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THE MANAGEMENT INFORMATION SYSTEMS REENGINEERING THROUGH ECONOMIC APPLICATIONS

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Abstract: *The paper presents the management information systems reengineering through economic applications. Engineering information software establishes a centralized, secure, scalable, highly accessible repository for all engineering software. It Provides configurable, standard, and repeatable workflows for mission-critical softwares, captures comments and approvals electronically, builds an audit trail to support regulatory compliance, delivers advanced search capabilities to quickly find relevant engineering documentation, enhances efficiency by providing multiple integrations to EAM, ERP Microsoft Office, and CAD authoring applications and manages exchange of engineering information with the external economic environment. the conduct of any economic, financial or banking activity can not be imagined without the use of strong informational support that would provide competitive advantage over other competitors on the market. To acquire knowledge through the information obtained is the role of Information Technology that means hardware, software, communications, networks, databases, office automation as well as all other software and software components necessary for the processing of information. Information Technology today offers not only the informational support needed to run the business in terms of efficiency but also solutions for rethinking how to organize your business in order to maintain competitiveness.*

Keywords: *Management information systems, systems engineering, programing algorithms, informational support, mission-critical softwares, business efficiency*

JEL Classification: *C23, C26, C38, C55, C81, C87*

1. Introduction

Business reengineering. Reengineering means the fundamental rethinking and radical redesign of business processes to achieve substantial improvements in cost, quality, and response speed of decision makers. This rethinking of how to do business is influenced and finds answers in new IT solutions. The way of doing business in any one company changes the following actions of the following factors and their list remains open:

- Globalization
- High level competition
- Information became a key resource
- Virtual work space and even running the business under the conditions of the virtual company
- Electronic commerce
- The existence of personnel specialized in data processing and analysis (knowledge worker)
- A new type of relationship with the bank through which new services and products are obtained as a result of the promotion of new IT solutions, etc.

The impact of IT on the firm is not only felt from the outside environment but also from within the firm. Any organization (firm, bank, etc.) assumes the existence of five interdependent elements (components):

- The organizational structure
- Business management and processes - Information technology
- The organization's strategy
- Employees and organization culture.

These components must be in a state of equilibrium and this condition will be maintained as long as no significant changes occur in the external environment or in any of the components (Coleman 2015; Orman 2014).

2. Information system and computer system

A system is a set of interdependent elements (components) between which a dynamic interaction is established based on predetermined rules in order to achieve a certain objective. The dynamic interaction between elements

materializes in the flows established between them, flows involving the existing resources.

According to system theory, any economic body is a system because:

1. It presents its own structure consisting of a set of constituent elements that interact with each other on functional principles;

2. The flows between the organizational components involve the resources of the economic body. Inside any economic organization: - material flows (raw materials, semi-finished products, finished products, etc.) - financial flows - information flows

3. The multitude of the organizational components and the interaction between them aim to achieve an overall objective: the operation of the company in optimum conditions or the achievement of some objectives. The work in the field of system has led to the definition of a model that promotes the systemic vision of the enterprise that it considers to consist of the following three subsystems :

- The decision subsystem uses the information provided by the information subsystem to substantiate the decisions.

- The information subsystem plays a dual role: it provides all the necessary information to make decisions at all levels of responsibility, leadership and control and, on the other hand, provides the means of communication between the other subsystems because the decisions made by the management subsystem are passed on to the factors execution through the information subsystem (downstream).

- Operational subsystem (where the economic processes specific to the economic activity domain are carried out) the data collection is then collected and then transmitted to the information subsystem (upstream) in order to store and process the data necessary to obtain the information used in substantiating the decisions at the level of the decision subsystem (driving)) (Clarke, Elliman & Lehaney 2000; Murray 2014).

The decisional subsystem requires specific information needed to substantiate strategic decisions on the one hand and tactical and operational decisions on the other hand.

The level of strategic and tactical management is characterized by the request for information:

- Ad hoc, unanticipated, determined by a certain context in which the manager is obliged to base his / her decision;
- Synthesized: as we climb the steps of the managerial hierarchy, a selection and a gradual synthesis of information take place;

- Forecasting, allowing anticipation of trend trends in the process led;
- External to define the economic, financial, competitive environment in which the firm will operate. In the case of operational management, characterized by structured decisions, the information provided is:
 - Pre-established, their content covering the informational need determined by the derutin decisions taken at this level;
 - Detailed because the manager needs to know in detail how to run the activity in his area of responsibility;
- Interior;
- Punctual;
- Presents historical character;
- Obtained at a certain frequency, the moment of providing the information being preset.

The information subsystem represents the technical and organizational assembly of data collection, transmission, storage and processing in order to obtain the information necessary for the decision-making process (Lee, Chu, & Tseng 2009; Malhotra 2016).

The information subsystem is interposed between the decision subsystem and the operational subsystem to provide the necessary information to the managerial staff, while being a means of communication between the other two subsystems. The informational subsystem should not only be seen as an interface between the operational system and the management system, but also as the link between the company's internal environment and its external environment (economic, financial, banking). The main purpose of the information system is to provide each user, according to his responsibilities and responsibilities, with all the necessary information (Coleman, Pigman & Pulak 2015; Malhotra 2016). The information system is part of the information system that enables the collection, transmission, storage, data processing and dissemination of the information thus obtained through the use of information technology (IT) means and the personnel specialized in automatic data processing.

The information system comprises:

- the set of internal and external information, formal or informal, used in the company, as well as the data on which they were obtained;
- the software needed to process data and disseminate information within the organization;
- procedures and techniques for obtaining (based on primary data) and disseminating information;
- the hardware platform required for data processing and dissipation of information;

- personnel specializing in collecting, transmitting, storing and processing data.

The IT system is structured to meet the needs of different user groups:

- strategic leadership, tactical and operational leadership; • personnel involved in the data collection and processing process;
- the staff involved in the scientific research process and the design of new defamation products and technologies.

Along with defining the business strategy it is necessary to define the strategy of the IT system because:

- The information system supports the managers, through the information provided, in the management and control of the activity in order to achieve the strategic objectives of the organization;
- IT systems are open and flexible, adapting the imposed environment to the dynamic environment in which the company operates;
- promoting IT solutions supports the organization in consolidating and developing the business (eg: electronic commerce, e-banking etc);
- the information system provides the information necessary to control the fulfillment and adaptation of the organization's operational and strategic plans;
- the organization needs to know and control the risks of implementing new technologies and adapting the IT system to the new requirements;
- Establishment of standards in the information system that are meant to specify the characteristics and the hard and soft performances of the components to be purchased and the methodologies to be used in the development of the system.

3. Approaches in the development of information systems

In the development of a computer system one can choose one of the following solutions:

- a centralized computer system
- a decentralized computer system

The centralized computer system is characterized by the fact that the whole process of data storage and processing, as well as the development of the system, takes place at a single location where there is a single computing system, usually a mainframe, which stores a base unique data as well as all application programs. Users interact with the system via terminals (which act as thin clients).

The advantages of centralization are represented by:

- effective control over the use and development of software;
- control over data security and integrity;
- sharing hard, soft and data resources among users;
- eliminating the risk of hard and soft incompatibility within the system;
- Easily promote standards (technical, design, procedural, etc.) at the level of the whole system;
- providing the services requested by the users through the power of the central system (mainframe).

Disadvantages of centralization are the following:

- the „fall” of the computing system blocks all users;
- Alteration of data and programs, whether void or accidental, affects all users;
- the system may prove slow and inflexible to users' needs, often insufficiently adapted to local or group needs of users;
- can achieve a long response time in case of simultaneous requests of multiple users.

The decentralized information system is characterized by the fact that the data, software and power of the calculations are dispersed in different locations (even geographically dispersed) of the organization. Processing takes place on independent personal computers or on local networks (Orman 1998; Lee, Chu, & Tseng 2009).

Advantages of decentralization:

- data is stored and processed locally;
- software is better suited to local needs;
- Hard, soft or database failures at a location do not affect other locations.
- the system configuration can be tailored to the needs of different departments within the organization or even local users;
- greater autonomy and motivation at the local user level.

Disadvantages of decentralization:

- high risks related to hard and soft incompatibilities between different locations;
- the inherent appearance of duplications of data and software in different locations;
- the difficulty of realizing complex projects at the local level;
- the risk of fragmentation of IT policy;
- higher costs than the centralized system.

The current trend is net-oriented towards decentralization that must be achieved in such a way that:

- All responsibility and authority for the decentralized functions of SI to belong to local management;
- Ensure alignment with the standards used at the organization's overall SI level;
- at central level to be achieved:
 - elaboration of strategy at the whole SI of the organization;
 - communication management within the organization's local network;
 - data management;
 - disaster recovery.

Today, the architecture promoted in decentralized systems is the client-server architecture characterized by the fact that the applications and the data available to the users are dispersed on the different hardware components according to the number of users to access and the required computing power.

Hardware components are represented by:

- workstations (personal computers) used by individual users;
- Shared server departments characterized by the same processing needs;
- central server shared by all users.

The software exploited within the organization is represented by:

- Client applications that:
 - runs on the workstation at the customer's disposal;
 - exploits data stored on client's computer;
 - are mainly represented by: table processors, word processors, databases exploiting applications.
- Departmental applications that:
 - runs on the departmental server;
 - exploits at department level data stored on its server;
 - are shared by users of the same department;
- Organizational apps that:

runs on the central server;

- exploits data of general interest stored on the central server;
- are shared by users of multiple departments;
- requires high processing power.

4. Principles of design and implementation of Management Information Systems

Conducting a rigorous and efficient design and implementation of management information systems requires the following principles to be observed:

1. The global approach to the problem solved;

2. Using a unitary methodology in the design and implementation of the information system;

3. Application of the most modern solutions and methods of designing and implementing the information system;

4. Structure of the IT system taking into account the organizational structure within the company.

5. Direct participation of the future beneficiary in the analysis, design and implementation of the information system. Such participation ensures that the design specifications and the gradual validation of the solutions proposed by the designer are clearly formulated, all of which ensure a product that fully complies with the user's requirements;

6. Compliance with the legal framework. In the case of management information systems, it is mandatory to record, compute the indicators and prepare the synthesis work in accordance with the regulations in force.

7. Developing computer systems for the resources available to the user;

8. Since the software is subject to change, this change must be anticipated and controlled;

9. Compromises are inherent in software development and must be explicit and documented.

Specialty studies have attempted to highlight the success factors in running the software projects (Murray 2014; Malhotra 2016).

The Standish report, for example, places as prime success factors:

- End user involvement
- Support of executive management
- Clarity of requirements
- Planning.

The following application program will manage the articles from an organized file:

```
#include<stdio.h>
#include<malloc.h>
#include<string.h>

// nr. total spaces in the file - no. physical articles
// I - the file, the size of a logical item
// E - no. physical items -1 if the file is not open
int NrSpaces (FILE* f, long dim)
{
```



```
    long p;
    int nr;
    nr=-1;
    if(f)
    { p=ftell(f);
      fseek(f,0,SEEK_END);
      nr=ftell(f)/(dim+1);
      fseek(f,p,SEEK_SET);
    }
    return nr;
}

// current position in file
// I - the file, the size of a logical item
// E - current position, no. of articles, -1 if the file is closed

int Position (FILE* f, long dim)
{
    int nr;
    nr=-1;
    if(f)
        nr=ftell(f)/(dim+1);
    return nr;
}

// preforming the file
// I - the file, dim. art., no. art. for preform / extension
// E - error code: 0 - successful, 1- file was closed

int Preforming (FILE* f, long dim, int nr)
{
    int i,er;
    char *art;
    er=1;
    if(f)
    { fseek(f,0,SEEK_END);
      art=(char*)malloc(dim+1);
      art[0]=0;
      for(i=0;i<nr;i++)
          fwrite(art,dim+1,1,f);
      er=0;
      free(art);
    }
```

```
    }
    return er;
}

// positioning
// I - the file, dim. art, the desired position in nr. relative article
// E - error code, 0 - successful, 1 - too much position, 2 - file. closed
```

```
int Positioning (FILE* f, long dim, int p)
{ int er;
  er=2;
  if(f)
    if(p<NrSpatii(f,dim))
    { fseek(f,p*(dim+1),SEEK_SET);
      er=0;
    }
    else
      er=1;
  return er;
}
```

```
// read in sequential access, the following article
// I - the file, dim. art, the address to which the read article is submitted
// E - error code, 0 - art. read, 1- file. closed, 2 - end file
```

```
int ReadNext (FILE* f, long dim, void* adresa)
{
  char* art;
  int er=1;
  if(f)
  { art=(char*)malloc(dim+1);
    fread(art,dim+1,1,f);
    while ((!feof(f)) && (er==1))
    { if(art[0])
      { er=0;
        memcpy(adresa,art+1,dim);
      }
      else
        fread(art,dim+1,1,f);
    }
    if(er==1) er=2;
  }
```

```
        free (art);  
    }  
    return er;  
}
```

// citire in acces direct

// I - fisierul, dim. art., cheia art., adresa unde se depune articolul

// E - cod eroare, 0 - art. citit, 1 - fis. inchis sau poz. prea mare, 2 - cheie invalida

```
int ReadPosition(FILE* f, long dim, int poz, void* adresa)  
{  
    char *art;  
    int er;  
    er=Positioning (f, dim, poz);  
    if(!er)  
    { art=(char*)malloc(dim+1);  
      fread(art,dim+1,1,f);  
      if(art[0]==0)  
          er=2;  
      else  
      { er=0;  
        memcpy(adresa,art+1, dim);  
      }  
      free(art);  
    }  
    return er;  
}
```

// write article in direct access

// I - the file, dim. art, article address, article key

// E - error code, 0 - successful, 1 - file. closed, 2 - invalid key

```
int WritePosition (FILE* f, long dim, void* adresa, int poz)  
{ char* art;  
  int n,er=1;  
  
  if(f)  
  { n=NrSpaces(f,dim);  
    if(poz>=n)  
        Preforming(f,dim,poz-n+1);  
    art=(char*)malloc(dim+1);
```

```
    Positioning (f,dim,poz);
    fread(art,dim+1,1,f);
    if(art[0]==1)
        er=2;
    else
    { er=0;
      memcpy(art+1,adresa,dim);
      art[0]=1;
      Positioning (f,dim,poz);
      fwrite(art,dim+1,1,f);
    }
    free(art);
}
return er;
}

// Overwrite article for change, in direct access
// I - the file, dim. art, article address, article key
// E - error code: 0 - successful, 1 - file. closed, 2 - the position is too big

int RewritePosition (FILE* f, long dim, void* adresa, int poz)
{ char* art;
  int n,er=1;

  if(f)
  { n=NrSpatii(f,dim);
    if(poz>=n)
        er=2;
    else
    { art=(char*)malloc(dim+1);
      Positioning (f,dim,poz);
      er=0;
      memcpy(art+1,adresa,dim);
      fwrite(art,dim+1,1,f);
    }
    free(art);
  }
  return er;
}

// delete the article with the known key
// I - the file, the size of an item, the key of the item to be deleted
// E - error code, 0 - successful, 1 - file. closed or too high position, 2 - invalid
```

key (empty space)

```
int Delete (FILE* f, long dim, int poz)
{ char* art;
  int er;
  er=Positioning (f,dim,poz);
  if(!er)
  { art=(char*)malloc(dim+1);
    fread(art,dim+1,1,f);
    if(art[0]==0)
      er=2;
    else
    { er=0;
      art[0]=0;
      Positioning (f,dim,poz);
      fwrite(art,dim+1,1,f);
    }
    free(art);
  }
  return er;
}
```

In an economic application it is necessary to include multiple modules that refer to different articles and so there are needed programs that manage the insertion, deletion and updating of those. These algorithms must respect the business logic and the complex patterns of management information systems that imply to a solid design and the newest software design and applications for different types of economic participants (Lee, Chu, & Tseng 2009; Clarke, Elliman & Lehaney 2000).

5. Conclusions

The decisional subsystem requires specific information needed to substantiate strategic decisions on the one hand and tactical and operational decisions on the other hand. Reengineering means the fundamental rethinking and radical redesign of business processes to achieve substantial improvements in cost, quality, and response speed of decision makers and so this rethinking of how to do business is influenced and finds answers in new IT solutions (Clarke 2016; Ching 2016). The usage of reengineering implies to rethink the business logic and to adjust or to replace certain algorithms that are

implemented in the current systems. Adaptive algorithms may resolve the need for frequent changes of the programs that implies high costs and time unused by the newest algorithms (Levent 2014; Murray 2014). Reengineering the information subsystem implies to improve the information flows between the decision subsystem and the operational subsystem and to provide the necessary information to the managerial staff, and also to provide means of communication between the other two subsystems in such a manner that the beneficiaries to see a significant improvement.

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RISK MANAGEMENT – BETWEEN NECESSITY AND OBLIGATION

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Abstract: *Risk management is a process designed and set by the leadership of economic organizations and implemented by all staff to avoid or minimize losses, protect resources, and patrimony. Good process management ensures the achievement of organizational goals, efficient use of resources and achievement of expected profitability levels. In order for the risk management process to be effective, it is necessary for the organization to develop appropriate risk strategies and policies, specific rules and procedures to help identify and assess risks. The effectiveness of the risk management process is ensured if the organizational culture is appropriate to the risks, the staff knows the risk strategy developed by the organization and is aware that the good risk management ensures the achievement of the organizational objectives. The risk management process needs to be integrated with objectives and activities and involves identifying and assessing risks, risk control, risk monitoring and review.*

Keywords: *exposure to risk, impact, objectives, risk management, likelihood, inherent risks, organizational risks, residual risks, strategic risks*

JEL Classification: *M00, M40, M41*

Risk management - objective of management

Up to now, no risk definition has been formulated, which is unanimously accepted by all specialists in the field. In practice, concepts such as:

„Risk is the threat to an event or action with an unfavorable impact on the entity's ability to successfully achieve its goals” (Renard 2014). The definition highlights that risk poses a threat that something may happen, or an event to occur if it is not sufficiently controlled and will have an impact on the organization.

„The risk is the threat that an action or event will adversely affect an organization's ability to achieve its goals and to successfully implement its strategy. Griffith (1998).” This definition, simple and easy to understand, appreciates the risk of being a chance for a positive or negative event to happen and affect the achievement of goals.

„Risk is the possibility or opportunity for something to happen that will have an effect on achieving the goals Griffith (1998).” This definition highlights that risk can have a negative impact on the achievement of objectives if it poses a threat but can also have positive connotations that can be used by the organization. The analysis shows that risk may be a threat or an opportunity. Risk is also the uncertainty about achieving the desired results and should be seen as a combination of probability and impact.

Probability is the extent to which risk can be manifested and can be judged by high, medium or low probability. **High probability** exists when risk is not controlled and its manifestation can not be prevented by the organization. **Low likelihood** can be attributed to a risk if it is well managed by the organization, ie the internal controls implemented maintain the risk in the accepted levels.

The impact of risk is the consequence of the results (objectives) if the risk materializes. If the risk poses a threat, the consequence is a negative one, and if the risk is an opportunity, the consequence is a positive one.

The impact of risk can be assessed by high impact, medium impact and low impact. **The high impact** implies that the materialization of the risk implies a high degree of severity. **The low impact** implies a reduced severity if the risk is manifested.

From the analysis of risk concepts, it can be appreciated that risk management involves identifying, evaluating, managing and controlling risks in order to ensure that organizational goals are achieved.

In relation to the presented, it is found that the risk is a result of the vulnerability of the organization and its inability to adapt to the environment

in which it operates. In practice, problems related to the identification and assessment of risks are attributed to the ability to identify the risks and then manage them.

Risk management is a process designed and established by the leadership of economic organizations and implemented by all staff. This involves identifying and assessing risks, establishing risk tolerance and treating uncontrolled risks.

The implementation of a risk management process at the level is due to the uncertainties of the nature of the threats that may affect the achievement of the objectives and the environment in which the organization operates.

The overall objective of risk management is to manage risks in order to ensure the efficient and effective use of resources, the protection of patrimony and employees.

