INTERNAL AUDITING & RISK MANAGEMENT

YEAR XIV, No. 3 (55), September 2019

ATHENÆUM UNIVERSITY

INTERNAL AUDITING & RISK MANAGEMENT

Revistă trimestrială editată de Universitatea „Athenaeum" & Centrul de Excelență în Managementul Financiar și Audit Intern

ANUL XIV, NR. 3 (55), SEPTEMBRIE 2019

Quarterly journal published by the „Athenaeum" University & Centre of Excellence in Financial Management and Internal Audit

YEAR XIV, No. 3 (55), SEPTEMBER 2019

EDITURA BREN
Str. Lucăcești nr.12, sectorul 6 București
Tel/Fax: 0318179384
www.editurabren.ro
e-mail: brenprod@gmail.com
ISSN 2065 – 8168 (print) **ISSN 2068 - 2077** (online)
Indexată în Bazele de date internaționale
RePEc , CEEOL, SSRN, EBSCO, Google Scholar

INTERNAL AUDITING & RISK MANAGEMENT

Revistă trimestrială editată de Universitatea „Athenaeum" &
Centrul de Excelență în Managementul Financiar și Audit Intern
ANUL XIV, NR. 3 (55), 2019

Fondator / Founder:

Prof.univ.dr. Emilia VASILE, Universitatea Athenaeum, Bucureşti, România

Birou de redacție/Editorial Office:Universitatea Athenaeum din Bucureşti

Viorica BURCEA, Universitatea Athenaeum, Bucureşti, România
Felicia Mihaela NEGOI, Universitatea Athenaeum, Bucureşti, România

CONTENTS

APPLICATIONS FOR ECONOMIC ORGANIZATIONS BUILT ON ENTERPRISE JAVABEANS TECHNOLOGIES

Dănuţ-Octavian SIMION, PhD Associate Professor
Athenaeum University, Bucharest, Romania
danut_so@yahoo.com

Emilia VASILE, PhD Professor
Athenaeum University, Bucharest, Romania
rector@univath.ro

Abstract: *The paper presents the role of Applications for economic organizations build on Enterprise JavaBeans technologies. The IT systemS should not only be seen as an interface between the operating system and the management system, but also as the connecting element of the internal environment of the company and its external environment (economic, financial, banking, etc). The main purpose of the information system is to provide every user, according to his responsibilities and responsibilities, all the necessary information. Executive Information Systems (EIS) represents information systems designed to provide: quick and selective access to internal and external data of the company, information on critical success factors determining strategic objectives, calculation facilities and special graphical representations. The business applications rely on databases and on the front side are using different web technologies. To make a connection between these components, the best method is to use Enterprise Java Beans that can map any object inside an application. Enterprise JavaBeans is component architecture. The fields of application and the variety of forms of component architecture can be quite diverse. Enterprise JavaBeans is a rather unique variant: a server-side, transaction-oriented component architecture for distributed components.*
Keywords: *Enterprise JavaBeans, business logic, IT systems, programing logic, informational support, application components, business decisions*
JEL Classification: *C23, C26, C38, C55, C81, C87*

1. Introduction

A business component is a software component small enough to create and maintain in one piece and large enough to provide useful and practical functionality and to justify separate maintenance; it is equipped with standardized interfaces that allow it to cooperate with other components. First, we simplify the view of a component, imagining it as some kind of Lego building block. The interior works of the block remain hidden from view. However, it can be seen that it has connectors that allow it to be attached to other building blocks. A combination of suitable building blocks results in a structure that serves a particular purpose - a house, a garage, a road. Software components are also blocks where one cannot necessarily be seen indoors. Its functionality can only be deduced from the public interface, which in addition to allowing it to be used, also allows connection to other components. As with the Lego building blocks, with the software components the crucial property is the reuse. A component that can be used in a single application scenario is not a genuine component (G.Anderson, and P.Anderson, 2018; Barry and Dick, 2019).

Objects also offer the interface concept, which is usually strictly coupled to the basic system technology and thus limits interoperability. Undoubtedly, the close relationship between objects and components is clear. Thus, object-oriented approach and techniques seem to provide the best basis for component development and component-oriented software. A fundamental concept of the component paradigm is that of the interface. The interface of a component is a kind of contract whose conditions the components are obliged to fulfill. It is a point of interaction with the components, documenting their characteristics and capabilities. A business component can have multiple interfaces. Each interface represents a service provided by the component.

2. The Enterprise JavaBeans component architecture for business components

Enterprise JavaBeans is a component architecture. The fields of application and the variety of forms of a component architecture can be quite diverse. Enterprise JavaBeans is a rather unique variant: a server-side, transaction-oriented component architecture for distributed components. Thus, Beans Enterprise are components that provide services to multiple clients on a single server. Without a framework that incorporates components into a kind of running environment and provides them with the necessary services, each

component that will be made available through a network should have its own server. This would make the development of these components much more difficult and if more components were implemented on a computer it would result in unnecessary strain on its resources. Even the reuse of a component can be endangered, as the servers often have to adapt to the base platform. An architecture of components, such as Enterprise JavaBeans, enables the deployment of components for distributed applications without significantly affecting the components themselves (Jain, 2017; Hanson, 2018).

There is a list of requirements that the architecture of the components must meet:

- Independence of the environment: the components should be implemented without reference to the programming language, operating system, network technology, etc.
- Location transparency: For the component user it should not make any difference if the component offers its services in the user's local address space or in the address space of another computer, remotely. The mechanisms required for the transparent use of local or remote components should be made available through component architecture.
- Interface and implementation separation: The specification of a component must be completely independent of its implementation.

Self-descriptive interfaces: In order to achieve a free coupling of components during running, a component should be able to provide information about its capabilities and entry points.

A JavaBean is essentially a Java class that respects the rules set out in the JavaBeans specification. The most important attributes of a bean are its public interface, the possibility of analyzing it based on its composition, its adaptability to individual requirements and its ability to persist - by serializing objects. The public interface consists of the properties of a bean, the methods it allows others to use, and the events it receives or executes. A bean can be a visible component - a button, for example, or an invisible component - for example, a network service.

Immediate trouble-free usability: A component should be used on any platform without being adapted in any way - which implies a binary independence of the component code.

Integration and composition ability: In combination with other components, a component should be able to contribute to the creation of new usable components (Liu, Bass and Klein, 2017; Monson-Haefel, 2018).

3. Development of business components with Enterprise JavaBeans

However, Enterprise JavaBeans is not just a component architecture. The specification defines a system-oriented component model for the notion of component model. This makes it possible to implement different types of Enterprise bean. Defines protocols for managing the components, for cooperating and communicating the components between them and for their use by a client (G.Anderson and P.Anderson, 2018; Monson-Haefel, 2018).

JavaBean example:

```
public class AValidBean implements AEventListener {
    private int aProperty;
    private Vector beanListeners;

    public AValidBean()
    {
       aProperty = -1;
       beanListeners = new Vector();
    }
    public void setAProperty(int value)
    {
       aProperty = value;
    }
    public int getAProperty()
    {
       return aProperty;
    }
    public void addBEventListener(BEventListener listener)
    {
       beanListeners.addElement(listener);
    }
    public void removeBEventListener(BEventListener listener)
    {
       beanListener.remove(listener);
    }
    private void fireBEvent() {
       BEventListener l;
       for(inti=0;I< beanListener.size(); i++) {
           l = (BEventListener)beanListener.elementAt(i);
```

```
            l.notify(new BEvent(this));
        }
    }
    //Implementation of AEventListener Interface
    public void notify(AEvent event)
    {
        //processing the event
    }
}
```

This bean class is not derived from any class. It does not implement any standard interface and is still a valid JavaBean - only visible JavaBeans must come from java.awt.Component. It simply follows the naming conventions set out in the specification. It has the property of aProperty, which can be manipulated and read by the setAProperty and getAProperty methods. Because it implements the AEventListener interface, it can react to the AEvent event. It triggers the BEvent event, for which other beans can be registered through addBEventListener and can be registered by removeBEventListener. By exchanging events, the bean can dynamically pair with each other, as registration for certain events can be recorded and canceled during running. This coupling over events is also a free coupling, as the bean is extracted from the actual type using the appropriate listener interfaces.

With the naming convention type get property, void property (type), implements EventType Listener, void add EventType Listener () and void eliminates eventTypeListener () etc., a builder can, for example, analyze (introspection) the bean with the help of Java Reflection API in terms of its properties and the possibility to link it to events. The instrument can place the user in a visual bean handling position. Thus, the JavaBeans specification essentially focuses on the description of the program interface for:

- recognition and use of JavaBeans properties,
- adapting JavaBeans to particular circumstances,
- event logging and sending between individual JavaBeans,
- persistence of JavaBeans components.

On the other hand, the Enterprise JavaBean specification focuses on distributed computing and business transactions. JavaBean objects do not have a distributed character. The EJB specification describes a service framework for server-side components. Enterprise Beans are never visible components of the server. You

can look in vain for the EJB specification for a discussion of the properties and events of an Enterprise Bean, as it mainly describes the programming interface and properties of the framework.

Of course, servers can be built on traditional JavaBeans. Then, however, the framework itself should be developed, which provides the components with the relevant server utilities and refers to distribution. However, we could imagine a combination of invisible JavaBeans and Enterprise Beans in which an Enterprise Bean provides a certain interface on the EJB server and delivers calls to JavaBeans - for example, by triggering JavaBean events (Jain, 2017; Barry and Dick, 2019).

We should not try to look for too many similarities between the two models, because, despite a superficial similarity of name, the two models are quite different in emphasis. However, JavaBeans and Enterprise Beans should not be considered as opposing concepts, but rather complementary.

Enterprise JavaBeans (EJB) is a component of the Java Enterprise Edition platform. In this model, EJB takes over the part of the server application logic that is available as components: Enterprise Beans.

These contain the logic of the application used by the client programs. Enterprise Beans are in an EJB container, which makes a running environment available to them so that, for example, they can be addressed by client programs through home and remote interfaces and have the possibility to communicate with each other through the local home and local interfaces, so that life cycle management can be ensured. The EJB container is connected to services through the standard programming interface, services that are available for bean - for example, access to JDBC databases, access to a JTA transaction service and access to a JMS messaging service. The EJB container is installed - possibly next to other containers on an application server.

The Server part

The server is the fundamental component of the EJB architecture. Here we are not deliberately talking about an EJB server. In fact, it should be called J2EE server. Sun Microsystems strategy in relation to enterprise applications within the J2EE platform involves Enterprise JavaBeans to a much greater extent in the complete portfolio of Java-based interfaces and programming products and the Enterprise JavaBeans specification.The Enterprise JavaBeans specification does not define any requirement on the server. The reason for this is probably their stronger integration into the Java Enterprise Edition platform.

A J2EE server is a running environment for various containers (one or more of which can be EJB containers). In turn, each container makes a running environment available for a particular type of component. Java application server creators are increasingly looking to support the J2EE platform. Almost a manufacturer that offers a pure EJB server. In the meantime, many CORBA database providers, transaction monitors, or ORBs have started supporting Enterprise JavaBeans.

In the J2EE platform environment and thus indirectly in the EJB architecture, the server component has the responsibility to provide basic functionalities. This includes, for example:

- Wire and process management (so that several containers can offer their server services in parallel);
- Support for clustering and task sharing (ie the ability to run multiple servers cooperatively and distribute client requests according to the task on each server to get the best response times);
- Security against breakdown (failure-safety);
- A name and directory service (for locating components);

Access and share operating system resources - for example, network sockets for running a web container.

The interface between server and container is highly dependent on the manufacturer. Neither the specification of Enterprise JavaBeans nor that of the Java 2 platform, Enterprise Edition, define the protocol for this. The Enterprise JavaBeans specification in the above version assumes that the server and container manufacturer are one and the same (Liu, Bass and Klein, 2017; Hanson, 2018).

The EJB container

The EJB container is a running environment for Enterprise Bean components. Just as an EJB container is assigned to the server as an execution environment and service provider, a bean depends on its EJB container, which provides it with a running environment and services. Such services are provided to the bean through standard programming interfaces.

A Java application server vendor can provide additional services through the standard interface. Some manufacturers offer, for example, a generic generic service interface for the manufacturer through which specially developed services can be provided - such as a logging service or user management. If an Enterprise Bean uses such services of its own, then it cannot simply be placed in any available container.

The EJB container provides Enterprise Beans with a running environment and also offers particular Enterprise Beans services during running through the static programming interfaces mentioned above. Now we want to examine the most important aspects of both areas - the rolling environment, as well as the services provided.

Enterprise Beans

Enterprise Beans are the server-side components used in Enterprise JavaBeans component architecture. They implement the logic of the application on which the client programs are based. The functionality of the EJB server and container ensures only the use of the beans. Enterprise Beans are installed in an EJB container, which provides them with an environment during which they can run. Enterprise Beans is implicitly or explicitly based on the services offered by the EJB container:

Default in case:

- persistence managed by containers (CMP);
- declarative transactions;
- security.

Explicitly in the case:

- use of explicit transactions;
- persistence of beans (BMP);
- sending asynchronous messages.

Types of Enterprise Beans:
There are three different forms of Enterprise Beans, which differ more or less sharply from one another: entity beans, message-driven beans, and session beans.

Session beans model common processes or events. For example, this could be introducing a new customer into an enterprise resource planning (ERP) system, executing a reservation in a reservation system, or establishing a production plan based on open orders. Session beans can be viewed as an extension of the client arm to the server. This view is supported by the fact that a session bean is a private resource of a particular client.

Entity beans, on the other hand, are real-world objects that are associated with particular data, such as a customer, a booking account, or a product. An instance of a particular type of entity beans can be used simultaneously by several clients. Session beans usually operate on data represented by the entity beans.

Message-driven beans are the recipients of asynchronous messages. A messaging service acts as a mediator between the sender of a message and the bean driven by messages. Entity session beans are addressed via the local or remote interface. Calls to entities or session beans are synchronous; that is, client execution is blocked until the Enterprise Bean method has been processed. After the method call has returned, the client can continue processing. Message-driven bean can be addressed only by the client (indirectly), sending a message on a certain channel of the messaging service. A certain type of message-driven bean receives all the messages that are sent on a specific message service channel. Communication through a messaging service is asynchronous. That is, the execution of the client can continue directly after sending a message. It does not remain locked until the message has been delivered and processed. The container can implement multiple instances of a particular type of message-driven beans. Thus, in this case parallel processing is possible. Message-driven beans have no status between processing multiple messages. In addition, they have no identity with the customer. In a sense, they are similar to session beans without status. To process a message, the message-driven bean can use session or entity beans, as well as all of the services the container offers.

There is another distinction regarding session bean, namely whether or not the session bean is. Stateless session beans do not store data from one method call to another. The methods of a stateless session bean only work with the data transmitted as parameters. Sitting berries without the same type status have all the same identity. Because they have no state, there is neither the necessity nor the possibility of distinguishing one from the other.

On the other hand, the statistical session bean stores data on several methodical calls. Method calls to session bean can change the bean status. The status is lost when the client no longer uses the bean or when the server is disconnected. Session beans of the same type have different identities at run time. The EJB container must be able to distinguish them because they have different states for their customers. A session bean receives its identity from the EJB container. Unlike the entity bean, the identity of a session bean is not visible on the outside. As clients always work with a session bean which is an exclusive instance for them, there is no need for such visibility.

Entity bean can be distinguished by the fact that they themselves are responsible for making their data persistent or if the EJB container takes over this task. In the first case, there is talk of persistence managed by bean, while in the second it is persistence managed by containers. Entity bean of the same

type have different identities at run time. An entity kernel of a particular type is identified during running by the main key, which is allocated by the EJB container. Therefore, it is related to particular data, which it represents in the activation phase. The identity of an entity grain is visible on the outside (Jain, 2017; Monson-Haefel, 2018).

Bean types play a role in managing EJB container resources. With entity bean, message bean and session bean stateless, the recipient can initiate accumulation, while with session bean, it can instigate passivation and activation - serialization and deserialization on a secondary storage medium. The interface between an entity bean and the EJB container is called context (javax.ejb.EJBContext). This interface is again specialized for the three types of bean (at javax.ejb.EntityContext, javax.ejb.MessageDrivenContext and javax.ejb.SessionContext). The bean can communicate with the container using the context that is passed from the EJB container to the bean. The context remains related to a bean for the whole life. In context, the EJB container manages the identity of an Enterprise Bean. With a change in context, the EJB container can change the identity of a bean.

Remote Interface

The remote interface defines those methods that are not offered externally by a bean. The methods of the remote interface thus reflect the functionality expected or required by the components. The remote interface must be derived from javax.ejb.EJBObject, which in turn is derived from java.rmi.Remote. All remote interface methods must declare the exception java.rmi.RemoteException.

```
package ejb.accountbank;

import java.rmi.RemoteException;
import javax.ejb.EJBObject;

public interface Bankaccount extends EJBObject
{
   // add account number
   public String getAccNumber ()
     throws RemoteException;
   // account description
   public String getAccDescription ()
```

```
    throws RemoteException;
  // balancing cont
  public float getBalance ()
    throws RemoteException;
  // increase balance account
  public void increaseBalance (float amount)
    throws RemoteException;
  // balance reduction account
  public void decreaseBalance (float amount)
    throws RemoteException;
}
```

Home Interface

The home interface must be derived from javax.ejb.EJBHome - in this interface is the method of removing a bean; it should not be declared separately. EJBHome, in turn, is also derived from javax.rmi.Remote.In the home interface, also all methods declare the java.rmi.RemoteExeption exception to be triggered. As in the case of the remote interface, everything indicates the distributed character and the incorporation within the EJB.

```
package ejb.accountbank;

import java.rmi.RemoteException;
import javax.ejb.CreateException;
import javax.ejb.EJBHome;
import javax.ejb.FinderException;

public interface BankAccountHome extends EJBHome
{

  // generate account
  public BankAccount create (String accNo,
                             String accDescription,
                             float initialBalance)
    throws CreateException, RemoteException;


  // find a specific account
  public BankAccount findByPrimaryKey (String accPK)
    throws FinderException, RemoteException;
}
```

Bean Classes

Bean classes implement the methods that have been declared in the home and remote interfaces (except for the findByPrimaryKey method), without actually implementing these two interfaces. The signatures of the remote and home interface methods must be in accordance with the appropriate methods of the bean class. The bean class must implement an interface that depends on its type, and it must be javax.ejb.EntityBean, javax.ejb.MessageDrivenBean or javax.ejb.SessionBean. The bean does not implement either its home or its remote interface. The summary of the class is only for an entity bean with automatic persistence managed by containers. Session, message and entity bean classes, which manage their own persistence, are concrete classes.

```
package ejb.accountbank;

import javax.ejb.CreateException;
import javax.ejb.EntityBean;
import javax.ejb.EntityContext;
import javax.ejb.RemoveException;

public abstract class BankAccountBean implements EntityBean {
  private EntityContext theContext;

  public BankAccountBean () {
  }

  // method of creating the home interface

  public String ejbCreate (String contNr,
                                  String accountDescription,
                                  float initialBalance)
    throws CreateException
  {
    setContNumar (contNr);
    setContDescriere (contDescriere);
    setContBalance (initialBalance);
    return null;
  }

  public void ejbPostCreate (String contNr,
```

```
                                    String accountDescription,
                                    float initialBalance)
  throws CreateException
{
}

// abstract getter / setter method

public abstract String getContNumar ();
public abstract void setContNumar (String cnr);

public abstract String getContDescriere ();
public abstract void setContDescriere (String cnr);
public abstract float getContBalance ();
public abstract void setContBalance (float acb);
// the remote interface methods

public String getCntNumber () {
  return getContNumber ();
}

public String getCntDescription () {
  return getContDescriere ();
}
public float getBalance () {
  return getContBalance ();
}
public void increaseBalance (float sum) {
  float acb = getContBalance ();
  acb + = sum;
  setContBalance (CBA);
}
public void decreaseBalance (float sum) {
  float acb = getContBalance ();
  acb - = sum;
  setContBalance (CBA);
}

// the methods javax.ejb.EntityBean interface
```

```
  public void setEntityContext (EntityContext ctx) {
    theContext = ctx;
  }

  public void unsetEntityContext () {
    theContext = null;
  }

  public void ejbRemove ()
    throws RemoveException
  {
  }

  public void ejbActivate () {
  }

  public void ejbPassivate () {
  }

  public void ejbLoad () {
  }

  public void ejbStore () {
  }
}
```

For Java programming language and its components, talk is always about beans. The most popular current component of Java is most likely JavaBeans. Before we get into the difference between JavaBeans and Enterprise JavaBeans, we need to briefly discuss the component world, without wishing to engage in a full discussion of the component paradigm.

