

# ICEBSS

A nighttime photograph of the Chain Bridge in Budapest, Hungary. The bridge is illuminated with warm, golden lights, highlighting its ornate stone towers and suspension cables. The bridge spans across the Danube River, and the city lights of Budapest are visible in the background under a dark sky.

**4th INTERNATIONAL CONFERENCE ON  
ECONOMICS BUSINESS MANAGEMENT  
AND SOCIAL SCIENCES**

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4th INTERNATIONAL CONFERENCE ON  
ECONOMICS BUSINESS MANAGEMENT AND  
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**4th INTERNATIONAL CONFERENCE ON ECONOMICS BUSINESS MANAGEMENT AND SOCIAL  
SCIENCES**

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**PREFACE**

We sincerely hope that the contributors and attendees of ICEBSS'2019 will find presented studies enlightening, useful and of interest. The aim of ICEBSS is to bring researchers from different disciplines together and inspire them to collaborate.

On behalf of the organization committee, I would like to thank Prof. Dr. Siniša ZARIĆ as the opening speaker. Furthermore, I thank all the authors who have shared their precious works, also the participants for attending, all reviewers for their valuable contributions and members of the committee for their never ending supports and advices.

We hope that ICEBSS will reinforce interdisciplinary and international collaboration and hearten information exchange between various fields.

October 2019  
Prof. Dr. Mahmut ZORTUK  
Coordinator of ICEBSS



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**OPTIMIZATION, PERFORMANCE AND QUALITY IN ROMANIAN HEALTHCARE PUBLIC  
SYSTEM**

**Laura PETCU<sup>1</sup>**

**Abstract**

Performance management is well known as an important tool for organizational accountability in developed countries. Romania has made considerable efforts over the past 25 years to become an economically and socially developed country. Even if progress had been made, the public health system collects organizational policies inadequate, applied progressively over at least two decades, in which the accentuated administrative bureaucracy operated against a flexible system, enabling focus on high medical achievement quality. The action lines to be implemented must print national health system, minimal targeting features the provision of high quality health care services to patients double role, by financiers (by paying social security contributions of health) and partners in making optimal decisions to ensure a high level level of medical services. Management of performing the public health system implies translating the theoretical foundation into pragmatism or the application of functions management over health care services. This article will present a diagnosis of the public health system at the level national, based on the identification of slippages and dysfunctions as an action similar to the diagnosis of a patient by his treating physician. The article has as support direct health system assessments, prestigious publications in which they have the results of some researches in the field, as well as the processing of some official data and information.

**Keywords:** health, management, performance, public health, medical services

**1. INTRODUCTION**

While advancing population wellbeing has been the greatest objective of general wellbeing practice and approach and new objectives as far as self-sufficiency and equity have been introduced in the last decades, world healthcare industry is finally realizing that we are far away from perfection. Quality in a healthcare unit can be described, measured and analyzed. This action is possible with the help of the basic tools and techniques of quality management, and their use in clinics and hospitals in Romania will allow to determine the main causes of patients' dissatisfaction with the medical processes, in order to improve the medical record.

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Their use allows to create an easily understandable vision of the patients' needs, useful for establishing a healthcare environment focused on their needs and expectations. The seven basic tools of quality management, applied in the health system, are useful both to the managers of clinics and hospitals, as well as to medical professionals, as some present a "picture" of the situation at a given time of a medical process, and others present the oscillation of the process. an aspect that shows whether the medical process falls within normal limits or not. Consequently, the use of these quality management tools, in the management practice of the healthcare system, is a real help for the clinics and hospitals in Romania, and their easy use creates additional reasons for their use in substantiating the= decisions arising from the plans and programs. improvement of the activity of the sanitary units. This article is concerned with the introduction and development of quality assurance in world healthcare services, in general and in romanian healthcare services. Under the magnifying glass of a powerful micro-cop, healthcare systems at European and global levels are seeking solutions to harmonize the relationship between rising healthcare costs and the ability of health care systems to respond to society's needs. The Romanian healthcare system is also involved in this process. First of all healthcare providers need to ensure that the services that are delivered meets the real needs of population, including commercial and societal needs, and that this process of continuous quality improvement is designed and implemented in every occupational health service. The quality management of the health services has the tools necessary to diagnose the problems, both of those generated by the managerial dysfunctions of the health units, as well as of those generated by the insufficiently founded decisions at the level of the top management of the health system. The purpose of this approach is embodied in recommendations that will increase the efficiency and efficiency of healthcare.

### **2.AUTHORITIES**

Starting with 2008 in Romania, The National Commission for Accrediting Hospitals (Co.N.A.S. was set up, which aimed at applying the Government's policies and programs in the field of healthcare and harmonizing with European legislation, in order to continuously improve the quality of hospital medical services.

In 2015 the Romanian Parliament approved the reorganization of the Co.N.A.S. in the National Authority for Quality Management in Health - A.N.M.C.S., with the purpose of extending the quality management from hospitals to all categories of health services.

The European Parliament and the Council of the European Union issued Directive no. 2011/24 / EU on the enforcement of rights of the patients in cross-border healthcare, which specifies





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the need for Member States to take all steps to ensure that health care providers have a system of quality assurance and patient safety within it.

The quality management system of the health services, requested by A.N.M.C.S., must determine the application of a process in several steps, which includes the realization of protocols and procedures, their implementation and demonstration that they have been respected.

A.N.M.C.S. disseminate the concept of quality to healthcare professionals, in order to change the organizational culture in order to ensure the implementation of the quality management system.

### 2.1.Mission

Mission A.N.M.C.S. is to determine the continuous assurance and improvement of the quality of the health services and of the patient's safety by modifying the culture of the health organizations, standardization, evaluation of the health services and accreditation of the health units, placing the patient in the center of the system (Buschak, 1993).

There are nine quality variability defined in the presentation for medical practice as well for health management, which forms pools for medical services:

- **professional competence** - the knowledge / skills / performance of the medical team, the managers and the support team;
- **accessibility** - the provision of health services is not restricted by geographical, social, cultural, organizational or economic barriers;
- **effectiveness** - the procedures and the treatment applied lead to the achievement desired results;
- **efficiency** - providing the necessary care, corresponding to the costs smaller;
- **interpersonal relationships** - the interaction between suppliers, between suppliers and patients (clients), between managers, suppliers and payers, as well as between the team care and community;
- **continuity** - the patient benefits from a complete set of services health that he needs, in a well-defined order, without interruption, or repeat the diagnostic and treatment procedures;
- **safety** - minimal risk to the patient of complications or adverse effects of treatment or other hazards related to the provision of health services;
- **physical infrastructure and comfort** - cleanliness, comfort, intimacy and others important aspects for patients;
- **choice** - as far as possible, the client chooses the provider, the type of insurance or treatment



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### **2.2. Standards**

Romania offers benefits of a universal healthcare system. The state finances primary, secondary and tertiary healthcare. Public health campaigns are independently financed by the Government of Romania. The Ministry of Health of Romania is required to manage and supervise the public healthcare sector.

The concept of universal healthcare has been implemented in name only in Romania. However, the patients were still required to pay some medical costs, and in some cases, the fees were too high. In consequence, healthcare was virtually only available to the middle class and upwards. The working class were in the position of having to use free clinics or hospitals run by charities.

In the major urban areas, medical facilities are generally well-equipped, with world-class private healthcare also available. In rural areas and small towns, healthcare is sub-standard, with patients often asked to buy basic supplies such as gloves and syringes (Justlanded, 2019).

### **2.3. Costs**

Political and economic instability have contributed to low levels of health expenditure at EUR 814 per capita (adjusted for differences in purchasing power), Romania spends under a third of the EU average, the lowest level of all Member States on health care (Figure 6). The share of GDP dedicated to health (4.9%) is also the lowest and significantly below the EU average of 9.9%. Health spending as a share of GDP has been decreasing steadily since 2010, reflecting the unstable political situation (see Section 5.3) and following spending cuts to meet fiscal deficit targets. Nevertheless, public sources account for 78% of total health financing (on a par with the EU average). Out-of-pocket payments are the second largest source of revenue for health care, and in 2015 reached 21% of expenditure for the first time (Figure 7). Although detailed data are not available, survey evidence indicates that informal payments, particularly for hospital care, are widespread and substantial.

In the context of the anticipated evolution of the increased emphasis on health services provided at the level of community assistance, family medicine and services in the specialized ambulatory, it is necessary to correlate the quality focus with this vision of development of the health sector.

Therefore, after the development of the system of standardization and quality evaluation of the ambulatory and family health services, it is foreseeable that the focus on quality and on the services of community assistance can be extended.

This fact is reinforced by the international vision on quality that does not refer only to the health system. The same ISQua's International Accreditation Program (IAP) of the international body ISQua has the component "Health and Social Care Standards". It is obvious



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and logical to extend the quality vision on social and community services, being the next important strategic step by which the health sector in Romania will be closer to the population, as provided in the National Health Strategy (OECD, 2017).

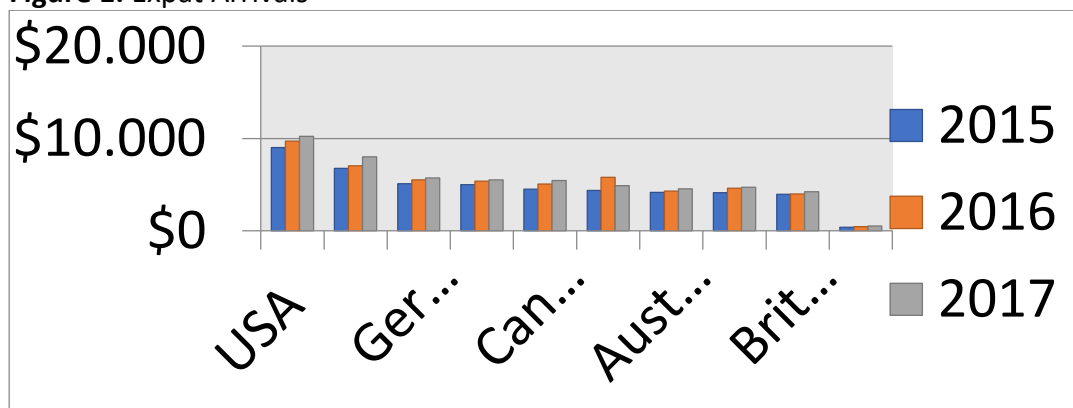
### 3.RESULTS

In 2015, the United States spent almost three times on healthcare as the average of other countries with comparable incomes and more than 100 times than Romania does, according to data from the Organization for Economic Cooperation and Development, also known as the OECD, a group of 35 countries, the majority of which have advanced economies, that work to promote economic development. And despite spending more, the results don't necessarily yield better health. Both Italy and Britain, for example, spent at least \$5,000 less per person than the United States on healthcare, and yet the population of each of those countries has a higher life expectancy at birth than the United States.

According to experts, there are two underlying reasons why the United States spends so much on healthcare: It uses expensive medical technology and prices for healthcare services, and goods are higher than in other countries.

As a result, the United States spends more on healthcare than any other country, including those belonging to the OECD (Expat Arrivals, 2011).