In this sense, the implementation of the risk management process involves:

- a) risk management as the responsibility of management;
- b) creating a positive culture of risk;
- c) knowledge and management of threats that prevent the achievement of goals;
- d) prioritizing risk decisions.

To meet these requirements, the organization sets out actions, implementation measures, responsible and reporting systems at the level of functional structures.

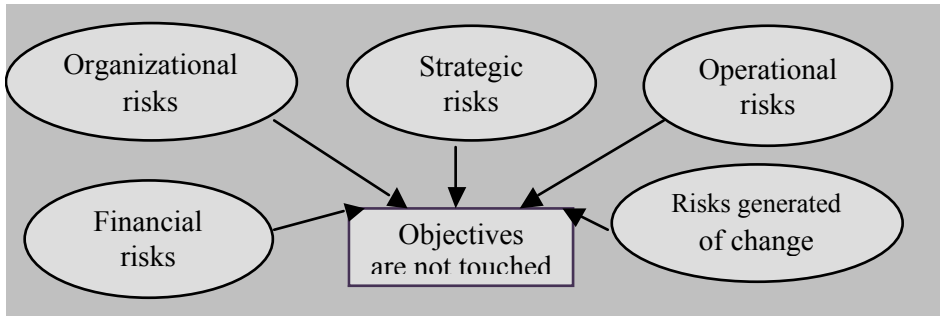
A proper risk management process ensures:

- a) efficient and effective use of resources;
- b) change in driving style;
- c) achieving the objectives in an efficient and effective manner;
- d) building a healthy internal control system.

The risk management process is continuous and the results are materialized by the decisions taken regarding the acceptance, reduction or elimination of the risks that affect the achievement of the objectives. The goal is to optimize the organization's risk exposure to prevent losses, avoid threats, and exploit opportunities (Vasile & Croitoru 2011).

Classification of risks

At the level of an economic organization there are several categories of risks, controlled or uncontrolled, that have an influence on the achievement of the objectives, depending on the nature of the operations they generate, namely:



Source: Own projection

Strategic risks are directly related to the organization's development strategy and are associated with strategic goals.

Organizational risks are associated with the organizational process, the implementation of operational activities and procedures.

Financial risks are caused by interest rates, inflation, insurance, taxes and taxes, protectionist policies, regional policies, the need to reduce losses.

The risks of change are caused by legislative changes, professional ethics, the level of culture and training of staff, the needs and needs of staff, and the fluctuation of staff.

Operational risks are directly related to the functional compartments of the organization and are associated with the specific objectives defined at the level of the functional structures.

Organizational changes, the existence of poorly trained, unmotivated, unskilled staff, as well as changes in the work environment or in doing business lead to increased exposure to risk. The approach approaches the following approaches:

- The procedural approach involves taking into account the characteristics and requirements for achieving the operational processes, management processes, processes that characterize the organization's support functions, activities and actions;
- The causal approach implies taking into account the changes in the human resources structure, the professional training of the personnel, the structure of the indicators defined for the performance measurement, as well as the application of the internal provisions of the organization.

In order for the risk to be minimized and controlled, it is necessary: „the internal control system to be adapted to the nature and complexity of the activities carried out and to ensure at least the following actions: delegation of competence and responsibility, separation of functions, protection of assets and internal audit function (Iovu 2005).”

In our opinion the characteristics of the risk can be as follows:

- a) exposure to risk, there are various ways of risk exposure of the organization, such as staff, patrimony or organizational environment;
- b) the risk factors are related to the characteristics of the organization and the applicable legislative framework;
- c) the potential impact, represents the consequences of the organization, as a result of the risk manifestation.

Risk exposure is the level at which risk can be accepted if it materializes. The outcome of the risk assessment is as follows:

- a) if exposure to risk is greater than the accepted level, the risk is assumed to be inherent, uncontrolled. Internal controls implemented are insufficient or inoperative, which requires that risks be mitigated to limit their level;
- b) if the risk exposure is lower than the accepted level, it is assumed that the risk is a residual, controlled and no need for intervention.

The factors that determine the risk exposure of an economic organization can be defined as follows:

- a) structural changes, major changes made on the basis of internal decisions;
- b) fitting into available financial resources;
- c) limited staff training and motivation programs;
- d) setting tasks for employees in accordance with their nature and qualification;
- e) insufficient procedures.

Taking into account that risk poses the threat that an event or action adversely affects the ability of an organization to achieve its goals, we believe that achieving the set goals may be under uncertainty if management decisions and actions taken to implement they do not take into account the existing realities and risks. Also, given that risk is assessed based on probability and impact, it is the responsibility of the management to identify, assess and treat the risks and, depending on the results, establish the appropriate control tools that need to be implemented to maintain the risks in accepted levels.

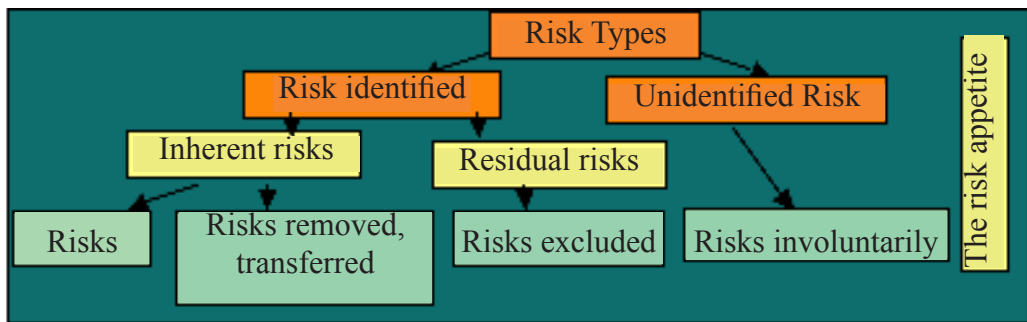
Types of risks

Risks identified in an organization may fall into two categories, namely inherent risks and residual risks.

The inherent risks are the risks that normally exist in any business carried out and are defined as „the risk existent prior to the application of internal control measures to reduce it”, or „the entirety of the risks that lie on

the entity/organization and may be internal risks or external, measurable or unmeasurable (Vasile & Popescu 2004).” Thus, inherent risk is the possibility of errors or discrepancies in management and financial statements before the impact of internal control measures.

Residual risks are „exposure due to a certain risk after measures have been taken to mitigate it. Risk mitigation measures belong to internal control. For this reason, residual risk is a measure of the effectiveness of internal control, which is why some countries have replaced the term residual risk with the control risk.” Thus, residual risk is considered as the risk that remains after the implementation of internal control measures. Applying internal control measures should have the effect of limiting inherent risk to a level that is acceptable to the organization.



Source: Own projection

Inherent risks and residual risks are considered as two hypostases of the same risk. Thus, the inherent risks exist prior to the introduction of internal control instruments, and the residual risks exist after the introduction of internal control instruments.

The degree of risk identification is influenced by a number of factors, including: organizational culture vs. risk, training and knowledge in the field, methods and tools used to identify and assess risks, complexity and volume of activities.

Apart from the inherent risks and residual risks, other types of risks identified at the organization level are the control risk and the risk of non-detection. The control risk is the risk that the organization's internal control system fails to prevent or detect timely errors, irregularities or fraud. These risks may appear in the balance of an account or in a category of transactions and may be individually significant or aggregated with other information. The

risk of undetectability is the risk that a particular threat can not be identified and managed.

Taking into account the fact that the risks cannot be avoided or eliminated, the opinion of the specialists in the field is that „economic organizations must be concerned about risk assessment and keeping them within the limits they can accept and tolerate.”

The link between the risk management process and the COSO model

The COSO Risk Management Framework Model is recognized as a key element for good governance. The internal control implementation methodology presented by COSO has been embedded in policies, rules, procedures and regulations and used by various organizations to ensure control over the way in which the planned activities are carried out and the achievement of the objectives.

COSO defines risk management as „the process of the board of directors, management, and others, applied in strategy setting and throughout the organization, to identify potential events that may affect the entity and manage risk within the risk appetite to provide a reasonable assurance of achieving the objectives of the organization” (Tomoiala & Mare 2012).

The COSO framework manages risk to the risk appetite, which implies that the inherent risks are „evaluated and treated by implementing control devices that act on the impact and likelihood of occurrence of risks so that they become residual risks.”

Thus, the implementation of the process is influenced at the level of each organization’s organizational culture against risks, the philosophy of risk management disseminated among staff, and the way in which the negative effects of risk are attained at all levels of the entity.

The need for risk management is determined by the fact that uncertainty is a reality, and the reaction to uncertainty is a permanent concern. Because, acquiring a risk management system, unanimously accepted at the level organization becomes indispensable for the practice of financial-accounting activity (Vasile & Croitoru 2012).

Conclusions

In our opinion, the implementation of the risk management process should be structured according to the following components (Vasile & Croitoru 2011):

A. The internal environment within this specific component is the activities carried out on the establishment of the organizational structure, the tasks and responsibilities, the setting of the conditions in which the activities can be carried out and the requirements for the future development of the organization.

B. Establishing the objectives, this component is characterized by the fact that the implementation of a risk management system involves identifying and assessing the risks that affect the achievement of the objectives. Objectives must be defined so as to pose a challenge to management and staff, regardless of the level at which they are set.

C. Identifying events, this component involves identifying internal and external events that may affect the achievement of objectives. Depending on the consequences, the identified events are categorized into risks or opportunities.

When defining risks, the following rules should be considered: risk is uncertainty, difficult issues are assessed, problems that do not occur are not risks, problems that arise are certain, risk must not be defined by its impact on objectives, risks are identified by correlation with objectives, the risks have a cause and an effect, the differentiation between the inherent risk and the residual risk.

An adequate risk management process involves identifying risks at any level where there is a threat that may adversely affect the achievement of objectives, their assessment and appropriate risk mitigation measures.

D. Risk assessment, which involves assessing the likelihood of materializing risks and the impact of risk, based on a risk analysis matrix. The likelihood of materialization of risk is determined by the sufficiency and functionality of internal control. The impact of risk is the consequence of risk if it materializes.

The risk assessment should follow if the proposed control tools for implementation are the most appropriate.

E. Response to risk is the decisions taken by the management of the public entity following the risk assessment process and aiming at reducing the likelihood of the occurrence of the risks and their impact. In relation to the outcome of the risk assessment, the response to risk may be as follows:

a) accepting risks in the form and size they exist, without any mitigation measures. These situations are specific to residual risks, characterized by the existence of sufficient internal controls that limit the likelihood of risk exposure and make it impossible to manifest it.

b) treating risks, involves identifying and implementing appropriate control measures to limit the probability and impact of risk. These situations are specific to the inherent, uncontrolled risks of the entity and require control measures to reduce their level.

c) avoiding risks, involves eliminating risks by reducing or ending the activities to which those risks are associated. These situations are specific to risks with high exposure to the accepted level and can not be treated or treatment costs are higher than the results obtained.

d) the transfer of risks, implies that certain risks can not be controlled by any control measures which require their transfer to other structures.

The control tools used to handle the risks can be as follows (Ghita et al. 2010):

a) preventive control instruments are used to limit the effects of the risks that may arise, and to ensure that unwanted results do not materialize;

b) corrective control instruments are used to correct unwanted results if the risks materialize;

c) directional control instruments are used to obtain a particular result or transfer a risk to another area within the entity where it can be tolerated;

d) detective control instruments, are used to identify new emergencies as a result of materializing the risk.

F. Risk control is designed to ensure that the set objectives are met and the significant risks are properly managed.

G. Information and communication, involves measures initiated by management to communicate to staff the responsibilities of those involved in the risk management process. For staff to make an effective contribution to the risk management process, it is imperative that the information be communicated in a timely manner so that it can carry out its tasks within the deadlines set.

H. Risk monitoring and surveillance is intended to track the profile of risks, whether they persist, new risks have emerged, impacts or probabilities have changed, internal control instruments put in place are effective, or certain risks need to be redefined.

Risk oversight involves knowing the concepts and mechanisms with which the entity operates in the process of risk management, implementation modalities, and assessing the effectiveness of risk management implementation.

In our opinion, the effectiveness of risk management largely depends on the quality of the internal control system implemented, ie whether the expected controls correspond to the existing controls. In general, organizations have implemented a risk management system, but they are very little focused on identifying and managing risks (Croitoru 2014).

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THE PHENOMENON OF CORRUPTION IN ROMANIA: AN ANALYSIS FROM A SOCIAL AND ECONOMIC PERSPECTIVE

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Abstract: *The past year did not bring substantive changes to the perception of corruption in Romania. Practically, the fact that the Corruption Perception Index in Romania remained almost unchanged can be interpreted in a positive key, even from the perspective of a slight improvement. This is because, globally, at the top of the hierarchy, we noticed for the first time downward trend in ranking. The top states perceived to be the least corrupt are the Northern European countries - Denmark, Finland and Sweden. At the opposite pole Syria, Southern Sudan and Somalia occupy the last places in this ranking, being perceived as the most corrupt states in the world. Interestingly, according to the latest UN report on the country's happiness ranking in the top places are Finland, Norway, Denmark, Iceland, Switzerland and the Netherlands, about the same states located in the top of the states perceived as the least corrupt. While Southern Sudan (154) and Syria (150) are positioned on the last places of the rankings of happiness, perceived by their own populations as being in the top of the profoundly corrupt states. This article does not attempt either to demonstrate or to clarify the existence of a hypothetical causal relationship between corruption and poverty. On the one hand, it is to point out that beyond the fact that the phenomenon of corruption affects all the states of the world, one can say that there is a higher degree of corruption in the poor countries and one much lower in the rich ones. On the other hand, it discusses the existence of a less visible link between migration and corruption, with significant implications especially for migrants. Who chooses to seek their happiness outside the country, against the background of a pessimistic perspective.*

Keywords: *abuse of power, bribery, illicit activities, corruption, economic cost, happinesses, Corruption Perceptions Index, migration, poverty, influence*

JEL Classification: *A14, K14, Z10, Z18*

Corruption – general framework

There is no single definition of corruption. We will focus on three of them, considered by the author as relevant to the approach he proposes through this article.

According to the *Legal Dictionary* (Criminal Law), corruption is defined as “limiting acts regulated by law, such as taking and giving bribes, receiving undue benefits, trafficking in influence, etc. [...], illicit activities carried out in order to obtain material or moral advantages, high social or high political positions”. More precisely, “corruption includes violations of the rules on civil servants’ duties, as well as non-fulfillment of legal obligations by economic agents, with a higher degree of social danger with profound negative consequences on the entire social system”.

The “*Political Thinking Dictionary*” defines in turn corruption as “an active or passive abuse of civil servants (whether appointed or elected) in order to obtain private financial benefits or other benefits”.

Transparency International defines corruption as „abuse of power entrusted to personal gain”, classifying it as „big, small and politically”, depending on the amount of money lost and the sector in which it occurs. Great corruption targets, for example, acts committed intentionally at high level, government, by which the central state policy is distorted in order to acquire public goods by leaders. Small corruption targets the abuse of power by officials in their daily interaction with ordinary citizens. And political corruption is aimed at the abuse of public power by government officials in manipulating policies, institutions and rules in terms of resource allocation and funding, in order to sustain their status, power and personal wealth (Larousse-Dominique Colas, p.71).

Beyond the three definitions, most specialists have agreed with the following assertions:

- There is a very high correlation between the increase of corruption phenomenon and the reduction of private investment (loss of opportunities, jobs), which implicitly leads to a low economic growth rate,
- Corruption is associated with increasing social inequality.
- The root causes of corruption are:
 - The type of regime or political system,
 - The inefficiency of the institutions (the state’s ability to impose its rules),

- The absence of a competitive economic system (complementary to the over-dimensioning of the public sector),
- The presence of a social environment open to the phenomenon of corruption (aspects of cultural and traditional nature),
- Information deficit (media support).

As a phenomenon, corruption has no barriers. In general, there is certainly a problem related to modernity. More specifically related to the modernization of institutions and society. The casuistry in the field proves, however, that even the most developed countries of the world were not bypassed by this phenomenon. With specific aspects of corruption, all countries of the world have faced in varying proportions. Specialists appreciate that the effects they generate are on the long trench very difficult to estimate, especially due to the complexity of the manifestations and the multitude of affected areas.

According to some institutions and specialized bodies, the annual corruption level is estimated at around 5% of world GDP (according to annual experts, bribes worth 1 trillion dollars, while \$ 2.6 trillion are stolen through corruption).

For the EU economy, corruption costs are estimated at around € 120 billion annually. A huge amount considering that the entire EU budget for 2018, considered the largest in the entire European history, was 160.1 billion euros.

Corruption is a complex phenomenon that has to be interpreted in several key areas: economic, social, political, legal, cultural. Its consequences are not only of an economic nature (an obstacle to development). Corruption generates uncertainty (business environment) and distrust (state, institutions, public administration). Corruption interferes with the movement of the elites of a state and contributes substantially to the deepening of social inequalities. High-level corruption erodes democracy. Institutions already vicious and weakened by corruption are in turn incapable of defending or controlling democracy.

Romania – perceptions of the phenomenon of corruption in European and global context

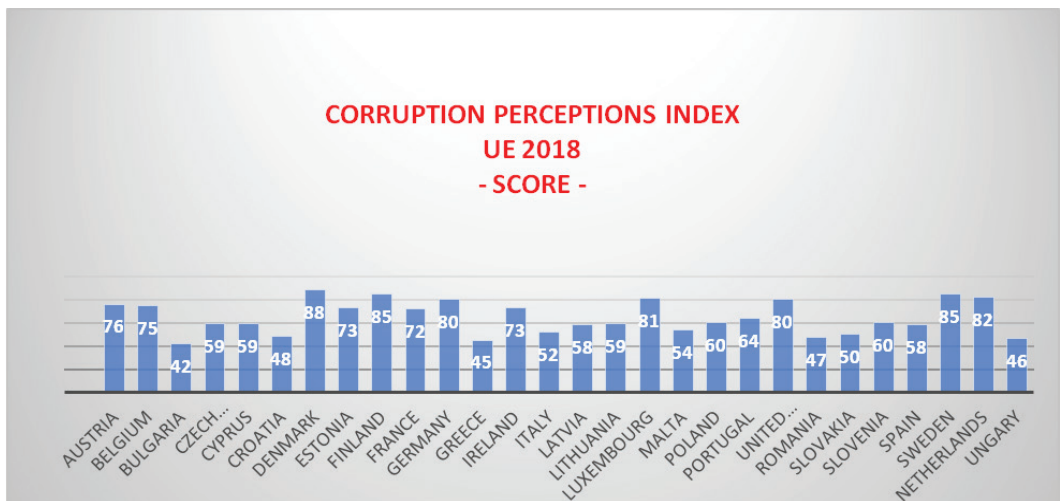
The statute of the European state of Europe imposed the elaboration of anti-corruption legislation adapted to the European requirements. Law no.78 / 2000 (updated) covers the dimension aimed at preventing, detecting and sanctioning corruption. The formal legislative framework exists. Romania also has a National Anticorruption Strategy 2016-2020 adopted by the Romanian

Government in 2016. But great challenges come from the implementation of legislation and the political assumption of a country project. A project aimed at profound change (of structure and mentality) both within public administration and society in general.

In a study published by The International Monetary Fund (*Corruption and Development*), who tried to analyze the main causes and costs of corruption, Gray and Kaufmann (1998) cautiously warned that “bribes usually lead to inefficient economic outcomes and hinder foreign investment in the long run and undermine the state’s ability to generate revenue, which ultimately entails raising taxes and duties for taxpayers.”

