that geographical area. There are two tombs, according to the locals, of "Shahid" (Muslim holy men). Locals still go there today to pray, to spend the night up.

The root *dzegl-* can be seen in many toponyms in different parts of Georgia:

Dzeglevi¹ (<Dzegl-ev-i) - in Oni municipality (-ev is toponym- producing suffix in Kartli – Shanidze, 1981:438-444); **Dzeglevi**² (<*dzegl-ev-i*) – Akhgori village (currently occupied by Russia); **Sadzeguri** (<**sadzejluri*) – Place near Akhgori Dzeglevi, where "Akhgori Treasure" was found (currently occupied by Russia); **Dzegora** (<**Dzejlgora*) – A mountain in Guria.

In order to find out the issue of the naming of the mentioned toponyms, it is crucial to highlight the main meaning of the currently used public name - **Dzegli** in the historical context of the Georgian language and to clarify its etymology.

Lexicographical description of the common name "**Dzegli**".

Ancient Georgian: **Image, sculpture, idol** [Abuladze, 1973:524];

Old dictionaries: **Border** [S.S. Orbeliani 1993:352]; **Large column marking the border** [N. Chubinashvili 1961:120; D. Chubinashvili, 1985:1064].

Modern Georgian: **1. A structure or statue in memory of someone or something; 2. Remains of past material culture; 3. Works of old literature; 4. law (or set of laws), judgment, ordinance, nominate.**

According to the old Georgian texts of the "Bible", "*dzegli*" is a material proof, a boulder of: **the abode of the Lord, the holy place genesis 28,18; the place of man's relationship with the Lord genesis 31,13; of a certain covenants-obligations among men before the Lord genesis 31, 44-45; of a boundary genesis 31,51-54;**

¹ N.Akhvlediani, "Chronicle of Tbeti Souls" and Etymology, Language and Modern Technologies of One Toponym, Tbilisi, Tbilisi Ivane Javakishvili State University, 2019 ISBN-978-9941-13-900-0,

² Akhvlediani A., "For the Etymology of Makhinjauri", the Journal "Literary Adjara", Batumi, 1961.

of the immortality of a name 2 king 18,18; **of a grave** genesis 35,20 [Mtskh., 1981].³

Thus, the main meaning of common name “**dzegli**” in ancient Georgian is the **sacred stone niche**. It is a kind of material expression of a man's "bonding" before God and the society. Such niches come from pre-Christian culture and have been widely used in updated form since the early days of Christianity [Thopuria, 1942, 32]⁴ In science they are known as **menhir, stelae**.

In the old Georgian law books, “**Dzegli**” is proved as a legal term: **Dzegli-writing** - act, treatise, decree, commemoration; **Dzegt-deba, Dzegli Sjulisa** - regulation [Monuments of Georgian Law, 1963:401]⁵.

Dzegli (/ **Dzengli**) is also found in Georgian dialects and ethnographic material.

Eastern Georgia Mountain: “**Dzegli**” - God thanksgiving communion ” [Tsotsanidze, 2012:282]; **Dzengli** is a folk ritual, when this or that family promised the icon that every year during the name-day he would spend the night up, butcher the slaughter, or boil beer ... Dzengli was passed on to the descendants ...” [Chincharauli, 2005:1053]⁶;

The reason for **erecting the „dzegli**” was a serious illness as well. The owner of the sick person would make a vow in front of the shrine that if the sick person survived, he would not reduce the presents and prayers ...” [Keshekashvili, 1991:83]⁷.

Southern-west Georgia: In the speech of the Muhajirs who emigrated from Adjara to Turkey (XIX century), the terms: **dzegli / dzengli / dzergli / dzergi** are confirmed to denote a relative **circle, family**; *Laz*: **dzegne /dzegni-** nickname [Laz Dictionary, 2013:848].⁸

Dzeg-l-i is a derived noun: **L-** the oldest suffix ; **Dzeg-** the lexical root of semantics “**pointed out**”. Thus: **dzegli** "Sacred stone pillar, niche“ > „statue“; „Remnant of material culture“; „Works of old literature“; „Commitment to shrines“; „written rule“, the folk ritual.

The correspondences of **Dzegli** in Kartvelian languages are: *Megrelian*: **Jagura (Jag-ur-a)** - a man's proper name; **Jaga (jag-a)** - Powerful, strong (Megrelian Dictionary 2010:733); *Svanetian* **Lijgir (Li-jg-ir)** - Blessed, godly... (Svan Dictionary, 2000:543)⁹.

Scholars believe that the toponymic “**dzegli**” referred to a cult site where, from ancient times, before a Christian chapel was built there, an idol was erected and a ritual was performed that was related to a **certain obligation** [Paghava, 2012:69; Chokharadze, 2015:47]¹⁰.

What could have been this “**certain obligation**”?

We believe that the common name **dzegli** (hence the toponym “**dzegli**”) referred to the sacred pillar erected by man, which has been the main **ancestral shrine niche** since ancient times. The purpose of erecting the “**dzegli**” had to be: Marking the inherited territory of the community; Establishment of a community obligations, rituals; Protection of the community (reproduction-survival); Fixing-patronage of ancestral crypt.

Thus, the historical toponym **dzegli** of "Kartlis life", as well as **dzegl-** rooted toponyms (**Dzeglevi, Sadzeguri, Dzegora**) proved in other parts of Georgia, are the ancient names of the places where the main **ancestral sacral pillars** were located before Christianity, and later Christian cult buildings.

All these toponyms are just the names of the mountains where the Church of St. George still stands (or historically existed), which requires special research.

We hope that future linguistic, historical-archaeological, and ethnological research will reveal new important materials.

2. Conclusions

Above we have analyzed the geographical names of the place made with different affixes, which are confirmed in the ancient Georgian historical sources and still exist in today's Georgian reality. Thus, we have presented our attempt to explain the etymology-etiological research of several toponyms proved in Georgian historical sources.

There is a lot of information hidden in the toponymy. They need to be thoroughly studied and applied in life. It can speak the language of decades ago, share the thoughts and feelings of ancestors, and we too are obliged to pass on these historical toponyms intact to the next generation.

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⁴ Thofuria V. Cross Headstones in Georgia, Mski volume IV, Tbilisi, 1942

⁵ Monuments of Georgian Law, 1, Tbilisi, 1963.

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⁹ V. Topuria, M. Qaldani, Svan Dictionary, Tbilisi, 2000.

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The Institutional Structure of International Pandemic Agreements

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Abstract

The Covid-19 pandemic has created a global disease externality, imposing enormous health, economic and social costs on the world's population. Global public goods analysis suggests enormous net benefits of coordinated international action to prevent, mitigate and treat the disease, yet many countries appear to be unwilling to negotiate agreements for that purpose. A single global pandemic treaty would be the ideal framework for cooperation on the many dimensions of fighting the disease, but such a complex agreement lies beyond the capacity of current global governance. This paper sets out to identify pathways for smaller, discrete pandemic agreements, based on the available institutional structures and current constraints on coordinated action. Global epistemic medical communities provide the building block for developing many effective pandemic strategies. A balance of sovereignty considerations and global leadership would shape the scope of joint action. Negotiations would need to establish workable sets of reciprocal obligations and incentives to mitigate and treat the disease. The conceptual framework for such agreements draws on constructivist institutional theory, and the paper's main argument is that the terms of negotiated agreements will be determined by factors that can establish "collective intentionality" to fight the disease. Breaking through this impasse will require flexible negotiating frameworks that draw on the WHO, WTO, and other organizations, with leadership by large countries. Unbundling pandemic issues into a series of discrete agreements will be needed in order to initiate work towards a comprehensive agreement.

Keywords: Negotiation, Pandemic, World Trade Organization, World Health Organization, Global Institutions, Epistemic Communities

Introduction

Diseases desperate grown
By desperate appliances are relieved
Or not at all.