4. Conclusions

Descending strategy, top-down, is based on the principle of decomposing the complex computer system into components, presenting a lower complexity (defined by fields of activity, for example), successively through several levels of detail within each defined component. Through this approach, the computer system acquires a hierarchically modular structure in which each component

fulfills a certain functionality and will be coordinated in its operation by the components placed at the immediately higher hierarchical level. (G.Anderson, P.Anderson, 2018; Monson-Haefel, 2018). Upward strategy, bottom up, promotes the initiative at the level of each management area (accounting, business, production, etc.) without a defined framework and architecture for the global IT system at the organization level. The management systems are designed, realized and exploited independently, responding to the management requirements of the domains for which they were created, and will subsequently be integrated into the overall IT system of the organization (Jain, 2017; Monson-Haefel, 2018). The Enterprise JavaBeans are the optimal solutions when a business application needs to access the main components that define the economic logic. The entities that are residing in the database store data that is needed in the business flows and the easy way is to use Enterprise JavaBeans for the enterprise applications.

References

Anderson, G. and Anderson, P. (2018). *Enterprise JavaBeans Component Architecture: Designing and Coding Enterprise Applications*, Prentice Hall.

Barry, D,K., and Dick, D. (2019). *Web Services, Service-Oriented Architectures, and Cloud Computing: The Savvy Manager's Guide*, second edition. Barry & Associates, Inc.

Hanson, J. (2018). *Enterprise JavaBeans: A Primer*. SitePoint Publishing.

Jain, A. (2017). *How to work with Enterprise JavaBeans (EJB)*. MrBool Publishing.

Liu, A., Bass, L., and Klein, M. (2017). *Analyzing Enterprise JavaBeans Systems Using Quality Attribute Design Primitives*. Carnegie Mellon University.

Monson-Haefel, R. (2018). *Enterprise JavaBeans.* O'Reilly & Associates.

EDUCATION IN A MODERN SOCIETY

Brînduşa-Mihaela RADU, Associate Professor PhD
Athenaeum University, Bucharest, Romania
bmradu@yahoo.com

Abstract: *Change in education is an objective necessity, determined by the transformations taking place in society - at a cultural, political, economic, community level, and these things must be reflected in the pedagogical plan. In spite of tensions and multiple conflicts, the priority objective of mankind is increasingly formulated in the notion of sustainable development. Education is trying to respond to the requirements of social development in two directions, that of educational content - which requires curriculum development by infusion, integration of new education and that of the philosophy of education - which concerns the orientation, sizing and rethinking of educational processes. The problems of the world in which we live: the crisis of the environment, globalization, poverty, unemployment, social failure, equality of chances, human rights, democracy have become problems of the education sciences, which have integrated them in what is called the new education.The school is to be the center of change, a change of mentality first, an equally important aspect, but harder to solve than the economic change and reconstruction and the institutions of democracy. The new generation must not only be educated to adapt to the new, but also to anticipate change, to accept it and to actively participate in the process, thus contributing to the construction of the future. The specificity of our world is that it is changing faster and that it puts us in the face of original, unforeseeable and even unpredictable situations. For this reason, the main task in the formation of man must not be both education and education, namely education that offers educated and educated behavior open to change and an attitude that favors the use of innovative behavior techniques.*
Keywords: *New education, training, sustainable development, the knowledge society*
JEL Classification: *I20, I21, I25*

1. Introduction

Being aware of the problems and values of today's society, mankind knew how to formulate problem-solving strategies, coaching the values within which it is. The most important type of strategy is the one that realizes the change of mentality. And it is known that any change in mentality occurs effectively and globally through the transformative action of education, although it is not excluded that influence on the mentality exerted by economic, political, social realities, etc. Understanding in the most developed sense of this notion, education is omnipresent (so it affects economic, political, social, etc.), universal, imminent to any individual and social group, because it influences any change in economic, political and social change by changing the mentality of those which causes change in these areas.

2. Education for change

The curriculum reform launched in 1977-1978 essentially seeks to radically change the conception of the role of the school: "The school was, in principle, the scene of a teaching-learning process, that is to say, assimilation of knowledge. It must become more and more the institution that assures a complete development of personality. The new programs will focus on individual study and the development of the originality of thinking; learning will be centered on fundamental concepts" (Cojocaru, 2003).

Illustrative of this new way of understanding the school's purpose is the program of measures adopted in 1976 by the Ministry of Education, Science and Culture of Japan, where priority is not to increase the share of science and technology but to target:

- "Stimulating the students' ability to think independently and make the right decisions;
- A more pleasant and pleasant school life.
- Stimulating students' love for nature and for people, developing sociability.
- Cultivating love for the family, for the natal place conjoined with openness to the contemporary world" (Cucoş, 2002).

The curricular design promoted within the modern didactics is centered on the objectives of the instructive-educational activity, aiming at

priority "optimizing the relations of pedagogical correspondence between the component elements (objectives - contents - methodology - evaluation), between the subordinate teaching and learning actions" (Cemortan, 2007), the fines at the system and process level. The development of curricular design involves a pedagogical approach oriented to three types of decisions (Seguin, 1991):

I. Macro structural decisions of a philosophical and political nature involving the setting of both the fundamental options (the pedagogical ideal, the goals) that define the evolutions of the system and the pedagogical resources (human, informational, etc.) necessary for the educational system as a whole;

II. Depending on (I) pedagogical macro-pedagogical decisions involving three elements: establishing the criteria for elaborating educational plans, establishing the profiles of training / development of the personality of the pupil / student on the different stages of his / her formation, establishing the modalities the overall and partial evaluation of their level of training;

III. Micro structural decisions that also involve: setting specific objectives on educational subjects or modules, establishing the pedagogical resources needed to achieve the specific objectives, establishing the modalities of partial evaluation of pupils / students.

Curricular design does not exclude but instead relies on the three ways of conceiving student / student teacher correlation at the three levels: frontal, group, individual but should focus more on the individual level. Under the current conditions, individual learning "evolves from the extreme, socially inappropriate solution ("each teacher works with a student in his own rhythm") to curricular inspirational processes integrated into different front-to-school or group teaching strategies: individual work, homework themes, learning tasks (play, work or creation) practiced in the class but also in the school or extra school environment" (Nedelcu, 2007).

The philosophical basis of the modular structure of education is holism (from holus = whole, totally) "attempt to conceive an informational totality as an integrated unit of elements that lose their sequential traits" (Szebenyi, 1983).

Modular structure facilitates the inclusion of special knowledge in logical assemblies that exceed quantitatively and qualitatively the characteristics of the curricular divisions. Students / students are provided with modular chains or suites depending on their instructional or educational objectives or their interests and skills. Modules can be different in terms of difficulty, level and pace of work. The pupil / student choose or propose to follow a (or more) way that he goes through with the teacher's support, then evaluating the results. In case of failure, it is recommended to go through a lower or complementary module.

Modular learning cannot be fully expanded. As a rule, basic subjects are taught in a mono disciplinary perspective. Modular dimensioning of content "is done for a group of disciplines (this does not mean that the modules overlap over the classical learning objects, but they are novel syntheses, new epistemic perspectives, integrated knowledge accumulations, etc.) that follow differences even for the professional orientation of students" (Cojocaru, 2003).

From the presentation made in the first part of this study, the educational phenomenon is subjected at all levels (conceptual, content, approaches, at structural, systemic, methodological level etc.) to changes of either "natural" or provoked, directed , planned. The second part of the study is devoted to education for change.

In a world like ours, subjected to permanent, faster or slower, sharper, or more discrete changes to "stepping on", to delay or even to resist going before are harmful or even dangerous behaviors to the contemporary man generally for the school man in particular. Stagnation means condemnation to poverty (material, spiritual), to misery (material, moral) to death, ultimately.

In the field we refer to "education for change should be the pivot around which to change education" (Cucoş, 2006). That is why school should be a central place for change, change of mentality first - at least as important (as the hardest to solve) as the economic change and reconstruction and the institutions of democracy.

At the moment, the Central and East European countries are in front of them (some have gone on this road and go faster than others) to changes that are thought to be profound, complete and radical. They want to recover the half-century-long delay that separates them from Western Europe. These societies are going through the reverse, from totalitarian systems to democratic societies, and no one - scientists, politicians or economists - "seem to know the best way, but it is clear that whatever path we choose, it must go through changing mentalities (sub-MM), so changing the school" (Marks & Myrrey, 2000). The signal for moving to the conception of education for change was given in 1926 by W.H. Kilpatrick but he was heard much later, after World War II and especially over the past 15-20 years. It is Gaston Berger who (after 1950) puts the issue of education for a changing world in a more optimistic position, promoting the thesis that the future can be predicted in its great evolutionary lines as it can be projected within certain limits and, consequently, we need to work towards developing an education system designed from the perspective of this future.

The young generation must not be educated just to adapt to the new, but to help build the future. "The specific of our world is that it is changing

faster and that it puts us in the face of original, unforeseeable and even unpredictable situations", wrote G. Berger (1973). For this reason, the main task in the formation of man must not be both instruction and education, namely education that provides the educator with an open behavior towards change and an attitude that favors the use of innovative behavior techniques.

New education, emerging from real needs - education for change, ecological education, modern domestic economic education, etc. are nothing but attempts "to prepare the individual and the communities to solve this complex problem faced by humanity in its entirety" (Cojocaru, 2003).

Life, the experience of modern man, shows that learning to maintain, simply reproducing the values of the past, tradition are not enough to "equip" the man of the future society. The old type of learning, based on a "learning" learning, can no longer satisfy today when the changes are so rapid and complex, causing real "shocks" to the contemporary man.

There is therefore a need for another education, namely "one that can bring about change, reunion, restructuring, and problem reformulation - which we will call innovative learning" (Hopkins, Ainscow & West, 1998).

This innovative learning as an essential element of education for change is "a necessary means to prepare both individuals and societies to act concertedly in new situations, especially in situations that have been and continue to be created by mankind itself " (Nedelcu, 2007).

Particularly distinct from traditional learning, the new form of learning is anticipatory, that is to say, in coherence with a vision in which the future is not only expected or welcomed, but also designed and constructed according to a set of desirable objectives in order to avoid undesirable effects. Also, this type of learning is the characteristic and the participatory dimension, thus creating two types of solidarity essential to the survival of the human species: time (through anticipation) and space (by participation).

There are three major directions in which to work in education for change:

a) reporting and meeting changes;

b) their evaluation;

c) the design of change and intervention (control of change) all three aiming at the formation of man so that he can cope with the changes to his environment.

Particularly interested in aspect (c). It is not enough for the man of today to only notice, to meet and to evaluate the changes that occur in one area

or another of society. As a subject of history, a participant in social processes (not a spectator!), He must design changes himself, intervene in their flow to provoke the desired effects, limit or avoid the undesirable ones. That is why he needs to be educated in the spirit of alternative solutions, in the scenarios of possible future prospects. Intervention for change implies, to a certain extent, the planning of change (limited and precise goals, realistic goals and deadlines).

As far as the means of education for change are concerned, they stimulate anticipatory imagination, choice and initiative, responsibility, using all the resources and processes that create "images of the future", "alternative scenarios", "possible world models" "Multiple solution issues" etc.

In front of such a desirable behavior of contemporary man, education must give an adequate, appropriate, response. He should give up on discipline and move on to focus on complex issues, to become an inter- and trans-disciplinary education. He must, among other things, adopt such a strategy that allows the gradual introduction of new education within its "classical" structure.

Different contemplations of the contemporary world were answered with specific education. The achieved theoretical advances are important, but new content is still slowly entering the school structured (yet) on disciplines, in the form of program plans. Progress is unequal (or even absent) when it comes to introducing curricular and modular approaches. It has made demographic, nutritional and ecological education easier.

A notable weight in the development of these new educations also comes from the fact that there are difficulties regarding the training of educators (teachers) able to teach in modular fashion or groupings of interdisciplinary or transdisciplinary content.

3. New Education

New Education - is the approach of today's education society, a suite of strategies and general objectives responding to the imperatives indicated by the problems of today's society, and not educational concepts or theories about educational content (Cemortan, 2007). New education stems from the types of education that have traditionally been formed: intellectual education, moral education, aesthetic education, religious education, etc. The new education is marked by the imperative and priority fields of up-to-date education, but their nomenclature does not exhaust the priorities of contemporary education, but it complements them. UNESCO, through the strategies formulated, draws the

attention of the world public opinion to some untapped potential for solving the problems of the current society. In this context, G.Văideanu in the Millennium Border Education project refers to certain objectives (Nedelcu, 2007):

- Environmental education or environmental education;
- Education for Change and Development;
- Education for technology and progress;
- Education towards the media;
- Education in population or demographic;
- Education for Peace and Cooperation;
- Education for Democracy;
- Modern health education.

Effective compatibility of the education systems of the European states would involve a set of activities in each country that accepts the European idea, designed for the correlated realization of all the educational objectives indicated by the term "new education" with the national educational objectives, by a European idea, -the concept of economic, social, technical-scientific, cultural and spiritual unity of the peoples living in the European space, each nation retaining its specific identity and color or the unification of Europe, the European integration - the term of Al. Husar (Scrigroup.com, 2019).

Since 2000, the European Commission has adopted a series of recommendations on the promotion in each European country of an education that includes not only structural, but also educational, coincidence elements. In social reality, however, violence, racism, religious, ethnic and cultural intolerance increase. In response to these phenomena, UNESCO is developing a new educational model, called the new education, which aims to create, on unique principles, a unique pedagogical society and a unique educational environment. The proposed model develops on two complementary concepts: the classical concept centered on objectivity, which is the axis of the rationality of education, and the modern concept, focused on the balance between the subjective and objective, which represents the axis of integrating the differences in the concrete pedagogical actions considered as the educational standard of the world modern.

New education should not be seen only as a source of renewal and reconstruction of content that derives from the traditional dimensions of education. It is the merit of the Romanian school about the preoccupations for the issues of new education, which coincided with the concerns of the Western

world. More than 25 years ago Professor George Văideanu and collaborators used the term and described new education. But the meritorious precedents should be cited: The University of Bucharest is among the top 10 universities in the world, who have created computing centers 5 decades ago, thanks to academician Gr. C. Moisil (Elearning.ro. 2007).

In a super-technologized society, we should look at new education not as isolated dimensions but in their multiple systemic relationships and from the perspective of the future effect (Tous différents, tous égaux, Conseil de l'Europe. Strasbourg, 1996). The ability to master modern technologies from an intellectual, political and social point of view is one of the major challenges of modern man in this century.

The new education, in order of their appearance, would be:

- Environmental education (or ecological education);
- Population education (or demographic education);
- Nutritional Education; - Education for new technology and progress;
- Education towards the media;
- Education for Peace and Cooperation;
- Education for Democracy and Human Rights;
- Modern health education;
- Modern economic and modern education;
- Education for leisure;
- Education for a new international order;
- Education with international vocation;
- Education for a quality life;
- Intercultural education, etc.

This list will remain open, and may be completed at any time. These precepts obviously enrich the axiological content of education, making it more dynamic and at the same time orient the sense of education from the classical multidisciplinary model to the interdisciplinary model. One of the new education is also considered the education for freedom (Albu, 2002), whose general significance is defined as the synthesis and finality of all new and traditional education, for human freedom should not be understood only in a political sense, but especially in a spiritual sense, and this is only possible through a complex education that articulates all types of education.

a) Environmental education or environmental education is the field of education responsible for the formation of environmental consciousness or environmental consciousness, understood as an existential environment - geographic, natural, cultural - the awareness of the primacy of the environment in relation to the individual and his / her organic belonging to the environment.

b) Education for change and development has the goal of forming homo faber (literally the man who does it). Congenitally devoted to forming the ability to make an option, man becomes a subject of change and development of both the outer existential universe and his intimate universe. The action of change is also congenital. But any prerequisite to becoming an entity only gets status as a factor of change and development through education and self-education.

c) Education for technology and progress shapes man's ability to technology and activity in various fields. It is the type of education that answers the question of how to become one. The second term indicates the quality of change: progressive. In the daily, however, this type of education is understood at the surface level: education for the acquisition of modern technologies for the production of material values and for technical, economic, scientific progress.

d) Media education is the first type of really new education, because the mass media has become massive in social life only in the sec. XX, today their role in society is extremely large, that they have been called the fourth power in the state. However, the use of its products requires special training, which is not limited to reading newspapers, listening to radio and watching TV shows. Media education involves knowing the language of publicity, TV shows and Internet portals, which is particularly sophisticated, as well as the action they have on the formation, development of human personality.

e) Population or demographic education implies the ability to regulate natality, geographic distribution, population structure and density, composition of age and gender, etc.

f) Education for Peace and Co-operation subscribes to the concept of peaceful cohabitation of people and peoples. It is, in fact, a desideratum of a moral nature, because until now the role of wars has not yet been demonstrated in the history of mankind, as the possibility of peaceful coexistence has not been demonstrated either.

g) Education for Democracy, although it has its roots in Greek antiquity, is one of the new types of education, XX mankind has reached a degree of development conducive to the establishment of a democratic society. The

essence of education for democracy is in forming democratic consciousness and the ability to attain attitudes and behaviors that allow each one to manifest himself as fully as possible in his self-fulfilling without harm to others. Democracy is not a given, the modern man is responsible for his formation as a being with democratic consciousness and the only real force that can build a democratic society. In turn, democratic society has a positive influence on the formation of democratic consciousness.

h) Modern health education consists of the formation of knowledge and abilities for proper body care and the creation of a healthy environment and way of life. New education is not only a response given by educational policies to the great problems of today's society, but also an extremely important value in the cultural-spiritual unification of the modern world, a fundamental aspect of the globalization process.

4. Design approaches to the content of school disciplines through new education

New education can be adapted to the context of each dimension of the formation of the personality culture bases (for example, ecological education can be addressed in the context of moral education programs and economic education issues can be examined from the perspective of ecological education) (Antonesei, 2002).

In the literature some possibilities of introduction of "new education" are mentioned in the curricula.

1. Disciplinary approach - addressing new education within distinct school disciplines (for example, environmental education appears as an integrated school subject in the curriculum, with institutionalized objectives at the level of school curricula).

2. Modular approach - creating specific modules within traditional disciplines with an interdisciplinary character, approaching new education within school curricula, integrated at different levels of education, but also in the dimensions of education (for example, environmental education addressed as a way of biology, in high school education, with specific objectives of the dimension of intellectual education).

3. Infusional approach - integrating the messages about new education into traditional subjects, approaching the issues of new education in school subjects (eg the issue of ecological education is approached simultaneously

in biology, chemistry, geography, physics, etc., but also at level of education: intellectual-moral-technological-sanitary, etc.).

4. Transdisciplinary approach - approaching new education at the level of scientific summaries proposed annually or quarterly / semester by teams of teachers (eg addressing the global issues of ecological education from the perspective of a team of biology, chemistry, physics, geography, economics, sociology, philosophy, etc., in the framework of synthetic lessons, ethical seminars, thematic debates, school competitions, etc.

In the countries of Europe, a series of projects have been carried out and are still being carried out in order to promote new education, which are effective strategies for implementing types of education adapted to the current society.

5. Conclusions

Besides some traditional techniques that maintain themselves because they are good and others that persist because of a devious routine, modern school offers a different look in some aspects than in the past. We are witnessing a complex movement of extraordinary magnitude, too strong to to be a treacherous fashion. What we are expressing through the expressions "active school", "new schools", "progressive education", shows this movement globally. They are names more suggestive than descriptive, evoking not only general aspects of the educational technique but expressions and certain pedagogical principles.

The "new education" movement begins practically at the end of the last century, which shows that the adjective "we" is not fully justified.