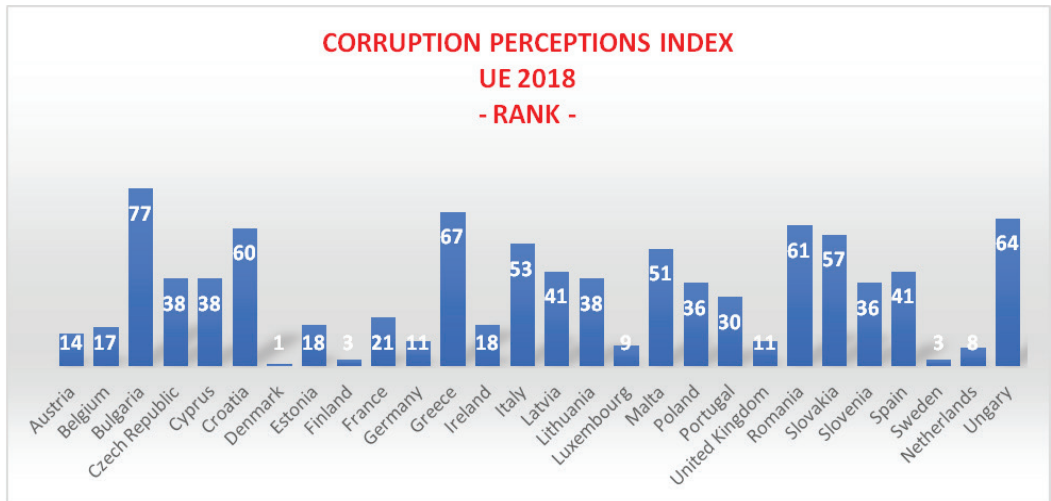
The study points to something very interesting: in 2014, the Corruption Perceptions Index for Romania was much better, indicating in the some time on the one hand a particular sensitivity for the poverty countries, but also a special feature: reversibility. But how corrupt is Romania in reality? According to Transparency International’s Corruption Perceptions Index (2018), Romania ranks 61th in the world with a 47th Perception of Corruption Index (the indicator is a composite index based on a combination of surveys and assessments of corruption from 13 different sources and scores and ranks countries based on how corrupt a country’s public sector is perceived to be, with a score of 0 representing a very high level of corruption and a score of 100 representing a very clean country).

Fig. 1. Corruption Perceptions Index / UE 2018 / Score



Source: European Commission (2019)

Fig. 2. Corruption Perceptions Index / UE 2018 / Rank

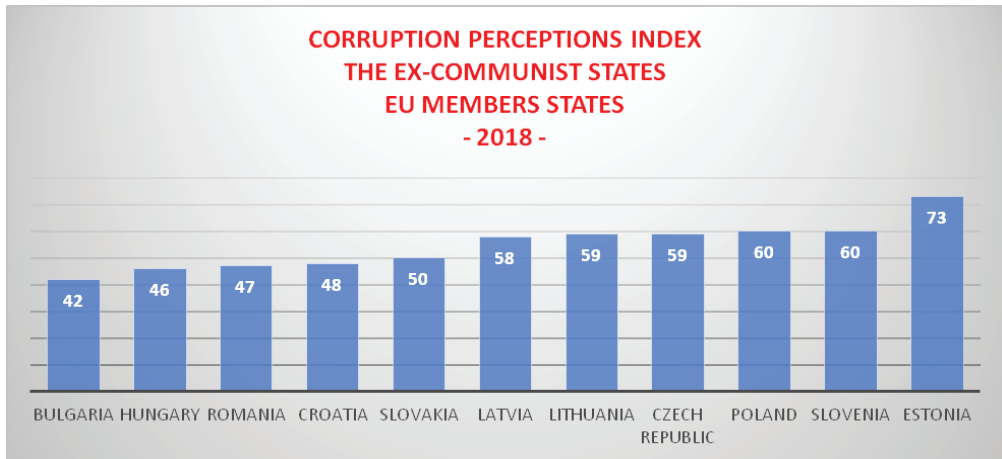


Source: European Commission (2019)

According to Fig. 1 and 2:

- Denmark (88), Finland (85) and Sweden (85) occupy the top of the least corrupt European states (Perceived Corruption Perception Index);
- The Netherlands (82), Germany (81) and the United Kingdom (80) are also quite high in the Index of Corruption Perceptions;
- From this perspective, Romania ranks fourth in the EU with a 47-point Corruption Perception Index, the podium being currently occupied by Bulgaria (42), Greece (45) and Hungary (46);
- In the world ranking, the first place is occupied by northern European states, Romania occupying the 61st position.

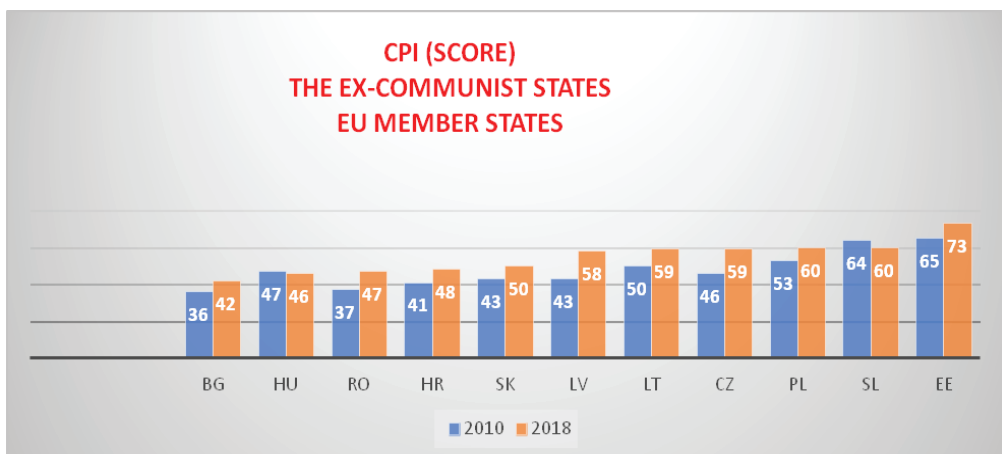
Fig. 3. Corruption Perceptions Index / The ex-communist states /
EU members states / 2018



Source: European Commission (2019)

Fig. 3 makes presents a picture of the value of Corruption Perceptions Index for the former communist states, members of the EU, at the level of 2018. The picture is relevant in highlighting the outline of a Corruption Perceptions Index in the vicinity of Romania (Bulgaria - 42, Hungary - 46 and Romania - 47) located at a reasonable distance from Estonia, with a Corruption Perception Index of 73.

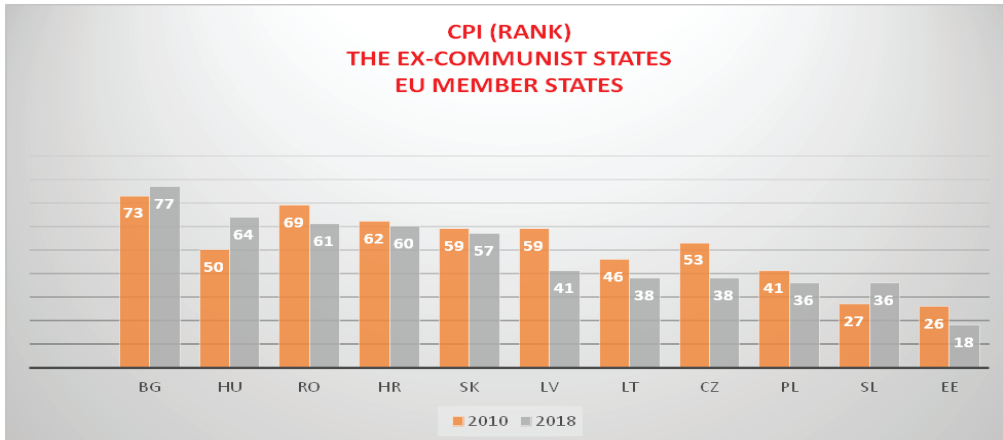
Fig. 4. Corruption Perceptions Index / Ex-communiste states
/ EU member states /2010 -2018



Source: European Commission (2019)

Figure 4 captures the developments in the past eight years of the Corruption Perceptions Index for the ex-communist states, members of the EU. Romania is ranked among the top 10 per cent of the countries that have advanced from this perspective, being overtaken by only Latvia - 15% and the Czech Republic - 13%. It seems interesting the situation of Slovenia and Hungary that marked a regress (the first of 6%, the second of 1%).

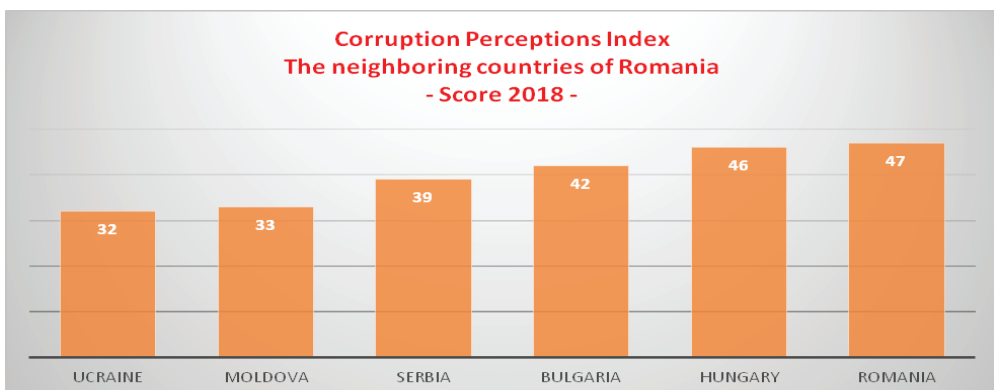
Fig. 5. Corruption Perceptions Index / Ex-communist states / EU member states / 2018 Rank



Source: European Commission (2019)

Fig. 5 highlights the fall of the three ex-communist states: Bulgaria, Hungary and Slovenia over the last eight years in the world ranking. Romania's evolutions are positive from this perspective, recovering eight places from the 69th place on the 61st place.

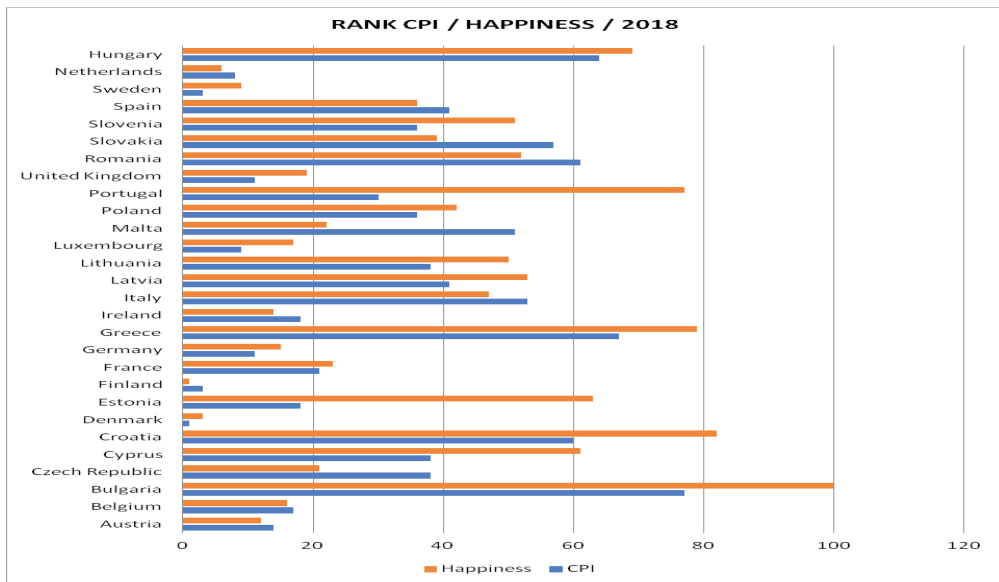
Fig. 6. Corruption Perceptions Index / The neighboring countries of Romania / 2018 Score



Source: European Commission (2019)

In neighboring space (Fig.6) Romania has the best Corruption Perception Index (47), at a relatively small distance from Hungary (46) and Bulgaria (42). Relevant is that, from this perspective, Romania's Neighborhood Pole is at a huge distance from the top of the European states (88-85).

Fig. 7. Rank CPI / Happiness / 2018 / UE



Source: Author

Fig. 7 highlights that there is a link between the Corruption Perception Index and the happiness index (the top was based on the level of satisfaction among residents in 156 countries with regard to many aspects such as GDP per capita, social assistance, life expectancy, lack of corruption, social freedom and generosity).

In a yearly ranking accomplished by the UN:

- The happiest country in the world is Finland (CPI 85),
- The top ten countries are dominated by northern EU countries, where the Corruption Perceptions Index is very high (Finland-1, Norway -2, Denmark -3, Iceland -4, Switzerland-5, Netherlands-6, Sweden- 9);
- An important chapter in mind was the happiness of immigrants from 117 countries, where northern countries also achieved the best results in this category;
- Romania ranks 52th in this top.

Conclusions

- Corruption is a complex phenomenon that must be interpreted in several key areas: economic, social, political, legal, cultural;
- Its consequences are not only of an economic nature (an obstacle to development). Corruption generates uncertainty (business environment) and distrust (state, institutions, public administration);
- Corruption remains, according to experts, the main barrier to economic and social development (undermining the state's ability to generate revenue);
- Corruption is perceived by Europeans as a major problem and an obstacle for doing business;
- Corruption intervenes in the movement of the elites of a state and contributes substantially to the deepening of social inequalities;
- High-level corruption erodes democracy. Institutions already vicious and weakened by corruption are in turn incapable of defending or controlling them;
- There is certainly an invisible relationship to be demonstrated between corruption, poverty, happiness and migration; Per capita GDP, social freedom and the absence of corruption are three of the six variables underlying the calculation of this index;
- States that are considered the least corrupt are also the happiest in the UN ranking;
- This is also the pole of migratory attraction in the EU;
- The top countries are Denmark and New Zealand with scores of 88 and 87, respectively. The bottom countries are Somalia, Syria and South Sudan with scores of 10, 13 and 13, respectively;
- While no country earns a perfect score on the CPI, countries that tend to do best also protect democratic rights and values;
- In the last seven years, only 20 countries significantly improved their CPI scores, including Estonia, Senegal, Guyana and Côte D'Ivoire;
- Equally troubling, 16 countries significantly decreased their scores, including Australia, Chile, Malta, Hungary and Turkey;
- Generally countries with higher rates of corruption also have weaker democratic institutions and political rights;
- Since 2016, 113 states have seen a decline in their democracy score;
- States in northern Europe are the podium of the world's least corrupt states; in this ranking Romania ranks 61;

- The podium of happiness is also occupied by these, Romania being in the position of 52 according the UN Report;
- The former communist states, members of the EU, are still far from the specific dynamics of the old members of the EU. At the gaps in wealth and well-being we can add those specific to corruption and happiness;
- Generally, the former communist states, members of the EU, still remain perceived as the most corrupt of EU states.

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EDUCATIONAL DEVELOPMENTS ADJUSTED TO CURRENT SOCIO-ECONOMIC DEMANDS: THE COMMUNICATIVE APPROACH TO SECOND LANGUAGE LEARNING

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Abstract: *This paper is an argument for the recommended approach to foreign language acquisition in the current socio-economic context. It unfolds a short presentation of the communicative approach to second language teaching. A basic principle underlying all communicative approaches is the fact that learners must learn not only to make grammatically correct statements, but they also have to develop other skills to apply the language effectively in either studying or working environments. A comparison between traditional and communicative approaches is then drawn to demonstrate the suitability of the proposed approach, followed by exemplifications of communicative activities. The roles of teachers and learners are also presented, as well as the part played by factors such as motivation, materials and environment in the classroom management involved in communicative language teaching.*

Keywords: *communicative approach, second language teaching, classroom management, studying or working environments*

JEL Classification: *I21, I25, I29*

Introduction

The socio-economic context we are confronted with is continually changing and, as a natural consequence, the expectations of the working environment follow suit. In the light of this, this article goes through the characteristics of the communicative approach which appears to be the best method of preparation so that potential employees should become assets to their companies. As D.B

Edwards (2019) notices, community participation varies from one type of society to another, from one mindset to another. Nevertheless, the recommended approach to second language acquisition with a view to applying it to real life situations has proved to be the communicative one, as clearly surfaces from its comparison to the traditional one.

1. General Considerations

1.1 Communicative Competence

The American linguist Noam Chomsky (1965) made a distinction very similar to the one made by Ferdinand de Saussure (between ‘langue’ and ‘parole’) as early as 1916. Chomsky’s distinction was between ‘competence’- that is a speaker’s intuitive knowledge of rules (grammatical rules) of his native language- and ‘performance’- what he actually produces by applying those rules (the actual use of language in concrete situations). Theories of communicative competence imply that teachers must do more than just supply the learners with a number of language structures to manipulate.

1.2. Communicative theory and practice

A great deal has been written in the last few years about the theory and practice of the communicative language teaching. However, a basic principle underlying all communicative approaches is that learners must learn not only to make grammatically correct, propositional statements about the experiential world, but must also develop the ability to use language to get things done. These two aspects of language are captured in the distinction between the propositional and illocutionary (or functional) function of language (Widdowson 2001). It was recognised that being able to create grammatically correct structures in language did not necessarily enable the learner to use the language to carry out various real-world tasks.

According to Howatt, there is a strong and a weak version of communicative language teaching:

The weak version which has become more or less standard practice in the last ten years, stresses the importance of providing learners with opportunities to use their English for communicative purposes and, characteristically, attempts to integrate such activities into a wider programme of language teaching. (Howatt 1984, 279). The strong version of communicative language teaching, however, sees language ability as being developed through activities which actually simulate target performance. In other words, class

time should be spent not on language drills or controlled practice leading to wards communicative language use, but in activities which require learners to do in class what they will have to do outside.

Table 1. survey of communicative language teaching the distinction between traditional and communicative approaches:

	<i>Traditional approaches</i>	<i>Communicative approaches</i>
<i>1. Focus in learning</i>	Focus is on the language as a structured system of grammatical patterns	Focus is on communication.
<i>2. How language items are selected?</i>	This is done on linguistic criteria alone.	This is done on the basis of what language items the learner needs to know in order to get things done.
<i>3. How language items are sequenced?</i>	This is determined on linguistic grounds.	This is determined on other grounds, with the emphasis on content, meaning and interest.
<i>4. Degree of coverage:</i>	The aim is to cover the 'whole picture' of language structure by systematic linear progression.	The aim is to cover, in any particular phase, only what the learner needs and sees as important.
<i>5. View of language:</i>	A language is seen as a unified entity with fixed grammatical patterns and a core of basic words.	The variety of language is accepted and seen as determined by the character of particular communicative contexts.
<i>6. Type of language used:</i>	Tends to be formal and bookish.	Genuine everyday language is emphasised.
<i>7. What is regarded as a criterion of success:</i>	Aim is to have students produce formally correct sentences.	Aim is to have students communicate effectively and in a manner appropriate to the context they are working in.
<i>8. Which language skills are emphasised:</i>	Reading and writing.	Spoken interactions are regarded as at least as important as reading and writing.
<i>9. Teacher/student roles</i>	Tends to be teacher-centred.	Is student-centred.
<i>10. Attitude to errors:</i>	Incorrect utterances are seen as deviations from the norms of standard grammar.	Partially correct and incomplete utterances are seen as such rather than just 'wrong'.
<i>11. Similarity/Dissimilarity to natural language learning</i>	Reverses the natural language learning process by concentrating on the form of utterances rather than on the content.	Resembles the natural language learning process in that the content of the utterances is emphasised rather than the form.

Source: (Nunan 2001), processed by author

2. Communicative activities

2.1 General considerations

In *Communicative Language Teaching – An Introduction*, William Littlewood distinguishes between pre-communicative and communicative activities.

By the former, he means that the learner is not engaged in activities where his main purpose is to communicate meanings effectively to a partner, but only to produce certain language forms in an acceptable way.

Through pre-communicative activities, the teacher isolates specific elements of knowledge or skill which compose communicative ability, and provides the learner with opportunities to practise them separately. The learners are thus being trained on the part-skills of communication rather than practising the total skill to be acquired. (...)

These aim above all to provide learners with a fluent command of the linguistic system, without actually requiring them to use this system for communicative purposes. Accordingly, the learners' main purpose is to produce language which is acceptable (i.e. sufficiently accurate or appropriate) rather than to communicate meanings effectively. (Littlewood 1981, p. 85).