Shakespeare, *Hamlet*, Act IV, Scene 3

The Covid-19 virus¹ has wreaked havoc on much of the world's population, and a growing body of evidence points to the benefits of concluding international agreements to combat future pandemics. Specifically, public goods theory provides the framework for cooperative international policies to prevent, detect, mitigate, and treat the disease. A complete program of collective action would require a coherent and comprehensive institutional framework across many policy areas, with common rules and harmonized regulations, along with pooled resources and coordination. This paper sets out to identify the institutional requirements for international pandemic agreements. Since a single comprehensive agreement would exceed the capacity of current global governance, the paper also examines areas of cooperation based on more narrowly defined components of the pandemic crisis. The content of these proposed agreements begins with medical epistemic communities that inform both scientific research and policy making. Institutional linkages to pandemic policies occur in the World Health Organization (WHO), the World Trade Organization (WTO), the World Bank, and the International Monetary Fund (IMF). Yet concluding even modest global agreements will often face serious obstacles, including the global wave of populism and anti-globalization, along with conspiracy theories that cast suspicion on "experts" and a lack of trust among countries. It will therefore be necessary to re-build trust in global institutions in order to negotiate many pandemic agreements. Much is at stake, as there is widespread agreement in the medical community that there will be more, and possibly deadlier, pandemics in the future (Whiting 2020).

The paper is organized as follows. The first major section reviews estimates of the cost of the Covid-19 pandemic to public health and the world economy. There follow conceptual framework sections on global public goods, a constructivist view of institutional building, and the role of transnational epistemic communities in providing the scientific basis for fighting

pandemics. A discussion of the difficulties of concluding a universal and comprehensive agreement leads to an examination of sets of Covid-19 policy failures that can serve as focal points for more modest agreements. There follows a discussion of the structural conditions needed to achieve the necessary “collective intentionality” to forge international pandemic-related agreements, and the problems of negotiating them. A concluding section considers the likelihood of progress in achieving international pandemic cooperation, especially through the leadership of nations that can generate domestic political support for global cooperation in fighting future pandemics.

What’s At Stake: The Cost and Spread of the Pandemic

As of late May 2022, 529 million confirmed cases of Covid-19 had been recorded globally, with 6.3 million confirmed deaths (New York Times 2022). The actual number of “excess deaths” attributable to the pandemic was estimated to be approximately 18.2 million by the end of 2021 (Wise 2022), the greatest pandemic death toll since the influenza outbreak of 1918 claimed an estimated 25-50 million lives (Crosby 2010; Beach et al 2022). Its final toll on human life and the global economy will depend on the evolving course of the disease and the success of mitigation policies, treatments and vaccine distribution (Aggarwal and Gopinath 2021). After the initial outbreak in late 2019 in Wuhan, China, the disease spread quickly a total of 204 countries by early April, 2020 (Li et al 2020). Many patients required lengthy intubation on ventilators, creating the greatest direct resource cost of treating it (Meng, et al 2020). Even now, survivors of serious Covid-19 illness experience “long-Covid” effects, including chronic respiratory, pulmonary, digestive, and neurological ailments (Veciana-Suarez 2020). The Covid-19 pandemic was waning in 2022 in areas where vaccines had been administered, but the emergence of new variants continued to cause spikes in cases and deaths around the world.² The pandemic also sparked the worst global recession since world war two, crippling much of the world’s output through factory shut-downs and supply chain disruptions, and consumption through demand effects, largely in service sectors. International commerce and investment suffered through both the direct effects of the recession and countries’ reflexive trade restrictions in medical goods and equipment. The loss in global output due to Covid-19 over a ten-year period was projected to be equal to 53% of 2019 annual global GDP, about \$46 trillion (Yeyati and Filippini 2021).³ This estimate does not account fully for the associated rise in business uncertainty (Altig et al 2020), long-term Covid-related physical impairment cost and psychological damage (Cutler and Summers 2020), and added economic damage as new variants extended the pandemic. To these calculations one must also consider difficult-to-estimate costs of social unrest, delayed education, job and career disruption, domestic violence and other criminal activity, and lost leisure activities, recreational opportunities and social interaction. Resistance to lock-downs and social distancing also created a divisive political backlash against such measures. Economic costs are disproportionately heavier in developing countries, whose response to the pandemic is limited by resource constraints, reduced earnings from commodities markets, worsened borrowing conditions and increased external debt burdens. The World Bank (2020, p.15) found that the 2020 Covid-19 recession spread to a larger number of national economies—more than 90%—than even than the Great Depression of the 1930s. Covid supply chain disruptions, along with pent-up demand and expansionary fiscal policies, also began to trigger a sharp increase in inflation rates in many countries in late 2021.

Pandemic Prevention and Mitigation as a Global Public Good

A contagious disease is the ultimate negative externality or “spillover.” At the level of individual behavior, this involves a divergence between private and social costs in responding to the contagion. In a normal situation, where such a divergence does not exist, individuals judge their decisions based on expected costs and benefits to themselves alone. In the presence of highly communicable diseases, on the other hand, decisions by infected individuals are distorted by either deficient information about the personal consequences of infection (even perhaps not being aware of it at all), or the consequences of one infection leading to its spread to others in the community, or both. The individual’s decision in this case to interact freely with others in an environment where the disease can spread has consequences not only for that person, but for anyone with whom the person comes into contact. The negative externality is the sum of the cost to the individual for not “internalizing” the costs of exposure to the disease, and the larger cost of infecting the community at large. By the same token, measures to treat the first individual with a vaccine, or to require him or her to quarantine, would tend to limit the spread of the disease. These interventions, usually through public health regulations, are similarly regarded as *positive externalities*, in this case, the benefit of mitigating or reducing the negative spillovers associated with the disease.

Similar information gaps may also distort government policies. The negative externality of the infectious disease will be amplified by public health policies that fail to acknowledge its presence, either through ignorance, misinformation or underestimation of its spillover effects. The unhindered spread of the disease harms the country’s own national health and economic welfare, as well as that of other countries as it spreads globally. Preventive and mitigating policies, such as the development and free distribution of vaccines and public health measures to reduce transmission, represent *pure public goods*. They are *indivisible* in their implementation through policies covering everyone and *non-excludable* in their consumption, as their benefits are shared by all without diminishing the same benefit to others. Domestically delivered public goods are the

result of an individual country's policies; *global public goods* are the result of similar policies coordinated through international agreements.

Figure 1, based on Boadway and Bruce (1984, chap. 4) illustrates the concept of a public good as it might apply in preventing or shortening a global pandemic. D_{rich} and D_{poor} represent the marginal benefits (MB) in the respective rich and poor countries of public good measures to reduce disease impact. For example, the public good activity could be basic research to identify a new infectious disease, and subsequent disease testing, early containment and vaccine development would also be part of a larger package of public goods with the goal of preventing or containing the disease. Joint demand for the global public good, \square_{demand} , is constructed by *vertically* adding the two demand curves. Thus the global marginal benefit to the world from reducing the disease is additive, and not diminished by its consumption elsewhere. MC represents the globally determined marginal cost of providing the last unit measure of prevention to reduce disease impact. Efficient provision of the public good occurs where $MC=MB$ at C^* , with total benefits for each party equal to the area under each individual demand curve at Q^* . Adding the fixed cost of providing the public good (basic research and development, overhead cost, etc) allows the identification of an average cost curve AC. Proportional cost sharing implies rich and poor country contributions of C_{rich} and C_{poor} , respectively. For illustrative purposes, equilibrium ($MB=MC$) is shown to occur at the break-even point, where total costs equal total benefits. At this point, the welfare benefit to the world is the positive area under \square_{demand} and above the implied price C^* , representing the consumer surplus of achieving the sum of marginal benefits of reducing the disease's impacts at abatement level Q^* .

One problem with public goods is that both countries have free-riding incentives to conceal their MB curves by minimizing their estimated benefits of disease abatement, as they are tempted to avoid paying their full share of the cost of supplying the global public good. This issue may require the negotiation of an international cost-sharing agreement, with the attendant difficulties of monitoring compliance and establishing incentives or sanctions to prevent free riding. At the same time, both equity considerations and self-interest suggest the desirability of rich country subsidization of global disease prevention, especially if continued disease in poor countries, as through the proliferation of disease variants, tends to prolong the pandemic in rich countries. A failure to take preventive measures in period t thus implies a likely prolongation of the pandemic, increasing the disease's global cost, and shifting the MB curves up for the world in period $t+1$. Nonetheless, many aspects of fighting a pandemic will require extended cooperation among several countries if the pandemic is not eradicated at the outset.