New education is new objectives and new types of content generated by "contemporary world issues." They correspond to childcare needs being integrative and cumulative. They also appear to be the most pertinent and most useful answer of the educational systems generated by the problems the contemporary world.

Permanent education - education begins with the birth of the human being and becomes an alignment of its existence throughout its life: "it involves a complex, cohesive and integrated system, offering its own means to respond to the educational and cultural aspirations of each individual, its faculties, it is designed to enable everyone to develop their personality throughout their life by appointing them or their activities." If some of the new education is well-rounded, others are being discussed in order to clarify and delimit them; however, addressing new education or new content remains an open issue.

New education is still a matter open to their specification and delimitation, to the establishment of the implementation methodology. At present, specialists in the field highlight the fact that they are capitalized and have profound implications in the five dimensions of the personality training and development process, which means that the education approaches as an intellectual, moral, aesthetic, technological and physical approach.

References

Albu, G. (2002). *În căutarea educaţiei autentice (In search of authentic education)*. Iaşi: Polirom Publishing House.

Albulescu, I. (2003). *Educaţia şi mass-media (Education and the media)*. Cluj-Napoca: Dacia Publishing House.

Antonesei, L. (1996). *Fundamentele culturale ale educaţiei (The cultural foundations of education)*. Iaşi: Polirom Publishing House, pp. 72, 74.

Antonesei, L. (2002). *Orizontul fară limite al învăţării (The horizon without limits of learning)*. Bucharest: Politica Publishing House.

Apostol Stănică, L. (2008). *Educaţia pentru sănătate în contextul noilor educaţii. Dimensiuni şi strategii (Education for health in the context of new education)*. Studia Universitatis Moldaviae. Revistă Ştiinţifică a Universităţii de Stat din Moldova, nr. 9 (19).

Berger, G. (1973). *Omul modern şi educatia sa. Psihologie şi educaţie (The modern man and his education. Psychology and education)*. Bucharest: Didactica şi Pedagogica Publishing House, p. 42.

Cemortan, S. (2007). *Oportunitatea dezvoltării curriculumului preşcolar în conformitate cu teoria noilor educaţii (The opportunity to develop the preschool curriculum in accordance with the theory of new education)* Centru educaţional Pro Didactica, nr. 3-4.

Cerghit, I. (1972). *Mass-media şi educaţia tineretului şcolar education (Mass-media and the education of the school youth)*. Bucharest: Didactica şi Pedagogica Publishing House.

Cojocaru, V.M. (2003). *Educaţie pentru schimbare şi creativitate (Education for change and creativity)*. Bucharest: Didactica şi Pedagogica Publishing House.

Cucoş, C. (2002), *Timp şi temporalitate în educaţie (Time and temporality in education)*. Iaşi: Polirom Publishing House.

Cucoş, C. (2006), *Pedagogie* (Pedagogy). Second edition, Iaşi: Polirom Publishing House.

Elearning.ro. (2007). *Educatia la distanta (Distance education)* [online] Available at: http://www.elearning.ro/educatia-la-distanta.

Hopkins, D.; Ainscow, M.; West, M. (1998). *Perfecţionarea şcolii într-o eră a schimbării (School Improvement in an Era of Change)*. Chişinău: Prut Internaţional Publishing House.

Marks, D.F., Myrrey, M. (2000). *Health Psyhology*. London: Sage Publications.

Minder, M. (1997). *Champs d'action pédagogique*. Paris: De Boeck Publishing House.

Narly, C. (1996). *Pedagogie generală (General pedagogy)*. Bucharest.

Nedelcu, D. (2007). *Educaţie democratică, incluziune şi interculturalitate (Democratic education, inclusion and interculturality)*. Bucharest: Didactica şi Pedagogica Publishing House.

Scrigroup.com. (n.d.). *Noile educatii. Sociologie (New education. Sociology)* [online] Available at: http://www.scrigroup.com/educatie/sociologie/Noile-educatii24558.php

Szebenyi, P. (1983). *The Evolution of the Content of General Education Over the Next Two Decades*, Hungary, UNESCO.

*** Tous différents, tous égaux, Conseil de l'Europe. Strasbourg, 1996.

ANALYSIS OF THE SPECIFIC MONEY LAUNDERING CRIMINAL CASES EVOLUTION IN ROMANIA

Petrisor GRUIA, PhD
University of Valahia Targoviste, Romania

Liliana MANEA, PhD Lecturer
University Athenaeum Bucharest, Romania
lilyanamanea@yahoo.com

Larisa MANEA, PhD
University of Valahia Targoviste, Romania

Abstract: *This article intends to put into the light an analysis about the evolution of money laundering criminal cases in Romania, being confident about mirroring the Romanian authorities' implication on this matter, too. Through the included study, we generally concluded that for the last 10 years, the economic criminal cases had a constantly growing up trend, and the money laundering cases, as well. Tax evasion is enlighten as the most used illicit method associated with money laundering phenomena. We think future fight against money laundering mechanism should be increase, a better knowledge about the real causes and the encountered effects will be necessary for academic and governmental reflections. The limitation of this analysis is about the quantitative approach and how accurate the Ministry of Justice has made public all data incurred on the economic criminal cases on this period.*

Keywords: *money laundering, criminal cases, tax evasion, underground economy, organized crime*
JEL Classification: *F62 O50*

Introduction

The increasing interest and concerns, manifested by international and national bodies, in recent years, in relation to the phenomenon of money laundering, are determined by the major implications on the economic, social and political environment. At the international level, when it comes to money laundering, we consider, first and foremost, the great gains obtained from: drug trafficking, arms and ammunition trafficking, trafficking in nuclear or radioactive materials, counterfeiting currency or other values, smuggling, human trafficking, pimping, etc.

In Romania, although the offenses listed above are encountered, they do not produce the huge sums that are committed in other geographical areas and as such they do not represent the main predicate offenses underlying the acquisition of black money.

The main crimes that generate illicit money are of a financial-fiscal nature, more precisely, those that are currently the object of Law no. 241/2005 for preventing and combating tax evasion, with subsequent amendments and completions.

Literature review

According to Radmore (2010), worldwide, the underground economy and money laundering have become a mandatory topic in macroeconomic analysis.

If we analyze the economic statistics and the specialized publications from Romania during the socialist planned economy, we find that, officially, the Romanian economy is not confronted with underground activities and money recycling fraudulently obtained.

But foreign analysts who have studied the phenomenon, especially on the basis of statements and surveys among emigrants from socialist states, have found that the underground economy existed before 1989 in all fields of activity in socialist states, comprising a heterogeneous set of activities, and it was developed parasitizing the official economy, but still bringing some solutions to the shortcomings and rigidity of the planned economy and to the problems of supply, standardization or poor quality of the products.

It is true that due to the organized power of the repressive system, illicit activities such as drug, weapons, human trafficking, or other forms of organized crime appeared quite accidental and there was no prospect of proliferation.

But the "secondary economy" also included a fairly large illicit sector.

Pierre Pestieau (1989) described it as follows: "He [the illicit sector] contains businesses of all sizes, starting from individual activities (clandestine taxi, tailors at home) to hidden factories, often operating within state-owned enterprises. In the latter case, the employees of the enterprises produce more than what is provided in the plan. This surplus production is sold without being registered in accountancy, through the network of official stores, and the profits are divided between the participants ".

The incomes obtained by those involved in clandestine commercial networks allowed them a higher standard of living than would have been possible only from official gains.

If the clandestine revenues were invested in houses, cars, electronic products or other goods whose origin could not be justified from the official sources of income, they were confiscated, according to the legal regulations in force. Basically, there was a fight against money laundering, without the phenomenon being so called. But the control structures of the financial-banking institutions were not involved in the fight, because the money obtained clandestinely were run by these institutions to a very small extent.

Also, the system of repression bodies (military, prosecutor's office and security) had broad competences, which allowed them easy access to information including from financial-banking institutions.

After 1990, if in the other states of Eastern Europe the detachment of the socialist system occurred somewhat directed by the political forces that came to power structures, in Romania the system breakdown was violent, causing an economic and social disorder, whose remedy was gradually realized, over a period of ten years. The economic legislation needed for a market economy appeared late, often not being adapted to the functioning mechanisms of the market economy and the realities in Romania.

The lack of adequate legislative framework and the hesitations in applying the existing legislation have made possible the proliferation of underground economy networks involved both in lawful activities in which black labor was used, tax evasion and other economic frauds were committed, as well as in organized crime activities targeting trafficking. of drugs, of persons (networks of illegal kidnappings, prostitution, beggars, etc.), arms trafficking or public corruption (materialized in fraudulent privatizations, immense damages in the valorization of assets of state-owned companies and so on) (Chaikin and Sharman, 2009).

In Romania, after the emergence of companies with private capital until about 2005, the most frequent cases of underground economic activity, in which large amounts of money resulting from smuggling, domestic underground production, avoiding payment of taxes or fraudulent obtaining of the reimbursement of some taxes from the state budget, involved the use of a special companies named ghost companies.

The company networks combined the activity from the official economy with the one from the underground economy in which the ghost companies acted. The rule was that both profits and tax obligations should be directed from the official economy to the underground economy. The profits returned to the offenders, and the tax liabilities were never paid, turning them into profits available to the offenders.

These companies, which did not work at the declared headquarters, formally carried out operations of very high values and did not pay any taxes, were involved in complex branches, through which the payment documents circulated in such a way that the companies working "in sight" were seemingly relieved of tax burdens. The tax obligations remained with the ghost companies, which could not be subjected to any fiscal controls or executions.

In the most important networks, in the ghost companies were involved citizens of the Middle East (Turkey and the Arabian states). Often, when registering companies that were to function as ghost companies, they used fake documents, both in terms of identity documents of the owners (associates), as well as the rental contracts or property documents regarding the premises where they were to be. - carries out its activity.

In this situation, the ghost companies began to operate clandestinely as if they were working under normal conditions: opening accounts in banks, doing imports, exports and internal trade documents. Much of the proceeds (fraudulently obtained) were transfer to the home states of the entrepreneurial owners or withdrawn in cash.

Moreover, in the underground economy cash predominated as a means of payment, so that a large number of acts of withdrawal or deposit of cash in the bank accounts appeared (Meall, 2010, pp. 38-39).

Methodology of research

We carried out a fundamental descriptive research type, regarding the evolution aspects of the criminal cases registered at the level of the Public Ministry of Romania, in the particular form of the offense generated by the phenomenon of money laundering.

The analysis of the interdependencies between the money laundering offense and other associated economic crimes will also be considered. In order to carry out an analysis regarding the crime of money laundering in Romania and the comparison with what happened at European level, we used public data mediated by the specialized authorities in Romania and at the European Union level.

We have chosen the quantitative research of this area, in order to have an image on the size of the efforts made by the authorities in solving the criminal cases concerning this crime at national level.

From the analysis of the data regarding the main offenses from which resulted the amounts subjected to "washing", as can be seen from Table no.1, these are mainly from tax evasion (maximum 82% during 2012-2016).

Table no. 1.1. Percentage of the offenses notifyed to prosecutors, 2012-2016

The generating offense	2012	2013	2014	2015	2016
TOTAL, from which:	100,0	100,0	100,0	100,0	100,0
Tax evasion and embezzlement	82,5	83,0	70,2	58,8	74,3
Another economical crimes	8,8	9,7	20,8	24,9	12,7
Crime activities	8,7	7,3	9,0	16,3	13,0

Source: by the author using Public Ministry statistic reports

In the above table, the embezzlement represents the actions by which the money were illegally collect, meaning taxes steeled from the state budget. According to the provisions of Law no. 241/2005 to prevent and combat tax evasion, money laundering is an offense associated with tax evasion.

Other economic "offenses" included smuggling, fraudulent bankruptcy, the use of goods or credit of the company, contrary to its interests, frauds regarding the quality of goods and customs offenses, and "criminal activities" included drug trafficking, corruption, etc.

We specify that the percentage presented were calculated according to the number of offenses included in the information transmitted by the National Office for Money Laundering to the Public Ministry, and not according to the amounts resulting from them.

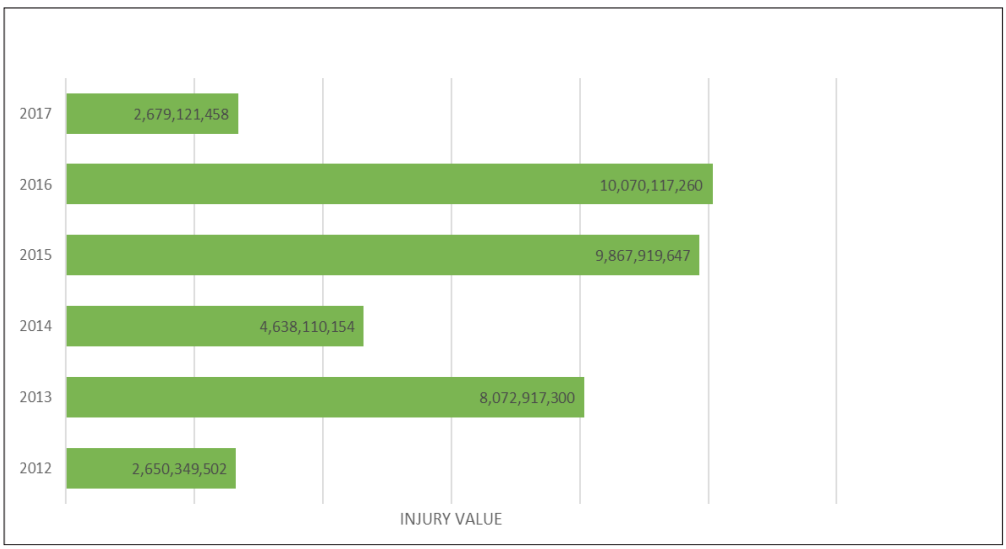
According to the statistical data published by the Public Ministry in 2018, the amounts resulting from these crimes, exceed ten or even hundreds of times the amounts obtained in most other criminal activities, so we can say, without doubt, that over 95% of the money washed in Romania comes from economic and financial crimes.

Table no. 1.2. The evolution of injuries made by economic criminal cases between 2012 and 2017

Year	The value of the damages determined for the persons sent to court		Assurance Measures in LEI
	in LEI	in EURO	
2012	2,650,349,502	174,150,228	1,869,681,989
2013	8,072,917,300	135,168,085	1,920,392,286
2014	4,638,110,154	762,221,130	2,473,736,148
2015	9,867,919,647	218,397,429	12,850,523,417
2016	10,070,117,260	74,258,043	3,419,199,877
2017	2,679,121,458	109,939,512	1,617,063,406

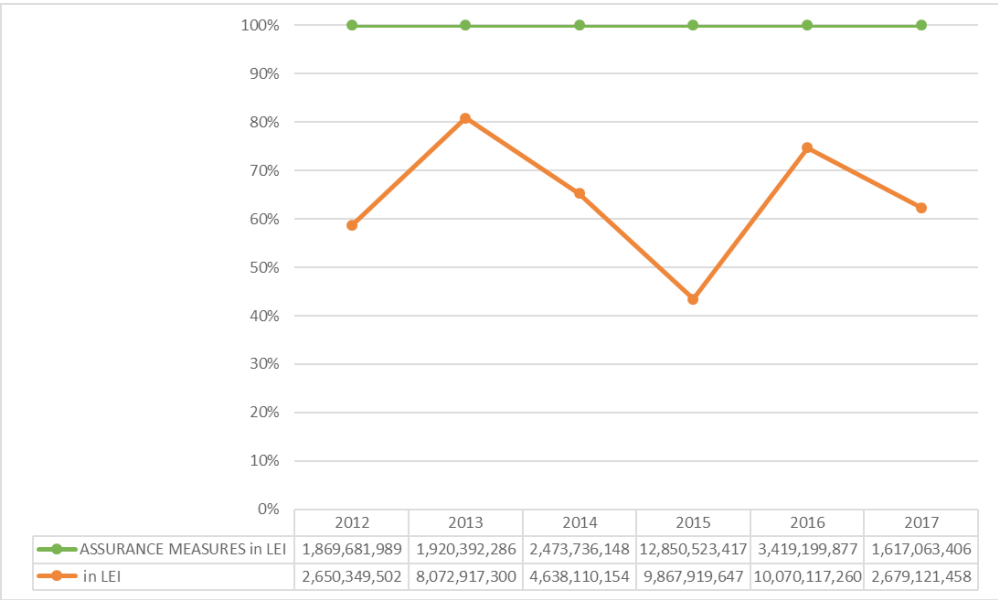
Source: data processed by the author using Public Ministry statistic reports

Figure no. 1.2.1. The evolution of injuries made by economic criminal cases, 2012-2017



Source: data processing by the author

Figure no. 1.2. 2. Comparasion of total value of damages and the totalvalue of assurance measures made for recovery, 2012-2017



	2012	2013	2014	2015	2016	2017
ASSURANCE MEASURES in LEI	1,869,681,989	1,920,392,286	2,473,736,148	12,850,523,417	3,419,199,877	1,617,063,406
in LEI	2,650,349,502	8,072,917,300	4,638,110,154	9,867,919,647	10,070,117,260	2,679,121,458

Source: data processing by the author

By a comparative examining, the statistical data from the entrance date of Romania's into the European Union with those of 2017, we can see some increases values of indicators in the areas of interest for the Cooperation and Verification Mechanism, as follows.

- corruption offenses: 698 defendants sent to court in 2007 against 1281 in 2017 - with even higher values in 2014-2016;
- the offense of conflict of interests / the use of the function to favor some persons: 1 defendant sent to court in 2007 against 49 in 2017; the value of the insurance measures ordered by prosecutors to recover the damage: from 791 mil. lei in 2007 to 12.850 mil. lei in 2014,
- money laundering: 42 defendants sent to court in 2007 compared to 280 in 2017;
- tax evasion: 361 defendants sent to court in 2007 compared to 1361 defendants in 2017
- trafficking of minors: 98 defendants sent to court in 2007 compared to 211 defendants in 2017;
- trafficking in migrants: 6 defendants sent to court in 2007 compared to 145 defendants in 2017;

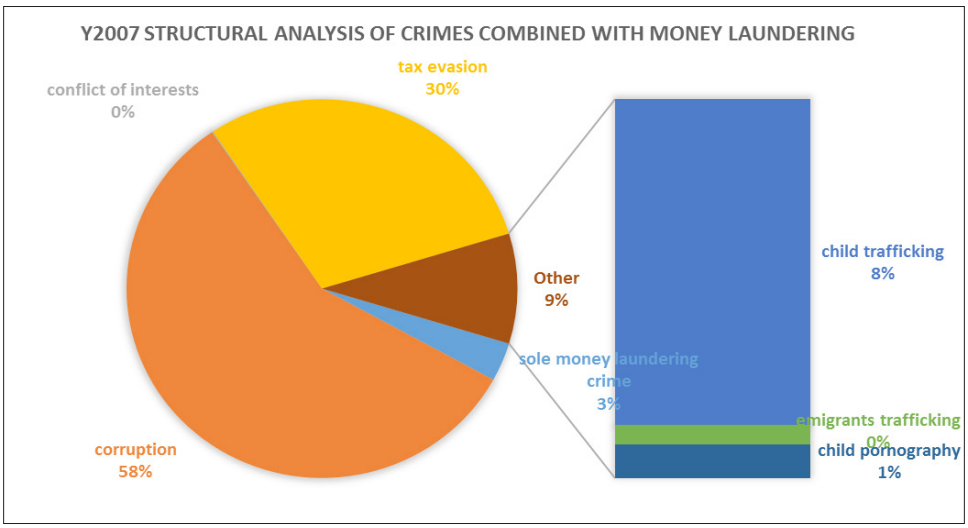
- child pornography: 10 defendants sent to court in 2007 compared to 163 defendants in 2017.