In such a case, students are generally prompted to use these forms by the teacher's instructions (such as in a drill). As an alternative, the teacher may design the activity so as to provide an opportunity for learners to produce language that they have recently learned (for example through open or cued dialogues). 'accordingly, the learner's focus was on *language forms to be learnt* than on *meanings to be communicated*'. (Littlewood 1981, p. 16).

These activities can be subcategorised as 'quasi-communicative', because they take account of communicative as well as structural facts about language, in contrast with purely structural activities such as performing mechanical drills or learning verb paradigms.

Nevertheless, this balance of focus between language forms and meanings is a matter of degree, not an all-or-nothing affair.

As far as communicative activities are concerned, their purpose is to allow the learners to use the linguistic repertoire they have learnt in order to communicate specific meanings for specific purposes. (Littlewood, 1981, p. 17).

In communicative activities, the learner has to activate and integrate his pre-communicative knowledge and skills, in order to use them for the communication of meanings. He is therefore now engaged in practising the total skill of communication. (Littlewood, 1981, p. 86).

Here again, Littlewood distinguishes two subcategories, depending on the degree of importance attached to social as well as functional meaning.

In what we have called 'functional communicative', the learner is placed in a situation where he must perform a task by communicating as best he can, with whatever resources available. The criterion for success is practical: how effectively the task is performed. In 'social communicative activities', on the other hand, the learner is also encouraged to take account of the social context in which communication takes place. He is required to go beyond what is necessary for simply 'getting meanings across', in order to develop greater social acceptability in the language he uses. In the first instance, this may simply mean greater grammatical accuracy; later, it may also involve producing speech which is socially appropriate to specific situations and relationships. (Littlewood 1981, p. 86).

2.2 Exemplifications of communicative activities in Littlewood

Reconstructing story-sequences

A picture-strip story (without dialogue) is cut up into its separate pictures. One picture is handed to each member of a group. Without seeing each other's pictures, the learners in the group must decide on the original sequence and reconstruct the story.

There are two levels of language in this activity. The first is the language needed for description and narration. The teacher can exercise some control at this level, through the content of the pictures he selects. The second level is the language needed for discussion. This level is less predictable. However, the teacher can still exercise some control over the general level of difficulty, since this will depend in part on how clearly the pictures signal their original sequence. For example, if one picture shows the sun rising and the others show it overhead, this offers the learners obvious clues to their original sequence. On the other hand, learners may only be able to reconstruct the sequence of some humorous cartoon stories if they understand a subtle point of humour.

The last type of functional communication activity dispenses completely with the need to share information. Learners now have access to all the relevant facts. The stimulus for communication comes from the need to discuss and evaluate these facts, in pairs or groups, in order to solve a problem or reach a decision.

Problem-solving activities need not be based only on everyday situations that arise inside or outside the classroom. The teacher may also present more unusual situations, in order to stimulate the learners' ingenuity.

The communicative activities in chapter 4 of the book follow a general pattern of development. As we progress through the chapter:

- The interaction becomes less controlled by artificial conventions. The activities come to bear greater resemblance to communication situations that the learners might encounter outside the classroom.
- The meanings that learners need to express become less predictable. The teacher therefore has less chance of equipping them with the specific language items that they will need. Also, the learners must draw on a wider range of skills and strategies in order to get new meanings across.
- There is a gradual increase in the range of communicative functions that is likely to occur. Learners also need to develop greater skills for managing the interaction, e.g. signalling disagreement or interrupting without offence.
- There is increasing opportunity for learners to express their own individuality in discussion.

In other words, learners must gradually become more creative with the language they have acquired. This means that in general, as learners become more competent, the teacher will use a greater proportion of the later activity-types. This is not a firm rule, however. First, as we have seen, the level of difficulty can be adjusted *within* each activity-type. Second, the teacher may sometimes place learners in a situation that makes especially heavy demands on their communicative skills, in order to compel them to explore the full potential of their repertoire and develop strategies to compensate for their weaknesses.

Conversation or discussion sessions (as one of the most important communicative activities)

The conversation session is sometimes regarded as a source of relief from more ‘serious’ language work. This should not prevent us from recognising the important functions it can perform in helping to develop communicative ability. For example:

- It opens up a rich stimulus for communicative interaction, namely the varied experiences, interests and opinions of the learners. These may be complemented by written or visual materials which bring further aspects of the outside world into the classroom.
- It thus provides a context for a wide range of communicative functions and domains of meaning. In addition, learners must practice the skills

required for managing longer sessions of social interaction, such as introducing a new topic, turn-taking or sustaining the conversation through difficult periods.

- It provides learners with opportunities to express their own personality and experience through the foreign language. It also gives them the valuable experience in using the language as a means of handling their own social relationships.

Teachers sometimes allow the teacher-learner relationship to dominate the conversation session so strongly that it produces a typical pedagogical form of interaction: the teacher always initiates, the learner only responds. This greatly limits the communicative functions that learners need to use and the interactional skills they need to practise. If the conversation session is to perform its proper role as social interaction activity, the teacher must perform as ‘co-communicator’ rather than ‘director’. He may guide and stimulate, but not take away the learners’ responsibility as equal participants in the interaction. He must also restrain any urge to intervene at every hesitation or false start. These are inevitable when learners are seeking ways of expressing meanings which they may never before have encountered in the foreign language.

The dangers of excessive teacher domination may often be reduced by introducing more informal seating arrangements. When the teacher faces the whole class, his position reinforces his authority as ‘knower’. A more informal layout, for example in a circle, can help greatly to reinforce the learners’ equality as co-communicators. The teacher may also decide to divide a class into independent groups, as in the problem –solving activities. He must then provide materials or instructions that are capable of sustaining the interaction without his presence. For example, he may require each group to formulate its opinions on a number of concrete points, before reporting back to the whole class for a period of ‘plenary’ discussion.

3. The teacher’s role in communicative activities

Littlewood (1981) assumes that the teacher has no direct role in communication:

- If learners find themselves unable to cope with the demands of a situation, the teacher can offer advice or provide necessary language items if pupils cannot agree on any point, he can resolve the disagreement. In other words, he is available as a source of guidance and help. His presence in this capacity may be an important psychological support for many learners, especially for those who are slow to develop independence.

- While learners are performing, the teacher can monitor their strengths and weaknesses. Even though he may not intervene at the time, he can use weaknesses as signs of learning needs which he must cater for later, probably through more controlled, pre-communicative activities, such as those discussed in chapter 2. In this way, he can maintain a constant link between pre-communicative and communicative activities in the course, each type reinforcing and providing input to the other.
- There may be occasions when the teacher decides to exercise a more immediate influence over the languages used. Most obviously, he may need to discourage learners from resorting to their mother tongue in moments of difficulty. He may also decide that a particular error is so important that he must correct it at once, to prevent it from becoming fixed in the learners' speech. (Littlewood 1981, p. 19).

An initial step towards enabling richer patterns of communication to develop is to reduce the conventions that restrict the co-operation (and therefore the interaction) between learners. (Littlewood 1981, p. 29).

4. The learner's role in communicative activities

In many of the communicative activities, the teacher creates a situation and sets an activity in motion, but it is the learners themselves who are responsible for conducting the interaction to its conclusion. Often, there will be several groups or pairs performing simultaneously, without the teacher's continuous supervision. For many groups of learners, the responsibility will be unfamiliar at first too sudden a transition to undirected activity may therefore create difficulties and tensions which could undermine their confidence, both in themselves and in the teaching methods being used. The teacher needs to bear this factor in mind and be prepared to wean learners gradually from dependence on his own control (to create a bridge between controlled and uncontrolled language use).

Many of the activities in the fourth section of *Communicative Language teaching* provide the teacher with a convenient bridge between pre-communicative and communicative language use: learners are engaged in communicating meanings for a purpose, but they are not yet made to dispense entirely with the 'structural crutches' provided by the teacher. Looking at it from the other direction: learners can be made to practise specific linguistic forms, but move one step further in their ability to use these forms for communicative purposes.

An important price paid for these advantages is that the interaction is still tightly controlled by artificial conventions and consists largely of rigid question-and-answer sequences.

5. Motivation

The learners' ultimate objective is to take part in communication with others. Their motivation to learn is more likely to be sustained if they can see how their classroom learning is related to this objective and helps them to achieve it with increasing success.

Also, most learners' prior conception of language is as a means of communication rather than as a structural system. Their learning is more likely to make sense to them if it can build on this conception rather than contradict it.

Language learning takes place inside the learner and, as teachers know to their frequent frustration, many aspects of it are beyond their pedagogical control.

Communicative activity provides opportunities for positive personal relationships to develop among learners and between learners and teacher. These relationships can help to 'humanise' the classroom and to create an environment that supports the individual in his effort to learn.

6. The classroom as a learning environment

The classroom is often called an artificial environment for learning and using a foreign language. If we take as our yardstick for what is 'real' the situations outside the classroom for which learners are being prepared, this is undoubtedly the case. However, we should not forget that the classroom is also a real social context in its own right, where learners and teacher enter into equally real social relationships with each other. It is true that language teaching aims to equip learners for different contexts.

It is undeniable, though, that the artificiality component cannot be fully dismissed within the educational context as formal assessment is still part of the process. As Phyllis Blumberg (2017) notices, educational development goes hand in hand with evaluation, which may place some limitations on communicative approaches to a certain extent.

As Tessa Woodward sensibly emphasizes, both internal and external variables in class structures determine a significant amount of the input employed in setting up teaching activities that are bound to benefit the members of the socio-economic community that is targeted by the foreign language courses in general and in particular. (Woodward 2001, pp. 212-241).

A parallel can be drawn to D.B Edwards' account of the way community influences the strengths and weaknesses of approaching the learning process communicatively, with a view to developing the skills required by various working environments. (Edwards 2019).

7. Using the foreign language for classroom management

7.1 'Teaching English through English'. What exactly does it mean?

Teaching English through English means speaking and using English in the classroom as often as possible (for example when organising teaching activities or chatting to the students socially). In other words, it means establishing English as the main language of communication between the students and the teacher; the students must know that it does not matter if they make mistakes when they are talking, or if they fail to understand every word the teacher says. They must recognise that if they want to be able to use their English at the end of their course. At the early stages it may be difficult both for the teacher and for the students, so a lot of praise and encouragement will be needed and correction of mistakes should be kept to a minimum or the students will lose confidence and give up. Ideally, correction should occur during the presentation and practice stages of the lesson, if they are getting the main teaching point wrong.

Jane Willis (1993), for instance, claims that the main aim of language learning is to *communicate* in that language and if you understand what a student says despite his mistakes, then they have communicated successfully. Encouraged by their success, they will try again, gain more practice, and their mistakes will gradually disappear. Students will not want to practise if they are afraid of making mistakes which result in interruption and corrections then they may never learn how to communicate in English.

She also gives suggestions about how to grade the English items in the classroom environment,

You can make it easier for your elementary students if you introduce your classroom language slowly. With students who have learnt some English before, it is a good idea to try at first to keep mainly to the vocabulary and structures they have already covered in their previous work. When they have got used to hearing and understanding these, and perhaps using some of them for themselves, you can introduce other useful phrases. You can also introduce items that you will be teaching them soon, so that they will be familiar with the 'new' item when you come to teach it. (Willis 1993, p. xiv).

7.2 Language for classroom management used in the communicative approach

This approach involves exploiting of language learning not only the planned activities, but also the classroom management that revolves around them. The lesson has to be begun and ended, individual activities have to be organised, practical problems arise, and so on. This provides a rich source of communicative needs in the foreign language classroom.

Ruth Wajnryb uses the term *meta-language* to express the language a teacher uses to allow the various classroom processes to happen, that is, the language of organising the classroom. This includes the teacher's explanations, response to questions, instructions, giving of praise, correction, collection of homework, etc.

While a general aim of the classroom is to minimise teacher talking time (TTT) so as to encourage student talking time (STT), metalanguage itself is an important source of learning because it is genuinely communicative. For example, when a teacher praises a student or asks for another one to be quiet, or sets up a task, the language used is genuinely contextualised, purposeful and communicative, and therefore potentially rich source of input. (Wajnryb, 1992, p. 51).

Many teachers use the learners' mother tongue in this aspect of their work. This may often be a necessary decision, in the interests of organising the lessons clearly and efficiently. However, it also means sacrificing valuable opportunities for well-motivated foreign language use. In addition, it tends to devalue the foreign language as a vehicle for communication: learners see it as allocated to communicatively non-essential domains such as drills or dialogue practice, while the mother tongue remains the appropriate medium for discussing matters of immediate importance. Many learners are likely to remain unconvinced by our attempts to make them accept the foreign language as an effective means of satisfying their communicative needs, if we abandon it ourselves as soon as such needs arise in the immediate classroom situation.

Conclusion

Typical demands in most competitive contemporary working environments do not allow much time for acquiring a new language of communication in case the mother tongue is not the one used at organizational level. It is therefore important to provide learners as soon as possible with the language needed for routine classroom affairs, in order to establish the foreign language

as the medium for organising learning activities. By applying this, second language acquisition time decreases, leading to an alert and efficient pace at which the learning process unfolds. Thus, current requirements seem to be most proficiently fulfilled by employing communicative techniques in the modern process of language acquisition. Bearing on Woodward's claim, we are many times prone to regarding the variables of our classes as constraints in achieving the planning of an efficient lesson. Taking these factors into proper consideration, the key to the communicative approach is to turn all these variables to the advantage of the students themselves with a view to training them properly for their future workplaces.

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ENTREPRENEURSHIP THE PILLAR OF SUSTAINABLE DEVELOPMENT OF THE ROMANIAN COMPANIES

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Abstract: *Supporting entrepreneurship development within the SME sector is a priority at both European Union and national level, as this category can contribute to the sustainable development of the economic sector both economically, financially and especially socially. The number of SMEs at both national and European level is very high, i.e. over 90% of the number of economic agents. Encouraging SMEs through financial and fiscal measures and financial incentives to boost entrepreneurship can contribute to a more dynamic and flexible economy, with the role of SMEs being larger than large companies, which are considered to be the backbone of any modern economies. Moreover, as the family is the basic cell of society, we believe that SMEs are the basic cell of the economy. Through this paper, we aim to make an entrepreneurial radiography among SMEs in Romania, especially in the current European context.*

Keywords: *entrepreneurship, sustainability, SMEs*

JEL Classification: *L26, Q01, D26*

Introduction

Entrepreneurial culture plays an important role in the development of entrepreneurial activity, and Romania is excellent in this respect, with a

developed social capital and a positive attitude towards entrepreneurship. Romanian entrepreneurs are optimistic about the future of the business and the industry, expecting positive developments. This trend is similar to the one globally surveyed by Deloitte Private (2018).

The development of a business environment based on competitiveness and entrepreneurial spirit to cope with the competition on the internal market of the European Union and outside the European Union must represent the policy of any Government of Romania.

This type of policy should be centered on strengthening the central dialogue at all levels in order to increase its contribution to economic and social development and to implement an integrated and transparent strategy of capitalizing all factors which have an impact on the ability of companies in ROMANIA to compete on the single market and outside the EU, supporting SMEs to become competitive to prevent and limit the expansion of anti-competitive policies, to stimulate the capital market with fair and transparent rules. Any government should allocate 1% of GDP by 2020 to support SMEs.

In ROMANIA, the state's current SME policy is a mix of contrasting issues, given that relatively large amounts of money are invested annually, but there is no consensus on results, given that it still identifies some problems in terms of growth given by SMEs because the state does not always encourage it through SME policies.

The problems identified are numerous. These include: lack of entrepreneurial culture (not only among young people), hard access to funds for SMEs, fiscal instability, which gives a lack of predictability of the Romanian economy, poor access to auctions for public procurement, excessive bureaucracy. For this reason, there are 2.2 SMEs per hundreds of people in Romania, which represents half of the European average of 4.5.

Research methodology

The methodology of the paper will have 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 different journals, relevant books in the field of reference, legislation, analyzes and studies, official documents of various tax bodies, tax documents and interactive database of the Ministry of Business, Commerce and Entrepreneurship and other relevant sources identified at the libraries: National

and International Library, INS, etc. Moreover, in the methodology we will analyze the documents using the comparative, analytical, descriptive method, non-participative and participatory observation, the use of a set of informational sources, the collection of financial data in the established databases. Also, the paper will be based on annual reports, publications, consolidated statistical data provided by the World Bank, CGAP, CFI, the European Commission, OECD, published annually, data to be processed in order to be able to provide a general and analytical picture of the most important changes taking place in the globally - considered representative for the understanding of the phenomena studied about entrepreneurship (Manta 2019).

Research results

In Romania, microenterprises support less than 60% of GDP and the EU average exceeds 70% of GDP (OECD 2018). In 2009, a simplification of administrative procedures was initiated in ROMANIA in partnership with the OECD. Withal, important steps have been taken to support SMEs by adopting in 2010 the Small Business Act (European Commission (2013), which is the framework for SME support policies.

Another measure of support for young beginners was the Startup law, which later became the Start-up Nation designed to sustain financially newly established businesses (Law 133/1999). Supporting the development of the small and medium-sized enterprises (SME) sector is a priority at both European Union and national level, as this extremely large category of economic agents, more dynamic and flexible than large companies, is the backbone of any economy modern.

In the struggle for market survival, the effective management of own financial resources and the attraction of external funds at affordable costs prove to be, together with the innovation activity of the products and services offered to the market, really decisive factors that entrepreneurs are obliged to keep account. In Romania, 99% of companies are SMEs, which produce 60% of GDP and employ 60% of the workforce.

Considering the disastrous situation in 2016 regarding the absorption rate and the number of projects submitted, the Government proposes to accelerate the spending rate of European funds to reach a rate of 72.5% until 31 December 2020 and 100% up on December 31, 2023. Romania has the chance to create more jobs and bring more resources to the state budget. At the same time, statistics show that young graduates find a job with a lot of difficulty, lack of cash resources preventing them from starting business. The legal framework for the emergence

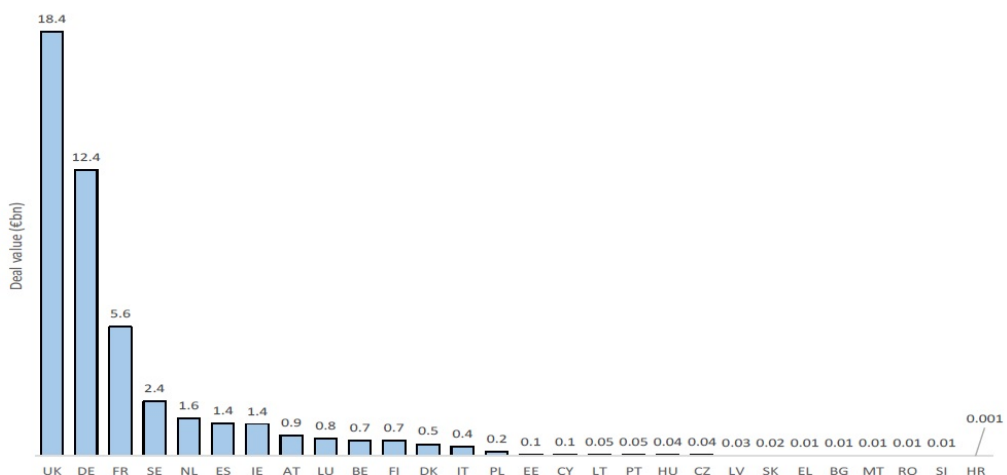
and development of small and medium enterprises in Romania is represented by the following normative acts:

- a) Law no. 31/1990 on societies, republished, as subsequently amended and supplemented;
- b) Law no. 346/2004 on the stimulation of the establishment and development of small and medium enterprises, with subsequent amendments and completions;
- c) H.G. no. 859 of 7 October 2014 on the approval of the Governmental Strategy for Small and Medium Enterprises Development and the Improvement of the Romanian Business Environment - Horizon 2020.

Stimulating the general framework for setting up new businesses is a necessity to ensure the growth of the number of active enterprises on the market and to increase the number of jobs. However, public policies need to adjust at a faster pace and take a number of quick steps to regain confidence and economic stability.