The public goods payoff for successful early identification, detection and containment of potential pandemic diseases, based on the Covid-19 experience, appears to be enormous. Dobson et al (2020) estimate the global economic cost of the Covid-19 pandemic in its first year to be in the range of \$8.1-\$15.8 trillion and the annual cost of preventing zoonotic diseases through early detection and intervention to be \$22-\$32.1 billion. If, for example, a typical pandemic outbreak like Covid-19 that lasts two years could be prevented by 20 years of prior ongoing prevention measures, these figures imply a benefit-cost ratio of about 90. Given the magnitude of this payoff ratio, discussions of the public goods benefits of pandemic prevention in the years before Covid-19 focused on early surveillance, monitoring and preventive measures (Zacher 1999). Once a pandemic has spread across the globe, the focus shifts from early prevention to mitigation and treatment, implying the provision of a new set of global public goods, including the positive spillover effects of developing new testing kits, therapeutics and vaccines, and the distribution of these items internationally. Additional external benefits occur through the coordination of visa regulations for medical personal and the international harmonization of health regulations, facilitating the production and delivery of medical products and services across borders. These public goods are linked to the gains from trade, which may require special agreements during a pandemic. Finally, in order to capture the value of public goods of pandemic mitigation and eradication, financial aid from rich to poor countries will also be necessary. The institutional frameworks needed to achieve these public good gains require a system of transfers supported by financial cooperation and commitment.

The Model of a Comprehensive Global Pandemic Agreement

In response to the Covid crisis, the World Health Assembly proposed an ambitious WHO pandemic agreement in November 2021 (WHO 2021c).⁴ While this announcement provided a hopeful sign that many governments acknowledged the importance of a global agreement to fight the next pandemic, the prospects for concluding such a broad, complex and universal treaty remained remote as the Covid-19 pandemic entered its third year in early 2022. The announcement itself signaled a major problem in that large countries such as the US, China, Russia, India and Brazil reluctant to support a binding agreement. Institutionally, the great challenge lies in the current lack of trust, urgency and willingness to cooperate among countries.

A constructivist approach to international institution building sheds light on the benefits and challenges of establishing such a single, comprehensive pandemic agreement (CPA). Searle (2005) sets out the institutional structure that a negotiated CPA would require, a proposal of which is illustrated in figure 2.⁵ It must have a feasible plan of joint action that produces welfare improvements for all participants that result in controlling or eradicating the disease. This feature represents the "collective intentionality" of the proposed institution, whose components would include its constitutive rules—principles for decision making, rights and obligations for participating countries—and regulative rules enumerating the specific elements of

agreement to pursue its goals. Such a global, comprehensive agreement would need to provide the framework for broad cooperation across many critical activities to fight the disease, based on decision-making principles of consensus, reciprocity, transparency and resource pooling. It would include specific institutional “output” in the form of measures to fight the pandemic, such as disease detection and monitoring, access to medical goods, services and vaccines, regulatory cooperation and special protocols that would involve other international organizations and public-private partnerships. The many constituent sub-agreements would ideally provide a wide range of incentives to maximize membership in the CPA and follow the associated rules, with which collective compliance would leave all participants better off. A system of dispute settlement would protect members and the CPA itself from the opportunistic behavior of rule violators.

The content of a global pandemic agreement would intersect with a number of activities currently under the auspices of the WHO and WTO, as many rules and activities in the proposed CPA are based on existing provisions of these organizations. The WHO is already active in influenza disease research, detection and monitoring. The WTO deals with trade policy regulation in goods and services, as well as trade-related technical, investment, and intellectual property rules, providing a framework for trade cooperation applicable to pandemics.⁶ One approach to negotiating a pandemic-specific agreement would be to establish a treaty or series of treaties under the WHO and WTO, separately or jointly. Both institutions provide frameworks for negotiations, and a new treaty could address pandemic issues in the context of existing WHO and WTO rules. The WHO, however, has produced only one major negotiated agreement, the 2003 Framework Convention on Tobacco Control. Nikogosian and Kickbusch (2021) propose a pandemic treaty centered on the WHO, with the UN and other international organizations providing linkages to non-health issues. The WTO, for its part, was established as a negotiating forum for trade liberalization, but has no provisions that deal specifically with trade during health emergencies. Mackey and Liang (2012) proposed joint, but limited, WHO-WTO collaboration on trade and health emergency restrictions after the SARS outbreak in 2009. A comprehensive agreement could theoretically be negotiated as a joint WTO/WHO CPA, open to all member countries of the two organizations, with the advantage of maximizing the possibilities of a broad set of negotiating issues that would offer reciprocal trade-offs as part of a “single undertaking.”⁷ Negotiations for a large and complex treaty along these lines would, however, probably take many years.

The Importance of Epistemic communities in Pandemic Agreements

Epistemic communities figure prominently in the technical content of many international treaties and the activities of many international organizations. The role of global epistemic medical communities in pandemic treaties, as suggested in figure 2, is based on the knowledge and expertise that medical specialists and experienced public health officials contribute to identifying, monitoring, and treating diseases, developing new medicines and vaccines, and shaping policies and methods to combat them. Haas (1992: 2) emphasizes, in general, the role of epistemic communities in identifying the nature of complex problems, the interests and issues of nations in dealing with them, and policy proposals for negotiation. Communities of medical specialists in the fields of epidemiology, virology, immunology, and pulmonology, and related areas of health management, health policy and disease control are united by common bodies of knowledge acquired through education, academic affiliations, shared medical practice, joint research, and scientific communication. Such shared knowledge is essential in formulating any comprehensive plan to prevent and treat respiratory diseases in general, and especially in identifying optimal strategies for fighting pandemics globally. However, fighting a pandemic also entails public health policy at national and global levels, requiring competent medical advice to inform government policy making, usually through government agencies and advisory bodies. While medical (or any other) epistemic communities do not always hold unified views on specific issues or policies locally and internationally, their contribution to the policy debate comes from a shared scientific approach to complex epidemiological problems, based on the accumulation of knowledge based on theories tested by experimentation and evidence.⁸ Jones et al (2020) identify a country’s national policy on global health as a conduit for the transmission of ideas and policy proposals internationally, through the country’s public sector officials, civil servants in international organizations, and corporate elites.

Epistemic medical communities first played a major role in global health issues in the sanitary conferences of the 19th century, informing discussions on policies to prevent and treat cholera, plague, and yellow fever, the major diseases of the time (Aginam 2002). They also contributed to major scientific breakthroughs as a result, and supported the case for public expenditures on sanitary infrastructure, reducing outbreaks of infectious diseases (Cooper 1989: 210-214). Yet international cooperation on flu pandemics would begin in a limited way only in 1952, when the WHO established a Global Influenza Surveillance and Response System, connecting medical communities in international networks and maintaining global surveillance of flu outbreaks. Flu pandemics took place in 1957, 1968, and 2009, before the disastrous 2020 Covid-19 outbreak. The WHO also developed a broader set of International Health Regulations (IHR), with provisions for surveillance, notification, information sharing, consultation and verification by signatory countries to respond to outbreaks of infectious diseases (WHO 2016, articles 5-8, 10). However, the WHO itself has no enforcement mechanism for these measures, something that would need to change with binding pandemic agreements. While the general presumption is that countries will act out of self-interest to comply with these provisions, political factors may act to block them. Haas (1992) notes, in this connection, that

governments may often exclude public health officials from policy decisions if their positions conflict with governments' priorities.⁹ More formal representation of expert communities in international negotiations may therefore be required to have a meaningful impact on pandemic cooperation, where issues of national sovereignty, foreign rivalries, and domestic politics may threaten to supersede the best medical advice (Al Khaldi et al 2021).