Figure 1: Expat Arrivals



Source: Expat Arrivals, 2011.

### 4.CONCLUSION

Per capita, Romania has the lowest medical expenses inside the European Union (€358 per inhabitant in 2012) (Eurostat, 2019).



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The medical system has been affected by a lack of medical staff. This is due to the low wages and the attractive working conditions in Western Europe. Many medics and nurses have decided to go and work in the medical system in Germany, UK, Belgium, France, Spain, Ireland and Italy (Curierul, 2011). It has the lowest proportion of nurses and midwives per head in Europe- 73 per 100,000 in 2015 (Ballas and Danny, 2017).

Another issue is the high level of out-of-pocket spending. As a consequence of the bribery that has been "traditionally" practiced ever since the communist era, a sizable number of patients have reported that they have had to bribe the doctors and nurses in order to receive good treatment (Stirileprotv, 2011). Furthermore, another issue is that, in some cases, the hospitals lacked basic supplies, such as tampons and therefore, although the equipment and medicine is there, certain procedures cannot be done until the patient provides the supplies by themselves (Ziare, 2009).

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**LEGAL ASPECTS OF DISCIPLINARY RESPONSIBILITY IN PUBLIC SERVICE REGULATIONS IN THE  
CZECH REPUBLIC**

Zdenek FIALA<sup>1</sup>, Olga SOVOVA<sup>2</sup>

**Abstract**

The paper analyses disciplinary responsibility of persons in public service duty in the Czech Republic, namely civil servants, members of security forces and professional soldiers.

The paper examines selected issues of legislative regulation of disciplinary responsibility, based on the reform of public administration in the Czech Republic. The paper highlights background of new approaches to the disciplinary responsibility, represented by the project of the New Public Management. This project prepared the important ethical and legal basis for the European Union accession. Ethics and moral of the public service became the part of legal norms, such as the Act No. 234/2014 Coll., on Civil Service, Act No. 361/2003 Coll., on Service Relationship of Members of Security Forces, and Act No.221/1991 Coll., on Professional Soldiers. The paper examines principles of the disciplinary responsibility and disciplinary procedure in general. The paper points out competences of senior public officers in disciplinary procedure, similarities and differences among the above-mentioned acts and argues issues of the diver approaches. The core of the paper forms the analysis of public servants' responsibility for general offenses, as they are excepted from the competence of the administrative body; further the specific graduation of penalties and distinction in disciplinary bodies and procedure, because only one superior officer is the disciplinary bod by armed corps. The paper uses the methodology of economic legal approach. The analysis highlights financial impacts on public budget and social costs of the highly formalized proceedings in public administration services. The paper concludes with discussion about possible harmonization of the disciplinary responsibility and procedure in public service in order to avoid legal uncertainty and unjustified expenditures in public finance.

**Keywords:** public service, security forces, professional soldiers, armed corps, disciplinary responsibility procedure, social costs

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### 1. INTRODUCTION

The issue of suppressing ethical rules and the decrease in confidence of citizens in public administration came into focus in relation to the reforms of public administration executed under the “flag” of the movement for modernisation, known in theory as New Public Management, focusing primarily on the achievement of higher efficiency, economy and the effectiveness of public administration. Therefore, a number of international organisations – e.g. OECD, UN, EU – started to pay attention to other values and not only to economic aspects. Over time, studies requiring ethics to be introduced as the fourth “E” within the objectives of administrative reforms, started to arise. Out of all of them, it’s at least appropriate to mention here the study prepared by the OECD - Trust in Government – Ethics Measures in OECD countries, published in 2000, which was the result of a relatively extensive project on ethics (PUMA/OECD). This study showed that the most crucial problems of ethics and corruption arise during the direct contact of the private and public sector. Therefore, for renewed confidence in public administration, it’s necessary to achieve the integrity of public service.

It’s also worthy to mention the fact that in connection to the project on ethics, the Recommendation for Member Countries on the Enhancement of Ethical Behaviour in Public Administration was adopted in 1998, containing twelve principles of the management of ethics. This also includes the requirement for public administration to own adequate mechanisms of liability, i.e. so proper procedures and sanctions are in place in the event of improper conduct.

For the purpose of supporting the required standards for the proper behaviour of officers, on March 21, 2001, the Czech Republic adopted, as a part of the resolution of the government of the Czech Republic, the Ethical Code of Employees in Public Administration. However, this code was criticized due to its general nature, non-specification, absence of anti-corruption mechanisms, so it was amended in May 2012. The actual code contains 14 articles (twice as many as the previous one). The text of the code itself demonstrates clearly that it’s based on international ethical codes. However, in comparison to them, it’s a little briefer and less specific. Certain provisions – e.g. questions on the prioritisation of former employees, leaving public service with the enclosing and utilisation of confidential information, are explicitly missing there. Conversely, the issue of receiving donations is defined more strictly.

With regard to the fact that international codes explicitly specify the disciplinary responsibility and disciplinary proceedings, a serious deficit in the legislation of the Czech Republic may be seen in the fact that for a certain group of public administration employees, more specifically for public service officers, the sanction measures were specified only in Act No. 262/2006 Coll., the Labour Code, for a relatively long time. This deficiency was removed only by the adoption of Act No. 234/2014 Coll., on Public Service.



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These days, the disciplinary responsibility of individuals in an employment relationship in the public service of the Czech Republic are set in the following legal rules:

- Act No. 234/2014 Coll., on Civil Service
- Act No. 361/2003 Coll., on Service of Members of the Security Forces
- Act No. 221/1999 Coll., on Professional Soldiers

Therefore, the Act on Public Service does not represent the only Czech legal rule specifying the employment of individuals with the state, while the state employees employed under this act are not the only persons in an employment relationship recognized by the Czech legal order. Besides this relatively newly codified group, there are also members of the security corps and members of the Army of the Czech Republic – professional soldiers – in a state employment relationship.

The objective of this article is to introduce the fundamental aspects of disciplinary responsibility legislation in the case of all three stated groups of individuals in an employment relationship with the state.

### **2. DISCIPLINARY RESPONSIBILITY**

The vocabulary of Czech law (Madar, 1995) defines disciplinary responsibility as a “legal responsibility, based on the breach of specific service obligations of employees within an organisational system of public administration, set in specific legal rules, while as such, it’s regularly set directly in these rules of the administrative law.”

The specifics of disciplinary responsibility are based on the fact that such responsibility represents a legal responsibility executed by relevant disciplinary authorities of the respective public administration organisations or institutions, and that it is applied, in particular, to their conditions and needs. Their main objective is to secure the proper and uninterrupted function of such organisation in a way to protect their dignity and confidence, as seen by the public. Thus, it also contributes to the fulfilment of their tasks and objectives. This institute was assigned to such institutions because of the fact that they could fulfil their tasks operatively and they would not have to request other public administration institutions to remove such obstacles and agree on remedial actions. Therefore, in general, the disciplinary responsibility is often defined as a liability related to the breach of intraorganizational relationships, reaching legal form if related to organisational relationships regulated by law (Průcha, 2004); or as a liability for actions (or negligence) adversely affecting discipline, i.e. discipline or order within a certain social organism or social institution (Sládeček, 2005; Hácha et al. 1929). The definition above uses the term ‘discipline’ as well, representing both the “submitting of an individual to a certain order” and also the “pre-set order of activities of a certain organized



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structure, rules, under which such system works and whose breach results in an imposed sanction.” (Hácha et al. 1929, Mates, 2002). The existence of disciplinary responsibility is then the demonstration of the need to secure observation of pre-set rules in relatively integrated and stabilized organisational systems (Průcha, 2004); while such disciplinary delict may be caused by a person having a certain (legal) relationship to such organisational system (Sládeček, 2005; Keisler, 2017).

Disciplinary responsibility is executed in the form of an imposition of disciplinary sanctions. The purpose is to punish those persons that committed a serious offence against the discipline maintained within a certain social organization and to educate the members of such society and guide them to observe pre-set rules (so the preventive and repressive function becomes predominant here). Therefore, the basis of disciplinary recourse is not only repression, but in particular the prevention of detrimental acts (both, individual as well as general). With regard to the fact that the requirement of the observed discipline is closely related to the expertise and professional ethics or moral integrity and polite behaviour, and the good reputation of such organisation, disciplinary sanctions often have the nature of a professional reproach, rebuke, and only in the case of more serious delicts, proprietary or any other sanctions apply.

### **2.1. Service discipline and disciplinary delict**

On the basis of the above, the application of disciplinary responsibility is based on the observance or non-observance of legally set rules in interorganisational relationships, i.e. on maintaining internal discipline or order, or the non-meeting of the service obligation. All three relevant acts use the term discipline or service discipline, while each of them defines their scope in its own manner for its own purpose. The Act on Civil Service states that a service discipline means the “right fulfilment of obligations of a public administration employee, based on legal rules related to service in the performed area of service, on service regulations and instructions.” A similar definition of service discipline can be found in the Act on Service of Members of the Security Forces, where the service discipline is defined as an “unbiased, proper and conscientious fulfilment of service obligations of a member, based on legal rules, service regulations and orders.” In contrast to these two legal rules, the Act on Professional Soldiers works with the term service discipline, yet it does not specify it further.

The body of the offence of disciplinary delict relates to the institute of service discipline, while this term is, as tends to happen in the area of disciplinary law, defined relatively vaguely. The Act on Civil Service uses a very brief description, stating that the body of the offence of disciplinary delict is met in the case of a culpable breach of service discipline. The same concept is used in the Act on Service of Members of the Security Forces, where sec. 50 defines





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the disciplinary offence as a “culpable act, breaching the service obligation, but not representing a criminal act or act that has the characteristics of an offence, while the disciplinary delict shall also include non-satisfactory results of service specified at the end of service evaluation. The concept found in the Act on Professional Soldiers is relatively similar, stating that a “disciplinary offence means a culpable act in contradiction to legal rules or military orders, regulations or instructions, unless considered as criminal under the Criminal Code.”

In general, we may state that the legal structure of the body of offence of the disciplinary delict in all three acts refers, by its content, to the term of service obligations as they are defined in the provisions on service discipline or legal rules specifying the competences of the respective corps (e.g. Act on the Police of the Czech Republic (ILO, 2008). Act on the Fire Rescue Service of the CR), (HZSCR,2015). Service regulations (internal acts from proceedings). The Act on Professional Soldiers and the Act on Service of Members of the Security Forces go beyond the scope of the non-meeting of service discipline in situations when such person in service acts in a way that the body of offence of a “common” offence under a special act is met, while such acts state that this acting of the person shall be resolved within a disciplinary proceeding.

Professional soldiers and members of the security forces are, in contrast to public authority employees, practically excluded from the competence of public administration bodies holding proceedings on offences in general, and in such situations, the respective legal rules subject them to the competence of bodies having disciplinary competence over them, regardless of the fact if such individual committed the respective breach during the conduct of service or when not being in service. In case of professional soldiers, the proceeding on acting with the elements of offence is held predominantly, and sanctions are imposed thereon, on the basis of special legal rules, while the Act on Service of Members of the Security Forces contains its own list of sanctions and in case of the issue of their imposition or in relation to procedural rules, it refers to special legal rules only in certain cases. However, in such cases, these are not disciplinary delicts in the literal sense.