Prior to the Start Up Nation, in order to support SME lending, the SME loan guarantee fund, which gives the bank a new comfort by assuming a percentage risk of loans made by SMEs, and the counterpart fund -guarantee of SME loans were set up. Mandatory government measures also require permanent capitalization of these funds (Law 133/1999).

Figure 1. Aggregate value of venture capital deals in EU-28 Member States for years 2015-2017

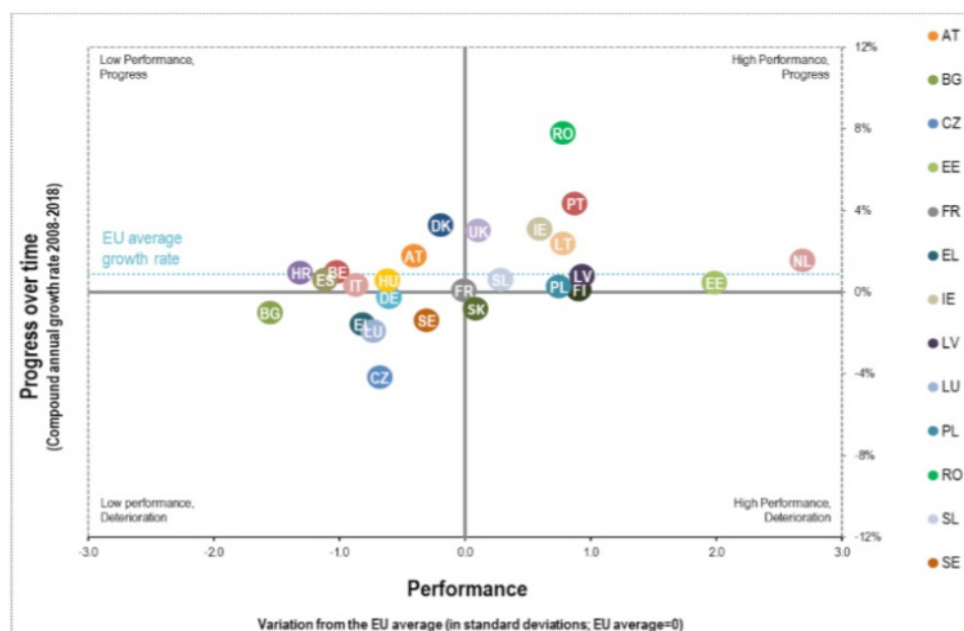


Source: European Commission (n.d.) Eurostat 2018

In Romania, 7/10 SMEs self-finance which means the reduction of the expenses they make for competitiveness. Regarding the financing of startups from venture capital funds, the most recent data of the European statistics are for the period 2015-2017 (European Commission n.d.). In Romania, venture capital funding was only 10 million euros for startups. We must not ignore the Maastricht Treaty (1992) which refers to economic competitiveness as one of the obligations we have to meet for joining the Eurozone, and which we find in the EU 2020 strategy for 2020, which refers to a smart, competitive and inclusive economy.

The 2009 crisis has succeeded to make those with a certain entrepreneurial culture stand on other stronger business principles so they remain competitive and resist the market. There is indeed a dynamic of SMEs, while some disappear from the market, others appear. According to Zamfir (2018) in the last 12 months, in terms of entrepreneurial activity, Romania is on the 6th place, on the same footing as Lithuania, among the 28 EU member states. The top places are the Netherlands, Estonia and Latvia, and the last three places are Spain, Croatia and Bulgaria.

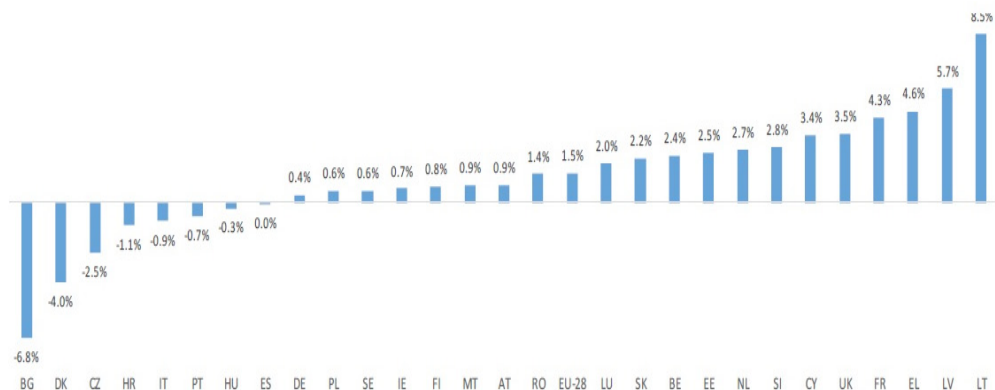
Figure 2. Positioning of each EU-28 Member State in terms of their performance and progress over time for entrepreneurship for the years 2008-2018



Source: European Commission (n.d.) Eurostat 2018

The merit of Romanian entrepreneurs is all the greater if we take into account that the Romanian state, through its administration, has rather put roots in small businesses through the changing tax system. Romania dropped to Doing Business 2019 in position 52 in 190 countries after the World Bank rankings in the 2018 edition when it was on the 45th position. A steep fall we suffered in the parameters that measure the ease with which a business can start: 111th place now, versus 64, last year. „Romania has started a more complicated business by introducing risk analysis criteria for VAT registration companies, increasing the time it takes to register as a VAT payer,” notes the Doing Business 2019 report recently released by the World Bank. However, we take the penultimate place at European level in terms of sustainability of entrepreneurial initiatives: more than half of the newly established companies fail to survive the critical period of 42 months (they close or suspend their activity).

Figure 3. Average net enterprise birth rates (birth rate minus death rate) for the years 2012-2015



Source: Eurostat 2018 (Annual Report on European SMEs 2017/2018)

The business environment does not have a political color, the measures taken to boost the business environment can be proposed by left-wing or right-wing politicians who are part of the government, but these measures are designed to support the development of a sustainable economy and a predictable business environment.

Another fact worth mentioning is that Romania ranks 29th out of 57 in terms of creating a business environment that supports women's entrepreneurship. We therefore confirm that the current regulatory framework

and entrepreneurship support programs seem to disregard the specific needs of women in general and specifically female entrepreneurs.

More than half of Romania's population is female, an „emerging market” with a high potential for competence, ambition and ingenuity. But today only one in two women is officially employed. The unemployment rate is, however, lower than that of men. Although females enrolled in university education are the majority, women are more numerous among low-income earners and are active in lower-paid jobs. The gender pay gap has halved in the last decade in Romania, but continues to be very pronounced in some areas of the country.

Romania has the third lowest employment rate among women in the European Union, according to data published by the World Bank. In fact, only one in two women have a job, while in Sweden, the highest ranked, 8 out of 10 women have a job. The largest gender discrepancy is among employers/entrepreneurs: the number of women is 2.6 times lower than that of men in Romania.

Table 1 - Personal interpretation of the statistics on employment and activity for males and females aged between 20 and 64 years for the years 2012-2017

Time		2012	2013	2014	2015	2016	2017
Geo							
European Union Female		105.879	106.526	107.110	107.352	107.998	108.520
European Union - Male		124.887	124.898	125.036	125.233	125.723	126.056
Romania - Female		3.797	3.763	3.775	3.705	3.645	3.733
Romania - Male		4.928	4.947	4.987	5.014	4.924	4.956

Source: Eurochamber (September 2012) Eurostat, 2018

To the question „How can women contribute to economic development?” Andreea Paul (2018), Ph.D., economics lecturer at the Faculty of International Economic Relations of the Bucharest Academy of Economic Studies, answers: “Romania can achieve a 11% increase in GDP by 2025 by reducing gender imbalances in society to the best European practices. That means another 30 billion euros in GDP by 2025. My estimates have taken into account the GDP forecasts under the standard economic growth conditions, to which we applied the McKinsey methodology proposed in the September 2015 report on this subject. The potential additional economic growth of € 30 billion is equivalent to a plus of € 1,500 to GDP per capita in Romania in 2025, which

can be achieved through a balanced gender policy in the economy, politics and society, at standards the highest Europeans.”

Conclusion

To summarize, there is a visible growth for the entrepreneurial segment in Romania, but this can be noted to be just a start of an entrepreneurial consolidation in Romania. There are many aspects which are yet to be improved.

First point of action would be for Romania to implement a concrete program of entrepreneurial education. 23% of Romanians say they have participated in at least one entrepreneurial education program, the percentage being equal to the one registered in the European Union. However, they are dissatisfied with the quality of entrepreneurial education they have received and believe that they are supported by people who are not related to the entrepreneurial environment. The lack of a connection between school and the business environment is the main problem of entrepreneurial education in Romania, and its solution lies at the basis of improving the low level of sustainability of newly established companies.

Another big problem of the Romanian entrepreneurial ecosystem is the lack of access to finance. Fears about the insufficiency of funds are added to those related to the inability to repay the debts. These problems diminish with the elderly, when entrepreneurs realize that there are many financing options available in Romania and abroad.

Gender impact should also be mention. In my opinion, the record of the speed of political modernization in Romania can be achieved by introducing gender quotas. And the record of jump in economic length can be achieved by reducing gender gaps.

Economic stability at both macro and micro levels has the same fundamental elements, which, given the interdependence between the two environments on the local and global entrepreneurial market, is a natural and direct consequence of functionality. Entrepreneurial financial instability as a risky financial stability event is also based on macro-and micro-based common elements; In addition, the two types of entrepreneurial financial instability influence each other, starting from the least disturbances of the stability state. In the opposite direction, the entrepreneurial financial stability of the two environments is a necessary objective for the evolution of the local and global entrepreneurs market. In addition, as an important part of the entrepreneurial organizational culture, the general and main objectives should be understood

as being common to the two environments, and the specific objectives should be introduced, on a reciprocal basis, into the equations of the entrepreneurial administrative models of the two environments (Manta 2019).

The paper attempts to capture these aspects of the types of entrepreneurship developed locally at present, without neglecting other visions, when appropriate. Moreover, the paper captures aspects of international practice based on the views of the great scientific personalities of our century that have approached the phenomenon of entrepreneurship at the local and global level, namely the globalization of entrepreneurs' markets, as well as personal entrepreneurial experience with a direct impact on the sustainable development of small entrepreneurs and their businesses at local, national, European and global level (Manta 2019).

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EVOLUTION OF THE POPULATION IN THE DANUBE DELTA REGION

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Abstract: *The population of the Delta has always been sparse, the semi-aquatic environment has resulted a density about of 5 inhabitants / km². In summer, the influx of tourists triple the population. The population counts 14,583 inhabitants, of which 12,666 Romanians (87%), 1438 Lipovans (10%), 299 different Ukrainians (1%). These populations have mixed up, as evidenced by the vocabulary of the spoken languages in the delta, especially the fishery terms. The population of the Danube Delta has experienced massive declines in population since 1990, which were much higher than those recorded in the country. The paper reviews the advantages and disadvantages of some population forecasting models.*

Keywords: *population forecast, forecast models*

JEL Classification: *J1, J16, J19*

The Danube Delta (InfoDelta 2016) is a reservation with a special character due to the presence on its territory of 32 localities, of which 25 are located within the reserve, which have a population of about 27,000 inhabitants. Over 20% of the population in the Danube Delta Biosphere Reserve is found in the only locality with Sulina city status.

The active population of the reserve represents 35.3% of the total, with an occupancy of approximately 81.4% distributed differentially by activities:

- agriculture and forestry (29%)
- industry, construction, trade, services (15.7%))
- tourism, transport, communications (15.4%)
- fishing and fish farming (15.3
- public administration (13.5%)

- education, education, culture (5.7%)
- other activities (3.6%)
- Health (1.9%)

In addition to Sulina city, the other localities are included in 7 communes located on the territory of the reservation (Ceatalchioi, Pardina, Chilia Veche, CA Rosetti, Crisan, Maliuc and Sfantu Gheorghe); 3 localities located on the territory of RBDD but belonging to neighboring communes (Bestepe with Lower Baltenii, Nufaru with Ilganii de Jos and Murghioli with Uzlina) and 7 settlements located on the territory of Constanta county (Table no. 1).

The localities of the Danube Delta Biosphere are mostly concentrated along the Danube's arms and occupy low land areas due to the small areas of existing non-inundated land. The population density is about 3.5 inhabitants / sq km, relative to the continental surface of the reserve.

Table 1. Evolution of the Danube Delta population (number of inhabitants)

No.	Town	2009	2010	2012
1.	T.Vladimirescu	380	383	385
2.	Sulina	4391	4420	4350
3.	Ceatalchioi	394	375	412
4.	Plauru	94	96	89
5.	Salceni	78	77	105
6.	Patlageanca	259	204	227
7.	Chilia Veche	2496	2595	2232
8.	Pardina	712	691	682
9.	C.A.Rosetti	320	295	225
10.	Sfistofc	315	312	110
11.	Letea	425	404	362
12.	Cardon	25	27	16
13.	Periprava	152	141	240
14.	Crisan	480	485	470
15.	Mila 23	495	492	460
16.	Caraorman	430	435	320
17.	Maliuc	294	286	236
18.	Partizani	475	428	364
19.	Gorgova	142	158	142
20.	Vulturu	70	81	45
21.	Ilganii de Sus	62	89	53
22.	Baltenii de Jos	92	89	82
23.	Ilganii de Jos	160	158	167

No.	Town	2009	2010	2012
24.	Uzlina	3	2	4
25.	SF.Gheorghe	950	860	860
	Total	13694	13583	12638

Sursa: InfoDelta.ro. (2016)

In recent years, the perimeter of the Danube Delta Reservation has established a development of residential areas in Crisan, Mila 23, Sfântu-Gheorghe, Sulina. Construction of residential areas continues, but requires firm action from local councils as well as from all responsible institutions, as follows:

- Improvement and development of transport, telecommunication and energy infrastructure;
- Developing and improving public services;
- Environmental protection and sustainable development;
- Tourism development;
- Economic development;
- Developing human resources, increasing the employment rate;
- Attracting new investments and increasing access to resources.

The official count of all the inhabitants of the county shows a massive decrease of the population in the entire county. A special situation is the localities of the Danube Delta, there are communes in which several hundred inhabitants live.

If it was previously known that there are 752 locals in Ceatalchoi, it is estimated that only 503 people live in the four villages of the commune: Ceatalchioii, Pătlăgeanca, Plaur and Sălceni. A similar situation is recorded in the commune Sfântu Gheorghe where there are only 767 of the 971 inhabitants. And in Maliuc there is the same situation: out of 1060 inhabitants, in the five component villages (Maliuc, Gorgova, Vultur, Iganii Up and Partizani) there are only 851 local residents. Two other communes in the Delta remained with less than 1,000 inhabitants: C.A. Rosetti, which reached 955 locals (from 1,179 in 2002) and Pardina, which remained with 545 locals (from 712). Also, Ostrov has 545 locals (from 2,244). Sulina, the city with 3,000 inhabitants A drastic decrease of the population is registered in the only city in the Danube Delta. The most cosmopolitan city has reached today only 3,903 inhabitants.

Advantages and Disadvantages in the Use of Population Forecasting Models

In the process of modelling have been a number of approximations: approximation functional (approximating functions involved in functions as simple, such as linear) approximation distribution (approximate probability

distributions of system components actual distributions classic often normal or exponential), approximate independence (real consideration of system components as independent random variables), approximate aggregation (more similar objects of one).

The study demographic phenomena and processes necessary knowledge is subordinated to the number and geographic distribution of the population, its structure by different features of the evolution of these structures as factors that determine the population status changes over time. Of the population growth patterns can include a range of models from the simple to the intricate. A review of the most significant is presented briefly below. The models are divided into two groups:

1. global forecasting models of population
2. predictive models of population structure

Global Forecasting Models of Population

Design models (Sora, Hristache & Mihăescu 1996) are models that global population projected total population without structures information. These are used to determine the total effective population perspective; we differentiate by gender, age or other characteristics.

Using this method is usually in estimating future population based on extrapolation. To do this, first determine the trend of population development over a certain period in the past by adjusting the data series extends this trend in the future for different horizons design.

a) Average annual growth rate method

$$S = \frac{P_1 - P_0}{n - 1}, \text{ where:}$$

P_1 = population in the year of forecast

P_0 = population a year before the calculation

n = number of years witch separated P_0 to P_1 .

Number of population for each year of the forecast period is determined by adding the number of population since the calculation of average annual growth many times, how many years separated mementos future of computing time:

$$P_t = P_1 + n \cdot S, \text{ where:}$$

P_t = population at time t witch to be projected

P_1 = population in the year of forecast

n = separating a number of years P_t to P_1 .

The method can be used provided that, following the analysis of population trends from the previous period and studying the fate of the natural movement of population perspective it is concluded that the population will increase in arithmetic progression, the natural growth of its remaining constant for all period. Based on data on population trends in a previous period 5-10 years establishes annual average population growth.

This method applies to the design short-term as well as medium and long-term projections. Most effective in the short term but has since changes in the population is relatively constant over the short time period. Another drawback is the fact that this method does not present any information on the structure of the total number of the population or on the evolution of the aging population.

b) The average annual rate method

$$R = \sqrt[n]{\frac{P_1}{P_0}}, \text{ where:}$$

P_1 = population in the year of forecast

P_0 = population a year before the calculation

n = the number of years separating P_0 and P_1 .

Population projection is calculated using the formula:

$$P_t = P_1 \cdot R^n \text{ where:}$$

P_t = population at time t witch to be projected

P_1 = population in the year of forecast

n = number of years which separating P_t to P_1 .

This method is relatively similar to that of before, the only difference being that if the average annual increase of the population requires a linear increase, the average annual growth is associated with an exponential equation.

This method is used with good results on relatively small period of time and requires a good knowledge of the earlier development of the population. As with the previous method that does not present any information on the structure of the total number of the population or on the evolution of the aging population.

c) Design methods population trend based on mathematical functions

If population linear function is determined by the relationship:

$$P = a + b \cdot t$$

If the exponential function:

$$P = a \cdot b^t,$$

If population parabolic function is determined by the relationship

$P = a \cdot t^2 + b \cdot t + c$, where the parameters a , b , c are determined by the least squares method.

From the methodological point of view is done in a similar manner to the case of using the two previous methods. It examines the graphic evolution of the population in the previous period and is determined by the trend that best matches the number of actual population likely to be linear function, exponential function, parabolic function, etc.

Predictive Models of Population Structure

Methods provide more information on the population structure and evolution of the degree of demographic aging.

a) Method of components

Population is determined by the relationship:

$$P_{t+1} = \sum_{15}^{49} F_x \cdot f_x + P_0 \cdot s_0 + P_1 \cdot s_1 + \dots + P_{100} \cdot s_{100}, \text{ where}$$

P_{t+1} = population in the year following the reference

F_x = age female population x (x ranging from 15 to 49 years)

f_x = fertility rate for age x

P_0 = population aged 0 years in the reference year

s_0 = survival rate (probability of reaching age population aged 0 to 1)

P_1 = population aged 1 year in reference

s_1 = survival rate (the probability that people age 1 to reach age 2)

.....

P_{100} = population aged 100 years in the reference year

s_{100} = survival rate (probability-age population to reach age 101)

Components method is one method which gives a forecast of population by age. The method involves two stages: the first is to determine the number of survivors at each age, in other words the probability that the number of people shed x reaches an age $x + 1$; and the second is to determine the number of născuți live in t .

To calculate the population P_{t+2} and so on, the same formula using age population projected for the previous year and considering that the survival and fertility rates remain constant over time. Fertility rates of mortality that are contingent on each individual age mortality tables that fertility.

b) Stochastic and deterministic models for forecasting population

$\min f(x)$

referring to:

$$g(x) = 0 \quad g(x) = 0$$

$$h(x) \geq 0 \quad (1,c)$$

$$l \leq x \leq u \quad (1,d)$$

where $f: R^n \rightarrow R$ the objective function and restrictions model functions

$g: R^n \rightarrow R^m$ and $h: R^n \rightarrow R^p$ is explained here as equalities and inequalities. l and u vectors defined restrictions on variables single borders. Such optimization model is called mathematical programming problem.