Table no. 1.3. The evolutive structure for associated crimes with money laundering during 2016-2017

	Money laundering crime (Law no 656/2002) Other Crime combined with or sole money laundering crime	2007	2017	% 2017 / 2007	2007	2017
	0	1	2	3=2/3*100	4= % in total annual crimes 1-7	5= % in total annual crimes 1-7
1	sole money laundering crime	40	280	700.00	3.44	9.19
2	corruption	698	1281	183.52	59.97	42.04
3	conflict of interests	1	49	4900.00	0.086	1.61
4	tax evasion	361	1361	377.01	31.01	44.67
5	child trafficking	98	211	215.31	8.42	6.92
6	emigrants trafficking	6	145	2416.67	0.52	4.76
7	child pornography	10	163	1630.00	0.86	5.35
	TOTAL	**1164**	**3047**	**261.77**		

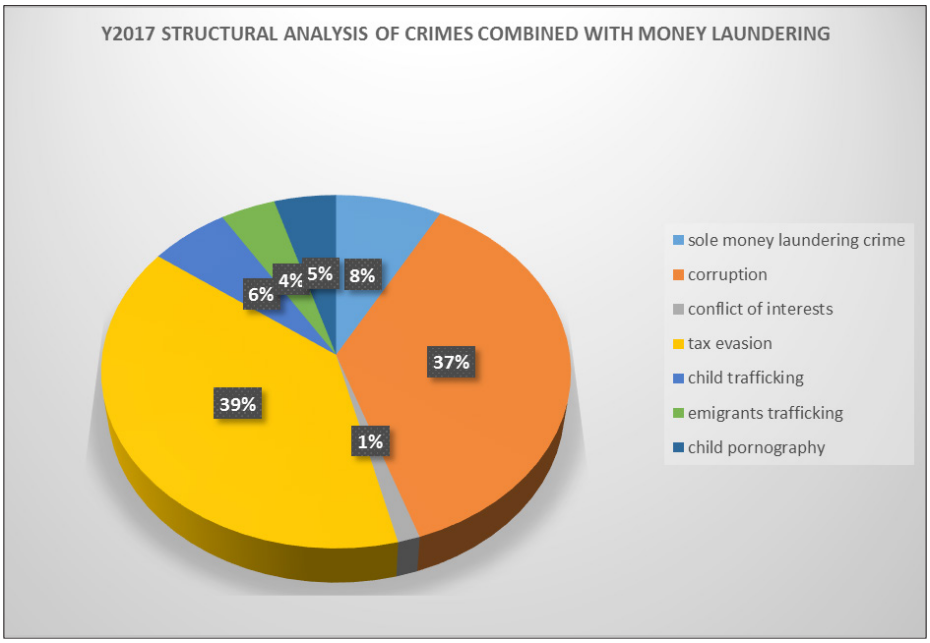
Source: data processing by the author

Figure no. 1.3. The evolutive structure for associated crimes with money laundering –Y 2007



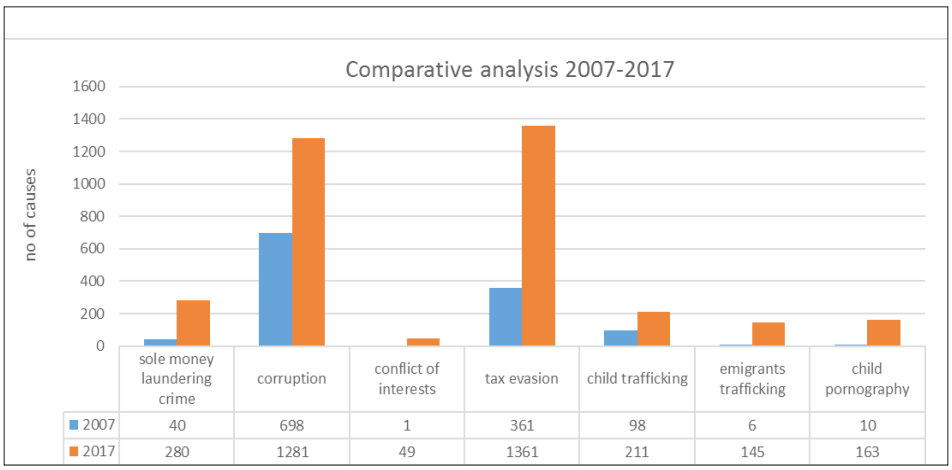
Source: data processing by the author

Figure no. 1.3.1. The evolutive structure for associated crimes with money laundering –Y 2017



Source: data processing by the author

Figure no. 1.3.2. Comparative analysis 2007-2017 about the criminal cases with money laundering associated crimes



Source: data processing by the author

A worrying situation in recent years is the increase in the number of offenders and the amounts of money laundered by Chinese citizens. They usually carry out a commercial activity through companies with a registered office, which keep a certain accounting records, submit accounting reports and legal tax declarations, pay taxes and taxes related to the registered businesses, but only register a small part of the commercial activity carried out, most of the goods coming from smuggled or undervalued imports into customs. Also, only a small part of the receipts and payments runs through bank accounts, practicing almost exclusively cash payments. As a result, it is very difficult to determine the actual volume of business and the size of the evasion committed by not registering them completely.

From the area of the crimes associated with money laundering, we find tax evasion and corruption.

From the correlative analysis of the data collected on the corruption files, which include or have associated as crime also the money laundering, we notice that only 10.8% of the investigations were solve and sent to court. However, the rate of settlement of money laundering files, not associated with other crimes, had an increasing trend in the period 2013-2014 (between 37% and 55%), so that during the next two years, 2016-2017 there is a decrease relatively appropriate (39-40%).

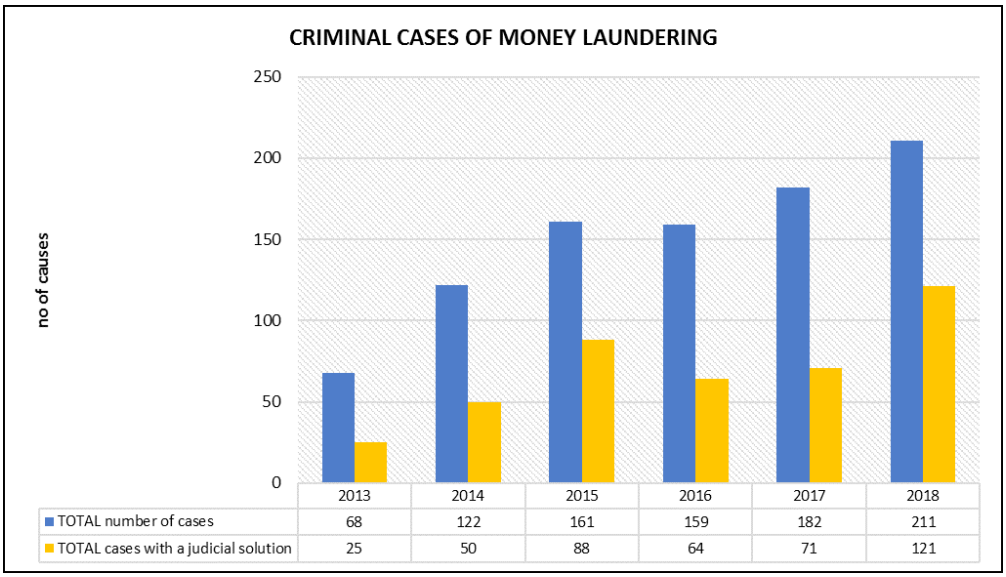
In 2018 we see a sudden jump, the percentage of money laundering files based on Law no. 656/2002, registering the highest growth in the whole period 2013-2018, respectively 57%, aspects that are presented suggestively in the following.

Tabel nr. 1.4. The evolution of the sole criminal cases about money laundering

Money laundering criminal ofense (Law no. 656/2002)	**TOTAL number of cases**	**TOTAL cases with a judicial solution**	
AN			%
0	**1**	**2**	3=2/3*100
2013	68	25	0.37
2014	122	50	0.41
2015	161	88	0.55
2016	159	64	0.40
2017	182	71	0.39
2018	211	121	0.57
TOTAL	903	419	0.46

Source: data processing by the author

Figure no. 1.4. The stage for criminal cases solely about money laundering



Source: data processed by the author using Public Ministry statistic reports (http://www.just.ro/date-statistice/)

Appreciations regarding the research results

According to the research carried out, it is observed that, between 2007 and 2017, economic crimes in general, and money laundering in particular, were in an upward trend.

In Romania, after 2007, since becoming the EU member country, the trend in the volume of criminal cases has been increasing, in a very worrying form. The number of criminal cases concerning economic offenses was in 2007 with more than 70% less than in 2017 (for example for the single offense of money laundering, the number of files increased from 40 files in 2007, to 280 files in the year 2017). However, the value of the damages did not have a constant evolution, the highest value being registered in 2016, and the smallest value registering in 2012, specifying that in 2017 there is a value similar to the one registered in 2012 (2.65 million lei in 2012, compared to 2.68 million lei in 2017).

Analyzing correlatively, we deduce that, in order to explain why the value of the damages has a different tendency to the evolution of the number of criminal cases, it is necessary also a deepening of the way of establishing the damages, an aspect that will be developed in the following other articles.

The most active domain in the area of crimes associated with money laundering is found to be tax evasion, followed by a similar trend of corruption.

However, in 2018, according to the Public Ministry, the evolution of the main categories of offenses has the following structure (depending on the number of accused persons sent to court and the percentage of total accused persons sent to trial):

- against the person 11,868 (19.8%)
- against the heritage 13,916 (23.3%)
- against public safety 20,767 (34.7%)
- provided by special laws 7.312 (12.2%), of which:
  - offenses under the regime of intellectual property rights 107 (0.2% of the total accused persons sent to court);
  - corruption offenses provided by Law no. 78/2000 - 820 (1.4% of the total accused persons sent to court);
  - offenses regarding the illicit drug trafficking and consumption, 1,757 precursors (2.9% of the total accused persons sent to trial).

Conclusions

As shown in the analysis performed above, the annual changes of money laundering activities, at national level, have a worrying trend of increasing, registering very large increases by comparing 2017 to 2007 and for the whole period 2007-2017.

In the case of the amount of damages determined by the judicial bodies, however, the annual trends were different, respectively with a similar increase and decrease in 2013 as compared to 2014 and 2014 compared to 2017, respectively, a return of growth at the level of 2016, because in next year 2017 tthey register approximately the same level as in 2012 (2.6 million lei). Thus, we find that the Romanian economy is very affected from the perspective of the techniques for carrying out the economic crimes, and especially the one regarding money laundering.

We conclude that the evolution of the criminal cases registered in the judicial bodies is in an upward trend, which denotes a weak involvement in the prevention activity. Also, the degree of solution of the criminal files regarding the crime of money laundering and of the associated ones register the same tendency, which denotes an involvement of the competent authorities, greater in the area of control, than in the one of prevention. In our opinion,

this situation should be change, and the authorities' involvement should include more activities for economic crime prevention. For sure, this kind of prevention attitude would trigger an efficient fight against money laundering and organized crime.

We do think that future fight against money laundering mechanism should be increase, a better knowledge about the real causes and the encountered effects will be necessary reflections for governmental bodies and for academic area, as well.

References

Alexander, R. (2016). *Insider dealing and money laundering in the EU: law and regulation*, Routledge.

Chaikin, D., Sharman J.C.(2009). *Corruption and Money Laundering: A Symbiotic Relationship*. New York: Palgrave Series on Asian Goverance.

Meall, L. (2010). Lost în the laundry? *Tax Adviser*, June 2010. pp.38-39.

Pestieau P. (1989). *L 'economie souierraine.* Paris: Hachette, pag 155.

Radmore, E. (2010). Anti-money laundering - the industry speaks. *Compliance Monitor*, Vol. 22, No.7, April 2010.

Romanian Ministry of Justice (Public Ministry). (2019). *Statistical data,* [online]. Available at http://www.just.ro/date-statistice/ Accessed on 14.03.2019.

THE COMPETITIVENESS PILLAR OF THE SUSTAINABLE DEVELOPMENT OF THE BUSINESS ENVIRONMENT

Otilia MANTA, PhD Lecturer
Athenaeum University, Bucharest, Romania
otilia.manta@rgic.ro

Abstract: *Following the phenomenon of globalization, the business environment is subject to current challenges, challenges in which competitiveness is the determining element of the sustainability and profitability of any business. The purpose of this paper is to acquire the concept of competitiveness at national business level, as well as the approach to competitiveness at European Union and international level. The existence of a stable macroeconomic and financial framework is a precondition for creating a favorable ground for affirming the competitive potential of the business environment.*
Therefore, in this paper we aim not only to mention the concepts, the tendencies of competitiveness at national and international level, but especially a detail of the competitiveness indicators, as well as the principles that govern the competitiveness, the pillar of development and sustainability of the business environment.
Keywords: *competitiveness, business environment, sustainability*
JEL Classification: *F63, M21, O16*

Introduction

We are currently part of the process of defining strategic priorities and scenarios for increasing competitiveness at the level of Romanian and European companies, which can actively contribute to the economic convergence at national and European level through the support programs of the European Union for the programming period 2021-2027.

The supporting strategic document that currently supports competitiveness at the level of Romanian companies is the National Strategy for Competitiveness. The National Strategy for Competitiveness (SNC) is a strategic document of the Ministry of Economy, Trade and Tourism, which was elaborated through consultations with both the private environment and the line ministries (in particular with the Ministry of Agriculture and Rural Development, the Ministry of Education and Research Scientific, Ministry of Regional Development and Public Administration, Ministry of Labor, Family, Social Protection and Older People), to correlate the interventions dedicated to competitiveness, taking into account the national areas of excellence, including from the perspective of the territorial dimension and of the rural development, of the labor market development and human factor (National Strategy for Competitiveness 2015-2020 and European Strategy for Research and Innovation 2021-2027).

The National Strategy for Competitiveness stems from the desire to build on a strategic basis a better future for the Romanian economy and for citizens in general. With the vision, priorities and objectives proposed, this strategic document offers a solution for the economic development in Romania in the short and medium term, a solution that allows to overcome the obstacle to exploit a recognized competitive potential on the market, but incompletely put to value added and prosperity or what is called "middle-income countries trap". The achievements through the Action Plan related to the Strategy will be validated if Romania is in a position to position itself very close to or even in the group of advanced countries by 2020.

The strategy represents a public policy document in the field of competitiveness that has been structured in the following main sections:

- The competitive context of the Romanian economy, in which the challenges to which this Strategy will try to respond, mainly in the period 2015-2020 are analyzed;
- Defining the vision and priorities of the Strategy, together with the objectives for achieving them;
- Operationalizing the Strategy by defining the directions of action and the expected results together with the measurement indicators, the budgetary and legal implications, the monitoring and evaluation procedures, the tasks of the institutions involved in the implementation process.

In the period 2015-2020 through Romania's economic development plans, in which the country's strategic priorities, set out in this document, are meant to create the conditions that allow Romania to compete effectively with the rest of Europe, we are witnessing a redefinition of priorities. economic from a competitive point of view in all branches of the national economy (production, services, etc.). The key challenges this Strategy seeks to address include:

- Regulation of the business environment;
- Trust (lack of collaboration) between market players (companies, institutions, authorities);
- Entrepreneurship (demography, structure, resilience of the business environment);
- Human resources and education (critical mass and quality of workforce);
- Innovation (demand and supply of research products, critical mass of researchers and innovative companies);
- Creativity (entrepreneurial culture, innovation community);
- Efficiency (use of resources);
- Excellence (priority sectors and international competitiveness).

The general objective of the NSC is to integrate these challenges into a coherent, medium-term vision, support for the package of initiatives and actions that led to its implementation in the period 2015-2020, in accordance with the strategic priority areas of Romania, especially in Romania, the directions of research and innovation, employment and regional development, through competitive agricultural and industrial activities. The microeconomic approach to competitiveness (Porter, 1990, p.6) "we must abandon the notion of national competitiveness as a term that has more meaning than economic prosperity. The main purpose of a nation is to ensure and raise the standard of living of citizens. The ability to do this depends not on the amorphous notion of competitiveness, but on the productivity with which the nation exploits its resources (labor and capital). Productivity is the value of the product obtained per unit of labor or capital. It depends both on the quality and shape of the product (which determines the price that can be obtained) and on the efficiency with which it is produced". Porter evaluates the microeconomic fundamentals of productivity in two areas: sophisticated strategies and actions of companies and the quality of the business environment at the microeconomic level. These areas are the two components of the *Microeconomic Competitiveness*

Index (MICI) as it appears in the *Global Competitiveness Report (GCR)* of the World Economic Forum, the first having a weight of 0.37 and the second of 0.63 respectively. Until the 2003 Report, MICI was known as the Current Competitiveness Index, being introduced for the first time in the Global Competitiveness Report of the World Economic Forum in 1998.

The competitiveness between macro and micro defined by Schumpeter "*the true nature of capitalist competition is not price competition but technological competition, which leads to"* new products, new technologies, new sources of supply, new forms of organization, (...) competition that determines decisive advantages of cost or quality and which break not only the limits of the profit and the output of the existing companies but also their foundations and their life" (Schumpeter, 1943, p, 84).

Literature Review

Approach from the perspective of the competitive advantage, which takes into account other factors more difficult to commensurate: the technological level, the innovation, the quality of the products - including the after-sales services; Addressing competitiveness from a sustainable development perspective, given the imperative of ensuring long-term global development by intensifying efforts to protect the environment, rational use of non-renewable resources, etc.

Among the concepts used at national and international level regarding the competitiveness of the business environment, we can mention the following: *"technological competitiveness"* refers to the ability to successfully launch new goods and services on the market (Fagerberg, Knell and Srholec, 2004); *"competitive capacity*" refers to the ability to exploit new technologies, innovations by applying them widely in as many fields as possible (Fagerberg, Knell and Srholec, 2004); "*competitive cost/price"* concept on which economists have concentrated the most, defined as an indicator either by the unit cost of working in industry in a common currency (as a measure on the horizontal axis, at the level of companies) or by gross domestic product per inhabitant (vertical axis, at the level of regions or nations), either by productivity whose difference is reflected in the exchange rate between countries (Fagerberg, Knell and Srholec, 2004); *"competitive demand"* that expresses a relationship between the production (the structure of trade) of a country and the structure of world demand, essential in the analysis of competitiveness (Fagerberg, Knell and Srholec, 2004); Market orientation, which confers superiority on

competitiveness results, is addressed by Day and Wensley (1988) by positioning resources (skilled labor force, (assets-capital-possesion of the source) and market (positional advantage).

Definition of the *World Economic Forum*, the OECD and the European Commission: "Competitiveness is the ability of a country to obtain a high, sustainable rate of gross domestic product per inhabitant" - The World Ecumenical Forum; "Competitiveness is the degree in which, under the conditions of a market free, a nation can produce goods and services that can pass the test of international competition and, at the same time, can maintain and increase the real internal income "- OECD, 1992, p.237; " Competitiveness is the ability to produce goods and services that pass the international market test, and which at the same time maintain high and sustainable levels of income, or, more generally, the ability of regions to generate, when exposed to external competition, relatively high levels of income and employment (Global Competition: *The New Report on the President's Commission on Industrial Competitiveness, 1985) and the European Commission (1999*).

Research methodology

In order to base the research methodology on the project, we used classical observation and examination instruments, research methods based on the basic principles of scientific research, respectively: "competence, objectivity, truth, methodical, demonstration, correlation, evaluation of results, utility and psychomorphism" (Ristea and Franc, 2013). We used procedures based on factual analysis, intensive documentation at the level of internal and international literature, using the databases and the scientific material existing in the endowment of libraries of specific institutes in Romania and internationally.

The methodology of the paper has as direct instruments the collection of data and information from the literature and from the existing practice in public and private institutions, but especially scientific articles published on specialized research networks (ResearchGate, Academia.edu, etc.), articles published in various journals, relevant books in the field of reference, legislation, analyses and studies, official documents of various tax bodies, tax documents and interactive database of the National Bank of Romania, other relevant sources identified in the libraries: CCFM, Academia Romanian, INCE, IEN, BNR, National Library, INS, etc. Moreover, we analysed the documents using the comparative, analytical, descriptive method, the no participative and

participatory observation, and the use of a set of informational sources, the collection of financial data in the established databases. The information support of the research was provided by the monographs, books, scientific articles, materials of the scientific conferences, the balance sheets of SMEs during 2008-2017, as well as other materials, which are presented in the scientific papers and publications displayed on the official pages of the national and international research institutes, international financial institutions (research centres), etc.