Both the Act on Service of Members of the Security Forces as well as the Act on Professional Soldiers, explicitly negatively define the extent of disciplinary delict directly in the provision containing the body of offence in a way that they exclude acts also fulfilling some of the bodies of criminal acts or offences at the same time. The Act on Civil Service does not explicitly contain such a negative definition. However, sec. 96, par. 4g) of the Act on Civil Service states that if the relevant action has elements of an offence or criminal act, the body executing disciplinary competence shall assign such a case to the body that is competent to hold



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proceedings about such action under special legal rules, so to another administrative body or body competent to act in criminal proceedings, while if a public administration officer was punished for such act forcefully, such case may not be resolved within a disciplinary proceeding. Therefore, even here, we should not address the issue related to determining which proceeding should, at the end, be resolved within a disciplinary proceeding, and which should not.

The common issue of all three legal rules above is the requirement that a breach of service discipline must be culpable. However, only the Act on Service of Members of the Security Forces has its own definition of culpability.

### **2.2. Disciplinary punishments**

Each of these three legal rules contains its own exhaustive list of sanctions, hierarchically categorized according to the intensity and seriousness of disciplinary delicts.

The Act on Civil Service (in the event such situation was solved only by a written reprimand) allows, in the event such public administration officer was found guilty, to impose a disciplinary sanction in the form of a written rebuke, salary cut of 15% for even 3 calendar months, suspension of the service position and also, dismissal from service. The Act on Service of Members of the Security Forces contains seven types of sanctions. Such a high number of sanctions is based primarily on the fact that this act also contains a group of sanctions imposed in case, when within a disciplinary proceeding, an act having the elements of the offence is being solved as well. Besides these sanctions, for disciplinary delicts, considering the proper meaning of this term, sanctions such as a written rebuke, a reduction of the base wage by 25% for a period up to a maximum of 3 months, revocation of medal of service and also, the strictest punishment – revocation of rank, may be imposed. Firstly, it may appear that punishment in the form of dismissal may be missing here. In fact, that's not the case, as under sec. 42 par. 1e) of the Act on Service of Members of the Security Forces, punishment in the form of rank revocation leads to an obligatory dismissal from service. However, we may not ignore the fact that the dismissal is based not only on a separate decision, imposing sanction, but on the basis of a special decision following it.

Despite the fact that the Act on Professional Soldiers also permits the handling of a matter on acts having the elements of an offence within a disciplinary proceeding, within disciplinary sanctions it contains only those that are imposed for a disciplinary delict, more specifically, reprimands, a written rebuke, a warning for irresponsible performance of service and the reduction of wage of up to 15% for a period of 6 months.



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With regard to the statement above that in the event of the absence of an explicit sanction the service of a member of the security forces may be terminated as a result of disciplinary responsibility, in the event of professional soldiers, this possibility is missing. Not even among the reasons leading to the termination of service by dismissal, exhaustively stated in sec. 19 par 1 of the Act on Professional Soldiers, is there any reaction to the result of a disciplinary proceeding or sanction stated therein. However, under sec. 21 par. 3 of this act, the service also terminates with the revocation of rank, issued in a special proceeding, different from the disciplinary one. Despite the two groups of persons in service, stated above, the disciplinary responsibility of professional soldiers has more of a warning impact, fulfilling in particular a preventive and educative function.

With just one exception (the imposition of punishment by a revocation of rank under the Act on Civil Service), all three acts leave the specific sanction at the discretion of the relevant authority, executing the disciplinary competence. However, it may not ignore specific circumstances of the case in subject as the authority is obliged to consider legally set criteria when deciding on a sanction.

Pursuant to each of the three acts, there also exists the possibility to rescind the imposition of a disciplinary sanction if the relevant authority comes to the conclusion that only a “pure” discussion on a matter within a disciplinary proceeding may lead to corrective effects on such person in service.

### **2.3. Disciplinary competence**

As we could see only a slight difference in the text above and between the meanings and concepts of disciplinary responsibility within respective acts, in the case of determination of a disciplinary authority we can see a significant difference already. These are obviously based on the fact that each of the specified groups is subject to specific legal regulations, reflecting the special organisation structure of the institution, such persons are related to on the basis of their service.

The disciplinary proceeding in the first instance under the Act on Civil Service is held by a three-member committee, set within each authority office if such office has at least 25 state employees, or by a disciplinary committee of the first instance, established at a superior authority office, unless prior condition is met, or by a disciplinary committee of the first instance established in the Ministry of Interior if such office has no other superior authority. A special procedure is set for the head authority of the office. Disciplinary competence is executed towards him by a disciplinary committee of the first instance established at the



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superior authority office, and if there is no such office, by a disciplinary committee of the first instance established in the Ministry of Interior. The disciplinary proceeding under the Act on Civil Service has two instances. The authority deciding in the second instance is, regardless of the organisational structure of the respective area of public administration (consisting of three members again), the disciplinary committee of the second instance established within the Ministry of Interior. Therefore, in the event of state employees, the decisions on disciplinary delicts are assigned to collective authorities.

The body holding the disciplinary proceeding and imposing disciplinary punishments under the Act on Service of Members of the Security Forces is the service officer. In general, this is the director of the security corps or the head of an organisational section of the security corps in competence set by the director. The specific determination of the officer is included in a number of special cases in sec. 2 par. 1 to 5 of the Act on Service of Members of the Security Forces. This proceeding is also a two-instance proceeding, while the body deciding in the second instance is the officer superior to the officer issuing the first-instance decision. The specific element of a second-instance proceeding is the fact that the respective officer always decides on a legal remedy by considering the suggestions of the advisory committee that needs to be established for the case. In spite of the Act on Civil Service, applying collective bodies, the Act on Service of Members of the Security Forces assigns the execution of disciplinary competence in each instance to a specially determined person.

A similar structure may be found in the Act on Professional Soldiers under which the disciplinary proceeding is held and the disciplinary sanctions are imposed by a so-called body with disciplinary competence, meaning only the President and the Minister of Defence under sec. 50 par. 2 of the Act on Professional Soldiers, while partially, to an extent set in military orders, also by the authorities and superiors. However, the determination of a specific body is left here, compared to the Act on Service of Members of the Security Forces, extensively to special provisions included in service regulations. Also, the disciplinary proceeding under the Act on Professional Soldiers is a double instance proceeding. The body of the second instance is the body with a disciplinary competence, superior to the one that decided on disciplinary punishment in the first instance. Exceptions from the double-instance principle are those cases where the President decides in the first instance while there is no appeal permitted against his decision. Therefore, as in case of members of security corps, the disciplinary responsibility of professional soldiers is decided by an individual. However, the obligation to establish advisory bodies for the purpose of decision making is missing here.

The above demonstrates that the determination of the extent of execution of disciplinary competence by the respective body is significantly affected by the introduction of a relatively non-typical issue for the two above-stated groups of persons in service, and that's the preparation of internal regulations.



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### **2.4. Legal regulation of disciplinary proceeding**

For all three acts, the disciplinary proceeding is regulated by Act No. 500/2004 Coll., the Code of Administrative Procedure, while the main differences between the respective procedural regulations are based on the fact to what extent such legal rules do not allow its full application, either on the basis of explicit exclusion or on the basis of the existence of a special regulation.

In relation to their own special procedural regulation, the Act on Civil Service and the Act on Professional Soldiers are relatively brief – they limit their provisions only to a quantitatively small, but qualitatively not very important area. The Act on Professional Soldiers excludes the application of specific provisions of the Code of Administrative Procedure explicitly, while beyond the frame of such exclusion, it contains only a relatively small number of special provisions, in particular related to procedural deadlines and the issues of appellative assessment of resolutions in proceedings held under this act. The Act on Civil Service does not establish any explicit exclusion from the application of the Code of Administrative Procedure. In the case of this act, special provisions are used primarily for the issue of initiating proceedings and their suspension as well as for proceeding on appeal. A completely contradictory approach by lawmakers was applied in the case of the Act on Service of Members of the Security Forces, not excluding the application of the Code of Administrative Procedure, but containing its own special regulation, having a natural priority in application. This statement does not apply only for the issues of a disciplinary proceeding, but for administrative proceedings under this act in general. In the respective procedural provisions, there are special rules for the initiation of proceedings and for the determination of parties, through representation or necessary elements of the issued resolution to completely special rules applied only in a disciplinary proceeding.

### **3. DISCUSSION**

As stated above, the basic concept of disciplinary responsibility in all three acts is relatively identical. However, in a more extensive concept, we can see a number of partial differences. The possibility to compare their content from both the civil section of public administration as well as from the security corps section, provides a completely new viewpoint on the specific legal solution of selected issues related to the disciplinary responsibilities of persons in service. The following questions arise logically from the *lege ferenda* point of view, based on the comparison performed above, along certain terminological disunity, in particular:





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**3.1. Managerial and economic issues of disciplinary proceedings**

The practice underestimates the managerial and economic issues of disciplinary proceedings. In the previous parts of the paper, we highlighted the obligation of the disciplinary authority to comply with all legal, regulatory requirements to avoid any interference with the rights of the accused and the public order in general. That is why the disciplinary authority must have a profound knowledge of the particular legal regulation of the obligations of a member of the specific type of security forces. Also, the knowledge of the recent case-law of the Supreme Administrative Court, the Supreme Court and Constitutional Court are required.

Moreover, disciplinary competence is just one of the many duties of the superior officer. The table below shows the number of disciplinary proceedings in one of the Police Regional District. These data have been collected by authors, based on the interview with the superior police officer. The Czech Republic is divided into 14 regional districts, so based on the data, we made a qualified estimate for all regions. We discussed it informally with other regional officers, and they confirmed that the figures are very similar. There is no official data or statistics in disciplinary proceedings in Security forces, as this type of proceedings is not public.

**Table 1:** Statistics on Disciplinary Proceedings - 2015

288 launched - One Regional Police District	14 Regions in CZ
<ul style="list-style-type: none"> <li>• 226 Misdemeanor Proceedings - traffic or public order</li> </ul>	Average 220/ District
<ul style="list-style-type: none"> <li>• 78%</li> </ul>	3000 Misdemeanor proceeding
<ul style="list-style-type: none"> <li>• 62 Disciplinary delicts</li> </ul>	Average 60/District
<ul style="list-style-type: none"> <li>• 23%</li> </ul>	840 Disciplinary Delicts

There are several economic consequences of the disciplinary proceedings. First of all, the possibly guilty member of security forces might be reassigned to another position or even temporarily exempted from the service with 60% of the salary remuneration. The economic loss is quite apparent, as he does not work at his field. The time he superior officer spends with the disciplinary proceedings must also be paid. No one of the superior officers is a lawyer by education, so the third implication is that the proceedings might be prolonged and at the end of the day, the administrative court might declare the decision unlawful.



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That is why the superior officers agree that it is necessary to increase their legal knowledge ensuring the internal courses and education in the respective field. Another solution would be establishing unique disciplinary bodies with legal professionals. Both these solutions would, of course, increase the cost paid from the state budget.