A dynamic optimization model in its general form, may be in the form of:

$$\min_{t_0} \varphi(x(t_f), t_f) + \int_{t_0}^{t_f} \Phi(x(t), u(t), t) dt$$

referring to:

$$g(x(t), u(t), t) = 0,$$

$$h(x(t), u(t), t) \geq 0,$$

$$a(t) \leq x(t) \leq b(t),$$

$$c(t) \leq u(t) \leq d(t),$$

$$t \in [t_0, t_f].$$

One issue that should be considered is linearity optimization models. Since optimization problems are very complex, involving thousands or tens of thousands of variables and constraints, mathematical problem solving

these problems is extremely difficult. Therefore, modelists introduce some simplifications. One of the most common is the assumption that relations are linear optimization model. From the mathematical point of view, the linearity is very convenient. The most popular question of mathematical programming is linear programming, which has applications in virtually all areas of operation and known algorithms for solving polynomial. However, in reality, the linearity is very little present. This led to the development of nonlinear optimization methods, a very active area with remarkable results.

Often optimization models contain very complex algebraic expressions, which depend on a number of parameters, known as exogenous variables. Parameters values are specified and input into the model. The parameter values may be derived from other models or may be generated from the mental model of the modeler. The problem is very important to the accuracy of the parameters, their more accurate uncertainty has led to optimization of parameters, a stochastic optimization study dependence of parameters solutions, the introduction of the calculation interval, etc.

Finally, we note that often optimization models do not consider the so-called variable delay argument. Optimization models, especially dynamic optimization, containing variables are intractable and still do not have a theory stating optimality conditions. Delays in complex systems are important because they are a major source of instability.

Known many types of mathematical models and they can be classified in many ways. Models can be: static or dynamic, linear or nonlinear, deterministic or stochastic, etc. But one of the most profound mathematical models classification divides the optimizing and simulating. The distinction between the two classes of mathematical models is important because, on the one hand, fundamentally, they have different purposes and then, on the other hand, each based on other mathematical concepts.

Any optimization model has three components: the objective function, decision variables and constraints. The objective function defines the purpose or objective model. Obviously an optimization model can contain multiple objective functions. The objective function acts as a yardstick against which to do optimization. Decision variables are quantities that should we choose to optimize the objective function. We must make a distinction between the variables of the problem and its parameters. The model optimization parameters mean those sizes that define the model as an independent entity in the surrounding reality. Parameters have certain numerical values, well-defined and known. The decision variables are the unknown model. They can fit the model into various classes of models as values they can take. Such

known models with varying real numbers, integers or Boolean variables are expressed as the corresponding crowds. Restrictions mathematical model is those relationships that constrain choice decision variables. Usually such an optimization model is given in the form of restrictions can be: static or dynamic, linear or nonlinear, deterministic or stochastic, etc. An optimization model considers three components in input and output generates the optimal decision variables, and the optimum value of the objective.

Most optimization models have limitations that must be known by those who use it. The first difficulty lies in the fact that an optimization model is, in a sense, rigid.

c) Model dynamic of population forecast

The dynamic model prediction of the population (IDMS) shows changes in the population as having a cumulative growth rate, after a number of intervals, equal to the product of long-term growth rate associated with each of these ranges.

This model focuses on the idea that the net birth rate is showing a sequence population projection matrix (Leslie). Leslie matrix elements of content they represent Net reproduction rate and the age at which women decide to have a child. In IDMS, the path of birth sequences generated by Leslie matrix can be analytically based.

A solution was offered explicit bowing at two rates in a population with two reproductive age. (Schoen and Kim 1994), but most cycles that characterize populations are too complex and are on a direct algebraic solution. One of the models end to forecast population it is the Lotka model representing central model in math demographic. It assumes that a stable society while not lead to significant changes in terms of age-specific birth and mortality this leading to an exponential increase in birth and age structure unchanged (cf. Lotka 1939; Keyfitz 1968)

1970 model is extended to the case multistadiu, that is considered more of a state and took into account the movements of these. (Land and Rogers 1982; Rogers 1975 Schoen 1988). They concluded the fixed rates can no longer be current. In our world characterized by rapid changes and fluctuations uncertain long-term, fixed rate option is unrealistic and uncertain term

As it reached dinasmic need to develop a model that takes into account that vital rates (birth, death) change over time. In a pioneering work, Coal (1972) investigated the dynamic nature of rates, which affects them and found an approximate relationship between exchange rates and birth sequence is generated later. Lee (1974) considers dynamic in terms of population, external

constraints. Kim (1987) makes a discrete analysis of the model and finds an algebraic solution linking them to the sequence of the rate of birth. However the solution was too complex to get its final shape. Cyclicity stable population studied and (Tuljapurkar 1990; Caswell 2001).

d) The Malthusian model

$$Y = f(K, P) \cdot G$$

Y = total product

P = total population

K = total productive capital

G = product multiplier which takes account of technical progress

Where f a homogeneous degree 1 and K and (in the absence of scale effect) and convex in K and P (relative increase f in K or P). It remains to define the evolution of K , P and G from one period to another

For the capital, the variation is simply represented by the invested savings balance (with a saving rate constant) and the redemption of the:

$$K' = uY - vK$$

The population is expected to grow independently of the economic situation, with the rate determined as follows:

$$\frac{P'}{P} = r$$

In more simple models such as the Solow, is initially ignore technical progress ($G = 1$). The three foregoing equations

can be therefore calculating the logarithmic derivatives $\frac{K}{P}$:

$$\frac{\left(\frac{K}{P}\right)'}{\left(\frac{K}{P}\right)} = \frac{K'}{K} - \frac{P'}{P} = \frac{u \cdot f(K, P)}{K - v - r}$$

Since, by definition, $f(K, P)$ increase much less quickly than K , the second element is canceled for certain values of $\frac{K}{P}$.. In these conditions the

derivative of $\frac{K}{P}$ becomes zero and we had a puncture stable equilibrium K which will increase at the same rate r as P well f . In the absence of technical progress, production is mainly responsible for the stagnation of the first people who would otherwise increase exponentially.

For the situation to improve obligatory need to register technical progress. In nine Solow's model, it is assumed that we have an exponential function of time rate s :

$$G = e \cdot st$$

$$\text{and } Y = F(K, P) e \cdot st$$

The model is based on two fundamental principles that seem to guide after Malthus population trends: the first could be that food is essential to human existence and the second that fertility stems from the passion that ties the two sexes and remains now a necessity for perpetuating the species.

The two principles have been modeled in a mathematical expression that leads to the result that the population grows in geometric expression if it is not hampered by random factors.

On the other indicators subsistence increases only in arithmetical progression. As will be shown later first condition can turn into an increase in arithmetic when population exceeds subsistence level. The model assumes that a given country livelihoods are sufficient to meet the needs of citizens

The Malthus saw along Timpu radical changes that led to a whole series of new models adapted to the new realities.

The total production tends to become proportional to strong population growth which is not the case in the Malthusian model for which production progress is endogenous. In order to reduce this issue has become customary to put a relationship between technical progress and the median income changes.

e) Models to analyze the impact of environmental change and globalization on demographic trends

The model contains several blocks, namely:

- *production unit*

Comprising three production sectors: industry intensive resources (producing final goods), consumer non-intensive resources (services) and mining (and intermediate goods).

- *investment block*

The share of total GDP of the country to investment depends positively on GDP per capita relative to GDP per capita initially in developed countries (as a measure of the need for minimum consumption) and negative for young people (aged between 0 -14 years) and the older of 65 years.

This link is one of the most important model and EXPIM the relationship:

$$c = 0.34 + (-0.07)\ln(PIB / PIB_0^R) + 0.7 \text{ pop}(0 -14) + 2.1 \text{ pop}(65+)$$

where:

c is the consumption of GDP;

PIB is actually GDP / inhabitant;

PIB_0^R is GDP / capita initially in developed countries;

$\text{pop}(0-14)$ represents the population with Varta 0-14 years;

$\text{pop}(65+)$ represent the population with more than 65 years.

• *the quality of the environment block*

In this way consider air pollution and polluting revasărilor impact locally and regionally. The aim is to obtain information on how the emissions from economic activity and to a lesser extent the structure of the economy. The pollution resulting from energy use, which are assumed in the model, to be a linear function of resource intensive production in the industry as a logarithmic function depending on the final use of goods per capita

• *population block*

The rate of infant mortality of children aged 1-5 years and elderly (age greater than 60 years) in the model are updated every 5 periods in accordance with changes in GDP / capita and time . Fertility is updated every five years in accordance with infant mortality (positively affected) and human capital (negative affect).

The model considers that the school population is aged 6-17 years targets and working population has aged 18-64 years.

Migrants are alleged to have aged 20-35 years, and the motivation for migration arising from their desire to maximize salary. The direction of migration is from low-wage countries to countries with high wages. These trajectories are studied using logit model.

In literature there are models that seek to determine the impact of globalization and climate change on demographic evoluțiilei. These models are used to quantify developments in socio-economic development of countries with different conditions in terms of endowment with natural resources, physical and human capital, technology and people, in a world with a special dynamic movement of goods persons and capital, with flexible structures of economies, etc.

The model seeks to quantify the impact of globalization in different countries, depending on specific conditions in the country. The model comprises the following major sections:

- global economic system;
- natural environmental resources system, on the quality of the environment, natural resources capacity to welfare, production and consumption in the economy;
- changes due to population growth and age distribution of it in each country considered (including international migration).

Consequently, the determinism and the frequency, time discrete model is followed by: i) steady, ii) optimization (maximize profit, maximize salary by international migration, final consumption of goods mixed joint investment, etc), iii) update (in production, number and age structure of the population, mortality rate and feritilitate, etc.). To these are added a set of information on international trade price indices.

Specialty literature includes an impressive number of different types of models which attempts, among other things, an assessment of the state where there is population in a certain area, determine the impact of various factors on indicators characteristics demographic phenomena, population prognosis term shield, medium or even long term. Using one or another of them depends on several factors: the database we have, time for the weather to be made, information should be highlighted etc.

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A CASE STUDY ABOUT THE PERFORMANCE INDICATORS OF THE ROMANIAN CONSOLIDATED GENERAL BUDGET

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Abstract: *The objective of this article is to develop an economic model quantifying for one of the main Romanian Consolidated General Budget performance indicators, the country risk. The analysis carried out over a 3 years period, and the data used had been reported, for the budget execution of this period. Through the study of the specialized literature and the analytical methods, a model of the Romanian country risk assessment developed, with the advantage of observational synthesis and the quantification of certain historical data, arising the possibility of forecasting, as well. The limitation of this analysis is about the allocations compared only at the level of the consolidated budget in relation to the state budget.*

Keywords: *performance indicators, budget, fiscal model, country risk, national economy*

JEL Classification: *E17, E62*

Introduction

Companies operating internationally rely on the stability of the economic environment in the foreign country, but the profits and investments may be vulnerable to some unknown negative developments, meaning country risk.

Therefore, the unexpected variation of country risk is an important strategic and operational indicator for companies operating in international environments.

Country risk considers also the capacity of a State to make payments and its impact on the ability of public or private entities to meet their cross-border payment obligations. In this context, the objective of our study is to build an economic model in order to quantify the country risk based on the main performance indicators of the Romanian Consolidated General Budget.

Literature review

Studying the economic literature, we conclude that economic, social and political imbalances in any country around the world, would lead to an increased risk of investing in those countries. An exhaustive study on the analysis of country risk sources in the environmental instability is attributed to Meldrum (2000). The author divides the risky events into six different categories, namely:

- Economic risks;
- Transfer risks;
- The risk arising from exchange rate trends
- Geographic location risk;
- The risk arising from government credit;
- Political risk.

The definition proposed by Meldrum (2000) seems to reflect these characteristics: *“Country risk analysis rests on the fundamental premise that growing imbalances in economic, social, or political factors increase the risk of a shortfall in the expected return on an investment. Imbalances in a specific risk factor map to one or more risk categories. Mapping all the factors at the appropriate level of influence creates an overall assessment of investment risk. The mapping structure differs for each type of investment, so an imbalance in a given factor produces different risks for different investments.”*

This definition has broad connotations, adapting to different investment methods and including all those risk areas that are finding for an investment made abroad.

Another important issue that has generated many academic debates refers to the definition of risk. Some authors such as Feils & Şabac (2000) and Robock (1971) support the traditional risk vision based on Markowitz (1959) studies. According to Markowitz (1959), the risk arises as a deviation from the rate of real return on investment compared to the investment rate expected.

Another approach, commonly used in economic theory, refers to the concept of risk being regarded as a negative outcome or, in some cases, risk is treated as an event that could imply a return on investment less than expected income or benefits.

There are also some approaches referring to the concept of risk regarded as a loss (negative outcome), or in some cases, risk is treated as an event that could imply a return on investment lower than its income the expected benefits.

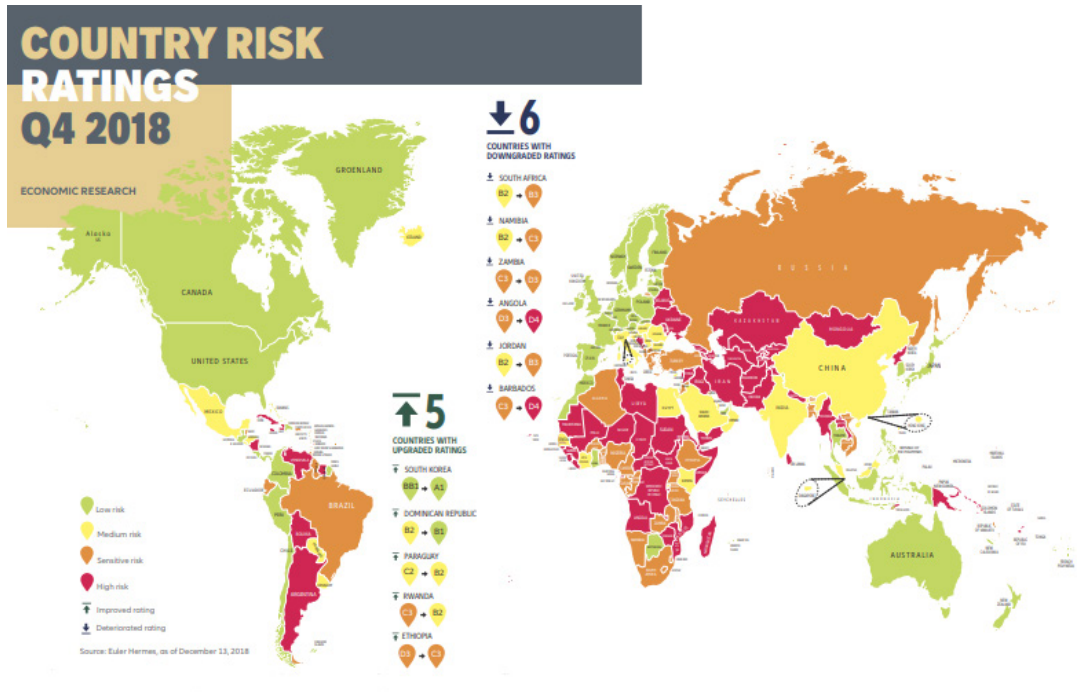
Among the authors supporting this approach are Meldrum (2000), who has established his entire theory of country risk, relying on events that have a negative impact on the estimated rate of return, (Howell & Chaddick 1994; Root Franklin 1972; Roy & Roy 1993; Simon 1982).

Although, all risk definitions present strengths and weaknesses, various studies conducted by (Baird & Thomas 1990; March & Shapira 1987) have shown that in practice, investors are not interested in assessing the degree of real output dispersion around the estimated value. So, they are concerned about measuring the likelihood of real return lower than the amount previously set, taking all measures to avoid such events.

Following the crises that took place in the 1980s and 1990s, there was an OECD awareness of establishing common rules for all members in the field of export credit. As a result, guidelines on premiums (with the obligation to apply the minimum level necessary to reach the profitability threshold), the environment, responsible loans and the fight against corruption (Baldacci & Chiampo 2007) were established. As far as the country risk assessment is concerned, it is divided into three main stages (Baldacci & Chiampo 2007):

- determining the risk category based on a model developed by the OECD;
- integrating the OECD rating with qualitative analysis of economic risks, political, financial and operational status of each country;
- Establishment of insurance conditions.
- For a better acknowledgement about country risk, we present the risk map in Figure 1 below:

Fig. 1: Country Risk Map



Source: Country Reports (2018)

Thus, before beginning to looking for a potential partner in a foreign country to start a business, whether commercial or productive, it is essential for investors to identify the market they will be targeting, depending on the opportunities it can offer in terms of expected profitability, and the country risk independent evaluation, as well.

In order to assess the effects of short-term changes on country risk, the level of government investment (investment expressed as a percentage of GDP), fiscal policy (tax rates applied, tax methods) and country debt (deficit / GDP), public debt / GDP and sources of public funding) are usually analyzed.

In addition to tax levels, the monetary policy and economic growth, the degree of openness to foreign investment and the rules in force that could affect economic development, are factors that should also be taken into account (possible limitations on privately owned property, the degree of regulation of private activities and the size of the underground economy).

Methodology of research

The analysis is focused on Romania's country risk and is based on the data collected from the consolidated general budget execution, as founded on the official website of the Ministry of Public Finance for a period of 3 years (2015-2017).

The proposed model is basis on the following study hypotheses:

1. Budget execution structured on three types of needs: current needs, capital needs, other needs, indicates a higher risk if the satisfied need is in deficit, respectively a lower risk if the satisfied need is in surplus;

2. Conjuncture factors are influencing the fiscal system contribution for the country's risk as the deficit on the financial policy segment.

Our findings indicate that there are some budgets (i.e. state social security budget, health insurance budget), with surpluses to cover the additional deficit registered with the state budget.

In fact, the entropy of the budgetary system is concentrated around the state budget as the main generator of allocation needs and as the main generator of consolidated financial destabilization.

Table 1 shows the trends of the budgetary indicators for the analyzed period.

Table 1. Romanian budget implementation and needs allocation categories (2015 and 2017)

	YEAR 2017			YEAR 2016			YEAR 2015		
	Amount million euro state budget	Millions of euro consolidated budget	% from GDP	Amount million euro state budget	Millions of euro consolidated budget	% from GDP	Amount million euro state budget	Millions of euro consolidated budget	% from GDP
The need for total allocation	-6,977.10	-5,391.30	-2.9	-6,357.00	-4,065.40	-2.4	-4,335.60	-2,302.50	-1.5
Need for current allocation	-8,854.90	-5,318.10	-2.8	-6,399.50	-1,640.50	-1	-4,688.30	-2,508.20	-1.6
The Need for Current Tax Allocation	-7,782.90	-3,190.00	-1.7	-5,889.30	-1,037.80	-0.6	-4,308.00	-1,610.40	-1
The need for current social allocation	-141	-1,631.10	-0.9	-68.1	-466.2	-0.3	-9.3	-670.8	-0.4

	YEAR 2017			YEAR 2016			YEAR 2015		
The need for allocation		Millions of euro consolidated budget	% from		Millions of euro consolidated budget	% from		Millions of euro consolidated budget	% from
	Amount million euro state budget		GDP	Amount million euro state budget		GDP	Amount million euro state budget		GDP
The need for current non-fiscal allocation	-931	-496.9	-0.3	-442	-136.5	-0.1	-371	-227	-0.1
The need for capital allocation	-1,248.60	-4,161.40	-2.2	-758.9	-4,054.60	-2.4	-924.7	-3,854.50	-2.5
Other allocation needs	3,126.40	4,088.20	2.2	801.4	1,629.70	1	1277.4	4,060.20	2.6
TOTAL EXPENSES	32,093.10	61,351.20	32.8	28,907.40	53,781.40	31.9	27,825.70	54,203.50	34.6
Current expenses	30,363.80	57,274.50	30.6	27,485.70	49,555.80	29.4	26,350.50	50,375.10	32.2
Capital expenditures	1,319.10	4,345.90	2.3	836	4,225.60	2.5	1012.3	4,058.50	2.6
Other expenses	410.2	-269.2	-0.1	585.7	0	0	462.9	-230.2	-0.1
EXCEDENT (+) / DEFICIT (-)	-6,977.10	-5,391.30	-2.9	-6,357.00	-4,065.40	-2.4	-4,335.60	-2,302.50	-1.5

In dynamics, the values of allocations by needs and budget categories, indicate a non-coverage of constant and growing needs.