Research results

At European level, the territorial approach is becoming increasingly important in strategic planning. Although traditionally seen as an integral part of Cohesion Policy, space development has received increasing recognition in other EU policies in recent years. Territorial cohesion has been explicitly recognized as a fundamental objective of the EU, together with economic and social cohesion, by the Treaty of Lisbon (art.3 TEU). This basic document proposes as a principle the accentuation of the role of urban areas, functional areas, geographically disadvantaged areas, as well as the construction of macro-regional approaches. Under the conditions of the new economic realities, the implementation of a coherent territorial approach in Romania must respond to the challenges that result from the need to better exploit the existing economic potential. The experience of the last years (2007-2013) shows that:

(1) *The territory* is capitalized to a very small extent in adding value to economic processes through its characteristics of economic dynamics, economic functionality and spatial arrangement of activities. Although the polycentricity indicators have values comparable to the European regions, the urban centers insignificantly influence the networks of economic activities and allow the formation of an urban and industrial vacuum.

(2) *The investments* supported by the structural and cohesion funds will not be thought punctually (in cities, companies, individuals) but will be oriented towards areas of intervention defined as integrated development areas. Despite the efforts so far, of which we exemplify the financing of the projects regarding the poles of competitiveness and the integration of SMEs in chains of suppliers or clusters, the associativity (public-public, public-private or private-private) is weak and this is the first obstacle. Other obstacles refer to the initiation and management of projects (especially large ones), given the

differences at institutional and operational level and the lack of an integrated vision of territorial development.

(3) *The intervention measures* are not justified by and do not include elements of value formation at the territorial level. The expected beneficial effects of the operational programs cannot be effectively transferred in results due to the neglect of the effects of spatial agglomeration of the economic activity that at the same time generate positive and negative effects on the added value. Interventions through different operational programs from EU are not territorially integrated, as there is no spatial impact monitoring mechanism.

The vulnerability of the current approach at the territorial level is not related so much to the definition of strategic priorities, but especially to the definition and conceptualization at the level of the areas and areas of intervention. The necessary changes are at the operational level, namely how we correctly understand the causal link from the use of territorial capital to the effects of economic growth. The current level of decentralization is insufficient, and the principle of subsidiarity is only formally addressed in the design and implementation of policies with territorial impact. There is a split between the top-down approach (initiated at the national level) and the bottom-up approach (initiated at the local level). The structures (local, regional, national administrative) pursue more bureaucratic roles than functions of competitive mobilization of some development areas. All the aforementioned aspects demonstrate the importance of the territorial dimension in the elaboration of a competitiveness strategy, mainly needing common directions of action with the regional development strategies in order to orient the policies towards maximizing the competitive impact at the territorial level by approaching the 3 C:

- *Concentration*: overcoming density differences;
- *Connecting territories:* exceeding the distance factor;
- *Cooperation:* exceeding the factor of division.

In this regard, the thematic concentration and the priorities of public investments must be correlated with the main territorial objectives / keys (which link the territorial priorities with the objectives of economic and social development): accessibility (infrastructure), economic services of general interest, the exploitation of the potential territorial, networking of cities (connectivity), support of functional areas.

Given the trends at European level of analyzing the territorial component of competitiveness, the European Commission (2011) proposed

in 2011 the calculation of a *Regional Competitiveness Index (ICR)*. The calculation methodology starts from the premise that in a spatial context economic competitiveness is determined by a complex system of factors, which concentrates, among others: the creative and innovative exploitation of the regional potential, the creation of connections at territorial level by stimulating the appearance and strengthening of the intra and inter-industry on value chains, capitalization of natural and cultural heritage, use of research-innovation potential and improving connectivity and accessibility.

ICR is composed of 11 pillars that describe the different aspects of competitiveness. Through these pillars, the index assesses the strengths and weaknesses of a region. The pillars are classified into 3 groups: elementary, efficiency and innovation. The elementary group comprises 5 pillars: institutions; macroeconomic stability; infrastructure; the health; basic education. These pillars are the essential elementary drivers of all types of economy. As a regional economy develops and progresses, in terms of its competitiveness, factors related to a skilled labor force and a more efficient labor market can come into play. These factors are part of the efficiency group. It comprises 3 pillars: higher education, vocational training and lifelong learning; labor market efficiency; the size of the market. In the most advanced stage of development of a regional economy, the drivers of improvement are part of the innovation group, which consists of 3 pillars: technological maturity; sophistication of the business environment; innovation. Based on the ICR, whose calculation formula closely follows the Global Competitiveness Index, the map of regional competitiveness at European Union level has been elaborated. Between the countries of the European Union, the development regions of Romania are in the last places, both in terms of ICR and in almost all the rankings of the indicators that compose this composite index. The region of the capital has the highest values in terms of competitiveness, but the positive effects on the neighboring regions are limited.

Under these conditions, in the case of Romania, cohesion policy must contribute not only to reducing regional disparities, but also to achieving Romania's competitiveness objectives. The results offered by the Competitive Potential Index (CPI) at NUTS 3 territorial level (county) help us to outline some economic aspects related to the diagnosis and the measurement of the economic performance of a territory. The analysis of the distribution of these values leads to at least two findings:

- an axis of the counties with high values of the Competitive Potential Index, which runs almost diagonally across the country and overlaps the most complete infrastructure in Romania (European, national roads, railways, airports).
- a mosaic aspect of the distribution of this index that overlaps the western, central and southern slopes. The east of the country is characterized by a homogeneous distribution of values, which translates into the landscape of economic performance through an inability to properly value natural and anthropic capital (low technology transfer, low capital, limitations in the area of polarization of Moldovan cities).

At the local economy level, according to the hierarchy of the CPI values, Arges county is located on the first place, with an index value of 0.78, compared to a country average of 0.31, which reflects a large volume of total exports (the second by country), the highest ratio between exports and the employed population (10,925 euros / employee) and the highest share of medium-high technology exports (20.3% of the total in the country and 24% of the total in the county). On the second place, with an index value of 0.68, is located the city of Bucharest, having the highest values of the export, but also the largest occupied population. Timis County ranks 3rd, with the largest high-tech exports. No county in the NE region ranks among the top 20 in the ranking, as a competitive potential. Bacaul, on the 4th place from the point of view of the high-tech exports, is only on the 34th place out of 42, due to the high share of the low-tech exports in the whole county (almost 70%) and the low value of the exports / employed population, of only 1,099 euros. Only two counties in the SE region - Constanta and Galați - exceed the country average in terms of the value of the competitive potential index, having as main branches the shipbuilding and steel industry respectively.

The situation is similar for most other regions, each having generally two or at most three counties with values above the national average.

The limited effects of training in the territory, both at the spatial level (from the county to the county) and at the sectoral level (from industry to industry), can be understood, on the one hand, by the insufficient development of the links between different economic activities. The trade balance of Romania is very much dependent on the development of the auto industry in Argeș, and the Bucharest-Ilfov Region contributes more by the demand for imports than by the surplus of sales abroad. The competitive advantages, measured by the

participation in exports, are concentrated in seven counties, mainly located in the west and the center of the country (Argeş 10%, Timiş 9%, Arad 5%, Constanta 5%, Bihor 4%, Braşov 4%, Sibiu 4 %), which together with Bucharest (17%) makes 60% of Romania's exports. Călăraşi, Ialomiţa, Mehedinţi, Neamţ, Olt, Tulcea and Vrancea counties do not have high technology exports, and 29 counties out of 42 do not exceed 1% of the total in the country (Cojanu 2010). On the other hand, the absence of participation in international production and trade networks has an immediate effect on the health of the local economy. Counties such as Bistriţa Năsăud, Brăila, Buzău, Caraş Severin, Călăraşi, Dâmboviţa, Hunedoara, Olt, Sălaj, Tulcea, Vâlcea, face a potential risk at social level resulting from the presence of companies with a large number of employees, but with economics relatively weak (Mereuţă, 2013).

The formation of competitive advantages in industrial agglomerations has become a public concern for some time, where the most important role is played by the projects of formation of the competitiveness poles initiated from 2009 by the Ministry of Economy (2011), Trade and Business Environment through the Industrial Policy Directorate. The agglomerations that play the most important role at national level, in terms of export performance and employment, are those in the steel sector in Galati County, ships in Tulcea, cars in Argeş and footwear in Bihor (Cojanu and Pîslaru, 2011).

This reflection of the regional economy highlights some characteristics of the specialization in the territorial plan:

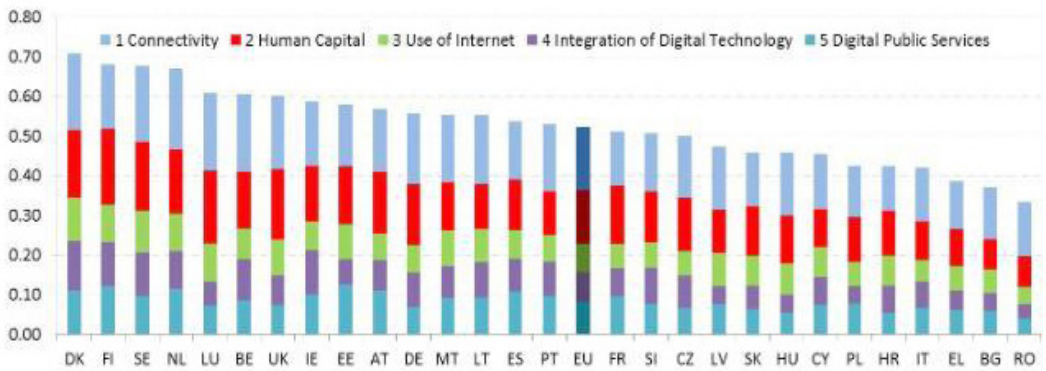
- First, the premises of competitive advancement are very different between regions because the structure of the economy is very different. Certain regional economies, e.g. South-West, South-East and West, they specialize in a very small number of sectors, other regions, e.g. South, North-West and Center are very diverse.
- Secondly, it is worth noting that the agglomerations are already a visible presence in most regions, by the participation of two or more neighboring counties in the same branch of activity and by the diversification of the economic activity; things are less favorable only in the North-East, South-West and North-West. This trend, however, needs to strengthen and begin to produce effects in terms of improving competitive advantage. Significant gaps in terms of competitiveness also exist in the cities of Romania. In recent years, the population and the economic resources have concentrated around several major cities and their suburbs,

increasing the internal differences (eg, the 10 largest cities in Romania generate over half of Romania's GDP).

In this regard, the recommendations of the World Bank report for increasing the competitiveness of Romanian cities aim to encourage urbanization in areas with high potential (suburbs of growth and development poles - Cluj Napoca, Timișoara, Iași, Oradea, Târgu Mureș; and emerging centers in the North East), improving connectivity and accessibility, or diversifying the economic base of cities, in order to support economic growth and in times when some top areas are experiencing difficulties (Banca Mondială, 2013).

Index of economy and digital society On March 3, 2017, the European Commission presented the results of the Index of digital economy and society (DESI) for 2017. This instrument presents the performances of the 28 Member States9 in various fields, from connectivity and digital competences to integration of digital technology by companies and public services. The index of the digital economy and society (DESI) shows the following: connectivity has improved, but it is still insufficient to address future needs; The EU has more specialists in the digital sector than before, but there is still a gap in terms of skills; European citizens are increasingly acquiring digital skills; digital technologies are more present in businesses and e-commerce, but they are progressing slowly; European citizens make greater use of online public services.

Chart no.1. Digital economy and classification of the company index in 2018



Source: European Commission, 2018

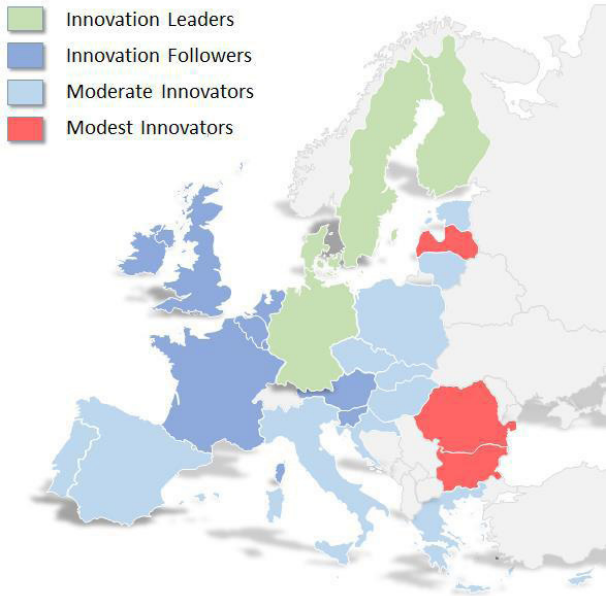
Overall, the EU has made progress and improved its digital performance by 3 percentage points compared to last year, but the situation varies from one Member State to another (the digital gap between first and last ranked is 37 percentage points, compared to 36 percentage points in 2014). Denmark, Finland, Sweden and the Netherlands present the best results this year, followed by Luxembourg, Belgium, United Kingdom, Ireland, Estonia and Austria. The top 3 best players in the digital sector in the EU are also world leaders, ahead of South Korea, Japan and the United States. Slovakia and Slovenia are the countries in the EU that have made the most progress.

Although there have been some improvements, several Member States, including Poland, Croatia, Italy, Greece, Bulgaria and Romania, are still lagging behind in terms of digital development, compared to the EU average. As a conclusion, given the scale of the digitalization of the economy at national and European level, with a direct impact on competitiveness, we consider that, together with the *Competitive Potential Index* (CPI), at national level we must also consider the *Index of digital economy and society* (DESI), the two indices ensuring a true image of national competitiveness in the current context of European competitiveness. Competitiveness at European level in the current global context Europe's capacity for change - innovation and adaptation Productivity is improved in two main ways: innovation that advances the frontier in terms of product sophistication and production efficiency; and the absorption of innovations, a process of adapting and reaching the technological frontier as it advances.

The European gap in research and development

Improving the environment for innovation is a key challenge for Europe. Indicators evaluated by the *World Economic Forum* (WEF) suggest that the EU is growing slower than the US, Japan or South Korea in a number of dimensions of the innovation environment. However, in the US, the innovation environment is much weaker in many southern and new states (Figure 1). Moreover, as the experience of countries such as Finland has shown, even for those who invest heavily in innovation, external shocks can still have a strong impact on individual countries; and especially the small ones, which operate in a compartmentalized innovation environment in the EU.

Figure no.1. The European Union scoreboard on innovation



Source: World Economic Forum (WEF), 2017-2018

There are also large variations in innovation performance across the EU. While Finland, Germany and Sweden reach scores similar to those in states such as the US and Japan, there are EU countries where innovation is very poor, as is Romania. In recent years, the European innovation performance has been undermined in addition to three factors: the slow recovery from the crisis; high competition, which has led to a slow transition to innovation from emerging ones. The poor performance of innovation in Europe is largely due to the weak relations between industry and science, the poor commercialization of research results and inefficient exploitation of knowledge. The intensity of research and development is much lower in Europe than in the US, Japan or South Korea. There are two reasons for this gap: first, the high-tech sectors in Europe are (by far) smaller in comparison; Secondly, the intensity of research and development in many sectors is lower. In Europe, the decline in R&D spending in countries with fiscal constraints has been largely offset by spending in countries such as Germany, France and the United Kingdom. However, achieving the EU target of spending 3% of GDP on research and development will require an annual spending of € 130 billion on research and development over the current level. The R&D sector in the public sector is about 1% of GDP in the EU: approximately EUR 50 billion less than in the US in absolute terms and with

EUR 60 billion less than is necessary to reach the 3% target. In line with its mission to provide research infrastructures and institutions for fundamental and applied research, public sector spending on research and development is primarily focused on the natural sciences and intensive engineering disciplines.

Of this total, approximately 70 billion euros are accounted for by a deficit in private sector spending on research and development. In almost all manufacturing industries where the EU plays an important role, there is still a significant transatlantic gap in research and development.

Research and development requirements in key strategic sectors In order to regain its competitiveness, the EU will have to retrieve US and, to a lesser extent, Japan's evolution in a number of key technological areas that will underpin future products and services[1]. These are:

• *life sciences:* additional investment of EUR 15 billion is needed in the public sector annually in basic research, together with an additional investment of EUR 10 billion in private sector research and development, in particular in the field of pharmaceuticals and personalized diagnostics / medicine.

• *semiconductors:* eliminating the gap will require additional annual support of EUR 5 billion for the public sector, in particular for co-financing pilot plants on an industrial scale, and EUR 15 billion for the private R&D sector, in particular for industrial applications.

• *software:* an additional cost of 20 billion euros a year is needed, especially for the development of business processes and cloud computing software, mainly in the private sector, as these areas are closer to commercialization. The EU presents competitive strengths in the fields of advanced manufacturing technology, transport equipment and green energy and water and waste technologies. However, his position is increasingly challenged. Further investment is needed to keep Europe at the forefront of these key technologies. Examples include: transport equipment: in order to maintain its leading position, Europe must meet the challenges, including the development of clean alternative fuels (electricity, hydrogen and synthetic biofuels, vehicle retrofitting and refueling), digitization (integration of transport infrastructure and equipment in systems and improving the interoperability of the transport system. As evidenced by global market shares and specialization profiles, investments will have to be financed by the private sector. However, total public sector support of around EUR 8 billion will be required by 2020,

1 EIB estimates based on industry data and publications; comparison across all three sectors with the US as a benchmark, given their leading position across a wide range of sectors. Alternatively, South Korea could have been used as a reference in semiconductors - with similar results.

in particular for co-developing and financing pilot infrastructure and pilot markets for innovation.

• *energy technology*: sustained investment in research and development in renewable energy technologies, including storage, is needed to meet the European long-term climate change objectives and to maintain the European position in this field . Public support is especially needed for low carbon technologies that are still in the early stages of development. According to the European strategic plan for energy technologies (SET plan), annual expenditure of up to EUR 70 billion by 2020 is required in the fields of bioenergy, carbon capture and storage, smart grids, fuel and hydrogen cells, nuclear power, energy, and wind. . Finally, European producers are important players worldwide in the field of energy grid equipment. In certain specific sectors, such as high-voltage power transmission (HVDC), they have developed innovative technologies that have further strengthened their competitive advantage over non-EU producers.

• *water technology:* adequate investments in RDI that enhance the competitiveness of water services through smarter technologies and lower costs are essential for maintaining the EU's leading position in the global water sector and, in particular, in the technological segment, where Europe it is in the foreground (over 40% spread worldwide). Annual R&D in the current private sector in this sector is about EUR 4 billion. Optimal levels to maintain the leadership position are estimated at over EUR 7 billion per year by 2020, which means a gap of EUR 3 billion per year.

• *solid waste technologies:* Europe's competitiveness is hindered by the dependence on imported materials, demanding the increase of RDI in material recovery / recycling. European waste management companies are very competitive worldwide (over 50% of patents worldwide). Therefore, the EU is well positioned to capture much of the growing demand for green technologies worldwide. Annual research and development investments worth around EUR 15 billion for research and development and the acquisition of new technologies must be maintained.

The absorption of innovation - an essential part of the whole innovation process is the absorption of innovation. While research and development are promoting the frontier in terms of product and process sophistication, all companies must continue to invest again to absorb this new technology and know-how, to maintain their competitiveness.

In regions that traditionally depend on less advanced production and services, such as Central and South-Eastern Europe, as well as emerging economies, the focus is not so much on advancing the technological

frontier, but also on crossing the border and crossing the border from lower to higher value-added activities for raising the standard of living. Foreign direct investment (FDI) often plays an important role in bringing technology and know-how to a country with positive spill-over effects in the host country. The World Economic Forum provides indicators on the availability of the latest technologies, the absorption of technologies at the firm level and the role of FDI in technology transfer. Europe is performing worse than the US in all three measures and, in particular, in the absorption of technologies at the firm level, which is significantly behind the US and Japan. This is a particular concern in Italy, Poland, Romania and Bulgaria.

Europe's poor performance in terms of technological uptake may be linked to global levels of investment, of which investments in business account for the largest proportion. Since the mid-1990s, gross fixed capital formation of the EU (FBCF), as a percentage of GDP, excluding residential investments, has been lower than in the US and Japan. Investments in Eastern Europe were higher, but still much lower than in South Korea, as an example of another emerging economy.