### **3.2. The question of liability for acts, having the elements of an offence**

If we should agree with the justification of exclusion of stated persons in service from the competence of authorities, deciding in proceedings on offences in general, this would be a limited exclusion only for the action having the elements of an offence the respective person caused during the performance of service or in direct relation to its performance. However, we leave to deliberation the option of the full dropping of any exclusion from competence of the stated authorities, thus suspending the special procedural mode given to the members of the security corps and professional soldiers. In particular for the reason that while keeping the actual concept, the application practice will always face the special section of offence law that is composed of a numerous, non-codified, large group of bodies of offences, differentiating from each other markedly, and therefore also to the actual higher requirements for the quality of procedure and the quality of the deciding authority, based on art. 6 of the European Convention for the Protection of Human Rights and Fundamental Freedoms. In relation to this, firstly it's necessary to consider the justification and real need of solutions of "common" offences in disciplinary proceedings that were regulated by legal rules only recently, in the 1990s. By the separation of this category, it would undoubtedly help to free the officer in service from "burden" not only when it comes to resolved delicts, but also from the qualification requirements points of view or from the required level of expert competences (knowledge) point of view.

### **3.3. Question of sanctions**

Look at the Act on Civil Service as a model, it would be appropriate to consider the possibility to implement a formal procedure for the solution of minor deficiencies in service even in those two residual acts, providing a flexible option of effective notice on the respective deficiency in respective situations without the need to hold a separate disciplinary proceeding. Informally, we can find such instrument already existing in practice – the so-called record about an extraordinary event.

On the basis of comparison of the respective legal rules, it's clear that the Act on Civil Service, as the youngest legal rule, contains, as a paradox, the mildest punishment in the form of base wage reduction. It's questionable if the "pecuniary" punishment of wage reduction by 15%,



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limited also by three months, may represent a sufficiently intensive intervention into the proprietary sphere of the subject of the disciplinary punishment and, with regard to the small scope of legal limitations, if it provides sufficient space for the sanction classification according to the seriousness of the acting body fulfilling a disciplinary delict.

With regard to the Act on Professional Soldiers, it would be worth considering the possibility to connect the institute of disciplinary responsibility and the institute of dismissal from service.

### **3.4. Question of a disciplinary body**

A collective body decides on the disciplinary responsibility of state employees while the disciplinary responsibility of the two residual groups of persons in service is resolved by a monocratic body (head of respective organisational section). Although, none of the stated concepts may be called a clearly poor (or good) concept, we believe that the more appropriate option would be to assign the decision-making competence to a collective body primarily on the basis of fact that it provides a higher potential for the independence of decision-making as well as for the elimination of worries on affecting the content of decision depending on the specific whimsy of an individual.

### **3.5. Procedural regulation of disciplinary proceeding**

Probably the most controversial issue is the issue of application of Act No. 500/2004 Coll., the Code of Administrative Procedure, to the service of members of security corps with regard to its relatively comprehensive nature. Also, the current legislative efforts (2016, 2017) to exclude the competence of the Code of Administrative Procedure in this process correspond thereto, while they proved to be completely impassable in a number of ways. When forming the new procedural rules of the Act on Civil Service, there should be no efforts to exclude the competence of the Code of Administrative Procedure by trying to create completely comprehensive procedural legal rules. Conversely, the motto of new procedural rules should be, following the Act on Civil Service, the reduction of existing, overlapping procedural institutes, i.e. making the regulation narrower, but also the preciseness and consistency when setting the necessary deviations from the general regulation of administrative proceeding. In this case, it's completely necessary to separate the personal and disciplinary proceeding in the procedural regulation. Then, from the disciplinary punishment point of view, it's necessary to pay special attention in particular to those institutes that are respective by nature to punishment in more extensive interpretation (e.g. suspension, halting of proceeding, hearing of accused person, deadlines for the issue of resolution, manner of initiation of proceeding, specific rights of the accused etc.), whose general regulation included in the Code of



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Administrative Procedure is seen as insufficient for the purpose of criminal competence execution. A large source of inspiration could be the new regulation of a procedural offence or the regulation of the Criminal Order – however, this should not be performed as a thoughtless copy of selected provisions of these legal rules.

### 4. CONCLUSION

By the adoption of the Act on Civil Service, the regulation of public service in the Czech Republic finally achieved a comprehensive extent of the relation of persons in service versus the state. However, it's fractured into three legal rules, resulting inter alia in a bigger or smaller difference in specific rules related to the respective groups of persons in service, not excluding their disciplinary responsibility.

In the first part of this article, with regard to the limits of its scope, the basic legal aspects of the concept of disciplinary responsibility of state employees, members of the security corps and professional soldiers are outlined with reference to the respective differences. In the part for discussion, there's an effort to find the possibility of harmonisation of the respective concepts of legal regulation of disciplinary responsibility of persons in service. The result of these efforts are a few general suggestions for the execution of legislative changes, by which the text of the three above stated acts could eventually be amended, and that could serve as a suggestion for a professional discussion. Therefore, the contribution does not bring any final solution, but rather it warns about certain specific points of regulation, whose actual form is for consideration, and makes potential foreign interested persons aware of the basic elements of the regulation of public service in the Czech Republic.

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**THE EFFECT OF FEMALE BOARD MEMBERS ON FIRM PERFORMANCE:  
THE CASE OF TURKEY**

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**Abstract**

Performance which expresses the ability to reach aims in terms of business is a phenomenon that can change periodically and needs to be continuously developed. Although there are many factors affecting performance, the effects of corporate governance practices on firm performance have become increasingly important. In this context, the aim of the study is to investigate the differences between the performance of the firms that have female board members and the firms that do not have in the framework of corporate governance principles. In accordance with this purpose, the boards of the firms which have been included in the Borsa Istanbul 100 (BIST- 100) Index between the years of 2013 and 2018 were examined continuously and the significance of the presence of a female board member in terms of firm performance was investigated by independent samples t test. As a result, it was determined whether or not having a female board member makes a significant difference on Tobin's Q value which is an indicator of firm performance. However, there is no significant difference between the ratio of return on equity and return on asset of firms which have female board members and the profitability ratios of firms that do not have female board members.

**Keywords:** Borsa Istanbul, Firm Performance, Corporate Governance, Female Board Member, t-Test.

**1.INTRODUCTION**

Developments in the global economy bring about constant changes in the competition conditions for the firms. Competitive advantage, which is no longer possible only with the consolidation of machinery, equipment and technological infrastructure, has gained a new dimension especially with the concept of corporate governance since the 2000s. Because corporate governance which based on the principles of fairness, transparency, accountability and responsibility is important in terms of achieving the aims of the firms and providing competitive advantage by performing superior performance.

Although there are many different definitions, corporate governance in a broad sense can be defined as a management philosophy aiming at protecting the rights of all stakeholders

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related to directly or indirectly, with all activities carried out by firms (Aktan, 2013: 150). In the framework of the OECD's principles determine in the Communiqué on the Determination and Implementation of Corporate Governance Principles issued by the Capital Markets Board of Turkey (CMB) includes regulations about shareholders, public disclosure and transparency, stakeholders and the boards. Under the section of the Boards, information on the function, principles, structure, meeting style, committees and the financial rights provided to the members and senior executives are provided. In the section where the structure of the board of directors is explained in relation to this study, it is noted that there is at least one female member in the boards.

The relationship between the presence of female members on the board of directors and firm performance is mostly explained in the literature by "resource dependency theory (Thompson, 1967)" and "agency theory (Fama and Jensen, 1983)" (Taşkın ve Mandacı, 2017: 30). The theory of resource dependence, first proposed by James D. Thompson in 1967, was developed by Pfeffer and Salancik in 1978. The basis of the theory is the determination of the factors necessary for eliminating the dependence on the environmental conditions that the firms are constantly facing, or the ability of the firms to establish connections to reach external resources (Pfeffer ve Salancik, 1978: 46). The establishment of these connections for firms is possible thanks to the boards. The relevance of female members is that it is foreseen that critical resources can be accessed more easily, especially in the board with a high proportion of female members (Taşkın ve Mandacı, 2017: 30; Atılgan, 2017: 337). The action of agency theory Fama and Jensen (1983) is the elimination of conflicts of interest between shareholders and managers. For this purpose, a board structure with a large number of members and a wide variety of members is recommended. In other words, it is suggested that the mechanism of the boards will work more smoothly with the establishment of gender differences in the boards, increasing the number of independent members or the total number of members (Karoğlu, 2016: 65-66).

Considering that one of the important functions of the managers is to achieve the goals of the firms, it is estimated that the firms with high quality boards will perform better on the way to the aim. Firm performance that concerns a wide range of parts, from owners to investors, from managers to competitors has two criteria, accounting and value-based (Yağlı, 2016: 44). Accounting based performance criteria obtained from balance sheet data is consist of Return on Assets (ROA), Return on Equity (ROE) and Return on Sales (ROS) (Lehn ve Makhija, 1996: 35). The value-based performance measures developed by asserting that accounting-based performance measures evaluate the firm's past performance include Economic Value Added (EVA), Market Value Added (MVA), Cash Flow Return on Investment (CFROI), Shareholder Value Added (SVA) and Tobin's Q (Koyuncu, 2010: 45-49).



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In this study, it was investigated whether there is a significant difference between the firms having and not having female board members in terms of variables representing performance. It was preferred to use both accounting and value based data together which are frequently examined in the literature as a measure of firm performance. In this context, ROA, ROE and Tobin's Q variables were used to measure performance. Within the scope of the aim of the study, firstly the studies about the subject in the literature were examined, information about the methodology was given and the findings reached as a result of the analysis were evaluated.

### **2.LITERATURE**

National and international studies investigating the effect of having female board members on firms' performance and the results of these studies are summarized below.

Carter et al. (2003) examined the relationship between female board members and firm performance for American firms. A positive correlation was found as a result of the study using Tobin's Q as a measure of firm performance. In their study, Campello and Minguez-Vera (2007) investigated the effect of female board members on firm performance for Spanish firms. Tobin's Q ratio was used as firm performance variable and as a result of the study, it was found that the number of female board members had positive effects on Tobin's Q ratio. Adam and Ferreira (2009) examined the relationship between firm performance and gender differences in the boards of American firms and concluded that there was a negative relationship between the two variables. They emphasized that this negative relationship may be due to the excessive control of female members.

Darmadi (2010) investigated the relationship between board diversity and firm performance of firms listed on the Indonesian stock exchange. In this study, ROA value is used as financial performance measure. As a result, no significant relationship was found between the number of female members on the board and the ROA. Menteş (2011) examined empirically the effect of the ratio of female members of the boards on financial performance for firms traded on Borsa Istanbul between 2004 and 2009. As a result of the study, it was found that there was a negative and significant relationship between female board member ratio and Tobin's Q variable, but no statistically significant relationship was found between ROA. Fauzi and Locke (2012) examined the effect of the board and ownership structure of 79 firms listed on the New Zealand Stock Exchange on firm performance. As a result of the research for 2007-2011, it was found that there was a negative relationship between ROA, Tobin's Q and the ratio of female board members.