The data presented in Table 1 were translated into relative data and calculated as Dynamic Impact Weights over the 2015-2017 period, so it follows that current allocation needs and capital allocation needs are the main risk factors that affect the entropy of the budget system (see Table 2):

Table 2. Needs trends by category

Consolidated general budget	2015	2016	2017
The need for total allocation	-100.0%	-100.0%	-100.0%
Need for current allocation	-108.9%	-40.4%	-98.6%
The Need for Current Tax Allocation	-69.9%	-25.5%	-59.2%
The need for current social allocation	-29.1%	-11.5%	-30.3%

The need for current non-fiscal allocation	-9.9%	-3.4%	-9.2%
The need for capital allocation	-167.4%	-99.7%	-77.2%
Other allocation needs	176.3%	40.1%	75.8%

The state budget shows a more significant shortfall in the level of current allocation than in the case of the consolidated general budget, which demonstrates the proposed study hypotheses no1.

For the level of the state budget, the dynamic of the allocation needs shown in the below table (Table 3) can be easily observe:

Table 3. Trends of allocating needs by category and the state budget

State budget	2015	2016	2017
The need for total allocation	-100.0%	-100.0%	-100.0%
Need for current allocation	-108.1%	-100.7%	-126.9%
The Need for Current Tax Allocation	-99.4%	-92.6%	-111.6%
The need for current social allocation	-0.2%	-1.1%	-2.0%
The need for current non-fiscal allocation	-8.6%	-7.0%	-13.3%
The need for capital allocation	-21.3%	-11.9%	-17.9%
Other allocation needs	29.5%	12.6%	44.8%

For the calculation of the country risk, the dynamics of the budget deficit accumulation analyzed through the relative importance weighting method.

The data indicate the an oscillating trend with a peak of the budget deficit accumulated for the year 2017, after the revival recorded in 2016, year when the monetary stability indicators correlated with the sustainable growth indicators generated the minimum increase in the budget deficit period (Table 4).

Table 4. Trends in the budget deficit accumulations over the period 2015-2017

General budget	2015	2016	2017
The need for total allocation	100.0%	100.0%	100.0%
Need for current allocation	131.3%	37.0%	244.4%
The Need for Current Tax Allocation	134.8%	36.5%	231.8%
The need for current socialallocation	121.8%	39.4%	263.8%
The need for current non-fiscal allocation	138.2%	34.1%	274.6%
The need for capital allocation	130.2%	59.6%	77.4%
Other allocation needs	158.1%	22.7%	189.2%

We defined four risk ranges with coefficients 1 to 7, assigned with growth rate 2, for country risk calculation, as following.

- Minimum risk 1
- Average risk 3
- High risk 5
- Major risk 7

The allocations on the three types of needs quantified according to the impact in the budget basket is estimating the allocation matrix according to the table below (Table 5):

Table 5. Matrix of risk levels for each needs categories

	Total allocation	Current allocation	Allocation of capital	Other allocation
Minimum risk	1	0.7	0.2	0.1
Average risk	3	2.1	0.6	0.3
High risk	5	3.5	1	0.5
Major risk	7	4.9	1.4	0.7

For risk trend evolution, we used the distribution probability according the needs allocation trends in the system. The risk quantified in the condition of the accumulation of deficit, the system entropy disturbance on allocation structures and associated risk, obtaining for the general budget strengthened an increase over the period 2015-2017 with risk units, respectively from medium risk to major risk, according to Table 6:

Table 6. The risk chart calculated based on the general consolidated budget deficit evolution

General budget	2015	2016	2017
The need for total allocation	5	5	7
Need for current allocation	5	5	7
The Need for Current Tax Allocation	5	5	7
The need for current social allocation	5	5	7
The need for current non-fiscal allocation	5	5	7
The need for capital allocation	5	5	5
Other allocation needs	1	3	3

We found that the accumulation of deficit generates horizontal and vertical effects, applying the system inertia to a risk homogenization process towards the end of the period.

The data risk analysis of the State Budget structure shows a more stable entropy at the beginning of the period based on system inertia and allocations according to a stronger fiscal policy, 2017 being marked by strong structural policy changes, new tax cuts and destabilization of the system through indirect foreign exchange rate risk.

The entropy presented in the proposed hypothesis reveals the homogenization of the values with the risk values of the consolidated budget towards the end of the period when the risk equaled the system to the major risk (Table 7).

Table 7. The risk table calculated on the state budget deficit trends

State budget	2015	2016	2017
The need for total allocation	3	3	5
Need for current allocation	3	3	5
The Need for Current Tax Allocation	3	3	5
The need for current social allocation	3	5	7
The need for current non-fiscal allocation	5	5	7
The need for capital allocation	5	5	7
Other allocation needs	3	5	5

The limitations of the study is firstly about needs allocation structuring for only three categories and the analysis of the allocations compared only at the level of the consolidated budget in relation to the state budget.

Conclusion

The risk map built shows the lack of prevention of global financial stress, inadequate use of European sustainable development funds, and last but not least the inappropriate use of financial policy instruments and budget balance. Distribution by classes and types of budgets shows inequities in administrative-territorial allocations and systemic stress of the economy based on such rebalanced budget construction.

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YES, BUT WAS IT A REAL AUDIT? THE TOSHIBA CASE

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Abstract: *In the accounting literature, the Japanese Toshiba has taken an important place with its accounting scandal that occurred in 2015. Toshiba's accounting records have been systematically changed and the company's operating profit has been inflated for many years. Toshiba's financial statements irregularities, non-rational profit targets, failure in reflecting the loss of value in its financial statements, the occurrence of arbitrary practices of the company's top management caused multiple serious problems in the management of the company. The fact that even a huge company, such as the Japanese giant Toshiba, is managed away from the corporate governance, causes other companies to question the importance of audit once again. The fact that we still face such large accounting scandals today, and they bring about the issue of whether the internal audit systems of the companies are established or not if they are established how efficiently they are operated, and how effective the independent audit is. This research, which emphasizes the importance of auditing process for companies is based on the Toshiba's corporate accounting scandal case. The Toshiba case has been evaluated and the necessity of independent auditing and the issue of how to ensure audit quality have been handled. This research intends to take lessons from the Toshiba case in order to raise awareness, to encourage corporate partners to increase audit quality and to communicate with each other in order to ensure audit quality.*

Keywords: *audit quality, Toshiba, accounting scandals, corporate governance*

Introduction

In today's intricate world, nearly all companies can fall for an accounting scam. Although a single piece of a scam evidence has been never adequate for moral certainty of accounting fraud, embezzlement or financial irregularities, companies shouldn't forget that they are not scam-proof. Over the last few decades, companies have suffered several recent incidences of scam, especially high-volume frauds which end up with huge economic losses. Despite their massive economic shrinkage, they all know the last thing they want to hear is "it's only money". Because it's not just money. In some cases, the cost of accounting scam can be much higher than it's ever been like tragic downfalls of companies, life incarceration, climate of distrust and skepticism among the market actors, irregular and unpredictable economic fluctuations in the capital markets, negative stock market reactions and some other enforcements like fines or penalties.

The financial dimension of the costs that companies face accounting scams bear may just be the tip of the iceberg which means the collateral damage can go further in its financial results (PwC 2007). The bad news is that as given financial results become more likely to be measured, companies may underestimate or misevaluate the collateral damage, while, at the same time, paying sufficient attention to their adversely affected, damaged reputation, brands, and images, and maintaining the motivation of their personnel. The topic for the recent years' digging deep is "Achieving and sustaining accountability and transparency in companies" (Carothers and Brechenmacher 2014). Corporate fraud which can be articulated as a social phenomenon; not just an accounting problem (Wells 2004) came to the fore after accounting scandals that came to light one after another over recent decades. In many incidences of accounting scam, it is clearly seen that scams are primarily based on violation of stated codes which are defined as any rules, guidelines, procedures, or codes that guide the company employees in his/ her moral and ethical practices (Perlmutter and Schoen 2007), misapplying GAAP (Generally Accepted Accounting Principles), IFRS (International Financial Reporting Standards), IAS and GAAS (Generally Accepted Auditing Standards), and building unhealthy relationships with the C-Suite.

After the big serious accounting scandals that the world has experienced like The Bank of Credit and Commerce International (BCCI) in 1991, HIH Insurance in 2001, WorldCom and Enron Corporation in 2001, Kmart Corporation in 2002, Arthur Andersen LLP in 2002, Sunbeam in 2002, Parmalat S.p.A. in 2003, American International Group (AIG) in

2008, Satyam Computer Services in 2009, and Lehman Brothers Holdings Inc. in 2010 (Wikipedia 2019a) have come to light, public concern has grown exponentially (Lee, Al, and Gloeck 2008). Toshiba is the actor of the latest corporate accounting scandal that ends up with a huge loss of faith and trust in the auditing process by investors. Yet, as bad all that beforementioned corporate accounting scandals were, the Toshiba Corporation scandal has also led to a gigantic economic devastation, several job losses, insolvency, debt restructuring, and nationalization (Khondaker and Bremer 2018).

Historical Development of Toshiba Corporation

Founded in July, 1875 as Tanaka Seisakusho Engineering Works, Toshiba looks back on more than 140 years of success. Although Toshiba has such a long history, its modern institutional structuring started in 1938 as Tokyo Shibaura Electric Company Limited by merging Tanaka Engineering Works (1875) with Tokyo Denki K.K. - A Tokyo Electric Company, which was established as Hakunetsu-sha Company Limited in 1890 (Wikipedia 2019b). In 1984, Kabushikigaisha Toshiba which is mostly known as Toshiba got its recent name as Toshiba Corporation. Toshiba is renowned for its successful introduction of Japanese culture in both Japan and other countries (Khondaker and Bremer 2018).

Throughout its long operating period, Toshiba has encountered several company takeovers, acquisitions, reestablishments, alliances, and mergers. It is possible to say that there are two eras can be defined for the purpose of Toshiba's histography. Before its latest corporate accounting scandal became public knowledge in 2015, the milestone which is known as Toshiba-Kongsberg scandal (Toshiba of Japan and Kongsberg Vaapenfabrikk of Norway) in the history, separates these two spans of time is the Cold War in 1987 (The New York Times 1987). During the Cold War years, its subsidiary, Toshiba Machine Company sold a kind of control milling machine (a military sensitive milling machine which means militarily useful technology) to the Soviet Union forces. After the Toshiba-Kongsberg scandal, both chairman and the president of Toshiba Corporation step aside (UPI 1987).

On the other hand, Toshiba has made a major breakthrough over Japan's prewar era and postwar era economic growth and has supported financially by the government of Japan throughout its early life stage. Especially when talking about the postwar era, the government of Japan built a system to mobilize and allocated a fund from its budget to support the key industries for accelerated

economic evolution (Otsubo, 2007). Also Toshiba grabbed its piece of that pie and branched out over the years by expanding its product range with Japan-first products such as radar (1912), digital computer (1954), microwave oven (1959), color video phone (1971), MR image health device (1982), laptop (1986), DVDs (2005) and some others (Khondaker and Bremer, 2018). After the postwar era Toshiba collaborated with some other companies, started to operate in different sectors like hard engineering and primary industry and took its final form as a corporate company group.

And today, Toshiba operates in five main sectors: energy and infrastructure, community solutions, healthcare systems and services, electronic devices and components, and lifestyle products and services (Toshiba 2015). In the year 1971 Toshiba adopted corporate social responsibility (CSR) principles endogenously pointing both its staff members and consumers. In 1973, “going green phenomena” was accepted as a part of its corporate culture to be more environmentally friendly and ecologically responsible and sustainable for current and future generations. Hereat, its first environmental plan report was released in 1993. Although Toshiba fell on hard times because of its nuclear energy plans because of the Fukushima Nuclear Disaster in 2011, it still has been ranked on the Dow Jones Sustainability Indices (DJSI) World Index since 2000 except one year. The company was dropped out of the index in 2015 because of its corporate accounting scandal (Elghandour and Toka 2016).

The Corporate Accounting Scandal of Toshiba: How It Happened?

In the postwar era, Toshiba’s products were either at the beginning or at the end of their life cycles – they can be identified as stars or cash cows. In the long run they were expected to generate high cash flows (high liquidity) which brings high market shares. But ironically, 2015 corporate accounting scandal of Toshiba damaged these profitable product lines, thereby many products lost their place in the stars and turned into dogs. In order to camouflage the company’s ineffectualness, the C-Suite manipulated its earnings for roughly seven years (Khondaker and Bremer, 2018).

Toshiba’s reported operating profit was artificially inflated and it was overstated by US\$1.2 billion, with its top executives’ knowledge for over the years (Reuters 2015a). As the BBC News reported, the overstatement was roughly triple an initial the company’s estimate (BBC 2015). According to the statements issued to the press (press releases), the scandal derived from a serious misconduct of the accounting method named “percent of completion

(PoC)” method. The percent of completion (PoC) method which is a non-cash flow accounting method of work-in-progress evaluation, with the aim of recording long-term contract, is mostly used in managing long term projects and it recognizes revenue and expenses as a percentage of the project’s completion during the period (CFI 2019). According to the PoC method, total income and total cost along with the degree of the process made in one single accounting year is estimated and the income and the cost of the contract for the accounting year are broadcast according to this rule (Independent Investigation Committee or IIC of Toshiba 2015).

Toshiba declared that the profit targets from the projects related to electricity generation, railways, and some other related works were set unachievable high and to achieve meet this target, Toshiba preferred to decrease its expenses. But in the end, it was unsuccessful in adjusting its costs for the truly existing progress made (Khondaker and Bremer, 2018). With respect to the financial investigation’s findings, the scandal’s roots were much deeper and the execs of the company were manipulating Toshiba’s earnings for more than 7 years (Financial Times 2015a). Independent Investigation Committee (IIC) of Toshiba brought to light that Toshiba inflated its operating profit artificially and overstated them in fifteen projects in these three beforementioned areas and suffered from the harm that follows from accounting malpractice (accounting negligence). Although the scandal had a broad repercussion in press, Toshiba went on its fraudulent actions and hid financial information about its final situation. On the other hand, in 2016 Toshiba’s losses was massive because of its nuclear plant subsidiary Westinghouse in the US and the book value of the company was negative (Khondaker and Bremer 2018).

As uncovered by the IIC, Toshiba’s corporate scandal was a multi-dimensional case. For this purpose, it does seem that whoever is responsible for having and breeding this scandal should be identified clearly. This paper examines the responsible partners of the scandal in three groups: C-Suite (top management), auditing parties, and auditing system in Japanese culture. The first actors of the case that should be raised here is the manner of the C-Suite against middle management and lower level employees. C-Suite of Toshiba had unrealistic profit targets to meet by managers and that situation brought tons of pressure on subservient managers. On the other hand, managers were forced to hide losses until getting profits and offset actual losses with future profits (Japan Times 2015). Besides, the perception of unconditional obedience to the authority (chief executive) was the dominant approach within the body of the company. When unrealistic demands and unachievable profit targets of the top

execs declared to the managers, they had to attain these goals no matter what happens (IIC, 2015). Actually, the scandal was not just an ordinary accounting fraud case. It was mostly part of a major dilemma in management and corporate governance implications. The execs were hiding their heads in the sand not to see that they were failing, but of course it didn't make it go away. Frankly speaking, the majority of these fraud-related actions were caused by the firms C-suites including executive officer (CEO) and his predecessors Atsutoshi Nishida and Norio Sasaki and also his denial of failing, and rejection the reality of that fact (Japan Times 2015).

Although not many companies are applying international financial accounting standards in Japan, Toshiba was a distinguished example for its peers and outstanding company because of its social responsibility perception and successful corporate governance implications. Apart from the fact that there are some obligations about the board of directors' structures of companies in Japan, there were four external directors within the body of its board of directors. In spite of the fact that this structure of the Toshiba's board of directors was a quietly desired structuring, these external members of the board of directors were not very component of their job, and quite inexperienced to meet the standards (Khondaker and Bremer 2016a). As a whole, Toshiba's top management - especially the CEO, paved the way for the accounting scandal by putting tons of pressure on subordinates to achieve the unachievable profit targets after the big global recession worldwide which was the result of the global financial crisis. Actually the top management's primarily the CEO's feelings and powerful desires to attain unrealistic targets put his head in the noose (Elghandour and Toka 2016).

The second actors that should be referred here is the malpractice of audit parties. Although this paper mostly refers to the independent external auditors by the term of audit actors, it is also so obvious that Toshiba's internal auditors abused their duty of report fraud. Both independent external auditors and internal auditors are responsible to stockholders, companies, potential investors, governments, and other actors of the stock market. Firstly, speaking for the external audit part, independent external auditors have several responsibilities to their customers, public authorities, and general public. The auditor has to design and conduct the audit process in order to provide reasonable assurance regarding the reliability of financial reporting and financial statements, if any material weaknesses exist (PCAOB 2002) - SAA99 and SAS 113 (Mehta and Bhavani, 2017). Toshiba's auditor was Ernst & Young ShinNihon LLC which was one of the leading audit companies in Japan. For the year 2014, Toshiba

paid roughly US\$8 million, which means 1.5 basis points of the company's turnover for that year (Khondaker and Bremer 2016a). As Reuters articulated, the six year average of Toshiba was 1.8 basis points (Reuters 2015b) which means that Toshiba was paying a lower fee for the audit services received by EY ShinNihon. This dilemma puts a question mark in the minds that whether the audit services received by Toshiba from EY ShinNihon is sufficient and establishes the appropriate standard of professional attention and care. It is widely believed that the quality of audit directly and highly related to audit fees. The fee paid to the auditor plays a critical role in assessing the quality of the audit process. The fee level of audit dictates the selection process of the auditors that will conduct the audit process effectively and follow due control mechanism. In other words, a successful selection of auditors is playing a crucial role in enhancing audit quality and providing auditors' independence (Khondaker and Bremer 2016b).

Ernst & Young ShinNihon LLC made serious errors when conducting the audit process and failed. Just before the Toshiba's corporate accounting scandal came out into the open, EY was one of the biggest auditing companies in the world and biggest domestic auditing corporation in Japan and made a business contract with Toshiba so its auditor for almost sixty years. When the auditors within the body of EY failed in detecting the malpractice and fraud for almost seven years, this business collaboration ended up badly. The Financial Services Agency of Japan (FSA) which is a government agency and an integrated financial regulator and responsible for overseeing capital markets in order to ensure the stability of the financial system of Japan (Wikipedia 2019c) denied EY ShinNihon to make new audit agreements for three months from January and fined EY ShinNihon US\$17.4 million (Financial Times 2015b) which was roughly equal to the total of two year auditing service fees would be paid by the Toshiba to the EY ShinNihon (Reuters 2015c).

Seven auditors that took part in the audit process were accused of malpractice (for abusing their duty of care and approving fraudulent financial statements). The chief executive of EY ShinNihon Koichi Hanabusa resigned after the accounting scandal and for nineteen employee who took part in the scandal were suggested temporary reduction in pay (Financial Times 2015c). Taking into consideration that Ernst & Young ShinNihon failed in conducting the external audit process, Toshiba signed up its new audit agreement with PricewaterhouseCoopers (PwC) Aarata in April, 2016. Toshiba decided to take the action that produces the least harm after the scandal and intended to review its auditing structure every five-seven years to manage its bad experiences. In

addition to these precautions, Toshiba thinks out to reorganize its institutional structuring in order to be more transparent. For this purpose, Toshiba chose to spread knowledge and information companywide, share information oftener and supply core knowledge and information to its audit committee (Glass, Lewis & Co. 2017). From many different perspectives, the main responsible actor of this massive corporate accounting scandal was the auditor of the audit process. Of course the auditor was not the sole responsibility of this scandal, but he was the main actor. In spite of the fact that the auditor was the lemon, EY ShinNihon has obtained quite small sanctions when the scale of the accounting scandal taken into consideration. It is very unlikely that the auditors working in the country's best audit firm would be unable to identify the years of accounting irregularities.