The crisis has had a strong negative effect on investments in all the top economies, creating a huge delay in investments and the loss of potential GDP. While absolute levels of investment in the US and Japan show a recent recovery trend, investments in the EU continue to stagnate, exacerbating the EU investment gap. Comparisons of investment performance should also take into account the relative income of different countries and regions, as successful lower-income countries are often characterized by high investment rates - taking advantage of "recovery" opportunities.

The degree of innovation uptake is particularly important in the production sector. Europe needs to excel in high value added advanced production to maintain a viable manufacturing sector capable of sustaining high standards of living. The presence of a critical mass in the manufacturing process is also important as manufacturing performs a "transport function" for many associated services and where productivity growth is concentrated. Modernizing the manufacturing industry in Europe and reversing the downward trend in global production equities will require substantial investments in corporate and intangible capital. Estimates put Europe's investment needs at around 90 billion euros per year, most of them financed by the business sector.

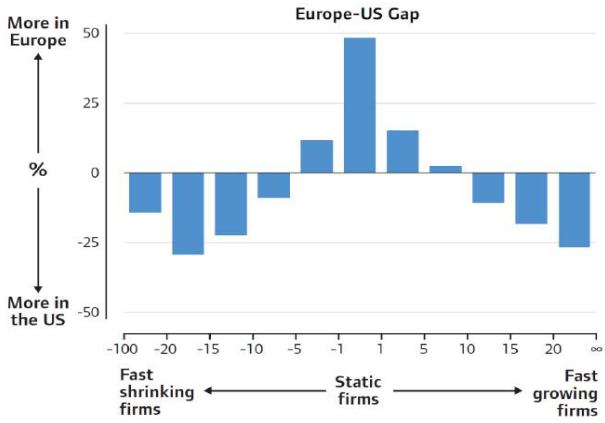
A dynamic business environment

In a dynamic and innovative economy, it is important for companies to have a constant capacity to reinvent or replace each other. Recent ECB research has

shown that the ability to reallocate resources between firms significantly contributes to overall productivity. New firms bring new ideas, products, services and processes to the economy. In order for an economy to be dynamic, inefficient old firms must have room for more innovative young people and free up valuable labor and capital resources.

The EU business environment is characterized by a lack of harmful dynamism, a factor that can be expected to facilitate the commercialization and dissemination of innovation throughout the economy. This is partly due to a large proportion of stable firms (firms that grow below 5% or decrease by less than 5% per year in terms of employment) and a low share of fast-growing firms, in particular compared to the USA. SMEs (<250 employees) are considered the backbone of the European economy, accounting for 99.8% of all businesses and representing almost 60% of added value. However, while some may argue that start-ups and SMEs tend to be more generative growth than large businesses. This, in turn, is directly related to the "creative destruction" of businesses - something that is especially lacking in Europe's business environment (Chart 2). An increase in the turnover of firms (ie a higher degree of creative destruction) is usually associated with a faster increase in productivity, as large productive firms remain on the market, and the less productive ones are forced to exit. Thus, improving business dynamism can help to get the EU ready to generate innovative, transformative and modeled companies worldwide.

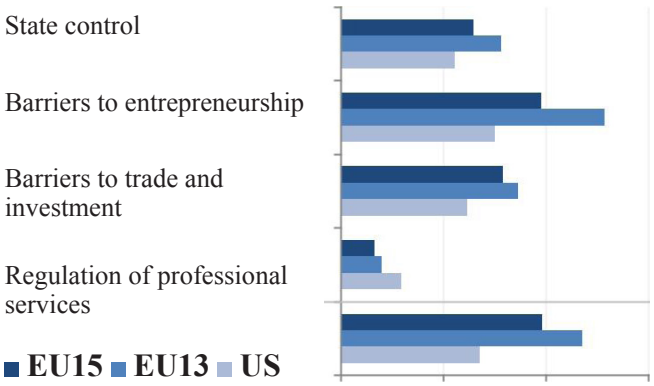
Chart no.2. Share of enterprises by growth categories, comparison between EU and US



Source: Bravo-Biosca, Criscuolo, Menon. (2014). What drives the dynamics of business growth, the working document Nesta 14/03. Note: Europe corresponds to the average AT, DK, IT, NL, ES, NO, UK.

However, the basis for a solid and efficient EU business environment is largely available (Chart no.3). European institutions are generally of a quality comparable to that of the United States. In the ranking of Agility to do business with world banks, eight EU Member States are among the top 20, while the majority place is between 20 and 40, while others are below 60. The general procedure for starting a business is more difficult in the average EU country than in the USA. Another concern in the EU is related to obtaining credit. The performance of the EU28 is generally better than the EU15.

Chart no.3. Regulation of the market for professional products and services Product Market Regulation



Source: OECD indicators, Product Market Regulation (PMR), 2014
*Note: index scale 0 (at least) to 6 (more) restrictive; * 2008 US values; EU values 2013; Weighted average GDPs for EU, EU15 and EU13.*

A favorable environment for competitiveness

The efficient movement of people, goods, services and information is a prerequisite for competitiveness, as well as access to adequate quantity and quality of markets and resources, including finance. Furthermore, respecting the principles of sustainable development as defined in the World Bank's vision and directly contributing to the competitiveness of the business environment. By these we mention the following:

The principle of the efficiency of the natural, human, financial capital that considers, for each component, the following:

- The efficiency of the natural capital: the exploitation of the natural resources and in the interest of the future human generations or the rationalization of the consumption from the natural reserves;
- Efficiency of human capital: what it aims at: in perspective, the key to economic development (of culture, education, health); the total

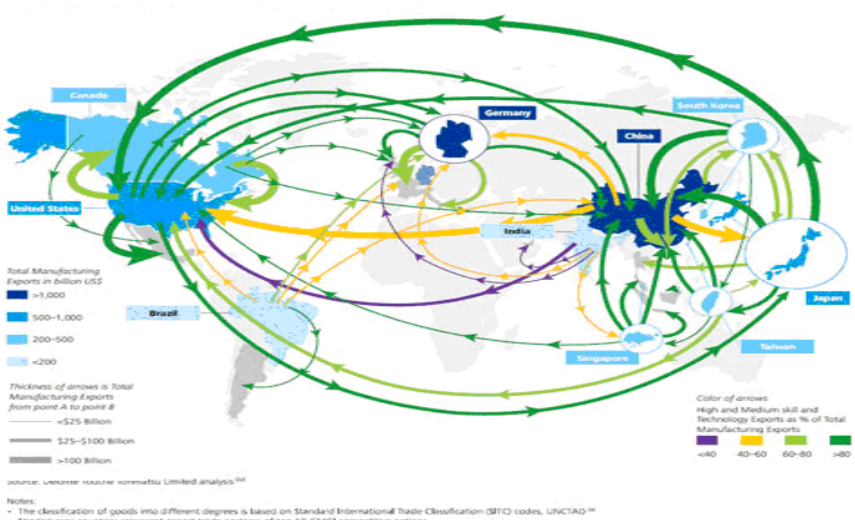
duration of the education cycle; the inclusion in the school curricula of the disciplines that concern the formation of the entrepreneurial spirit, the creativity, the learning of the modern social and ecological behaviors and the main European languages;

- Efficiency of financial capital: enhancing human and natural capital in order to obtain maximum added value.
- The efficiency of the anthropic capital: highlighting the infrastructures realized over time.

The principle of equity between generations and within the same generation refers to:

- Reducing the standard of living gap between the members of society, by combating poverty;
- Targeting the poor towards productive activities, including by reviving interest in professions, traditional concerns, especially in the rural area;
- Conservation of forests;
- Enhancement of the renewable natural resources, to the detriment of the mineral, exhaustible ones;
- Educating and educating the population, informing schools, public institutions, directing the urbanization process in the rural area.

Chart no.4. Movements and level of products from the processing industry and from the first 10 nations to their main five trading partners, by product types



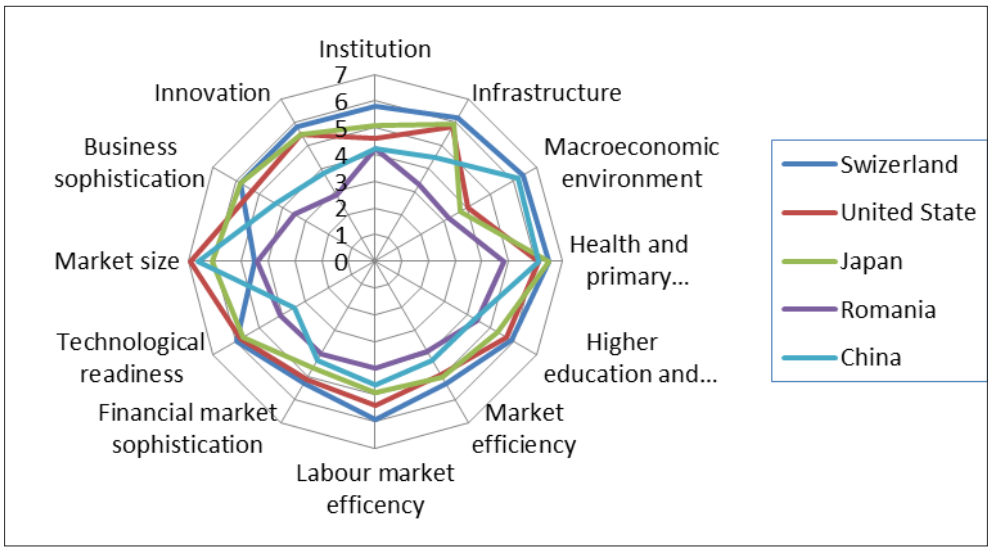
However, many competitiveness analysts focus their studies on structural factors that affect long-term performance and tend to focus on productivity, innovation and qualification (Fageberg, 1996). Globally we have over 200 indicators that measure competitiveness, of which 95 are characterized as basic indicators - key indicators - as it results from the Annual Competitiveness Report starting in 2001; 11 attributes taken into consideration: economic performance, degree of internationalization, capital (level and structure), level of education, productivity, work compensation and unit cost of labor; the cost of non-profit enterprises; taxes, science and technology, computerization of society, transport and infrastructure and environmental protection and management.

Within the *European Model*, we identified the main factors that led to the introduction of a new index: recent developments in economic scientific research, increasing the importance of the international dimension and the number of countries included in the evaluation, and not including some factors important for national competitiveness, such as those capable of surprising efficiency labor market (whose importance was re-discussed by the failures of the Lisbon Agenda due to the rigidity of the labor market in the EU countries), those regarding public health, national infrastructure, etc. The European model is based on highlighting the fulfillment of the criteria of the Lisbon Strategy and the Europe 2020 Strategy, and covers areas and over 100 indicators: the general economic base, the use of labor, innovation and research, economic reform, social cohesion and the environment Growth Competitiveness Index.

The Growth Competitiveness Index (GCI), used to assess the ability of the world's economies to achieve sustainable medium- and long-term economic growth (Global Competitiveness Report 2001-2002, was developed with professors Jeffrey Sachs and John McArthur).

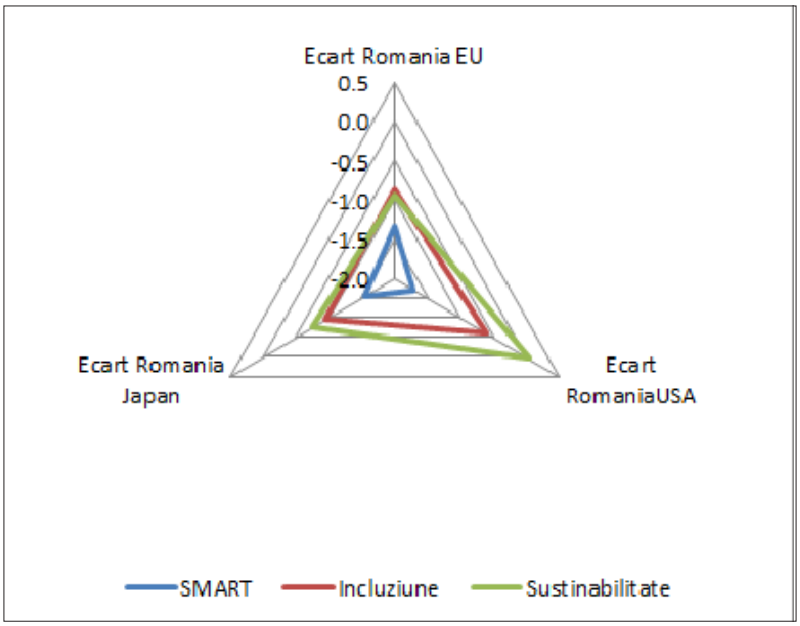
The methodology for determining the GCI is based on the idea that the determinants of economic growth are: the quality of the macroeconomic environment; the state of public institutions; technological capacity; for each of these, a specific index is constructed based on current statistical data or those obtained from questionnaires. The methodology presented by the World Economic Forum shows that the country data series are divided into two groups: the group of innovative countries - it includes the countries that have more than 15US useful patents registered per 1 million inhabitants; the group of non-innovative countries - includes the rest of the countries.

Chart no.5 Presentation of the competitiveness indicators in Romania and other countries



Source: post-2020 Europe, The Competitiveness Report, 2017

Chart no.6 The difference and the score for three sub-indices of competitiveness in Romania and other countries



Source: post-2020 Europe, The Competitiveness Report, 2017

The global partnership at the level of the competitiveness of the business environment is based on key objectives, namely: environmental protection, social equity and cohesion, economic prosperity and assuming new international responsibilities, as well as on the guiding principle, respectively: promoting and protecting fundamental rights; solidarity enters and integration; an open and democratic society; attracting citizen participation in decision making; participation of enterprises and social partners; coherence of policies and governance; integration of policies; best exploitation of available knowledge; integration of policies; principles of precaution and principle of policy.

Conclusion

Following the harmonization of the interests of the new member states in order to align with the general standards imposed by the European Union, the structure of the Romanian economy has undergone transformations both as a structure, but especially in terms of its competitiveness and dynamics, with a direct impact on internal economic convergence and external. Moreover, periods of recession and economic decline, although generating imbalances, in some extremely serious cases, can be perceived in certain situations, as generating progress. This fact is argued by the adaptive capacity that involves developing new policies and strategies to be able to evolve (see the evolution of the IT sector in the economy). The combination of efforts focused on finding new solutions to restore balance and, going further, to register increased levels of performance ultimately leads to economic growth. The process of globalization affecting today's economies everywhere, considered as the most complex form of internationalization of economic activity, implies absolutely reaching a high level of convergence between economies.

Being a result of progress, economic competitiveness and human innovation and being based in particular on trade and financial flows, economic growth implies the continuous integration of economies, which can be noticed especially at EU level. In order for this integration process to take place in the optimal parameters, it is necessary to have a system of supranational supervision and regulation that coordinates the activity of each state in order to establish general policies to be followed in order to meet common objectives based on performance indicators and of competitiveness.

Over time, the impact of integration on the process of growth and convergence has been a much debated issue. In Iain Begg's (2006) sense of effects generated can be grouped into three main categories:

- changes in the macroeconomic structure at national level;
- transformations of the labor market (the phenomenon of labor migration) with a direct impact on the competitiveness of industries at national and European level;
- effects induced on the structure of the economy.

The recent accession stages are only a step towards intensifying the convergence at the level of the new EU Member States with the existing community structures. The next natural step is the adoption of the common currency, an issue so far certified by five new Member States (Slovenia, Slovakia, Malta, Cyprus and Estonia). Seven other states, among the new states that joined the European Union, including Romania, are making intense efforts to fulfill all the commitments that this important process implies.

After the analysis carried out in the paper we can consider that the competitiveness of the companies at national level, is one of the main factors that contribute to the increase of the degree of convergence between the economies and which directly contribute to economic growth. Moreover, the analysis of companies based on competitiveness allows the decision-makers at the level of each economy to develop strategies and action plans that focus their interest on the respective branches of the economy that are competitive and which implicitly lead to economic growth at national and European level. The infusion of technological progress either through the increase of the expenses with research development, the degree of economic openness or through the channel of foreign direct investments constitutes one of the main sources of convergence and economic growth from the perspective of the competitiveness of the new Member States. Focusing on the development of these sectors should be a basic objective of the national authorities at the level of these economies if the convergence and sustainable economic growth are pursued. Long-term sustainability is also extremely important because finding compromise solutions that will only produce results over short periods of time is not a successful strategy and, moreover, it can trigger a negative effects gear that could be felt by states after a certain period of time and which can cause massive economic imbalances.

Despite the fact that the results of the statistical methods confirm the hypothesis of convergence at the level of the new Member States, the extremely large gap that exists between these economies and the average of the European Union or the euro area must be taken into account, an aspect surprised in the analysis undertaken by us by estimating the number of years needed to achieve convergence. Future strategies must be geared towards reducing these differences in particular so that the convergence process is truly a perfect one.

The impact of economic and financial crises on the economies of Central and Eastern Europe has led to a reconfiguration of the models of economic growth, of the processes of convergence as well as of the economic policies engaged for this purpose. Considering these aspects as well as those mentioned above we can conclude the following:

a) the quality and sustainability of the convergence process is an essential indicator of the economic growth of each economy;

b) achieving a sustainable convergence requires a long period of time;

c) the new EU Member States are showing convergence trends among themselves, but many actions need to be taken in relation to the EU average.

These considerations must be taken into account by the national authorities when developing either the strategies for adopting the common currency, or for economic growth or competitiveness at national level.

The ability of the new Member States to adapt to macroeconomic changes has been proven by the level of convergence that exists between these competitive economies. Under current conditions, this ability will prove to be vital and will be a representative indicator of the economic progress of the European Union member countries.

References

*** Annual Competitiveness Report 2001. Available at: http://www. forfas.ie/ncc/ reports /ncc_annual_01 /index.html.

Banca Mondială (World Bank), (2013). *Orașe competitive. Remodelarea geografiei economice a României (Competitive cities. Remodeling the economic geography of Romania).* Available at: http://www-wds.worldbank.org.

Begg, I. (2006). Is full participation in the EMU likely to favour or slow real convergence. In *Living standards and the Wealth of Nations-Successes and failures in real convergence*. Cambridge, London: MIT Press.

Cojanu, V. (coord). (2010). *Competitive potential of economic growth: guidelines for a new industrial policy in Romania*, SPOS Strategy and Policy Studies 2010, European Institute of Romania, Bucharest, October 2010.

Cojanu, V., and Pîslaru, D. (2011). How important is agglomeration economies: a case study of Romanian industrial clusters. *Review of Economic and Business Studies* 4 (1), pp. 35-58.

Day, G.S. and Wensley, R. (1988). Assessing Advantage: A framework for Diagnosing Competitive Superiority. *Journal of Marketing, 52 (April), 1–20*.

Duran, M. and Giorno, C. (1987). „Indicators of International Competitiveness: Conceptual aspects and Evaluation." *OECD Economic Studies N-9*, www. oecd.org /dataoecd /40 /47/33841783.pdf.

Fagerberg, J. (1996). Technology and Competitiveness. *Oxford Review of Economic Policy 12: 39-51*, reprinted as chapter 16 in Fagerberg, J. (2002) Technology, Growth and Competitiveness: Selected Essays, Cheltenham: Edward Elga.

Fagerberg, J. and M. Srholec şi M. Knell. (2005). The competitiveness of nations. *The 10th Year Anniversary DRUID Summer Conferince*, Aalborg, Denmark, June 27-29th, 2005.

Fagerberg, J., M. Knel şi M Srholec. (2004). The Competitiveness of Nations: Economic Growth in the ECE Region. Paper prepared for presentation at the *UNECE Spring seminar, Competitiveness and Economic growth in the ECE region*, Geneva, February, 23, 2004.

Global Competition: The New Reality. Report on the President's Commission on Industrial Competitiveness, 1985.

Mereuţă, C. (2013). "The territorial distribution of the node companies on the main activities of the national economy," manuscript.

National Strategy for Competitiveness 2015-2020 and European Strategy for Research and Innovation.

Porter, M. (1998). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: Free Press.

Porter, M., Sachs, J. and Mc Arthur, J. (2001). Executive summary: Competitiveness and Stages of Economic Development. In *World Economic ForumThe Global Competitiveness*, Report 2001–2002 Global Competitiveness Report (GCR) al Forumului Economic Mondial.