Cook (2013) aimed to examine the impact of corporate governance practices on financial performance for 62 firms listed on the Canadian Stock Exchange. For this purpose, as a result



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of logistic regression analysis for December 2012 - March 2013 period, it is determined that there is a linear relationship between the number of female board members and accounting and market based performance indicators. Taghizadeh and Saremi (2013) examined the relationship between female board members and financial performance for 150 public firms in Malaysia. According to the research findings, while there was a positive and statistically significant relationship between female board member ratio and ROE, there was no statistically significant relationship between ROA. Karayel and Doğan (2014) investigated the relationship between the board of firms traded on BIST 100 Index and the financial performance. According to the results of the study using ROE and Tobin's Q data for 2009-2012 period, no significant relationship was found between the female members of the board and ROE and Tobin's Q values. Johl et al. (2015) investigated the relationship between board characteristics and financial performance for firms on the Malaysian Stock Exchange. While a weak and positive relationship was found between ROA and board size, it was concluded that there was no significant relationship between the ratio of independent board members and ROA. Otluoğlu et al. (2016) examined the relationship between board diversity and financial performance for 49 firms traded on BIST 100 Index. According to the results of the study which used ROA, ROE and Tobin's Q data for the years 2010-2015, there was no significant relationship between the ratio of female board members and ROA, but a weak and positive relationship was found between ROE. In addition, there is a weak and negative relationship between female board member ratio and Tobin's Q. Atılğan (2017) investigated the relationship between financial performance and the number of board members, independent board members and female board members. Profitability ratios are used as a measure of financial performance. As a result, while there is a weak and positive relationship between board size and ROA, ROE and EBITDA, there is a weak and negative relationship between independent member ratio and ROA, and there is a low and negative relationship between female board member ratio and EBITDA margin and sales return rate. Taşkın and Mandacı (2017) examined the effect of the number of female board members of firms traded on BIST 100 Index on firm performance. In the research conducted for the years 2008-2015, the effect of variables related to the structure of the board such as the ratio of female members and the size of the board of directors and independent members on the performance measured by the return on assets, return on equity and Tobin's Q ratio were investigated. Panel regression method was used by using dummy variables for each sector. According to the results, there was a negative relationship between the ratio of female members and ROA and ROE, and a positive relationship between Tobin's Q value. Larsson and Olofsson (2017) investigated whether firms with female board members performed better than firms that have not. ROE, profit margin, Return on Capital Employed (ROCE), EBITDA margin and earnings per share were used as a performance criteria for 94 Swedish firms listed on the stock exchange in 2013-



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2015. As a result of the research, it was emphasized that there is a positive relationship between the presence of female board members and firm performance. Ionascu et al. (2018) examined the relationship between gender diversity in the boards of firms listed on the Bucharest Stock Exchange and firm performance by regression analysis. Gender, firm size, board size, ROA and Tobin's Q variables were used in the analyzes conducted for 343 firms in the period covering 2012-2016 periods. As a result of the study, in which the number of female members on the boards of firms varied between 1 and 11, a positive relationship was found between female members and firm performance. Shabbir (2018) analyzed the relationship between female's presence in the boards and firm performance for 705 Italian firms listed on the Milan Stock Exchange. The dependent variable of the regression analysis for 2012-2014 periods was Tobin's Q. As a result of the study, it was found that the presence of female members on the boards did not affect the firm performance.

### 3. DATA SET AND METHODOLOGY

The aim of this study is to investigate whether the presence of female members in the boards of firms listed in BIST-100 Index makes a difference in terms of firm performance. At the end of 2012, it was not made compulsory for the firms which are one of the articles that changed with the New Turkish Commercial Code to have female members on the boards, but this is optional. However, after this date, it has been observed that firms pay more attention to having female members on the board in order to fulfill the requirements of corporate governance. Therefore, in this study, 2013-2018 period was preferred and during these years, 49 firms whose data were accessed and publicly-traded in BIST-100 throughout all periods were selected as sample. Information on the boards of firms was obtained from the annual reports published by the Public Disclosure Platform (PDP), while the financial performance data of the firms were compiled from both PDP and Finnet 2000 databases. In the study, ROA, ROE and Tobin's Q values are used and Table 1 shows how each value is calculated.

**Table 1:** Calculation of Performance Variables

Variables	Formulas
ROA	Net Profit / Total Assets
ROE	Net Profit / Equity
Tobin's Q	(Market Value + Total Debts) / Total Assets

The codes of the firms included in the analysis and the presence of female members in the boards of directors are shown in Table 2.





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**Table 2:** Female Board Member Status of Firms by Years

Firm/Year	2013	2014	2015	2016	2017	2018	Firm/Year	2013	2014	2015	2016	2017	2018
AEFES	N	N	N	N	N	N	KCHOL	P	P	P	P	P	P
AFYON	P	P	P	P	P	P	KRDMD	N	N	N	N	N	N
AKBNK	P	P	P	P	P	P	MGROS	N	N	N	N	N	N
AKSA	P	P	P	P	P	P	NETAS	N	N	N	N	N	N
AKSEN	P	P	P	P	P	P	OTKAR	N	N	N	N	N	P
ALARK	P	P	P	P	P	P	PETKM	N	N	N	N	N	P
ARCLK	P	P	P	P	P	P	PRKME	P	P	P	P	N	N
ASELS	P	N	N	N	N	N	SAHOL	P	P	P	P	P	P
BIMAS	N	N	N	N	N	N	SASA	P	P	P	P	P	N
DOAS	P	P	P	P	P	P	SISE	P	P	P	P	P	P
DOHOL	P	P	P	P	P	P	SKBNK	N	N	N	N	N	N
ECILC	P	P	P	P	P	P	TAVHL	P	P	P	P	P	P
ECZYT	P	P	P	P	P	P	TCELL	N	N	N	N	N	P
ENKAI	N	N	N	N	N	N	THYAO	N	N	P	P	P	P
EREGL	P	P	P	P	P	P	TKFEN	P	P	P	P	P	P
FENER	P	P	P	P	P	P	TOASO	N	N	N	N	N	P
FROTO	P	P	P	P	P	P	TRKCM	P	P	P	P	P	P
GARAN	P	P	P	P	P	P	TTKOM	N	N	N	N	N	N
GSDHO	P	P	P	P	P	P	TUPRS	P	P	P	P	P	P
GUBRF	N	N	N	N	N	N	ULKER	N	N	N	N	N	N
HALKB	P	P	P	P	P	P	VAKBN	P	P	P	P	N	N
HURGZ	P	P	P	P	P	P	VESTL	P	P	P	P	P	P
IHLAS	N	N	N	N	N	N	YKBNK	P	P	P	P	P	P
KARSN	P	P	P	P	P	P	ZOREN	P	P	P	P	P	P
KARTN	P	P	P	P	P	P							

**Resource:** Compiled from the annual reports of firms published at PDP. (N: None, P: Presence)

Firms are divided into two according to whether they have female members in board or not. The t-test is used to analyze whether the averages between the two groups differ significantly from each other. In this study, the independent samples t-test was used to determine whether female or male members of the boards make a difference in terms of firm performance and t test was applied for the following hypotheses.

$H_1$ : There is a significant difference between Tobin's Q value of firms with female board members and Tobin's Q value of firms that do not have female board members.

$H_2$ : There is a significant difference between ROE value of firms with female board members and ROE value of firms that do not have female board members.



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$H_3$ : There is a significant difference between ROA value of firms with female board members and ROA of firms that do not have female board members.

**Table 3:** Variance and Result of T Test

Measure of Performance	Levene's Test for Equality of Variances		t-Test			
	F	Sig.	t	df	Sig. (2-tailed)	
Tobin's Q	Equal variances assumed	5,564	,019	-2,986	292	,003
	Equal variances not assumed			-2,677	143,279	,008
ROE	Equal variances assumed	1,735	,189	-,240	292	,810
	Equal variances not assumed			-,231	167,225	,818
ROA	Equal variances assumed	1,055	,305	-,895	292	,371
	Equal variances not assumed			-1,108	291,094	,269

As shown in Table 3, at 5% significance level, there is a significant difference between Tobin's Q value of firms with female board members and Tobin's Q value of firms that do not have female board members. However, no significant difference was found in terms of ROE and ROA values. Therefore,  $H_1$  was accepted and  $H_2$  and  $H_3$  were rejected. In other words, while the presence of a female board member does not make no difference in accounting-based performance criteria, it makes a difference for the value-based performance criterion. When the results obtained considering the agency and resource dependency theories are evaluated, conflicts between shareholders and managers are expected to be less in the boards with a gender diversity. It can be considered that this situation is important for potential investors who want to invest in firm shares and affects Tobin's Q value. Furthermore, according to the literature, it is also important for investors to anticipate that female board members will facilitate the outsourcing of firms and this may have led to a change in value-based performance criteria.

#### 4.CONCLUSION

Issues such as structure, size, independence and attitude in decision making are extremely important in the boards, which are one of the cornerstones of the corporate governance mechanism. The protection of the interests of all stakeholders regarding the firm which is the essence of corporate governance is only possible with a well-structured board. For this reason, investigate of the boards has become increasingly important in recent years. In particular, in accordance with the purpose of this study, the difference that female board members make



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in terms of firm performance is evaluated by considering agency and resource dependency theories.

In this study, it is examined whether female board members make a difference in firm performance for 49 firms whose data can be accessed without interruption traded on BIST-100 during 2013-2018 periods. In this study, ROA, ROE and Tobin's Q values were used as a measure of firm performance. Independent samples t-test was used. As a result of this study, there is a significant difference between Tobin's Q value of firms with female board members and Tobin's Q value of firms that do not have female board members. However, no significant difference was found in terms of ROE and ROA values.

Although there are studies examining the size of boards and the status of independent members in the literature, there are also studies investigating the effect of female's participation in boards on firm performance. Of the results obtained in this study, the significant difference between female board members and Tobin's Q value is similar to results obtained by Carter et al. (2003), Campbell and Minguez-Vera (2007), Menteş (2011) and Ionascu et al. (2018). On the other hand, the result obtained by Shabbir (2018) which the presence of female members in the boards did not affect Tobin's Q, which is one of the criteria of firm performance, does not comply with this study. Furthermore, Darmadi (2010) did not find a significant relationship between the female board member and ROA. As a result of this study, the fact that there is no significant difference between the ROA values of firms with and without female board members supports Darmadi (2010)'s conclusion. On the other hand, the significant relationship between ROA, Tobin's Q and the female board member reached by Fauzi and Locke (2012) and also significant relationships between the female board member identified by Taghizadeh and Saremi (2013) and Karayel and Doğan (2014) contradicts the findings in this study. In addition, the significant relationships between the female board members and ROE, ROA and Tobin's Q reached as a result of the work of Taşkın and Mandacı (2017) partially contradict with this study.

The results of the analysis show that the difference between having a female board member and firm performance is not significant in terms of accounting profitability, but it is significant in terms of value-based performance. Thus, it is thought that stock investors examine the boards that are important for the corporate governance mechanism in determining the firms to invest in and this situation affects the market value of the firms. In terms of agency theory, the presence of members of different genders on the boards of firms may lead to different perspectives, different experiences and different gains. Furthermore, it is foreseen that there may be a difference between the atmosphere of a boards meeting with female members and the atmosphere of a meeting with only male members, and as the diversity of board of directors increases, access to resources can be facilitated. By increasing the number of firms



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constituting the sample of this study and the variables included in the analysis, different types of analysis may be preferred for future studies.