EY ShinNihon has been hiring well-educated and successful people that graduated from top universities, so the rumor mill went wild over times. According to the speculations, both sides of the audit process- both Toshiba employees and EY ShinNihon auditors, were aware of the fraudulent actions that triggers the scandal. There was a plenty of room for the rumor mill to keep turning and everybody was in the mix asking how the auditors didn't realize the scandal coming by fraudulent financial statements. Although EY ShinNihon was hiring top talents throughout the country, their managers or supervisors created a big pressure on the auditors. The supervisors banned the auditors from speaking of this scandal and noising the backwashes around. Anyways, the employees of EY ShinNihon were identified as the informal whistleblowers of the accounting scandal and with the help of these whistleblowers, Toshiba's window dressing was talked over to some extent (Khondaker and Bremer 2016b).

The accounting scandal of Toshiba burst out after years of EY ShinNihon's negligent. This situation brought up this question: "*Why the auditor was blind to all these fraudulent accounting implications or accounting irregularities?*" (CFA 2015). According to the investigation results by FSA Japan, one of the auditors that took part in conducting the audit process of Toshiba, realized some extreme outcomes of the Toshiba Computer Division's accounting transactions, but the auditor didn't pursue legal proceedings against the accounting irregularities and dropped the subject or didn't share information and opinion with the other audit team members. To add, it is also mentioned that the audit process was conducted according to the information gained from the Toshiba's consolidated subsidiary (Taiwan Toshiba International Procurement Corp. -TTIP), but the auditor should have taken the company's consolidated

financial statements into consideration in order to dig up further information for getting reliable audit evidences. From this perspective, the independent external auditor had the ultimate responsibility for fulfillment of the audit process (Khondaker and Bremer 2016b).

To sum up, in short, the audit committee of Toshiba didn't carry out its tasks meticulously which means the internal control implications were not enough as the internal control system was not working properly. Toshiba's internal audit system was totally covered in the face of accounting scandal danger and didn't declare and report corrupt accounting practices (IIC 2015). The internal auditors didn't monitor injustices within the company and the internal audit team consisted of insufficient people who were lack of professional skepticism in a technical sense (Khondaker and Bremer 2016a). On the other hand, EY ShinNihon was in a totally awkward position against the fraudulent accounting transactions so that the large segment of the society claimed that EY ShinNihon was aware of this potential danger and cooperated with Toshiba in glossing over the accounting scandal.

The third and the last factor that should be mentioned in this paper is the auditing system in Japanese culture. In Japan, internal control systems of many companies are not running properly. It is a widely held belief that Japanese corporate business culture is hierarchical and the underlying roots of this corporate culture is loyalty and leaving no avenue unexplored not to bring shame to its own employers (Chambers 2015). Japanese members of the accounting profession should should take all the precautionary measure to avoid from any fraudulent actions or accounting irregularities. As a precautionary measure, an effective whistle-blowing system will be a useful tool for detecting any wrongdoing in the company. An effective whistle-blowing system has the power to prevent organizational wrongdoing in some matters (Near and Miceli 1995). Nowadays, in many companies benefit from the whistle-blowing system as an internal control tool and whistle-blowing on accounting irregularities becomes commonly accepted (Mesmer-Magnus and Viswesvaran 2005). Whistle-blowing enables reporting fraudulent accounting transactions and accounting wrongdoings in terms of corporate governance via internal and external reporting ways. According to the researches, almost every whistleblowers mainly prefer internal reporting channels rather than an external one when they face an accounting wrongdoing and has to report it (Miceli and Near 1992). Researches on this issue tend to mean white-collar crime, corporate criminal behaviors, and illegal corporate behaviors by using the term of "wrongdoing" (Miceli, Near, and Dworkin 2008). Although the

term of wrongdoing is identified as “*illegal, immoral, or illegitimate practices, activities, or omissions*”, the concept of wrongdoing goes even further than just illegal behaviors (Warren 2003). On the other part Japan, which is the world’s second largest developed nations in the world, is the third largest economy in the world according to its nominal GDP and also fourth strongest economy by purchasing power parity – PPP (Wikipedia 2019d). Although Japan has one of the strongest economies and that developed, the Japanese audit system is not all it’s cracked up to be. When the level of audit fees charged for the audit by an external audit in Japan is compared to any other developed countries, Japanese audit firms don’t have the chance to keep up with their peers in developed countries. Although Japanese audit firms have higher density workloads than other countries, they get paid less. Furthermore, the number of accounting professionals is however limited when the volume of the stock markets and total of the Japanese companies are borne in mind. Not enough people have been exposed to the accountancy profession in Japan, so that Japan’s need of accountants is so obvious.

Speaking of not only Japan but also all countries, it is possible to say that independent auditing companies are not so good at detecting accounting irregularities and fraudulent accounting transactions and fail sometimes. It is quite understandable that the urgency of the law enforcement is so big, so that a couple of legal actions taken like Sarbanes Oxley Law in US, Eight Directive on Securities Disclosure (Directive No.8) in EU and J-Sox Law in Japan (Srinivasan and Coates, forthcoming). Although still these legal actions taken against accounting irregularities, the Toshiba case showed us there is no motivation to improve corporate governance and compliance with laws and regulations in Japan (Khondaker and Bremer 2018).

Results of The Toshiba’s Scandal

There are wild swings in the stock markets because of the Toshiba’s corporate scandal that erupted in April, 2014. Toshiba’s name appeared in the press across the world and stock market’s reaction to the scandal was too much. The scandal was swirling around Toshiba’s C-Suite and Ernst &Young ShinNihon LLC for not carrying out (fulfilling) Toshiba’s duties completely as an auditor. As Financial Times gave a big place to the scandal in its columns, Toshiba lost its shine and was far away from the glories of the past decades because of this scandal. According to the Financial Times, over long years Toshiba was one of the most powerful and well-known Japanese brands with its electronic devices and was the poster child of pattern of Japanese corporate business

behavior. This corporate accounting scandal has generated a climate of distrust and since such hitches highly endanger Toshiba to maintain their prominence and gradually to increase their power.

Toshiba's scandal gave the company a deep shock in the strictest sense of the word and made people act with suspicion towards internal audit implications of companies and also the Japanese corporate scheme (Financial Times 2015a). Between the years 2008 and 2014, the accounting scandal runs up to US\$2 billion of earnings manipulation by window-dressing which refers to actions taken or not taken prior to issuing financial statements in order to improve the appearance of the financial statements. Toshiba window dressed its financial statements to manipulate its financial information, in order to make its financial disclosures look more attractive to the stakeholders and hide its recent poor performance. Not like the Toshiba-Kongsberg scandal before, Toshiba declared that it would launch an extensive investigation about the accounting manipulation scandal and would make it up to all the harms of every party that affected negatively. The scandal wiped out the reputation of both two companies that involved in the accounting scandal. Even though Ernst & Young ShinNihon LLC was found guilty on all charges of the scandal and blamed, it went scott free. And today, Ernst & Young ShinNihon LLC is performing like nothing happened and providing audit services for a vast number of companies.

Conclusion and Suggestions

In spite of all the legal actions taken like promulgated laws, regulations, legal requirements, punishments, and judicial arrangements, etc. failed to satisfy the expectations regarding corporate governance implications in order to prevent accounting irregularities and scandals. In the direction of nipping accounting irregularities and scandals in the bud, public authorities should take due precautions and work at deterring accounting scandals before they come to light. Independent audit firms should redesign their recruitment policy, hire and educate the members of the profession as they make these employees ready for the company. Via independent bodies, all the audit firms should be inspected in order to secure their independence while conducting audits. This accounting scandal showed clearly that corporate governance perception in Japan is still not as strong as it desired to be and some structural adjustments should be done. Companies should hire people who can resist pressure coming from the company's execs. In order to bring audit systems back to life, auditors should receive the required level of education and trainings. Independent

auditors should ensure that they are fully aware of and take steps to comply with relevant laws, policies, and regulations when they are performing their duties (Kızıl and Doğan 2017). It is also important that, audit firms should be re-audited by public authorities (Khondaker and Bremer 2018).

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E-CORPORATE GOVERNANCE: E-GOVERNMENT

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Abstract: *Nowadays, there is a big question how the public institution can achieve a progress through implementing new information technologies in its performance, which is known as E-government. Governments are in hurry to issue development plans aiming social and economic developments. Due to that, the E-corporate governance is highlighted by academicians and searchers in order to restructure the public institutions in a way of assure responsibility and transparency and after that the academicians and the searchers want to take the advantage of new technologies. The article will try to formulate main principles of E-government and to determine the requirements and the ability of E-government besides highlighting its benefits.*

Keywords: *governance, E-corporate governance, economic development, E-Government.*

JEL Classification: *M4, M2, M11*

1. Introduction

The term of corporate governance has well-discussed and takes the advantage of the new technologies to have a new term called E-Corporate Governance which has a different segment with corporate governance. The corporate governance focuses on the internal productivity of firms when the E-governance concerns on servicing citizens. Due to that, developed and undeveloped countries have applied E-governance in different levels using technologies to present simply information for citizens (Krajewski, Larry & Ritzman 1996). Many of governments think about using positively the new technology to assure transparency with citizens for easy access for citizens' needs and give a good image of these governments besides other objectives. In the light of that, the

new communication technology has generate certain benefits for governmental public services, in the meantime, we should be aware that the E-government does not necessary mean the efficiency of using resources or productivity of a certain government. In addition, the E-government has many stages and procedures that can take times, which depends on the capacities and abilities in a country to another.

2. E-Government

There are many common terms for E-government such as E-Business, E-Management, Digital Government, and others. Indeed, E-government is one shape of E-Business that refers to transactions and procedures that serve public electronic services. The relationship among the government and its citizens can be noticeable when E-government is applied; crowed lines and bureaucracy are reduced to acceptable limits. In the developed countries, the E-government has been processed and developed in such a way that services are provided for citizens 24/7 and the governmental expenses are reduces. In the light of that, the E-government presents the electronic application in services leading for collaboration among the government and its citizens, and assuring the internal productive relationship between government institutions. In the light of that, E-government is based on internal changes in the government to develop the interaction and the communication ways with citizens. That means the governmental making decisions procedures, services and transactions should be reorganized electronically to eliminate handling time of citizens' transactions (Laudon, K & Laudon, J. 2004).

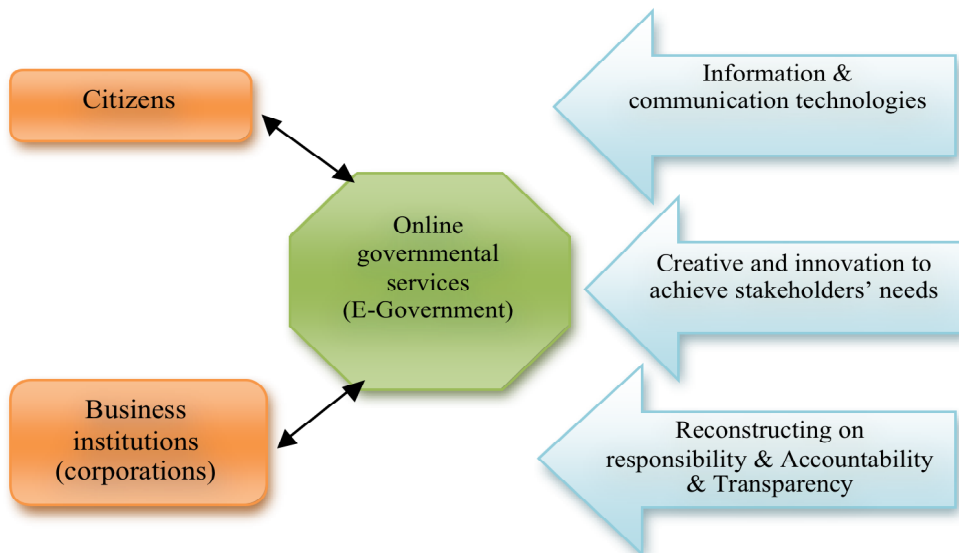
The importance of E-government becomes through achieving the real recognition about responsibility, transparency, and good justice. The appearance of E-government is considered as a part of the solution for the managerial and financial corruption in corporations and public institutions. Besides that, disclosure is an important principle for corporate governance and for E-government; the state is obligated to be transparency and to disclose important information that touch the life of its citizens. The direct service is a new important change in the whole reconstruction of delivering public information and services for governmental institutions in order to improve the services and information quality. Besides that, the E-government has an important role to relocate the extra finance in the public budget that means the expenditures are reduced and more dividends for new projects concerns on sustainability and development plans in accordance with the public interests (Lunnas 2000). The strategic objective of E-government is to support

and simplify the governmental services for all stakeholders such as public institutions, citizens, corporations, and related firms, and that can be happen efficiently with adopting new information technologies.

The internal effects of E-government is touchable even it is not seeable for other stakeholders such as citizens such as a quick making-decision, transparency, responsibility, efficiently and productively. Consequently, the citizens are more satisfied on the governmental performance especially the information productivity is increased and the information cost is reduced besides the easy-access to information. Accordingly, the E-government establish a new form of collaboration among governmental institutions concerning on many sides and especially on exchanging information. Overall, E-government attract more national and international investors since creating an investment atmosphere is an important for governance and any government, in addition, the government is able to use the national resources wisely.

3. E-government Model

Determining the model of E-government presents the creative working model based on new information technologies besides transparency, responsibility, and accountability. Any model of E-government concerns on serving the stakeholders' needs such as citizens, corporations, and public institutions taking in consideration the specialty of each stakeholder separately.



Source: created by the author

Due to a fact that, E-government means that the government must be online to offer services for citizens and corporations with a summary about the governmental institution that provides the online services. Accordingly, the direct contact is available through search options, uploading documents, and sending emails. That means the citizens add value for the government performance. That requests a new communicating culture among the government and its citizens with implementing information and communication technologies, and that needs a qualified staff to handle analyzing stakeholders' requests, managing information and acknowledgement, and technical developments besides development communication system.

4. Basics for successful E-Gvernmen

The E-government refers to the new changes of the communication possibility between the government in one side and citizens and corporation in another side. Thus, issuing a comprehensive strategy is the core stone that includes development plans for governmental management and environment responsibilities besides economic responsibility. In the light of that, strengthening the citizens' ability is strongly demanded to achieve the a successful e-government. Citizens must be aware about the new way of government serving also citizens must understand how that is useful to achieve their needs (BIS 2015).

- Improving management process: since the e-government is focusing on the citizens and corporations needs and that mean the governmental management must be improved to understand the possibility of achieving needs of stakeholders in accordance with adopting the new information and communication technologies. That leads the government to assure transparency and accountancy, which are important elements of any model of corporate governance (Laudon, K & Laudon, J. 2004).
- Management leading: the e-government will force the government to change the standard procedures of selecting managers and top-level members of the governmental management due to new qualifications besides the classic ones.

These two points are the main challenges in many countries in the third world countries such as India and many rich countries in Eastern Europe, Middle East, and Africa.

- A clear strategy: The strategy of switching to e-government must be clear through determining objectives and standards and that should

be matching with the new technologies and the economic and natural resources, which are available for the government.

- Collaboration with the society: e-government assures the social responsibility of corporate governance; therefore, communicating and collaboration with citizens and business are so essential. Accomplishing the needs of stakeholders; citizens and corporations, is the core stone of e-government and in order to manage that the government may provide courses and allow new technologies to be used by stakeholders to determine the real needs and the measure of efficiency of providing services through e-government.

5. The strategic changing of E-government

Applying e-government besides corporate governance principles will lead for a strategic movement of the government's activities and bring strategic benefits for all stakeholders as the following:

- Closing the gaps among the requested and available skills: the e-government requests certain skills in management, marketing, technology and economic besides others as well. Moreover, these skills are renewal and changeable from time to time and due to that, there is always a need to develop the skills of the community besides the employees and that serve the sustainability of the human capital.
- Bring closer the expectations and recognition of citizens: that is a strategic movement that leads to reduce the serving cost and also achieve the exact important needs besides that bring the stratification of citizens to an acceptable level.
- Reaching stakeholders; citizens and corporations: the handling time for citizens and corporations to manage their needs is reduces with ability to check the status of their governmental transactions, which is important to assure transparency.

Computing and transferring data to hard and digital copies in governmental institutions is strongly requested in e-government (Laudon & Laudon 2004).

- Deloit Institution Study: this study has scanned 275 corporations and economic institutions in USA, Australia, UK, Canada, and New Zealand to determine the vision of the top-level management of those corporations and institutions regarding development and strategic changes of e-government and governance. As results, governments have involved e-government in their managements, and they were succeed to

achieve several benefits; such as good productivity of information and reducing complains of stakeholders (Laudon, K & Laudon, J. 2004).

- Prentice Hall Study: the study was made in 2004 in USA, it concerned on citizens and governmental employees besides private corporations, and NGOs. The results was that government was working hard from government to achieve the maximum benefit of e-government besides governmental investing in community and new technologies to move to another level of the collaborating among the government and other stakeholders; citizens, institutions, and corporations.

6. Corporate governance and E-government

In the light of that, the efforts of governments at the global level is noticeable to apply new information and communication technologies and to reconstruct their managerial procedures of making final decisions in order to the interests of stakeholders; citizens and corporations, in a productive and quality possibility which is available for these governments. Because, the e-government is able to solve certain issues that governmental institutions are suffering with such as bribing, taking the advantage of a state position, late handling time for citizens and corporations transactions, and as a result of that, the morality in the community will increase and achieve corporate governance (Ribas Ferrer 2014).

In addition, corporate governance and sustainability are presented in e-government, which assures the best use of the nature and human capital, besides, the long term invest in developing or adopting new technologies and that close the gap among the stakeholders needs and the capacity of the government.

Social responsibility of corporate governance is included within e-governments, which forces the governments to increase the level of managerial profession of state employees assuring responsibility and accountability. With the structure of e-government, the employment process is change through choosing qualified people to work and reduce undercover unemployment. That leads to create new positions and new careers besides attracting citizens and states members to develop their skills (Ribas-Ferrer 2014). In accordance with that, all employees are useful and that allows to the government to gain funds back, and in its turn, these funds can be used to develop important projects to assure the social and environment responsibilities. Corporate governance assures transparency as a main governance principle and with e-government, transparency is assured through the one-open-window.

7. Conclusion

E-government is can be considered as result of combining the principles of corporate governance, and new information and communication technologies. Besides that, it ensures that the interests of stakeholders, citizens and corporations. Accordingly, the government is obligated to prepare the important elements for new basic structure to reach e-government through the accessibility for information and communication technologies transferring information and data to and from stakeholders and to governmental institutions. That means; government should develop sustainably technologies and activate the private sectors; companies, NGOs and corporation to take a roll in that as assuring the social and environment responsibilities. Due to that, public and private investments are issued to develop the technologies, also to prepare the community; citizens and corporations; to e-government. These investments are for a long term in accordance with saving the available nature resources and develop the human capital.

Applying e-government may be crashed with the willing of politicians and certain governmental regulations; therefore, reconstructing the procedures of decision-making must be done besides new procedures of hiring state's members and employees. This reconstruction must also be done in the community to encourage people to adopt new information and communication technologies through courses organized with private sector and through showing the benefits that citizens will achieve when they are digit citizens. An important point appears with this step of reconstruction, which is information privacy. The government is obligated to issue regulations to assure the information protection that has been shared by citizens and corporations to create a trustful atmosphere among all stakeholders; government, citizens and corporations, also to assure transparency and responsibility of government in front of the community. In the light of that, new careers are issued and people become more intellectual with an acceptable awareness for their rights and the way that they are served.

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