Barriers to Successful Negotiation

Political factors may block cooperation in pandemic agreement through negotiation over reciprocity. The rules-based nature of a CPA imposes an important condition for such an integrative ("win-win") negotiation to be successful: participating countries must agree to a reciprocal exchange of obligations to comply with the rules, which may conflict with some countries' claims of national sovereignty. Concerns over territorial integrity and trading interests would provide a high threshold for many countries to join the CPA, which could require, for example, that all members share disease outbreak information as part of their joint commitment to fight the disease. Some countries would insist on keeping this information confidential because of the fear of negative impacts on tourism, trade and investment, but such secrecy would compromise global efforts to fight the disease. An agreement therefore requires a degree of trust among the participants, but this does not mean that they must all *trust* each other blindly to do their part. Instead, they must all make a commitment to abide by CPA rules in good faith, and submit to a system of third-party dispute resolution, rendering all signatories sufficiently "trustworthy" to deter opportunistic behavior and defection from the agreement.¹⁰

Unfortunately, the needed foundation of trustworthiness cannot be taken for granted in the pursuit of pandemic cooperation, even with the high stakes of a potentially catastrophic disease. The collective gains shared by participating countries would require a sacrifice of some domestic sovereignty in trade and information sharing in exchange for a reciprocal extension each signatory's own sovereignty over their partners in the agreement. The public good gains from this "pooled sovereignty" would in principle benefit all participants, but could encounter serious political opposition in the home countries, as governments of most signatories would need to ratify the agreement in their legislatures and incorporate its terms into their domestic laws. The negotiation would thereby expand to a two-stage process of bargaining at home for domestic support while bargaining abroad for favorable treaty terms (Putnam 1988). The accompanying politicization of international cooperation would prolong the negotiations, and could ultimately scupper the entire treaty. The lukewarm reception that the proposed WHO pandemic agreement received upon its announcement provides early evidence of this resistance.¹¹

Populism

The wave of global populism that occurred in the years prior to the Covid-19 outbreak amplified the nationalist reactions of several countries against international cooperation on the pandemic. Populism is fueled by the view among its supporters that a nefarious "elite" controls national governments and global institutions, oppressing the genuine "common people," and must therefore be removed from office and policy influence. Pevehouse (2020) connects this attitude to an inherent distrust of "elitist" negotiators, a reluctance (or refusal) to cede any policy authority to foreigners, and suspicion of any agreements that might benefit their global elitist enemies. Such views also undermine the legitimacy of medical epistemic communities in their role in proposals for cooperative pandemic policies. In addition, Cutcher-Gershenfeld, et al (2020: 507) and Yi-Chong and Weller (2020: 56) note that collaboration among epistemic communities is vulnerable to disruptions at the level of international organizations, as was the case when President Trump withdrew US membership and funding from the WHO in 2020, later reversed by incoming President Biden in 2021.¹² Further mistrust of international pandemic cooperation can be found in the refusal of populist and authoritarian governments to follow WHO guidelines in their Covid-19 policies. President Xi of China failed to meet WHO's IHR guidelines for transparency in monitoring the initial outbreak in late 2019, while populist leaders such as Presidents Trump (US), Bolsonaro (Brazil), and Lopez Obrador (Mexico), and Prime Minister Modi (India), exhibited long-term mismanagement of the pandemic in their countries (Ganguly et al, 2021).¹³ Furthermore, populist parties have remained influential in several countries even after Trump's defeat in the 2020 presidential election, while the traditionally multilateralist European Union instituted nationalist export control policies in response to the pandemic.¹⁴ Finally, populist support in the populations of many countries has created echo chambers for misinformation, disinformation and conspiracy theories. While only a small minority of the population embraced the more outlandish conspiracy theories that emerged in social media, wider skepticism of public health officials during the ongoing Covid-19 pandemic has been significant, contributing to "vaccine skepticism" that lowered inoculation rates and weakened mitigation measures in the US and other countries.¹⁵ While populism is not the only determinant of government policies regarding pandemics in democratic countries, its influence raises doubts about the ability of several key countries to generate domestic political support to conclude a CPA.

The Prospects for a CPA

Figure 2 indicates that sovereignty issues, exacerbated by populism, nationalism and isolationism, along with a lack of urgency over the pandemic, have erected threshold barriers to achieving agreement on a CPA. These problems are further complicated by the lack of global leadership among key countries to champion the CPA, especially the United States and China. Negotiating

such a treaty depends on the manifest desire of its participants for action, acknowledging the resource and political costs of achieving a valuable cooperative outcome for all. Zahariadis et al (2022) document the differentiated responses of various countries to the Covid-19 pandemic, based on divergent policy styles and cultures regarding trust in government institutions. Governments in many countries may be convinced, for example, that their own domestic responses to the pandemic, along with whatever piecemeal or ad hoc cooperation they undertake with other countries, make a CPA unnecessary. In addition to this problem, any agreement would have to cede domestic health “policy space” to the participating countries as a matter of regulatory autonomy over its domestic territory. Testing, treatment, social distancing, masking, and vaccination availability would typically be subject to domestic government policies. The task remains to convince countries of the medical and economic benefits of coordination and cooperation, increased trade in medical products, and reduced international transaction costs in fighting the pandemic.

Alternative: Unpacking the Comprehensive Pandemic Agreement

As an alternative to a single CPA, table 1 presents potential individual pandemic agreements (IPAs) for a set of constituent CPA components on a stand-alone basis, along with possible workarounds if such agreements are unsuccessful. The success of the more narrowly defined IPAs will depend on a matrix of structural factors that determine the degree of collective intentionality that can be established between and among the negotiating parties. In particular, the advantage of smaller agreements lies in the possibility of reducing the barriers to collective intentionality on a smaller scale by reducing or neutralizing sovereignty and distrust issues associated with a large, complex, and comprehensive agreement. Such structural elements include:

- 1) The relative importance of technical expert input in the agreement, supported by shared transnational epistemic communities among the participants;
- 2) The lower perception among participants of national sovereignty encroachment in the agreement;
- 3) Evidence of measureable net benefits for all parties that would result from the agreement in terms of reduced infections, disease mitigation and treatment, and economic welfare;
- 4) The presence of reciprocity leverage in the agreement, or otherwise incentives for all participants to comply with the rules and prevent defection;
- 5) The availability of existing negotiating forums in international organizations for the agreement, whose reputation and credibility appeal to the interests of the participants;
- 6) Achievement of the minimum scale of participation needed to make the agreement effective initially, with the prospect that new issues and members can be added later;
- 7) Provision for accession-based expansion of participation in the agreement in the future;
- 8) A lower propensity among participants that disinformation will block political support for the agreement;
- 9) Provision of transfers, if necessary, to aid low-income countries in complying with the agreement’s obligations, in order to achieve the necessary scale of participation in the agreement to achieve its goals.

The simple underlying concept of this list is the idea that a narrower scope of issues can focus support for, and neutralize opposition against, pandemic agreements. A “variable geometry” of negotiating structures on a bilateral or regional basis provides greater chances of success for IPAs than the more ambitious CPA, and some of them may in fact proceed without formal negotiation and ratification. Ideally, the initial success of IPAs among smaller groups of countries might open the door both to greater participation, and to linkages among the agreements that would make them more coherent in fighting the pandemic, possibly culminating eventually in a CPA. Each of the proposed agreements shown in table 1 emerge from policy failures and challenges from Covid-19 experience. The following discussion organizes them thematically in terms of 1) basic research, early warning and travel restrictions, 2) trade and related restrictions in goods and services, 3) the hoarding problem and joint stockpiling, 4) testing kits, therapeutics and vaccines, 5) funding gaps and transfers, and 6) dispute resolution.

Basic Research, Early Warning, and Travel Restrictions

Some of the efforts necessary to prevent pandemics completely could occur within existing institutional guidance and coordination activities by the World Health Organization (WHO), although member countries would have to commit funding to it. Basic research is driven prominently by technical experts, and international cooperation is less likely to raise political concerns. However, even in the early stages of a focused prevention campaign, the political commitment to monitor and report the disease in countries where initial outbreaks occur may be lacking, as noted earlier. An IPA could set out to establish commitments for transparent reporting and tracking for targeted diseases through a global networks of medical experts, without censorship by local governments. In the absence of cooperation from key countries, it may be possible to glean information on infections from indirect or remote satellite sources (Asrar et al 2021). In support of early warning systems, IPA member countries would collaborate on developing improved methods of identifying new pathogens, and establish criteria for triggering quarantine and travel restrictions to prevent disease transmission, perhaps with WHO and WTO consultation. One basic

shortcoming in the early days of Covid-19 was a failure to detect in a timely manner the new, virulent, zoonotic disease that had been predicted by medical researchers.¹⁶ International research and administrative efforts to prepare for such an outbreak were in fact developed, but suffered from a lack of active international coordination in potential outbreak areas.¹⁷ Given the high stakes of detecting and fighting a pandemic, it will be important to establish confidence in the early warning system, which should receive high priority in the negotiations.