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**ANALYSIS OF THE RELATIONSHIP BETWEEN TURKEY AND FOREIGN TRADE PARTNERS'  
STOCK MARKET INDICES**

**Fatih GÜZEL<sup>1</sup>, Melek ACAR<sup>2</sup>**

**Abstract**

Turkey is a rapidly developing country. Although the number of countries in Turkey's trading range is increasing, certain countries constitute the major part of the foreign trade volume. The aim of the study is to investigate the economic relationship between Turkey and the important foreign trade partners (Germany, Russia, China, Italy, USA, England, France, Spain, Iran and Iraq). More than 50% of Turkey's foreign trade volume is generated by these countries. Since they are accepted as an indicator of the general economy, stock market indices were chosen as variables. For the determination of the economic relationship, stock exchanges' index values from 2010: M1 to 2019: M5 period were used. For the analysis, Autoregressive Distributed Lag (ARDL) bound test and Toda-Yamamoto causality test were used. According to the cointegration test results, there is a statistically significant long run relationship between Turkey with England, France, Germany and USA. According to Toda-Yamamoto causality test results, unilateral causality relation was found from Germany, Russia, USA, Spain and France to Turkey. The results were interpreted in the perspective of modern portfolio theory.

**Keywords:** Turkey, foreign trade, stock market indices, cointegration, causality.

**1. INTRODUCTION**

Countries have found the opportunity of more intensive commercial activity with other countries especially with the process of financial liberalization and globalization since the 1970s. On the other hand, commercial activities developed between countries have resulted in direct and/or indirect reciprocal effects of each country on the other country's economy. Interactions between countries are theoretically very important for portfolio management activities such as investment and risk elimination.

"January 24, 1980 Decisions" is a stability package known as a breaking point in transition to a liberal economic system which is in accordance with the principles of free market. The decisions of January 24, 1980 are comprehensive and have a wide range of applications. Also with these decisions, Turkey's integration into the global economy also aimed. As a matter of

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fact, in the following process, the necessary structures for the functioning of the market economy such as free foreign exchange market and securities market were established. Turkey's economy is quite close to a free market economy in which the central banks intervene in the market only in the case of excessive or speculative movements. In Turkey, securities are traded on the Istanbul Stock Exchange (ISE) which is established in 1985. In 2013, the ISE was transferred to the newly established Borsa Istanbul (BIST) along with other stock exchanges operating in Turkey and transactions were started under a single corporate structure.

Numerous indicators can be used to measure the interaction between financial markets. However, stock market indices are accepted as a general parameter of the economy and are frequently used to analyze inter-market interaction or integration. The critical point here is that the quotation ratio of the enterprises operating in the national economy should be high and the resource flow to the exchanges should be effectively realized, in other words, the exchanges should be accepted as an alternative investment instrument. The interaction between financial markets is examined from different angles or according to various restrictions. For example, there are many studies on the constraints such as the interaction between the countries that make up a certain geographical wholeness (MENA-Middle East North Africa etc.) or countries with certain economic characteristics (BRICS-Brazil, Russia, India, China, South Africa etc.). However, there are a limited number of studies on the interaction of countries which have trade relations. Starting from this point, the purpose of the study is to investigate the interaction between Turkey and countries which have heavy foreign trade volume. Subsequent sections of the study consist of a summary of the relevant literature, methodology and findings and conclusion.

## 2.LITERATURE

Different studies have been carried out regarding the integration between BIST and the stock exchanges of the European Union (EU) or some countries within the EU. In particular, after the beginning of full membership negotiations in 2005 an increase is observed in the number of related works. Mandacı and Taşkın (2005), in the study covering the 2000 - 2004 period, has compared Turkey with the 17 European countries'<sup>3</sup> stock markets according to different criteria including their market value and trading volume and examined the correlation between the stock markets. It is observed that the ISE has a higher rate of return and risk than other countries' stock exchanges. In addition, the correlation between the ISE and other countries was very low and it was concluded that the ISE could be an alternative investment instrument to the stock exchanges of other countries. Onay (2006), in the study covering the

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3 Germany, Austria, Denmark, Belgium, France, the Netherlands, Portugal, Finland, the United Kingdom, Ireland, Spain, Sweden, Italy, Hungary, Norway, Poland and Greece.



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2000 - 2005 period, has examined the interaction between Turkey and Bulgaria, Croatia, Romania, the EU (MSCI EU), the US (S & P 500). There was a low correlation between the mentioned indices and no cointegration relationship was found. The causal relationship has been identified only from Turkey's to in Bulgaria's stock exchanges among relevant indices. Among other indices it has been reported that there is no causal relationship. Boztosun and Çelik (2011) investigated the interaction between ISE and European stock exchanges<sup>4</sup> in the study covering the period 2002 - 2009. In contrast to the works studied in previous years, stock exchanges between Europe and Turkey were determined to be highly correlated except the Netherlands. However, Turkey and Norway, the Netherlands, Belgium, Germany and the UK stock markets are cointegrated, while the other countries' stock markets are not cointegrated. In the literature, there are studies about the interaction between Turkey's and the countries' stock markets affiliated economic organizations outside the EU. Bozoklu and Saydam (2010) have identified cointegration relationship between Turkey and the BRIC<sup>5</sup> countries in 2005 - 2010 periods. Interaction between "Fragile five"<sup>6</sup> and Turkish markets has been investigated by Akel (2015) for the 2000 - 2013 periods. High correlation and cointegration relationship was determined among the stock exchanges of the relevant countries. Moreover, the causality relationships from Turkey to Indonesia and from South Africa and India to Turkey have been reached. Kocabıyık and Kalaycı (2014) examined the interaction of Turkey's and the G-8<sup>7</sup> countries' stock markets for the period 2003 - 2012. In the relevant period it has been reported that there were not any short-run or long-run relationship between Turkey and the G-8 countries. Çelik and Boztosun (2010) have investigated the interaction of the stock markets of Asian countries<sup>8</sup> and Turkey for the period 1998 - 2009. Turkey and other countries have been identified highly correlated with the exception of Taiwan, Japan and China. In addition, the existence of the cointegration relationship between Turkey and Taiwan, Singapore, Malaysia and Korea has reported. Sevüktekin and Nargeleçekenler (2008) examined the interaction between the US Stock Exchange Indices (Dow Jones, Nasdaq and S&P 500) and the ISE for the period 1986 - 2007. The long-run relationship between the relevant exchanges has been determined. In the long-run causality analysis, it was concluded that there is a one-way causality relationship from the American stock exchanges to the ISE.

The interaction between selected developed and developing countries and Turkey is another workspace in the literature. Çıtak and Gözbaşı (2007) investigated the relationship between

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4 Germany, Austria, Belgium, France, Netherlands, England, Spain, Sweden, Switzerland and Norway.

5 It is the abbreviation for the initials of Brazil, Russia, India and China and is used to refer to the economies of the country concerned.

6 Brazil, Indonesia, South Africa, India and Turkey.

7 G-8 consists of Japan, Russia, Italy, Germany, France, UK, USA and Canada.

8 Australia, China, Hong Kong, India, Indonesia, Malaysia, Japan, Korea, Taiwan and Singapore.



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the ISE and the US, Germany, UK, Japan, India and Malaysia stock exchanges for the period 1986 - 2006. The long-run relationship between the ISE and the US, Germany, India and the UK stock exchanges was identified in the study. Korkmaz et al. (2009), on the other hand, examined the interaction of the ISE with the stock exchanges of many developed<sup>9</sup> and developing<sup>10</sup> countries for the period 1995 - 2007. Different cointegration tests were applied in the study and according to the common results of the tests the ISE and the stock markets of USA, Australia, Belgium, England, Ireland, Spain, Portugal and Hungary are not cointegrated. Vuran (2010) examined the interaction of ISE and various stock indices (USA, UK, France, Germany, Japan, Brazil, Argentina and Mexico) for the period 2006 - 2009. As a result of the analysis, it is found that the ISE and the stock markets of England, Germany, Brazil, Argentina and Mexico are cointegrated.

There are a limited number of studies about the interaction between the exchanges of countries which have a high trade volume with Turkey. Korkmaz et al. (2008) have studied the interaction between the Istanbul Stock Exchange, stock markets of 18 EU countries<sup>11</sup> and of 10 countries<sup>12</sup> that have a high share Turkey's trade volume for the period 1995-2007.

According to the findings obtained in the study, the correlation between stock markets having high trade volume with Turkey is quite low. In addition, there is no evidence for the existence of a cointegration relationship between the ISE and the stock markets of EU member countries such as Belgium, England, Ireland, Spain, Hungary and Portugal and stock markets having high trade volume such as the US, UK and Spain. The markets of other countries have no cointegration relationship. Yılanıcı and Öztürk (2010) studied the relationship between stock exchanges of Turkey's ISE and 5 countries which are trade partners (the US, Germany, the Netherlands, Spain and the UK) for the 1995 - 2009 periods. According to the findings, no cointegration relationship was found between the ISE and the Netherlands, England and the USA. It is stated that these markets can be used in portfolio diversification.

When the studies are examined in the literature, Turkey's economic activities are compared with many countries as an investment option. However, due to the nature of trade, it is expected that existing balances will change and new factors will emerge. Also, it can be clearly observed that Turkey and its foreign trade partners have changed in the last 10 years. This study is composed to fill the existing gap in the literature.

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9 Germany, USA, Austria, Australia, Belgium, Denmark, Finland, France, Netherlands, Hong Kong, UK, Ireland, Spain, Sweden, Italy, Japan, Canada, Norway, Portugal, Singapore, New Zealand and Greece.

10 Argentina, Brazil, Czech Republic, China, Indonesia, the Philippines, South Korea, India, Israel, Colombia, Hungary, Malaysia, Mexico, Egypt, Pakistan, Peru, Poland, Russia, Chile, Sri Lanka, Thailand, Taiwan and Turkey.

11 Germany, Austria, Belgium, Czech Republic, Denmark, Finland, France, Netherlands, England, Ireland, Spain, Sweden, Italy, Hungary, Norway, Poland, Portugal and Greece.

12 Germany, USA, China, France, Netherlands, England, Spain, South Korea, Italy and Russia.



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**3. DATA SET AND METHODOLOGY**

In the study, the integration of exchanges of Turkey and 10 countries having high volume of foreign trade is investigated. In selecting these countries, export and import data of the last 10 years released by TSI (Turkey Statistical Institute) were used. Apart from exports and imports, the share of countries in total foreign trade was also taken into consideration. In Table 1, top 20 countries having highest foreign trade volume with Turkey and foreign trade shares are listed.