Porter, M.E. (1990). *The Competitive Advantage of Nations*. New York: Free Press.

Ristea and Franc V. (2013). *Metodica in cercetarea stiintifica (Methodology in scientific research)*. Bucharest: Expert Publishing House. ISBN: 978-973-618-200-6.

Schumpeter, J. A. (1943). *Capitalism, Socialism, and Democracy,* 6th ed., London: George Allen and Unwin, pp. 81-84.

The European Commission (2011). A New Regional Competitiveness Index: Theory, Methods and Findings, Working paper no.2/2011.

The European Commission (2018). *Debt Sustainability Monitor 2017*, Direcția Generală Afaceri Economice și Financiare, Economie europeană, document instituțional nr. 071/2018, Available at: https://ec.europa.eu/info/sites/info/files/economy-finance/ip071_en.pdf.

World Comission on Environment and Development (1987), Our Common Future, Oxford.

World Economic Forum (2017), *Global Competitiveness Report 2017-2018*. Available at: http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf.

DECISION SUPPORT SYSTEMS TO CREATE A COMPETITIVE ADVANTAGE

Mitran DANIELA, PhD
Athenaeum University, Bucharest, Romania
danielamitran@yahoo.com

Abstract: *This paper presents the evolution of Decision Support System (DSS) technologies and issues related to DSS definition, application and limitations. A modern DSS is capable to measure all relevant parameters, carry out an in-depth analysis, and suggest possible courses of action and future trend in a given area. Offering useful insights to businesses, the DSS can help in building and maintaining competitive advantages. The advancements in computer, mobile and internet technologies have had a strong impact on the design of a DSS and its capabilities.*
Keywords: *Decision Support System, competitive advance*
JEL Classification: *M15, C44*

1. Introduction

Decision making at different levels of management is becoming increasingly difficult given the complexity of social and economic environment and the rapid evolution of science and technology.

The increasing complexity and volume of information to be processed in decision-making systems require the use of modern and confidence tools.

Computerized Decision Support tools are increasingly used as decision-makers are convinced of their usefulness and possibilities for improvement and development of these tools.

Artificial intelligence development and its applications in various fields come to help increase the effectiveness of management processes as well as knowledge in general.

Human decision-maker may be faced with a number of limitations that affect the outcome of the decision-such as cognitive limits (due to limited human capacity to store and process data, information and knowledge), within the time (many decisions must be adopted within a very short time or insufficient to substantiate their correct and complete) and economic limits (about the cost of acquiring, storing, processing, transmission and dissemination of data, information and knowledge used in decision making).

2. What is a Decision Support System (DSS)?

Decision support Systems (DSS) are developed to support decision makers in their semi-structured tasks and appeared towards the end of 60s (Ackoff, 1968). A decision support system (DSS) is an interactive software-based system that collects, organizes and analyzes business data to support an executives' skills at all stages of decision making.

DSS are generally based upon interactive computer networks which can help the manager to identify and solve problems, and to take the efficient, effective and economic decisions.

Decision Support Systems (DSS) have transformed from automated systems for simplifying calculations into an important tool that combining hardware, software and human intelligence, capable of visualizing future trends in a given area, offering useful insights to businesses.

Decision support systems developed in recent years have been designed as a support for managers in making decisions, providing them with assistance in this process, but not replace them.

Man has control over decision-making, and these systems only provide alternatives decision based using modeling tools and data analysis.

Main features of Decision Support System are:

- designed to help support decisions that are formulated as semi structured, complex problem;
- serve to assist decision-makers at the individual or group in all stages of decision making;
- solutions are obtained by manipulation of data, search for information, models, and calculations;
- the response time to achieve an acceptable solution is limited;
- is typically designed for either a particular decision-maker or a group of decision-makers.

In the early 1970s, the architecture of the first DSS was composed by a model- base management system, a database management system and a human-computer interface (Sprague and Carlsson 1982).

In the 1990s, into the architecture previously described was added a knowledge-base, so as to give the system the capacity for reasoning in the taking of the decision. This approach leads to develop Intelligent DSS or also called knowledge-based DSS.

According to Marakas (2003) the components of a DSS are:

- a database management system and the associated database;
- a model-base management system and the associated model-base;
- the inference engine and the knowledge-base;
- a user interface;
- a user: who forms an integral part of the process of problem solving.

The major applications for DSS emphasized manipulating quantitative models, accessing and analyzing large data bases, and supporting group decision making. The Decision Support Systems can be divided into following categories (Power 2007):

a. Model-driven DSS

A model-driven DSS was based on simple quantitative models. It used limited data and parameters and emphasized manipulation of financial, optimization and/or simulation models. It provided the most elementary functionality to manufacturing concerns.

b. Data-driven DSS

Data-driven DSS emphasized the access and manipulation of a time-series of internal company data and sometimes external and real-time data tailored to specific tasks using general tools. Relational databases accessed by query and retrieval tools provide an elementary level of functionality.

Data warehousing and On-Line Analytical Processing (OLAP) provide the highest level of functionality and decision support.

c. Communications-driven DSS

Communications-driven DSS use network and communications technologies to facilitate decision making. Collaboration and communication in the decision-making process can be achieved through various instruments such as groupware, video conferencing and computer-based bulletin boards, voice and video delivered using the Internet protocol.

d. Document-driven DSS

A document-driven DSS processes large volumes of unstructured data existing in a large document databases (may include scanned documents, hypertext documents, images, sounds and video documents).

e. Knowledge-driven DSS or Expert Systems

Knowledge-based DSS combines artificial intelligence with human expertise in solving problems in a particular area. Decision making is a process that in addition to technical support needs cognitive support provided by the human. The cognitive support includes knowledge about a particular domain and experience of the decision maker and its reasoning ability.

f. Web-based DSS

The World-wide Web and global Internet provided a technology platform for extending the capabilities and deployment of computerized decision support. Many DSS have Web interfaces to take advantages of graphics displays, interactivity, and ease of use.

3. Decision Support Systems to Create a Competitive Advantage

The complexity of management problems require intelligent technologies to support and in some cases even replace the human factor in decisions.
DSS supporting human decision maker in solving complex decision, semistructured and unstructured.

General benefits of DSS are to assist in improving managerial strategic decision-making. Using DSS enables quick responses to market changes and implementing proactive strategies. DSS allows for faster decision-making and reduces the time taken to solve problems.

Also, DSS provides more evidence in support of a decision. Internet technologies change substantially business models and contribute to the development of innovative web-based Decision Support Systems.

In a hyperconnected economy no sector of the economy will be untouched by technology such as Internet of Things (IoT), Artificial Intelligence (AI), and blockchain. Although there are many advantages in relatively large number of organizations still are registered resistance to using Decision Support System

Among the factors that cause resistance in using DSS emphasizes the lack of knowledge in the use of new technologies and the fear of learning new things**.** The manager's problem-solving style is sometimes intuitive rather than analytical.

Limitations and disadvantages of Decision Support Systems

DSS unlimited trust and dependence is not desirable since they may have a number of limitations Such as:

- The impossibility of quantifying and collecting all data;
- System design failure due to ignorance of the specific needs of decision-makers;
- A DSS is structured for a specific purpose and the data and models limit how it can be used;
- Lack of technological knowledge for many decision makers;
- Unaware of Assumptions: Human decision-maker must realize that a computerized DSS is only a supporting tool and must use his own judgment when making the final decision. A decision maker must analyze the limitations and assumptions that a DSS has considered when analyzing data for an unstructured or partially structured situation;
- Information overload is a major problem for managers, and many DSS increase the overload.

4. Evolution of Decision Support Systems

DSS decisive evolution was marked by innovations that have occurred in the last 50 years. Beginning in the early 1990s, four powerful tools emerged for building DSS: Data warehouses, on-line analytical processing OLAP, data mining, and web-based DSS.

A data warehouse is a subject-oriented, integrated, time-variant, nonvolatile collection of data (Inmon, 1992). A data warehouse is a solution for integrating data from diverse operational databases to support management decision making.

A data warehouse is built to store large quantities of historical data and enable fast, complex queries across all the data. The data warehouses are using relational or multidimensional database technologies for on-line analytical processing (OLAP).

OLAP (n.d) is software for manipulating multidimensional data from a variety of sources that has been stored in a data warehouse. The software can create various views and representations of the data. OLAP software provides fast, consistent, interactive access to shared, multidimensional data.

These systems are used to discover trends, analyze critical factors and perform statistical analysis. Data Mining is a set of artificial intelligence and statistical tools used in analyzing data from various dimensions and perspectives, finding patterns, classifying and grouping the data and summarizing the identified relationships.

The emergence and development of The World-Wide Web technologies and e-commerce allowed to rapid increase in the volume of data in real time and developing new data mining tools. The universal TCP/IP protocol or Web platform leads to widespread use and adoption of decision support systems in organizations.

Development of computer networks and the trend of replacing individual decisions taken by the group of individuals have also opened wide the doors for development of various tools to support collaboration and group processes.

Group support systems (GSS) and computer-mediated communication systems (CMCS) facilitate more effective group interaction, leading to greater decision-making effectiveness in modern distributed organizations.

A standard Web browser can be used as the user interface/dialog means that companies can introduce new DSS technologies at their sites at relatively low cost when compared to client-based DSS.

5. Conclusions

Decision Support Systems are constantly evolving under the influence of the new technologies, new approaches and ever-changing business needs. Experts identify key developments or trends in DSS in near future. These include:

- Mobile tools, mobile e-services, and wireless Internet protocols will mark the next major sets of development in DSS.
- DSS will be capable of handling much ‘‘softer’’ information and much broader concerns than the mathematical models and knowledge-based systems have been capable of handling in the case in the past.
- DSS will take into account in the formulation stage of the problem of multiple perspectives, developed from organizational, personal and technical positions. All relevant variables for all stakeholders must be included in models, or taken into account during the analysis, if they cannot be quantified.

- Greater collaboration functions will be enabled, facilitating more interactive decision processes.
- The use of artificial intelligence (AI) is being replaced with intelligent systems and soft computing, which are emerging new technological platforms.
- A future DSS may be able to utilize cognitive features, intensively using visualization, memory, reasoning, attention and comprehension.

References

Ackoff, R.L. (1968). Management misinformation systems. *Management Science*, Vol. 14, (4), pp.147–156.

Inmon, W.H. (1992). *Building the Data Warehouse*, QED Information, Sciences, Wellesley, MA.

Marakas, G.M. (2003). *Decision Support Systems*, 2nd Edition, Prentice-Hall.

OLAP Council, (n.d). *On-line Analytical Processing Definitions*, Available at http://dssresources.com/glossary/142.php.

Olson, D. L. (2007). *Data mining in business services*. https://www.researchgate.net/publication/227209803_Data_mining_in_business_services.

Power, D. (2004). Decision Support systems: from the past to the future. In *Proceedings of the Americans Conference on Information Systems*, New York, August 2004, pag. 2015/2031.

Power, D.J. (2007). A Brief History of Decision Support Systems. *DSSResources.COM*, (online). Available at http://DSSResources.COM/history/dsshistory.html, version 4.0, March 10, 2007.

Sprague, R.H. and Carlson, E.D. (1982). *Building Effective Decision Support System*s. Englewood Cliffs, NJ; PrenticeHall.

COMPARATIVE ASPECTS REGARDING THE CONSTITUTIONAL MONARCHY AND THE PARLIAMENTARY REPUBLIC, IN THE EUROPEAN DEMOCRATIC STATES - THE CASE OF SPAIN AND ITALY

Luciana BEZERIȚĂ (TOMESCU), PhD Lecturer
Athenaeum University, Bucharest, Romania
luciana.tomescu@gmail.com

Abstract: *In this article we aim to capture some resemblances and differences between European democratic monarchies and parliamentary republics, resorting to the comparative method of their Constitutions, in the case of Spain, a parliamentary monarchy, and of Italy, a parliamentary republic. As we know, in European states characterized by a parliamentary political regime, monarchies or republics, considerable importance is granted to the Parliament, and the head of state, the Monarch, is appointed by hereditary criteria and the President is, as a rule, elected by the Parliament. In most cases, the Parliament is bicameral in order to ensure a counterbalance aimed at ensuring the balance within the legislative power, and the Government is headed by a prime minister and is accountable to Parliament, which can withdraw the confidence it has vested in, if it assesses that he does not fulfill the mandate. Out of the constitutional elements under analysis, we will notice a series of characteristics common to states with a parliamentary regime, regardless of their form of government, monarchy or republic, but also some differences of substance or only hue, generated by historical, traditional or cultural considerations, which, of course, could be highlighted in more detail by extending the law-based analysis, without being limited to it. Moreover, like all European constitutional democracies, the analysed states have their constitutional text based on the values, principles and standards common to the European Administrative Space, recognized in the doctrine as "an evolutionary process of convergence."*

Keywords: *form of government, political regime, parliamentary monarchy, parliamentary republic*
JEL Classification: *K10*

Introduction

In democratic constitutional systems, in the European states, regardless of the ***form of government***, i.e. *monarchy* or *republic*, the head of state, *the monarch* or *the president*, represents *the state*. The manner of appointing the head of state is the main criterion for defining the *form of government* and the *political regime* of a country. In the European ***constitutional monarchies***, the fundamental principle of "*the rule of law*" is enshrined as an act of the Parliament, and the head of state, *the monarch*, is designated by hereditary criteria for life (Apostol Tofan, 2008).

The following Member States of the European Union are recognized as *constitutional monarchies*: Belgium, Denmark, Luxembourg, the Netherlands, United Kingdom, Spain, Sweden (Wikipedia, *List of countries by system of government*). According to the criterion of *election of the head of state* and his *attributions*, ***republics*** can be classified in: ***parliamentary republics***, in which the President is elected by the Parliament, ***presidential* and *semi-presidential republics*** in which the President is elected by popular vote (Apostol Tofan, 2008, p. 19).

In the European ***parliamentary republics***, the power of Parliament prevails, and the head of state, the President is usually elected by the Parliament.

Within the European Union, most Member States are recognized as *parliamentary republics*: Austria, Bulgaria, Czech Republic, Croatia, Estonia, Finland, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia, Hungary (Wikipedia, *List of countries by system of government*).

"The classification of a state in terms of the ***form of government*** is the work of the *doctrine*, very rarely being expressly mentioned in the Constitution. We will retain by way of example, ... art. 1 of the Constitution of Bulgaria of 1991 according to which *Bulgaria is a parliamentary republic*, although, paradoxically, the President of Bulgaria is elected by direct vote by the people" (Apostol Tofan, 2008, pp.16-17).

Most of the Constitutions of the European democratic states, *monarchies* or *republics*, enshrine the principle according to which *the powers emanates from the nation*.

***Constitution of the Kingdom of Spain* (1978, amended 2011) and *Constitution of the Republic of Italy* (1947, amended 2012) (see Table 1: Comparative table) - comparative aspects**

✓ **Preliminaries - *Preliminary Title / Fundamental Principles***
(**Spain's Constitution:** Sections 1, 2; **Italy's Constitution:** Art. 1, 5, 11)

In terms of the form of government and the political regime, Spain "*is a Parliamentary Monarchy*", and Italy „*is a democratic Republic*", also *parliamentary* (Barbu, 2015, pp. 589-650).

Both the Kingdom of Spain and the Italian Republic are *democratic* states, where *national sovereignty belongs to the people*.

Both states recognize "*self-government*"/"*local autonomies*": Spain "*recognizes and guarantees the right to self-government of the nationalities and regions of which it is composed*", and Italy „*recognises and promotes local autonomies, and implements the fullest measure of administrative decentralisation in those services which depend on the State*", from where one can see the distinction between *self-government* and *autonomy* (Vedinaş, 2015).

It is noteworthy that one of the fundamental principles explicitly enshrined in the Constitution of Italy is that: "*Italy rejects war* (...)", which can be assessed as a good example to be taken over in the Constitutions of other democratic states.[1]

✓ ***Fundamental Rights and Duties / Rights and Duties of citizens***
(**Spain's Constitution:** Sections 14, 27, 30, 35; **Italy's Constitution:** Art. 3, 33, 34, 35, 52)

The citizens of both states "*are equal before the law*", "*without distinction of sex, race, language, religion, opinion, personal and social conditions*."

The Constitution of Spain states that "*everyone has the right to education*" and recognizes "*the autonomy of Universities*", and the Constitution of Italy provides that "*Schools are open to everyone*" and enshrines the right of *higher education institutions* "*to establish their own regulations*."

1 Introduction by Oscar Luigi Scalfaro, President of the Italian Republic, p. 7, in: *Constituțiile statelor lumii - Constituția Republicii Italiene (Constitutions of the World States - Constitution of the Italian Republic)*, Translation by Popescu, A., (2006), Bucureşti, Editura C.H. Beck: „This is a solemn ***No*** pronounced by the Constitutional Charter of the Italian Republic for the defence of man, the holder of the natural right to peace." our trans.

Citizens of both states have the *duty to defend their homeland*.

The Constitution of Spain enshrines the right of Spanish citizens "*to work*" and, moreover, the Constitution of Italy provides that it "*protects work in all its forms and practices*."

✓ **Head of State - The King - *The Crown* / *The President of The Republic*** (**Spain's Constitution:** Sections 56, 57, 62; **Italy's Constitution:** Art. 83, 85, 87, 88, 90)

The King of the Kingdom of Spain "*is the Head of State*, *the symbol of its unity and permanence*" and "*he arbitrates and moderates the regular functioning of the institutions*", and the President of the Republic of Italy "*is the Head of the State and represents national unity*". The doctrine showed that the President of Italy "*has generally an honorary role, but he plays an important role as a arbitrator in the event of a political crisis, which has happened several times in recent years*" (Andronicеanu, 2015, p.180).

The person of the King "*is inviolable and shall not be held accountable*", in contrast to The President of the Republic who is liable for "*high treason or violation of the Constitution*", in the latter case being accused by the Parliament, "*with an absolute majority of its members*".

While "*The Crown of Spain shall be inherited*", the President of the Republic of Italy "*is elected by Parliament*", "*for seven years*."

Regarding the constitutional powers of the King of Spain, compared to those of the President of Italy, we retain the following similar responsibilities (presented selectively, as an example):

- "*to promulgate laws*",
- "*to call for a referendum in the cases provided for in the Constitution*",
- „*to exercise supreme command*"/"*is the commander-in-chief of the Armed Forces*",
- "*to confer the honorary distinctions*", etc.

According to the Constitution of Spain, the King is the one "*to dissolve the Cortes Generales*", and according to the Constitution of Italy the President "*may dissolve one or both Houses of Parliament, in consultation with the presiding officers of Parliament*".

In addition, the King of Spain exercises "*the High Patronage of the Royal Academies*."

✓ ***The Cortes Generales / The Parliament***

(**Spain's Constitution:** Sections 66, 87; **Italy's Constitution:** Art. 55, 71)

In Spain's Constitution, Parliament is regulated in Part III: *The Cortes Generales*, after Part II: *The Crown*.

In Italy's Constitution, Parliament is regulated in Part II - *Organisation of the Republic*, at Title I: *The Parliament*, before Title II: *The President of the Republic*.

Both analysed states have a bicameral Parliament: in Spain "*The Cortes Generales represent the Spanish people and shall consist of the Congress and the Senate*"; in Italy "*Parliament consists of the Chamber of deputies and the Senate of the Republic*."

About the Italian Parliament, it was stated in the specialized studies that it "*provides the example of authentic bicameralism*" (Avram and Radu, 2007, p. 286).

In the Kingdom of Spain, "*legislative initiative belongs to the Government, the Congress and the Senate*" and in the Republic of Italy, "*legislation may be introduced by the Government, by a Member of Parliament and by those entities and bodies so empowered by constitutional amendment law*", in both states, the *popular initiative* being possible under the conditions laid down in the constitutional text.

✓ ***Government and Administration - Relations between the Government and the Cortes Generales / The Government***

(**Spain's Constitution:** Sections 98, 99, 107, 113, 114; **Italy's Constitution:** Art. 92, 94, 100)

In both Spain and Italy, the Government has a prime minister - *the President*.