Trade and Related Restrictions in Goods and Services

Many aspects of pandemic cooperation involve trade, suggesting several IPAs or a larger IPA linking some or all of them. Their health benefits would come from the increased access to health goods and services to fight the disease, realized by gains from international specialization and trade. The degree of political opposition to such agreements would depend on whether protectionist resistance to import competition outweighs the need for more open trade to address a country's health emergency. Evenett (2020) reports, surprisingly, that 109 countries had import tariffs of 15% or higher or non-tariff barriers on simple soap products, disinfectants and protective garments, a self-defeating contradiction between public health and economic policies. Trade restrictions on more complicated medical products also undermined the treatment of Covid-19 patients, including ventilators, comprising 900 or more parts, many sourced internationally in supply chains. President Trump, for example, attempted to spur US production of ventilators without realizing that many parts were available only from China and subject to high tariffs (Bown 2020c). Countries could eliminate import tariffs on pandemic-related products unilaterally, through existing regional trade agreements, or globally through the WTO. It may be possible to achieve a near-global elimination of such tariffs through a "critical mass" arrangement, in which countries covering 80%-90% or more of these products collectively eliminated tariffs on them.¹⁸

Just as trade in medical goods helps to fight a pandemic, the movement of medical workers and services across borders also contributes to this goal. Regional surges in Covid-19 stretched the capacity of medical workers to the limit, and often the gap could not be filled through domestic recruitment (Emanuel et al 2020). Travel restrictions, medical certifications and visa regulations have in some cases prevented medical workers from traveling across borders to address such temporary staffing shortages. An IPA could establish temporary visa rules, including mutual certification recognition during health emergencies, allowing the reciprocal movement of medical personnel across borders. In addition, the free international movement of health services electronically would help combat the disease (Gillson and Muramatsu 2020). Such negotiations could take place within existing WTO frameworks, or in separate regional services negotiations. These provisions illustrate the benefit of an open trading system in fighting the pandemic: to move available resources at any given time from where they are located to where they are most needed.

The most disruptive Covid-19 related trade restrictions, however, have been export controls, which persisted throughout the pandemic (see Evenett 2021:4).¹⁹ Retaliation in kind often occurred across products as one country's export ban on domestically produced drugs, for example, provoked others to impose export bans on ventilators and other medical supplies. The WTO and other trade agreements provide little discipline on export controls and an IPA on them would contribute significantly to pandemic cooperation (Pauwelyn 2020). Sovereignty arguments to keep domestic medical products in the country during health emergencies provide potent political opposition to cross-border trade cooperation. However, export restrictions reduce incentives to increase domestic production, and export controls across a supply chain complicate the situation by leaving all countries with production bottlenecks (Bown 2020b). Similarly, interference with output and trade from foreign subsidiaries of multinational companies could come from both the home country of the parent company and the host country where the subsidiary is located. President Trump, for example, demanded that a U.S. company supply PPE to the United States from its Chinese subsidiary, in addition to restricting its PPE exports from its U.S. facilities (Swanson et al 2020), sparking retaliation in kind from China on medical equipment (O'Keefe and Lin 2020). An IPA could prevent both host countries and home countries of foreign subsidiaries from introducing trade restrictions on the subsidiary's output. Finally, export controls were most damaging to developing countries, leaving them with little access to critical medical products (see Bown 2020d).

While IPAs could address these trade issues separately, a larger IPA could combine these trade issues, possibly with other items in table 1, in the form of a WTO annex 4 plurilateral agreement under WTO and WHO rules (Evenett and Winters 2020; Stellingner, et al 2020). Plurilateral agreement provisions in the WTO allow smaller subsets of WTO members to conclude agreements on terms applicable only to the agreement's specific members (Lawrence 2006). Theoretically, they have the advantage of packaging issues on the basis of common interests among self-selected groups without creating new obligations for non-participating WTO members, thus avoiding the constraints of the WTO consensus rule on global trade agreements. Hoekman and Sabel (2021) present a taxonomy of plurilateral agreements that would apply to both WTO and WHO IPAs, distinguishing between agreements based on market-access reciprocity and those based on resolving regulatory heterogeneity (Abbott and Reichman 2020; OECD 2020). Market-access agreements typically involve mutual tariff-reduction bargains with compliance through the threat of tit-for-tat retaliation. Regulatory cooperation, in contrast, typically requires agreements on standards, practices, or mutual recognition, whereby compliance is more flexible and open to re-negotiation in light of

countries' regulatory sovereignty, and trade sanctions, when used, are reserved as contingency measures for specific violations. Despite the appeal of this framework, plurilateral negotiations have been constrained by the consensus requirement of the *entire* WTO membership, including those not participating in it. In recent years non-participating members have raised objections that have prevented the conclusion of any plurilateral deals (see Hoekman and Mavroidis 2021:8-10).

The Hoarding Problem and Joint Stockpiling

The fear of domestic shortages of critical medical supplies was a major factor in the resort to export controls. A more efficient way to address this issue is to establish alternative sources of supply through shared international stockpiling. Even large countries like China and the United States do not have the capacity to make PPE in the billions of units that an extended outbreak would require (Goodnough 2020). Rotating renewable stockpiles of PPE and other non-perishable medical products could provide a country with an extra margin of supply in an emergency. Stockpiling logistics require detailed cost-benefit planning (Balicer et al 2005; Handfield 2020), and international stockpiling for shared use would, in addition, require careful sourcing and distribution provisions. Yet well-designed joint production and stockpiling arrangements could provide wider access to certain medicines and medical equipment at lower expense and risk to individual participants in times of need. However, an IPA would also need to establish rules to prevent concentrations of supply. Large pre-emptive purchases by a country of critical supplies would damage the joint effort to fight the disease. The United States government, for example, created an uproar after purchasing half of the global supply of the Covid-19 therapeutic Remdesivir in May 2020 (Brophy 2020).

China's recent domination of global supply of certain PPE items has fueled concerns regarding secure access to critical medical products during a crisis (Bown 2020e).²⁰ An international agreement to keep these markets open will require not only stockpiling strategies, but also global sourcing security, since fears of defection on a cooperative supply agreement by a major producer such as China would make others reluctant to take part in it. However, there are strong economic reasons that China should continue to play a role in supplying these items, based on its comparative advantage in producing these goods. At the same time Covid-induced shortages will increase market incentives for the rest of the world to diversify the sourcing of PPE production and develop PPE recycling as a matter of public health security (Yan et al 2020). Furthermore, supply chains involving medical products are undergoing their own market-driven adjustment processes in the wake of the pandemic. Many multinational firms that are vulnerable to regional supply cut-offs, for example, have begun to make their supply chains more resilient to disruptions based on location, cost and investment criteria, along with assessments of vertical and horizontal integration (Elluru et al 2020). The value of an IPA in this regard would be to keep trade markets open and regulatory barriers low, leading to market-driven investments to promote national diversity in medical supplies, with economically efficient and flexible supply chains that avoid reliance on limited sourcing options. This approach to the sourcing issue would be superior to wasteful and futile government-mandated efforts to "reshore" all production in protected national markets. As is the case with other trade-related pandemic issues, a WTO annex 4 plurilateral agreement would be a way to combine a stockpiling agreement with the elimination of export controls in specific products (Hoekman et al 2020; Usher 2020; Evenett 2021). Alternative types of agreements would probably have to rely on ad hoc agreements between large exporting and importing countries to regulate access to critical medical goods.

Testing Kits, Therapeutics and Vaccines

Once Covid-19 began to spread, the next major line of defense was testing and contact-tracing of those who were infected, procedures that included several stages and multiple inputs.²¹ Yet international cooperation was lacking. US health authorities struggled with production and regulatory mishaps, and were unable to deliver testing kits for several weeks (Washington Post 2020), while refusing to import reliable test kits from Germany. Bottlenecks in the testing supply chain later developed in several countries and contributed to a resurgent spread of the virus (Behnam et al 2020). A coordinated international effort to develop testing kits under international regulatory approval could have allowed more widespread and timely detection of the outbreak. Similar IPA provisions regarding regulatory harmonization and mutual recognition could be applied to therapeutics and vaccines.