**Table 1:** Top 20 Countries Having Highest Foreign Trade Volume with Turkey and Foreign Trade Shares (Thousand US\$)

Rank	Country	Import	Pct.	Export	Pct.	Import + Export	Pct.
1	Germany	207,120,161.09	9.59%	135,868,772.93	9.54%	342,988,934.01	9.57%
2	Russia	219,049,548.99	10.14%	44,853,657.36	3.15%	263,903,206.35	7.36%
3	China	216,854,621.20	10.04%	26,222,595.29	1.84%	243,077,216.49	6.78%
4	Italy	111,785,997.39	5.17%	72,980,091.95	5.12%	184,766,089.34	5.15%
5	USA	122,721,561.32	5.68%	59,151,968.44	4.15%	181,873,529.75	5.07%
6	Britain	56,693,761.99	2.62%	91,659,536.27	6.44%	148,353,298.25	4.14%
7	France	79,736,584.21	3.69%	63,850,029.05	4.48%	143,586,613.27	4.01%
8	Iranian	80,913,203.64	3.75%	40,940,645.55	2.87%	121,853,849.18	3.40%
9	Spain	56,463,814.23	2.61%	46,814,638.13	3.29%	103,278,452.36	2.88%
10	Iraq	NA	NA	86,716,047.60	6.09%	86,716,047.60	2.42%
11	Netherlands	33,212,393.83	1.54%	33,442,253.86	2.35%	66,654,647.69	1.86%
12	Belgium	34,590,065.96	1.60%	26,288,039.92	1.85%	60,878,105.87	1.70%
13	South Korea	59,871,210.61	2.77%	NA	NA	59,871,210.61	1.67%
14	India	56,043,158.78	2.59%	NA	NA	56,043,158.78	1.56%
15	Poland	30,028,415.95	1.39%	22,295,495.12	1.57%	52,323,911.07	1.46%
16	Switzerland	43,608,621.80	2.02%	NA	NA	43,608,621.80	1.22%
17	Ukraine	36,413,027.30	1.69%	NA	NA	36,413,027.30	1.02%
18	Japan	36,087,331.45	1.67%	NA	NA	36,087,331.45	1.01%
19	BAE	30,287,270.27	1.40%	NA	NA	30,287,270.27	0.84%
20	Czech Republic	21,422,998.59	0.99%	NA	NA	21,422,998.59	0.60%
	Grand total	2,160,397,276.81		1,424,089,241.63		3,584,486,518.43	63.72%

Reference: [www.tuik.gov.tr](http://www.tuik.gov.tr).

Table 1 has been compiled from data produced by TSI in order to provide information about Turkey's overall foreign trade. The top 10 countries having the highest trade volume with Turkey has been selected as the sample of the study. These countries constitute 50.79% of the foreign trade volume of Turkey. In the study USA (S&P 500), Germany (DAX 30), China (SSEC), France (CAC 40), Iraq (ISX 60), United Kingdom (FTSE 100), Iran (TSE All), Spain (IBEX 35), Italy (FTSE MIB), Russia (IMOEX) and Turkey (BIST 100) stock market indices were used. Index data





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were obtained from the official internet addresses of the relevant exchanges and Yahoo Finance. The data set consists of 113 observation units covering January 2010 - May 2019. Although the data set for other countries may be provided for a longer period, the first observation data, especially for Iran and Iraq, are available starting from 2009 and 2010. These restrictions affected negatively the formation of the data set.

In the first stage of the analysis, unit root test was applied to check the stationarity of the data. Augmented Dickey Fuller (ADF) test, which is one of the most widely accepted tests in the literature, was used as unit root test. Once the stationarity level of the data is determined, it should be decided which cointegration test to apply. As a result of the unit root tests, it was observed that the variables were stationary at different levels (I (0), I (1)) and so, it was impossible to apply traditional cointegration tests such as Engle-Granger (1987) and Johansen-Juselius (1990). Therefore, ARDL (Autoregressive Distributed Lag) boundary test approach developed by Pesaran et al. (2001) was included in the analysis process of the study because it allows the determination of the cointegration relationship between variables that are stationary at different levels. Finally, the causality test was used to determine the direction of the relationship between the variables.

### **4. ANALYSIS RESULTS AND EVIDENCES**

#### **4.1. Unit Root Test**

Testing stationarity in time series is necessary to eliminate the problem of spurious regression. Although there is a high correlation between the variables in the case of false regression, the established regression will not reflect the real relationship and will produce misleading results (Granger and Newbold, 1974: 111). In addition, the degree of stationarity of the variables affects the choice of subsequent tests to be performed. Therefore, the first step of the analysis process is the unit root test which is the most preferred method for stationary testing. In the literature, the ADF test is frequently performed and is considered a reliable test. Table 2 shows the ADF unit root test results.



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**Table 2: ADF Unit Root Test Results**

Country	I(0)		I(1)	
	Critical Value	Probability Value	Critical Value	Probability Value
Turkey	-3.199287*	0.0899	-11.25301***	0.0000
USA	-3.741956**	0.0235	-11.98695***	0.0000
China	-2.716052	0.2324	-8.779891***	0.0000
France	-2.960369	0.1482	-10.73859***	0.0000
Germany	-2.601423	0.2806	-10.18532***	0.0000
Iraq	-2.741233	0.2225	-7.859165***	0.0000
Britain	-3.429730*	0.0526	-12.40287***	0.0000
Iranian	-2.164418	0.5042	-7.520716***	0.0000
Italy	-2.580232	0.2901	-10.69130***	0.0000
Russia	-2.177887	0.4968	-9.595245***	0.0000

**Notes:**  
The appropriate lag length in the ADF test is determined according to the Schwarz Information Criteria recommended by the system.  
MacKinnon (1996) critical values were used for the ADF test. The models are determined as trend and discrete. \*\*\*, \*\* and \* indicate significance levels of 1%, 5% and 10% respectively.

US stock market is stationary at 5%, Turkey and the UK stock markets are stationary I (0)) at 10% significance levels. Having differences of the other variables were applied and the first difference (I (1)) was found to be stationary. When all variables are evaluated collectively, it is seen that I (1) provides stationarity at 1% significance level.

#### 4.2. ARDL Analysis

Cointegration tests are applied to examine the long-run relationship between variables. Engle-Granger (1987) and Johansen-Juselius (1990) tests for cointegration are considered among the pioneering studies in the field and are frequently used. However, an important restriction for the relevant tests is that the variables should be stationary at same level. Since the data set of the study did not meet this requirement, it was decided to apply ARDL test which is an alternative method. The advantages of ARDL test can be listed as follows (Gülmez, 2015: 146): It can be used to investigate the long-run relationship of variables that are stationary at different levels (I (0) -I (1)). However, since Pesaran et al. (2001) tabulated the critical values according to whether the variables I (0) or I (1), the probability of being I (2) of the variables should be investigated. In addition, ARDL produces more reliable results in small samples than Engle-Granger and Johansen methods. ARDL test was applied in this study. The stages of the ARDL test and the findings obtained are presented in Tables 3, 4 and 5.



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**Table 3:** ARDL (3, 0, 0, 4, 4, 4, 2, 0, 0, 2, 2) Model Estimation Results in Which Turkey is Selected as The Dependent Variable

R <sup>2</sup>	0.959993
Adjusted R <sup>2</sup>	0.943148
Model Standard Deviation	0.020635
Model F Statistics	56.98926 (0.0000)
Durbin Watson Value	2.029805
Autocorrelation (LM) Test	1.842026 (0.1657)
White Heteroscedasticity Test	1.362254 (0.1372)
The ARDL (3, 0, 0, 4, 4, 4, 2, 0, 0, 2, 2) model represents the lag length of each variable. The order of the variables in the model is; Turkey, China, Britain, France, Germany, Iran, Iraq, Italy, Russia, Spain and the United States form.	
Values in parentheses indicate the probability of test statistics.	

As a result of the ARDL test, the coefficient of determination is ~ 96%. This means that in the evaluated countries, independent variables account for 96% of the dependent variable. Furthermore, the model generally exhibits a low standard deviation. When the probability value of F statistics is considered, it is seen that the model as a whole is significant. When Durbin Watson statistics are used to control the autocorrelation problem, the value of 2.02 shows that there is no autocorrelation. The autocorrelation problem was also checked by Breusch-Godfrey Serial Correlation LM Test and the finding of no autocorrelation (0.1657) was supported. The last point to be mentioned in relation to the ARDL model is the heteroscedasticity problem. White heteroscedasticity test (0.1372) showed that there was no problem of heteroscedasticity. After completing the tests for the ARDL model, the bound test is applied. The F statistical values of the ARDL model shown in Table 4 are compared with the critical values developed by Pesaran et al. (2001).

**Table 4:** ARDL Bound Test

Test Statistics	Value	Number of Independent Variables
F	3.597719	10
Critical Value Bounds		
Significance Level	I(0)	I(1)
%10	2.07	3.16
%5	2.33	3.46
%2.5	2.56	3.76
%1	2.84	4.1



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The F statistic value (3.597719) obtained as a result of the bound test for the ARDL model was compared with the critical value bounds and found to be greater than the upper critical value at 5% significance level. These results reveal that there is a long-run relationship between Turkey and foreign trade partners at 5% level of significance collectively. When the same process was applied individually for each country, the findings in Table 5 were reached.

**Table 5:** Individual Cointegration Relationship Turkey and Its Foreign Trade Partners

Independent Variables	China	England	France	Germany	Iran	Iraq	Italy	Russia	Spain	USA
ARDL Model	(1, 1)	(1, 2)	(1, 2)	(1, 3)	(1, 0)	(1, 0)	(1, 1)	(1, 2)	(1, 2)	(1, 1)
R <sup>2</sup>	0.912	0.927	0.925	0.930	0.911	0.910	0.923	0.919	0.925	0.927
Adjusted R <sup>2</sup>	0.910	0.924	0.922	0.927	0.909	0.908	0.921	0.916	0.922	0.925
Model F Statistics	373.47 (0.000)	336.67 (0.000)	326.13 (0.000)	278.5 (0.000)	558.92 (0.000)	550.01 (0.000)	433.84 (0.000)	299.19 (0.000)	326.48 (0.000)	459.29 (0.000)
Durbin Watson Value	2.089	1.845	1.878	1.858	1.967	2.025	2.018	1.897	1.934	1.917
Autocorrelation (LM) Test	0.290 (0.749)	1.397 (0.252)	0.942 (0.393)	1.225 (0.298)	0.051 (0.950)	0.064 (0.938)	0.049 (0.952)	0.167 (0.846)	0.125 (0.883)	1.034 (0.359)
Bound Test F Value	2.263	5.373	6.020	4.930	2.902	2.525	2.532	2.881	2.841	5.744

**Table 6:** Individual Cointegration Relationship Turkey and Its Foreign Trade Partners

Bound Critical Values										
	I(0)	I(1)								
1%	6.84	7.84								
2.5%	5.77	6.68								
5%	4.94	5.73			✓					✓
10%	4.04	4.78		✓		✓				
No Cointegration			✓				✓	✓	✓	✓

When Table 6 is evaluated in general, it can be said that the established models are significant, Durbin Watson statistics expressing autocorrelation take values in and around 2 and thus the autocorrelation problem is not found in individual models. In addition, the Breusch-Godfrey autocorrelation LM test supports this finding. When cointegration relationship is evaluated for each independent variable, there are long-run relationships between Turkey and the United Kingdom, France, Germany and the United States. However, between Turkey and China, Iran, Iraq, Italy, Russia and Spain there are not any long-run relationships.