In Spain, "*if the Congress, by vote of the overall majority of its members, grants to said candidate its confidence, the King shall appoint him or her President*."

In Italy, "*the President of the Republic appoints the President of the Council of Ministers*", and "*the Government must receive the confidence of both Houses of Parliament*".

Based on *legal symmetry*, in Spain "*if the Congress adopts a motion of censure, the Government shall submit its resignation to the King*", but in Italy "*an opposing vote by one or both the Houses against a Government proposal does not entail the obligation to resign*."

In both analysed states there is *The Council of State*: in Spain, it "*is the supreme consultative body of the Government*", and in Italy it "*is a legal-administrative consultative body and it oversees the administration of justice*."

- ✓ ***Judicial Power / The judicial branch***

(**Spain's Constitution:** Section 117; **Italy's Constitution:** Art. 101)

In Spain "*Justice emanates from the people and is administered on behalf of the King*", and in Italy "*Justice is administered in the name of the people*."

In both analysed states *judges and magistrates* are "*subject only to the rule of law*".

- ✓ ***Territorial Organization of the State*** **- The control exercised at this level**

(**Spain's Constitution:** Sections 106, 137, 153; **Italy's Constitution:** Art. 103, 114, 125)

Territorially, Spain is organised in: "*municipalities, provinces and the Self-governing Communities*", which „*shall enjoy self-government for the management of their respective interests*."

Territorially, Italy is organised in: "*municipalities, provinces, metropolitan cities and regions*", which "*are autonomous entities having their own statutes, powers and functions*."

In Spain, *Control over the bodies of the Self-governing Communities shall be exercised by:*

"*a. The Constitutional Court, ...,*

b. The Government, after the handing down by the Council of State of its opinion, ...,

c. Jurisdictional bodies of administrative litigation ...,

d. The Auditing Court, ...", in their areas of jurisdiction.

At the same time, "*The Courts shall check the power to issue regulations and ensure that the rule of law prevails in administrative action ...* ".

In Italy, "*The Council of State and the other bodies of judicial administration have jurisdiction over the protection of legitimate rights before the public administration ...*", "*The Court of Accounts has jurisdiction in matters of public accounts ...*", and "*Administrative tribunals of the first instance shall be established in the Region, ...*", according to their legal jurisdiction.

✓ ***The Constitutional Court /Constitutional guarantees***
(**Spain's Constitution:** Sections 161, 164; **Italy's Constitution:** Art. 134, 137)

In Spain and Italy, *the Constitutional Court* has jurisdiction to judge "*the alleged unconstitutionality of acts*" / "*controversies on the constitutional legitimacy of laws*", as well as in "(...) *other matters assigned to it by the Constitution or by organic acts*."

In addition, in Italy, the Constitutional Court has jurisdiction to judge "*charges brought against the President of the Republic and the Ministers*."

Regarding *the judgments/ the decision of the Constitutional Court*, in Spain, as well as in Italy: "*no appeal may be brought against them*."

✓ ***Constitutional Amendment / Amendments to the Constitution***
(**Spain's Constitution:** Section 169; **Italy's Constitution:** Art.139)

The Constitution of Spain states that "*the process of constitutional amendment may not be initiated in time of war...*", while the Constitution of Italy provides that "*the form of Republic shall not be a matter for constitutional amendment*."

Conclusions

Both Spain, as a *parliamentary monarchy* and Italy, as a *parliamentary republic*, are European *democratic* states, where *national sovereignty belongs to the people* and *all citizens are equal before the law*.

The Constitution of Spain regulates first ***The Crown - The King*** and then ***The Cortes Generales*** - The Parliament, as opposed to the Constitution of Italy, which regulates first ***The Parliament*** and then ***The President of The Republic***.

The King of Spain is designated by hereditary criteria and represents *the symbol of state unity and permanence* and the President of Italy is elected by Parliament for a period of seven years and represents *the national unity*.

Thus, unlike the Constitution of Italy, a *parliamentary republic*, the Constitution of Spain, a *parliamentary monarchy*, gives the head of state a priority place in the content of the constitutional text, given the cultural traditions and historical developments specific to the hereditary monarchy.

Both analysed states have a bicameral Parliament: in Spain, *The Cortes Generales* consisting of *the Congress* and *the Senate*; in Italy, *Parliament* consists of *the Chamber of deputies* and *the Senate of the Republic.*

Regarding the constitutional powers of the King of Spain, compared to those of the President of Italy, we retain a number of similar responsibilities, including that *the King* may dissolve *the Cortes Generales*, and *the President may dissolve one or both Houses of Parliament*. Thus, in Italy, it is stated in the doctrine, "*in addition to the classical powers of the Head of State, in a **parliamentary regime**, the President of the Republic may dissolve either Chambers or only one of them after consulting their presidents*" (Apostol Tofan, 2008, p. 28).

Regarding the legal relations between the head of state and Parliament, the analysis of the constitutional text of the two European democratic states, characterized by a *parliamentary political regime*, also reveals some differences of principle, substance or hue, such as:

The person of the King of Spain *is inviolable and is not liable,* "*so that no action for legal accountability or any kind of trial against him is possible*" (Barbu, 2015, p. 593) unlike the President of Italy who is responsible for *high treason or violation of the Constitution*, in the latter case being impleaded by the Parliament. The specialty studies also show that in Italy "*Presidential institution presents different aspects, some even contradictory. The President of the Republic seems to be a primary importance power factor by the way he is appointed and by the privileges he is endowed with* (...)" (Avram and Radu, 2007, p. 287).

Regarding ***The Government***, both in Spain and Italy, the Government has a prime minister - *the President*.

In Spain, *if the Congress grants to said candidate its confidence, the King shall appoint him or her President*, "*contrary to the traditions existing in other parliamentary monarchies*" in which "*the King has the role of electing the head of Government*" (Apostol Tofan, 2008, pp. 29, 34), but *if the Congress adopts a motion of censure, the Government shall submit its resignation to the King*, according to the constitutional text.

In Italy, the head of Government, *the President of the Council of Ministers*, is appointed by *President of the Republic*, and *the Government must receive the confidence of both Houses of Parliament* and *each House grants or withdraws its confidence through a reasoned motion*, according to the constitutional text.

Regarding the *basis of the **parliamentary control***, in the current comparative law doctrine, it was pointed out that "*Parliament must supervise the way in which the state's affairs administration is carried out in order that*

it is maintained in the line that most corresponds to the aspirations of the entire national community, the power of the legislative assembly consisting of the power to supervise as a whole the political and administrative action of the executive and even to interrupt it when it no longer corresponds to the aspirations of the nation" (Apostol Tofan, 2008, p. 78).

In both analysed states there is ***The Council of State***: in Spain, it *is the supreme consultative body of the Government*, and in Italy it *is a legal-administrative consultative body*.

Regarding ***The Judicial Power***, as we have seen, the constitutional text of the states under consideration states that: in Spain, *Justice is administered on behalf of the King*, in Italy *Justice is administered in the name of the people*, and *judges and magistrates* are *subject only to the rule of law*, in both states.

Regarding ***the control exercised at an administrative-territorial level*:** in Spain, *control over the bodies of the Self-governing Communities shall be exercised by The Constitutional Court, The Government, Jurisdictional bodies of administrative litigation, The Auditing Court*, as well as *The Courts*, and in Italy, control is exercised by *The Council of State*, *The Court of Accounts* and *Administrative tribunals*, according to their legal jurisdiction.

Regarding the *constitutionality control over the laws*, exercised by ***the Constitutional Court***, which guarantees the superiority of the Constitution, it was implemented much earlier in Italy than in Spain.

The specialized doctrine confirms that: "*After the war, Italy was the first great restored democracy that introduced a legal review of constitutionality*" (Avram and Radu, 2007, p. 289).

Regarding the ***amendments to the Constitution***, the Constitution of Spain *did not impose material limits on its revision* regarding *the form of monarchical ruling* (Focșăneanu, 2006, pp. 11-12), while the Constitution of Italy *has provided as a limit, the ban on changing the form of republican ruling*.

Table 1 - **Comparative table**: ***Constitution of the Kingdom of Spain*** (1978, amended 2011) and ***Constitution of the Republic of Italy*** (1947, amended 2012)

Spain's Constitution of 1978 with Amendments through 2011	**Italy's Constitution of 1947 with Amendments through 2012**
„**Section 1** **2.** National sovereignty belongs to the Spanish people, from whom all state powers emanate. **3.** The political form of the Spanish State is the Parliamentary Monarchy."	„**Art. 1** Italy is a democratic Republic founded on labour. Sovereignty belongs to the people and is exercised by the people in the forms and within the limits of the Constitution."
„**Section 2** The Constitution is based on the indissoluble unity of the Spanish Nation, the common and indivisible homeland of all Spaniards; it recognizes and guarantees the right to selfgovernment of the nationalities and regions of which it is composed and the solidarity among them all."	„**Art. 5** The Republic is one and indivisible. It recognises and promotes local autonomies, and implements the fullest measure of administrative decentralisation in those services which depend on the State. The Republic adapts the principles and methods of its legislation to the requirements of autonomy and decentralisation."
	„**Art. 11** Italy rejects war as an instrument of aggression against the freedom of other peoples and as a means for the settlement of international disputes. (...)."
"**Section 14** Spaniards are equal before the law and may not in any way be discriminated against on account of birth, race, sex, religion, opinion or any other personal or social condition or circumstance."	„**Art. 3** All citizens have equal social dignity and are equal before the law, without distinction of sex, race, language, religion, political opinion, personal and social conditions. (...)."
"**Section 27** **1.** Everyone has the right to education. Freedom of teaching is recognized. **10.** The autonomy of Universities is recognized, under the terms established by the law."	„**Art. 33** (...). Higher education institutions, universities and academies, have the right to establish their own regulations within the limits laid down by the law." „**Art 34** Schools are open to everyone. (...)."
„**Section 30** **1.** Citizens have the right and the duty to defend Spain."	„**Art. 52** The defence of the country is a sacred duty for every citizen."
„**Section 35** **1.** All Spaniards have the duty to work and the right to work, (...)."	„**Art. 35** The Republic protects work in all its forms and practices. (...)."

„**Section 56** **1.** The King is the Head of State, the symbol of its unity and permanence. He arbitrates and moderates the regular functioning of the institutions, (...). **3.** The person of the King is inviolable and shall not be held accountable. (...).”	„**Art 90** The President of the Republic is not responsible for the actions performed in the exercise of presidential duties, except in the case of high treason or violation of the Constitution. In such cases, the President may be impeached by Parliament in joint session, with an absolute majority of its members.”
„**Section 57** **1.** The Crown of Spain shall be inherited by the successors of H. M. Juan Carlos I de Borbón, the legitimate heir of the historic dynasty. Succession to the throne shall follow the regular order of primogeniture and representation, the first line always having preference over subsequent lines; (...).”	„**Art. 83** The President of the Republic is elected by Parliament in joint session. (...).” „**Art. 85** The President of the Republic is elected for seven years. (...).”
„**Section 62** It is incumbent upon the King: a) To sanction and promulgate the laws. b) To summon and dissolve the Cortes Generales and to call for elections under the terms provided for in the Constitution. c) To call for a referendum in the cases provided for in the Constitution. d) To propose a candidate for President of the Government and, as the case may be, appoint him or her or remove him or her from office, as provided in the Constitution. e) To appoint and dismiss members of the Government on the President of the Government’s proposal. f) To issue the decrees approved in the Council of Ministers, to confer civil and military positions and award honours and distinctions in conformity with the law. g) To be informed of the affairs of State and, for this purpose, to preside over the meetings of the Council of Ministers whenever, he sees fit, at the President of the Government’s request. h) To exercise supreme command of the Armed Forces. i) To exercise the right of clemency in accordance with the law, which may not authorize general pardons. j) To exercise the High Patronage of the Royal Academies.”	„**Art. 87** The President of the Republic is the Head of the State and represents national unity. The President may send messages to Parliament. The President shall: • authorise the introduction to Parliament of bills initiated by the Government; • promulgate laws and issue decrees having the force of law, and regulations; • call a general referendum in the cases provided for by the Constitution; • appoint State officials in the cases provided for by the law; • accredit and receive diplomatic representatives, and ratify international treaties which have, where required, been authorised by Parliament. The President is the commander-in-chief of the armed forces, shall preside over the Supreme Council of Defence established by law, and shall make declarations of war as have been agreed by Parliament. The President shall preside over the High Council of the Judiciary. The President may grant pardons and commute punishments. The President shall confer the honorary distinctions of the Republic.” „**Art. 88** In consultation with the presiding officers of Parliament, the President may dissolve one or both Houses of Parliament. (...).”

„**Section 66** **1.** The Cortes Generales represent the Spanish people and shall consist of the Congress and the Senate.”	„**Art. 55** Parliament consists of the Chamber of deputies and the Senate of the Republic. (...).”
„**Section 87** **1.** Legislative initiative belongs to the Government, the Congress and the Senate, in accordance with the Constitution and the Standing Orders of the Houses. **3.** An organic act shall lay down the manner and the requirements of the popular initiative for submission of non-governmental bills. (...).”	„**Art. 71** Legislation may be introduced by the Government, by a Member of Parliament and by those entities and bodies so empowered by constitutional amendment law. The people may initiate legislation by proposing a bill drawn up in sections and signed by at least fifty-thousand voters.”
„**Section 98** **1.** The Government shall consist of the President, Vice-Presidents, when appropriate, Ministers and other members as may be created by law.(...).” „**Section 99** **3.** If the Congress, by vote of the overall majority of its members, grants to said candidate its confidence, the King shall appoint him or her President. (...).”	„**Art. 92** The Government of the Republic is made up of the President of the Council and the Ministers who together form the Council of Ministers. The President of the Republic appoints the President of the Council of Ministers and, (...).” „**Art. 94** The Government must receive the confidence of both Houses of Parliament. (...).”
„**Section 107** The Council of State is the supreme consultative body of the Government. (...).”	„**Art. 100** The Council of State is a legal-administrative consultative body and it oversees the administration of justice. (...).”
„**Section 113** **1.** The Congress may require political responsibility from the Government by adopting a motion of censure by overall majority of its Members.” „**Section 114** **2.** If the Congress adopts a motion of censure, the Government shall submit its resignation to the King, (...).”	„**Art. 94** (...). Each House grants or withdraws its confidence through a reasoned motion voted on by roll-call. (...). An opposing vote by one or both the Houses against a Government proposal does not entail the obligation to resign. (...).”
„**Section 117** **1.** Justice emanates from the people and is administered on behalf of the King by judges and magistrates members of the Judicial Power who shall be independent, shall have fixity of tenure, shall be accountable for their acts and subject only to the rule of law.”	„**Art. 101** Justice is administered in the name of the people. Judges are subject only to the law.”

„**Section 137** The State is organized territorially into municipalities, provinces and the Selfgoverning Communities that may be constituted. All these bodies shall enjoy selfgovernment for the management of their respective interests.”	„**Art. 114** The Republic is composed of the Municipalities, the Provinces, the Metropolitan Cities, the Regions and the State. Municipalities, provinces, metropolitan cities and regions are autonomous entities having their own statutes, powers and functions in accordance with the principles laid down in the Constitution. (...).”
„**Section 153** Control over the bodies of the Self-governing Communities shall be exercised by: **a.** The Constitutional Court, in matters pertaining to the constitutionality of their regulatory provisions having the force of law. **b.** The Government, after the handing down by the Council of State of its opinion, regarding the exercise of delegated functions (...). **c.** Jurisdictional bodies of administrative litigation with regard to autonomic administration and its regulations. **d.** The Auditing Court, with regard to financial and budgetary matters.” „**Section 106** **1.** The Courts shall check the power to issue regulations and ensure that the rule of law prevails in administrative action, and that the latter is subordinated to the ends which justify it.”	„**Art. 103** The Council of State and the other bodies of judicial administration have jurisdiction over the protection of legitimate rights before the public administration and, in particular matters laid out by law, also of subjective rights. The Court of Accounts has jurisdiction in matters of public accounts and in other matters laid out by law. (...).” „**Art. 125** Administrative tribunals of the first instance shall be established in the Region, in accordance with the rules established by the law of the Republic. (...).”
„**Section 161** **1.** The Constitutional Court has jurisdiction over the whole Spanish territory and is entitled to hear: **a.** against the alleged unconstitutionality of acts and statutes having the force of an act. (...). **b.** Individual appeals for protection (recursos de amparo) against violation of the rights and freedoms (...). **c.** Conflicts of jurisdiction between the State and the Self-governing Communities or between the Self-governing Communities themselves. **d.** Other matters assigned to it by the Constitution or by organic acts.”	„**Art. 134** The Constitutional Court shall pass judgement on: • controversies on the constitutional legitimacy of laws and enactments having force of law issued by the State and Regions; • conflicts arising from allocation of powers of the State and those powers allocated to State and Regions, and between Regions; • charges brought against the President of the Republic and the Ministers, according to the provisions of the Constitution.”

„**Section 164** **1.** The judgments of the Constitutional Court shall be published in the Official State Gazette (...). They have the force of res judicata from the day following their publication, and no appeal may be brought against them. (...).”	„**Art. 137** (...). No appeals are allowed against the decision of the Constitutional Court.”
„**Section 169** The process of constitutional amendment may not be initiated in time of war (...).”	„**Art. 139** The form of Republic shall not be a matter for constitutional amendment.”

References

Androniceanu, A. (2015). *Sisteme administrative din state ale Uniunii Europene (Administrative systems in the Member States of the European Union)*. Bucharest: University Publishing House.

Apostol Tofan, D. (2008). *Instituții administrative europene Note de curs (European administrative institutions Course notes)*, [online]. Available at: http://www.umk.ro/images/documente/master/institutii_administrative_europene.pdf.

Avram, C., and Radu, R. (2007). *Regimuri politice contemporane: democrațiile (Contemporary political regimes: democracies)*. Craiova: Aius Print Ed.

Barbu, S.G. (2015). *Constituția Regatului Spaniei (The Constitution of the Kingdom of Spain)*, pp. 589-650; *Constituția Republicii Italia (Constitution of the Republic of Italy)*, pp. 801-844, in: Deaconu, Ștefan - coordinator, Muraru, Ioan; Tănăsescu, Elena Simina; Barbu, Silviu Gabriel, (2015), *Codex Constituțional, Constituțiile statelor membre ale Uniunii Europene (Constitutional Codex, the Constitutions of the Member States of the European Union)*, Vol. II, Bucharest: Printed by Monitorul Oficial.

Constituțiile statelor lumii - Constituția Republicii Italiene (Constitutions of the World States - Constitution of the Italian Republic), Translation by Popescu, Alexandrina. (2006). Bucharest: C.H. Beck Publishing House.

Constitution of the Kingdom of Spain (1978, amended 2011) and *Constitution of the Republic of Italy* (1947, amended 2012), [online]. Available at: Legislationline.org:https://www.legislationline.org/documents/section/constitutions.

Focșăneanu, E. (2006). *Prezentarea evoluției ordinii constituționale în Spania (Presentation of the evolution of constitutional order in Spain)*, pp. 1-12, in: *Constituțiile statelor lumii - Constituția Spaniei (Constitutions of the*

World States - Constitution of Spain), Collection supervised by Focșăneanu, Eleodor; Ciobanu-Dordea, Aurel; Florescu, Marian, Translation by Prisăcaru, Mihaela. Bucharest: C.H. Beck Publishing House.

Vedinaș, V. (2015). *Drept administrativ (Administrative law)*, The 9th edition revised and updated. Bucharest: Universul Juridic Publishing House.

Wikipedia, Free Encyclopedia: *Democracy Index*, [online]. Available at: https://ro.wikipedia.org/wiki/Indicele_democrației, Note 2 ^ „*Democracy Index 2017 - Economist Intelligence Unit*" *(PDF). EIU.com*. available on the website: http://pages.eiu.com/rs/753-RIQ-438/images/Democracy_Index_2017.pdf *(...)*.

Wikipedia, Free Encyclopedia: *List of countries by system of government*, [online]. Available at: https://ro.wikipedia.org/wiki/Lista_țărilor_după_forma_de_guvernare.

ISSN 2065 - 8168 (print)
ISSN 2068 - 2077 (online)