The development of effective vaccines against the Coronavirus was more successful. Made possible initially by the genetic code sequencing for the virus in January 2020, it culminated in the first vaccine doses approved for emergency use in December 2020. The unprecedented speed of vaccine development was the single greatest medical accomplishment during the Covid-19 pandemic, supported by research and development among pharmaceutical firms and laboratories in various countries. The US government's "Operation Warp Speed" (OWS) project also contributed to its success, under professional management and planning by several US government agencies.²² Government intervention addressed negative market externalities that would cause delays, including capacity shortfalls, clinical trial coordination, supply bottlenecks, and the high private risk of developing a new vaccine. It is notable that the success of OWS in avoiding major political interference and maintaining its focus appeared to result from the professional expertise of those in charge, the importance and technical nature of the project, and the political risk of government interference in its decision making.²³

The very success of OWS raised, however, the problem of how to distribute the vaccines efficiently to end the pandemic. Large countries acquired most of the vaccine through advance purchases from various vaccine developers in the form of options. The predictable result was that most of the vaccinations went initially to high-income countries. Mid-2021 vaccination rates per 100 people ranged from 68-73 in high income countries to just 3.8 for Africa (NYT Vaccination Tracker 2021). The developing world relied mainly on Covax, a WHO-supported program to procure vaccines from manufactures and partners. Yet pre-emptive vaccine purchases by wealthy countries led to vaccine shortages in poorer countries, exacerbated by export controls by vaccine-producing countries. Even India, which produced large amounts of vaccine through licensing agreements and was considered a major potential supplier to Covax, imposed an export ban after a new Covid-19 surge in March 2021. Vaccine distribution was therefore both inequitable and inefficient. An IPA could introduce an equitable plan for vaccine allocations to poor countries while also negotiating commitments for additional production as needed, paid for by high-income countries. There were proposals to facilitate vaccine production in poor countries through emergency WTO rules to waive patent rights, but this plan appeared to be impractical, due to the complex process of manufacture and quality control (King and Spalding 2021). Based on the success of the OWS and the desirability of an agreement to ensure reliable, large-scale global vaccination production, Bown and Bollyky (2021) propose an international vaccine investment agreement based on public-private partnerships in participating countries, which would serve to coordinate and diversify global vaccine output and availability. This ambitious effort would require joint government intervention and oversight in international markets to subsidize purchases of specialized equipment and inputs and manage the complex vaccine supply chain, a new arrangement requiring high confidence among all participants in the controlling authority.²⁴ Difficult questions about financial burden sharing, the structure of decision making, the destination of product deliveries under government contracts, and national claims on vaccine doses would have to be addressed, making an international vaccine agreement particularly difficult to negotiate.²⁵ However, governments could alternatively pursue separate agreements to coordinate vaccination investment and production, with open trade provisions for medical products and components and an agreement on funding and allocation of vaccines for all countries. Another possibility is simply for rich countries to donate vaccines to poor countries, although this approach may not be reliable in the absence of a formal IPA.²⁶

Funding Gap and Transfers

Addressing the global pandemic will also require transfers to developing countries, based on their underinvestment in medical capacity and the repercussions of such diseases on their future economic growth. Despite their smaller role in the world economy, it is important for the global community to confront the disease in these areas, as they will have a more difficult time recovering from widespread disease, based on their limited resources and international indebtedness. Aiding the recovery of these countries will benefit not only them, but also the rest of the world, which will not be safe from the pandemic if it continues to spawn new variants. All of these factors also have potential impacts on regional economic and political stability in the developing world. While Covid-19 surged at first in Europe and the United States, subsequent surges shifted the new case count towards the developing world, where vaccination rates in early 2022 continued to be low (Sam-Agudu et al 2022). An IPA could also provide for testing, mitigation, treatment and vaccination services through the WHO and medical aid NGOs. Foreign aid could come from participating country donations, the World Bank and the IMF.

Incentives for Compliance and Dispute Settlement

A key element for the success of any pandemic agreement, narrow or comprehensive, is a negotiating framework that includes incentives for the parties to honor their commitments and abide by the rules. The CPA model tends to have the largest scope for reciprocity, with its elements bundled into a package that balances the benefits and obligations of all parties and provide third-party dispute settlement. The smaller IPAs will similarly need to internalize benefits and obligations through incentives for compliance. For some IPAs it may be possible to establish internal compliance reviews, or mutually acceptable arbitration boards for conflict resolution, such as those used in international investment disputes. Yet for other IPAs, it may be necessary to rely either on the framework of existing bilateral or regional agreements, or on a “like-mindedness” of the parties, to pursue the public good benefits without the prospect of irreconcilable disputes. In the case of pandemics, like-mindedness would typically be reflected in an alignment of the parties on domestic prevention and mitigation policies, with similar openness to international cooperation and trade. This constraint on country partners to an agreement will necessarily limit its geographical coverage. For this reason, the provision of accession clauses for IPAs would allow a fledgling agreement to demonstrate its advantages to its participants, leaving the door open for new adherents and possible expansion of its coverage, thus moving closer to a comprehensive global pandemic agreement.

Summary and Research Agendas

As the costs and disruptions of the Covid-19 pandemic continue into 2022, it has become clear that the world is not ready for the next pandemic. Yet the complexity and protracted negotiations for a global CPA make it an impractical goal for the near future. The crucial question for global health diplomacy and policy is how to motivate governments to agree on collaborative

measures that will collectively benefit all their populations and avert possibly greater catastrophes the future. This paper has highlighted the fact that the WHO and WTO have institutional structures that could accommodate smaller and less ambitious IPAs, providing a possible pathway to more comprehensive agreements. The World Bank, IMF and other sources of foreign aid can also make possible the necessary transfers of financial, technical and medical assistance to developing countries. One important research agenda that emerges from the problem of negotiating pandemic agreements is suggested by early work on this topic in evolutionary game theory (Lin et al 2021). How might the failures of the initial global responses to Covid-19 cause government decision makers to adapt to that information in the next round of international pandemic discussions? Can global systems learn from their mistakes and avoid the “prisoner’s dilemma” of non-cooperative behavior as the game is reset? What are the necessary issue clusters and trade-offs for specific IPAs, and what negotiating forums would be appropriate for them, or what new institutional arrangements must be developed? New global leadership on this issue will also be necessary. Creating the diplomatic conditions for a renewal of multilateralism should be a major subject of institutional study, along with the political conditions to integrate more medical expertise into global pandemic policies, and to create domestic support for international agreements. Historically, new international institutions have typically appeared in the wake of tumultuous political change, often at the end of wars. To borrow a 19th-century example, will it ever be possible for the US, EU and China and perhaps other large countries to form a new “Congress of Vienna” as a basis of cooperation that led to the Sanitary Conventions of 1854 (Haass and Kupchan 2021)?²⁷

There is one final—and sobering—psychological barrier to an effective pandemic agreement that medical historian Howard Markel (2007) has noted. At their worst, deadly pandemics have been so disruptive and devastating that when they ended, exhausted populations have tended to cling to their liberation from the disaster and suppress the thought of preparing for the next one. In past centuries, this response could be explained by the dearth of medical intervention to address such calamities. The fatalistic view was that little could, in fact, be done to prevent the next cataclysmic outbreak. Yet we are now in a position to recognize the pattern of new zoonotic diseases, to detect them, warn populations before they spread, treat their victims and develop vaccines to end them. We are also in a position to pool global medical resources and fight the disease more effectively. It would be folly for governments to ignore the lessons of Covid-19 and fail to prepare for the next, perhaps deadlier, pandemic, which will either freely run its destructive global course, or be subdued with science, public health policies, and international cooperation. The Covid-19 pandemic was preventable in its duration and in the way it spread and mutated. A plan for preparation and action can finally break the accelerating cycle of vulnerability to new contagions, if in fact the collective political will exists to pursue it.

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TABLE 1. DISCRETE PANDEMIC ELEMENTS AND PROPOSED AGREEMENTS				
Item	Covid-19 Policy Failure	Rationale for Cooperation	Negotiated Policy Correction	Workarounds
1	Failure to identify and monitor new zoonotic viruses	Early warning and intervention to stop disease proliferation	Coordinated WHO epidemiological research and field-based teams with major country funding	Alternative WHO funding sources; recruit researchers independently
2	Suppressed reporting of infections by countries	Tracking, isolation of disease carriers to shorten pandemic	Global protocols to track infections domestically; networked monitoring (WHO: IHR with compliance)	Remote/Satellite or other indirect monitoring
3	Delayed travel restrictions to prevent cross-border infections	Prevent regional/global spread	Coordinated guidelines to regulate international travel restrictions (WTO/WHO)	Ad hoc bilateral agreements
4	Delayed country responses to early infections	Multilateral monitoring, coordinating function	Accountability of national disease reporting; best practice health protocols (WHO: IHR)	Ad hoc compliance with IHR
5	Test-kit nationalism and supply chain bottlenecks	Timely and reliable identification, tracking of cases	Shared development, market access to testing kits, supply chain coordination (WHO/WTO health emergency measures)	Ad hoc bilateral agreements
6	Delays in international regulatory approval of medical products, technologies	Timely cross-border access to approved medical products, technologies	Use of WTO/TBT and WHO/ GRP frameworks for emergency regulatory approval during pandemics	Bilateral regulatory harmonization/ convergence; may be possible to include as part of WTO Annex 4
7	Import tariffs on medical equipment, PPE, pharma, supply chain components	Maximize access, availability of medical supplies; gains from trade	Zero import tariffs on medical supplies/components during pandemic (WTO: MFN-critical mass)	Regional trade agreement tariff elimination; or part of WTO Annex 4
8	Export restrictions on medical equipment, PPE, pharma, supply chain components	Maximize access, availability of medical supplies; gains from trade	Reciprocal ban on medical supply/component export controls (WTO Annex 4)	Possible joint bilateral or plurilateral action under WTO
9	Hoarding of medical supplies, supply chain components	Maximize access, availability of medical supplies	Rules/monitoring of medical stockpiles, distribution (WHO/WTO; Annex 4)	Regional trade agreement negotiation
10	Host/home foreign investment controls on medical supplies	Maximize access, availability of medical supplies	Reciprocal ban on trade distortions in inbound/outbound FDI (WTO TRIMs)	Regional trade agreement negotiations or bilateral investment treaties
11	Cross-border restrictions on medical personnel, services delivery	Maximize access to qualified medical workers, medical services trade	Reciprocal agreement on cross-border movement of medical workers and services (WTO services modes 1 and 4)	Unilateral emergency visa regulations under medical emergency

12	Disparate product/vaccine testing & regulations	Efficiency of harmonized vaccine regulation, production	Vaccine/therapeutics production treaty: Joint testing, production, recognition standards (WHO/WTO)	These two issues may benefit from joint coverage in a WTO Annex 4 agreement, with free trade/supply chain provisions facilitating enforcement; otherwise ad hoc bilateral/regional or WTO emergency medical arrangement
13	Vaccine nationalism: pre-emptive hoarding, monopoly on supply	Efficient production, global distribution of vaccines to suppress pandemic	Vaccine distribution treaty: reciprocal access, distribution protocols (WHO/WTO/COVAX)	
14	Funding gap for medical emergencies in low-income countries	Global control of pandemic, support of development goals	Coordinated foreign pandemic aid, WB/IMF/NGO assistance for low-income countries	Ad hoc foreign aid, World Bank, IMF, regional development bank aid
15	Opportunistic behavior; agreement violations/defection	Establish incentives for compliance; provide 3 rd party dispute	For CPA: WTO dispute settlement ; reciprocal commitments; flexible regulatory compliance incentives	For discrete PA: internalized incentives or separate dispute settlement provision

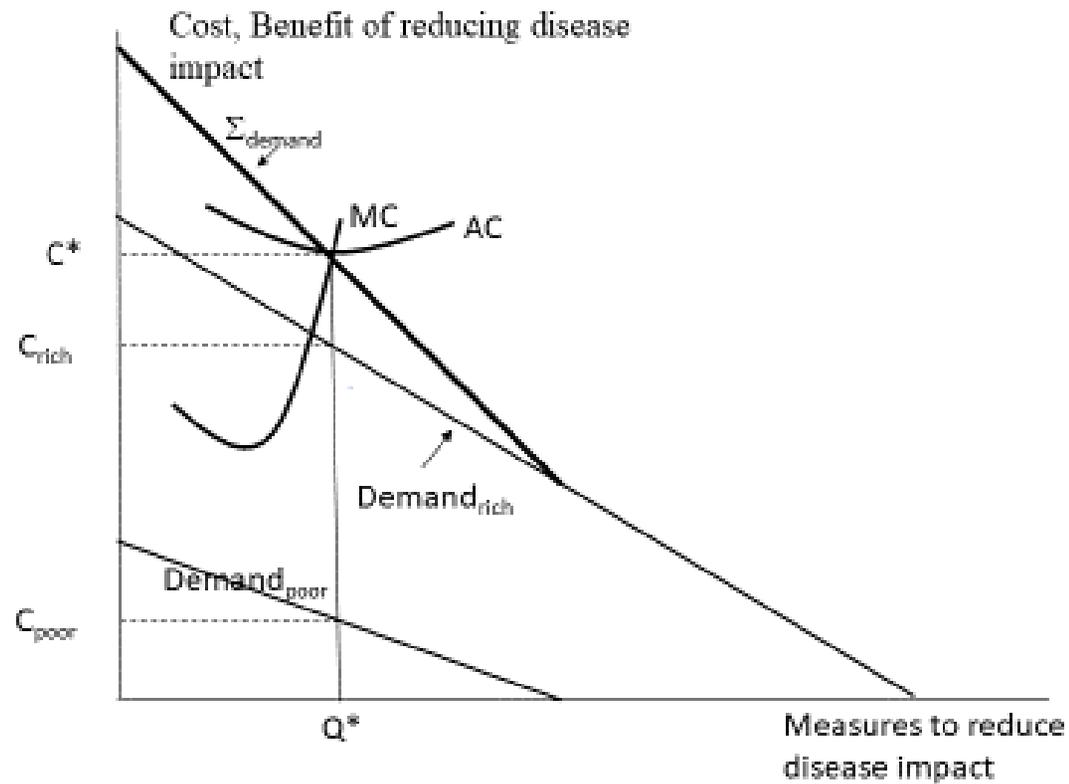
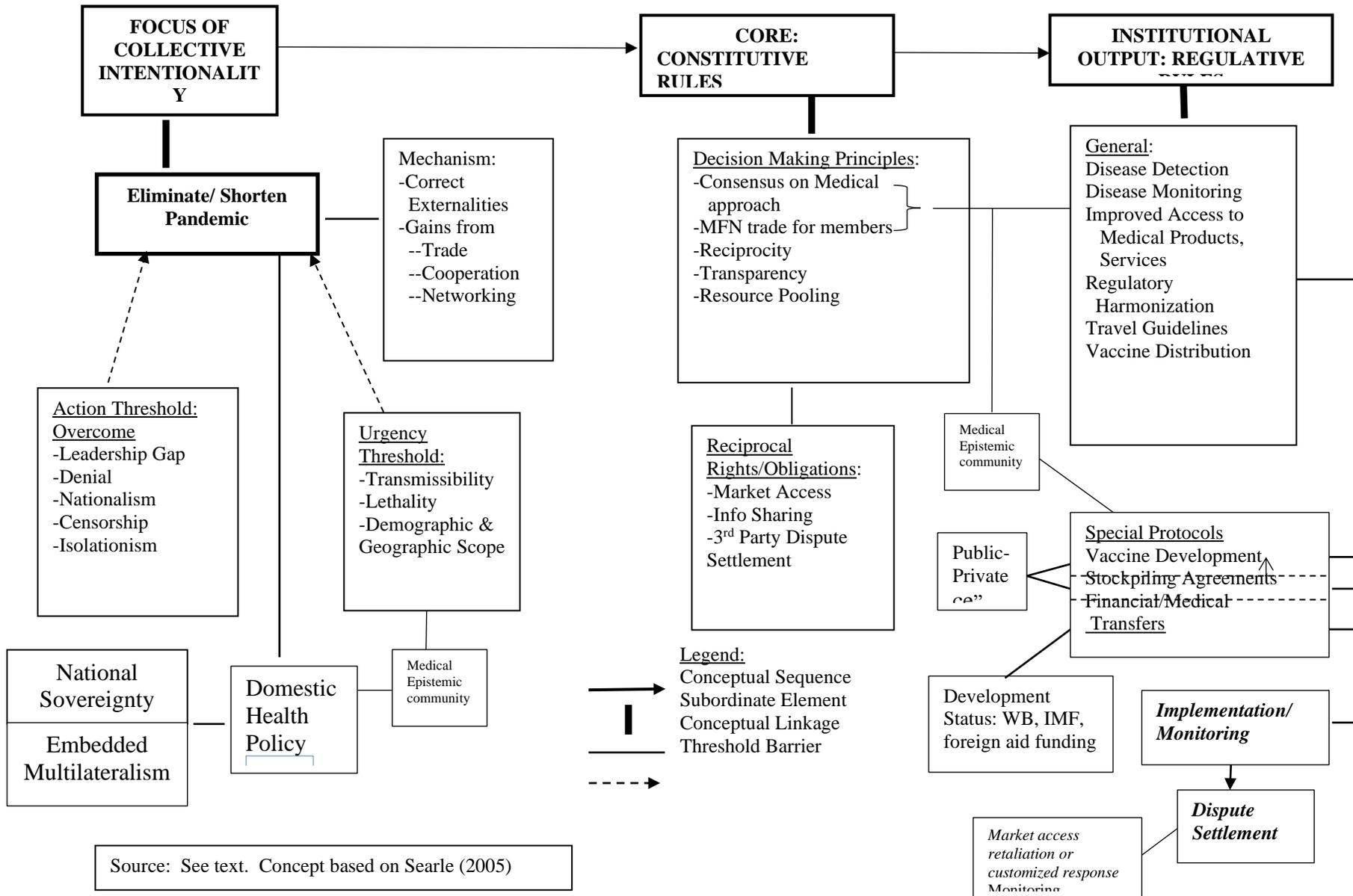
Figure 1: Graphical Representation of Demand for Public Good

Figure 2. Institutional Sketch of a Comprehensive Pandemic Agreement



¹ Initially dubbed “Coronavirus” (a class of several virus types) the pandemic virus itself has the medical designation SARS-CoV-2. The WHO announced that its official name was Covid-19 in early February 2020 (WHO 2020). In this article, “virus” refers to SARS-CoV-2 and the associated disease is Covid-19.

² Beginning in December 2020 several more contagious, vaccine-resistant and lethal “variants of concern” of SARS-CoV-2 appeared. See WHO (2022).

³ This estimate of the global GDP cost from the pandemic compares the 2019 pre-Covid baseline global GDP growth projection over ten years with the comparable downward-shifted growth projection post-Covid, corrected for the introduction of vaccines in late 2020. The calculation then uses annual global 2019 GDP in current dollars as the basis for the 53% loss.

⁴ All 194 participating countries supported the concept of a formal pandemic agreement, although the issue of concluding a convention, treaty, or other type of agreement was left open, raising the question of whether a binding agreement was possible.

⁵ Jones (2015, chapter 7) provides a similar institutional framework for understanding the World Trade Organization, which sets out to provide its members with the public goods of coordinating trade liberalization based on negotiations, rules and the peaceful settlement of disputes.

⁶ WTO rules apply to medical products trade through tariff regulations, restrictions on services trade, Sanitary and Phytosanitary measures (SPS), Technical Barriers to Trade (TBT), and Trade-Related Intellectual Property rights (TRIPS) (Fidler 2003).

⁷ A CPA would potentially go beyond the boundaries of WTO membership, which stands at 164 countries in 2021 (all WTO members are also WHO members).

⁸ One major issue of contention in mid-2021, for example, was the etiology of the SARS-CoV-2 virus in Wuhan, China, and whether it originated in animal-to-human transmission through wet markets or if it was the result of lab leak, and whether it involved features that were actually manipulated in the lab. See Maxmen and Mallapaty (2021).

⁹ It can, however, be risky for government leaders to fire medical experts for political reasons, as public health officials themselves may have sufficient reputational power to avoid dismissal. This was apparently the case in the US with Dr. Anthony Fauci, despite his disagreements with President Trump. See Stolberg, Haberman and Weiland (2020).

¹⁰ Trust is an important component of any integrative international agreement based on reciprocity, in which the mutual gains depend on “playing by the rules,” as, for example, in a trade agreement based on the reciprocal opening of participants’ markets. See Lopez-Fresno, et al (2018) and Larson (1998). Effective dispute settlement also provides essential support for mutual trust in that it provides confidence that actionable violations of the rules will result in a resolution that maintains the integrity of the entire agreement. Otherwise, a persistent violator or scofflaw will increase the transaction cost of membership, undermining its value.

¹¹ The WHO as an international institution has suffered from the politicization of the Covid-19 pandemic, as its reliance on member funding and other external donors has raised suspicions about its ability to broker a major agreement for its diverse membership. See note 12 below.

¹² Trump’s criticism of the WHO seemed to focus on its Director-General, Tedros Adhanom Ghebreyesus, for his failure to challenge China’s account of the origins and initial spread of the SARS-CoV-2 virus, along with Trump’s disdain for international organizations and US financial support for them--\$116 million in the case of the basic WHO budget. The US had also previously contributed significantly to the voluntary budget for WHO projects, but Trump cut this funding off in his first year in office. See WHO (2021a).

¹³ A study of Covid policies of populist governments by the Tony Blair Institute (Meyer, 2020) identified 17 populist governments in 2020. It concluded that the US, Mexico, Brazil, and the smaller countries Belarus and Nicaragua downplayed the Covid crisis. Another group responded seriously to the crisis, but with many illiberal measures: India, Turkey, Hungary, the Philippines and Poland. A third group took the crisis seriously, implementing either mainly liberal measures (Italy, Czech Republic, Bulgaria, and Venezuela) or mixed liberal and illiberal measures (Israel, Serbia, and Sri Lanka).

¹⁴ The 2020 US elections installed the more multilateralist President Biden for four years, but the populist Republican party retained enough representation in Congress to prevent ratification of “globalist” treaties.

¹⁵ Research by Trujillo and Mota (2021) indicates that vaccine skepticism is higher in richer than in poorer countries, linked to rich country internet misinformation, particularly among those with low trust in medical experts. In a related Pew study conducted before the pandemic, an international comparison of “trust in scientists” showed a sharp polarization between left-wing (trusting) and right-wing (non-trusting) segments of the population in the US, UK, Australia and Canada, with lowest trust-scientists scores in the sample in Poland, Brazil, France, and South Korea (Pew Research Center 2020). One year into the pandemic, an Ipsos poll indicated that a majority of respondents in eight countries believed that trust in global health authorities will be questioned in the long term as a result of the pandemic, although doctors and local healthcare workers tended to be more trusted a result of the crisis. See Ipsos (2021).

¹⁶ In the fifty years since 1970, 70% of novel (newly discovered) viruses in humans originated in animal-borne pathogens (Natsios 2020).

¹⁷ See Kelly, et al (2020), describing the 2009 launch and subsequent activities of a U.S.-based early detection program for zoonotic diseases. Natsios (2020) notes the lack of coordinated intelligence gathering and rapid response in tracking outbreaks during the Covid-19 pandemic.

¹⁸ The critical mass of market participants would allow remaining tariff-imposing countries to “free ride” on MFN treatment by the others. See Gallagher and Stoler (2009).

¹⁹ Among WTO members, import tariffs on medical products tend to be relatively low (less than 5%), so most tariff reductions had a relatively small impact on trade. Most export controls, on the other hand, took the form of outright bans, which dominated the change in trade volume.

²⁰ Bown (ibid.2020e) notes that panic buying of surgical masks bid prices their price up by 182%. The shortage was exacerbated in the U.S. by federal policies that pitted individual U.S. states against each other and against the federal government itself in trying to secure supplies from China.

²¹ Behnam et al (2020) identify five elements in the testing process: sample collection, logistics, test execution, data management, and testing-capacity management, which involve 20 different testing materials, reagents, and equipment items.

²² The Biomedical Advanced Research and Development Authority is part of the US Department of Health and Human Services (HHS) and played a major role in managing vaccine development and production. The OWS project involved some 600 health officials at HHS, and major logistics support from the Department of Defense. See Florko (2020).

²³ OWS was not without its critics. Lincicome (2021) argues that it was only partially responsible for developing the vaccine. The OWS development phase was headed by vaccine expert Dr. Moncef Slaoui, a former executive at GlaxoSmithKline, a major Pharma company, raising

suspicions that he had conflicts of interest in directing the vaccine project (Lovelace 2020). President Trump raised fears of OWS politicization when he became impatient with the timeline for the vaccine's rollout after promising its delivery before the presidential election, but in the end the OWS team's insistence on a thorough medical vetting and review process appeared to protect the vaccine's rollout from any political efforts to rush it.

²⁴ Bown and Bollyky (2021) describe a four-stage process, including vaccine origination, manufacturing, "fill and finish," and distribution. There are many suppliers, whose activities must be coordinated in the production process, requiring detailed quality control at several steps. The removal of trade barriers is necessary to minimize transaction cost within the supply chain and facilitate the timely delivery of vaccine doses.

²⁵ Even if all export controls were eliminated, government contracts could require priority treatment for domestic deliveries, as was the case in some OWS projects. See Lupkin (2021).

²⁶ US President Biden announced the donation of 500 million vaccine doses to developing countries in June 2021, leading to a similar commitment from the remaining G-7 member countries (Miller et al 2021). However, subsequent implementation efforts became entwined in political delays (Banco 2021).

²⁷ Aside from the Congress of Vienna, other major postwar institutional changes came from the Westphalian Treaty of 1648 (the system of secular, sovereign states), World War I (the League of Nations) and World War II (United Nations and Bretton Woods System).