#### 4.3. Toda-Yamamoto Causality Test

Causality analysis is performed to determine the cause-effect relationship between the variables. In the literature, Toda-Yamamoto causality test was applied in accordance with the data set and analysis since it eliminates the stationary levels of variables or the existence of cointegration constraints. Toda-Yamamoto is considered an augmented version of the traditional Granger causality test. For this test, firstly, as in the Granger causality test, the



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appropriate lag length (p) is determined and the results are reached by including the maximum degree of integration (dmax) of the variables into the Vector Autoregression (VAR) equation. The maximum degree of integration of the series was determined as (dmax) 1 according to the unit root test results. The appropriate lag length was determined by VAR method and supported by autocorrelation tests. Findings related to the analysis are given in Table 7.

**Table 7:** Toda-Yamamoto Causality Test Results

Causality Direction	VAR(p) Model	Probability Value	Result
Turkey → China	1	0.9624	There is no causal relationship.
China → Turkey	1	0.1414	There is no causal relationship.
Turkey → England	1	0.3502	There is no causal relationship.
England → Turkey	1	0.1564	There is no causal relationship.
Turkey → France	2	0.8292	There is no causal relationship.
France → Turkey	2	0.0002***	There is causal relationship.
Turkey → Germany	3	0.9329	There is no causal relationship.
Germany → Turkey	3	0.0000***	There is causal relationship.
Turkey → Iran	2	0.4230	There is no causal relationship.
Iran → Turkey	2	0.4047	There is no causal relationship.
Turkey → Iraq	2	0.6935	There is no causal relationship.
Iraq → Turkey	2	0.7295	There is no causal relationship.
Turkey → Italy	1	0.5723	There is no causal relationship.
Italy → Turkey	1	0.3723	There is no causal relationship.
Turkey → Russia	1	0.9491	There is no causal relationship.
Russia → Turkey	1	0.0865*	There is causal relationship.
Turkey → Spain	2	0.6417	There is no causal relationship.
Spain → Turkey	2	0.0000***	There is causal relationship.
Turkey → ABD	3	0.1958	There is no causal relationship.
ABD → Turkey	3	0.0881*	There is causal relationship.

\*\*\*, \*\* and \* represent 1%, 5% and 10% significance levels respectively.

When the results of Toda-Yamamoto causality test were examined there is causality from France, Germany, Russia, Spain and the United States to Turkey. Any changes in these countries' economies also affecting their stock markets also is expected to affect Turkey and so BIST. There is no evidence of a cause and effect relationship between Turkey and other countries.





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### 5.RESULTS

Turkey is trying to increase its share in the global economy. Therefore, the trade spectrum is improving both in quality and quantity. This situation results in the country being more sensitive to the developments in the world. In this study, Turkey is compared on the basis of the first 10 countries to have intensive foreign trade volume. The study is generally based on the cointegration and causality relationship between the variables. When the findings obtained as a result of the study are examined, countries located close to Turkey geographically generally seem to have cointegration relationship. The exception is the United States. In addition, Turkey is expected to have cointegration relationship with its neighboring countries Iran and Iraq. However, it is assumed that a regular capital market structure in the related countries cannot be fully achieved and this weak structure is not effectively revised. The reason for this assumption is that official observation data on the stock exchanges of the relevant countries are available as of 2009. It is also expected that the national atmosphere of countries (such as Italy's high external debt, financial and political crisis in the relevant period) will have an impact on the cointegration relationship. Eventually, cointegration exists between Turkey and the United Kingdom, France, Germany and the USA expressing the long-term relationship. When the results are evaluated in terms of portfolio management, Turkey is not in a substitute position for investments for the UK, France, Germany and the United States. The results are contrary to the majority of literature in the USA compared to the literature reviewed. Overall, the studies concerning the US and Turkey relations in the literature indicate the existence of long-term relationship between the two countries. Similarly, the results for the UK conflict with the general literature. However, almost all of the studies in the literature about the relationship between Germany and France with Turkey refer to the existence of a cointegration relationship. These results are consistent with the findings of this study. When the results of causality analysis are evaluated, there is a causal relationship between Turkey and France, Germany, Russia, Spain and the US. The direction of causality is from the relevant countries towards Turkey. It can be said that the findings obtained as a result of causality analysis are consistent with the general literature. However, since Spain is not included in the data set of the studies examined, no comparison with the literature could be made. In order to form a healthier interpretation of causality, Turkey's foreign trade partners should be investigated in terms of the relationships among themselves. Also, the analyses conducted in terms of the maturity of causal relationship will enable a more detailed understanding of the relationships between countries and Turkey. These issues will create a suitable area for new studies. When the results are evaluated regionally, Turkey is in closer relations with the EU countries' stock markets compared to other countries. This is the result of the geographical location of Turkey, Turkey's EU accession negotiations and the customs



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union process. Both investors as well as political actors will benefit from the development and refreshing the literature taking into consideration financial and political situation in the EU and Turkey's economic activities.

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**CREDIT DEFAULT SWAPS: THE CASE OF TURKEY**

**Ali Necmettin CAN<sup>1</sup>, Melek ACAR<sup>2</sup>**

**Abstract**

In the past few years, the credit derivatives market has grown rapidly. Credit derivatives can be explained as financial instruments that allow credit risk to be traded from one party to another party without actually transferring the ownership of the underlying assets. A credit default swap (CDS) is the most liquid product in the credit derivatives market. Credit default swaps which are widely used in markets and introduced to the financial world by JP Morgan Inc. in the mid-1990s are considered as an insurance process and used for the distribution of risks. The risks of the countries are understood through their CDS premiums. With the rapid rise in risk premiums of Greece, Portugal, Spain and Italy after the 2008 crisis, credit default swaps began to attract more attention. It is seen that volatility in oil prices directly affects CDS premiums of the oil-exporting countries such as Russia and Venezuela. In recent years, Turkey's economy visibly grew with the arrival of hot money. However, when negative developments occur, it is observed that hot money is rapidly departing from the country. In this study, the effects on the CDS premiums of some political and economic developments in Turkey are evaluated.

**Keywords:** Credit Default Swaps, Derivative Instruments, Volatility, Hot Money.

**1. INTRODUCTION**

JP Morgan Chase led credit default swaps in the mid-1990s as a result of synthetic securitization efforts that enabled banks to reduce the size of their balance sheets and carry more capital. Synthetic securitization is one of the credit derivatives. Credit derivatives can be grouped under four main headings. These are total return swaps, credit spread derivatives, credit default swaps, credit linked notes and synthetic securitisation (Kavlak, 2003: 15).

Synthetic securitization is a credit derivative that transfers credit risks to investors. CDS can also be considered as a derivative of synthetic securitization. In synthetic securitization, risky assets cannot be taken off-balance sheet but can be shown off-balance sheet by CDS (Aydın et al., 2016: 2).

Credit default swaps are a kind of insurance process (Kılıcı, 2017:74). The creditor party can be considered as securing itself against the possibility of default of the other party. Thus, the

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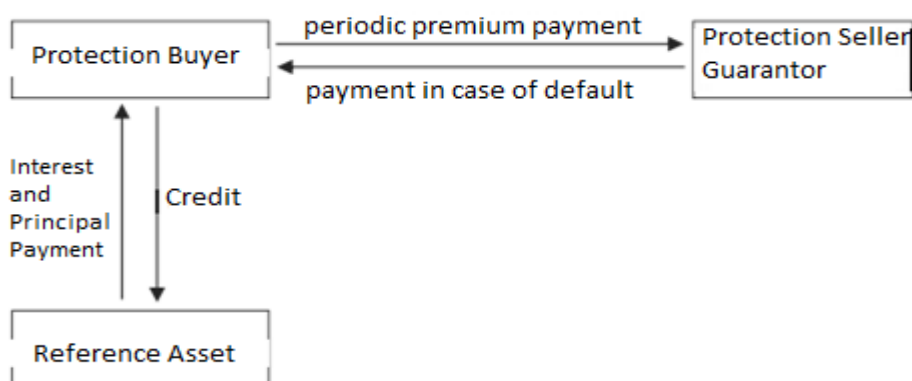


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creditor will not only protect himself / herself from risk but also guarantee that he / she will receive it. In this transaction, the creditor is required to pay a premium to the party to whom it transfers the risk point is high, whereas the CDS point of a lower risk asset is low (Akkaya, 2017: 130).

Three parties are required for credit default swaps. These are the party selling the protection, the party receiving the protection and the intermediary. The party selling the protection is the investor who is the risk buyer and takes on the risk. The party purchasing the protection is the owner of the risky asset, in other words the party selling the risk. The party selling the risk has made a lending event before the swap transaction and has reached the party undertaking the risk through an intermediary, willing to transfer the risk of defaulting its receivables. The party that sells the risk generally pays premium in quarterly periods (rarely 6 months and yearly) to the party that takes the risk, and in case the principal debtor goes bankrupt, the party that takes the risk covers all loss (Hanci, 2014: 2). Basically, the protection buyer can return his money back in case of default of the original debtor. Therefore, the CDS contract insures the receiver of the default loss protection (Longstaff et al., 2012: 281). Figure 1 shows the functioning of the CDS mechanism. In this process, a default swap agreement is made and the party receiving the protection periodically pays premiums to the party selling the protection as specified in the agreement. In case of default within the term, the protection buyer shall deliver the asset subject to the contract to the protection seller depending on the payment method specified in the contract. In return, it collects the amount specified in the contract.

**Figure 1:** CDS Mechanism



**Reference:** Turguttopbaş, 2013: 39.

## 2. LITERATURE REVIEW

When the literature is examined, it is observed that the studies on CDS have increased after the global financial crisis in 2008. The reason for this situation can be explained by the fact



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that the ratings given by credit rating agencies are not very valid and the trust in credit rating agencies is decreased.

Chan-Lau (2003) examined the relationship between CDS, equity and bond prices. In Brazil, Bulgaria, Russia, Venezuela and Colombia, a strong significant relationship was found between CDS and bond premiums. In his study, he proposes an alternative measure of risk, which he calls the maximum recovery rate consistent with the observed prices. As a result of the study, the relationship between the maximum recovery rate and the probability of default has become negative before the credit default has occurred. This finding shows that the maximum recovery rate can be used as an early warning signal for financial difficulties. Chan-Lau and Kim (2004) state that credit default swaps are the most liquid product among credit derivative products and that CDSs can directly analyze credit risk regardless of interest rate. In their study, they investigated whether there is a relationship between CDSs, bond-bill prices and stock prices. The countries subject to their research are Brazil, Bulgaria, Colombia, Mexico, Philippines, Russia, Turkey and Venezuela. In countries other than Mexico, Philippines and Turkey, the relationship has been found between CDSs, bonds-bill prices and equity prices. In these three countries, a relationship could not be determined due to insufficient use of market arbitrages.

Karabiyik and Anbar (2006) stated that banks are one of the institutions that use CDSs the most, and have worked on the pricing of credit default swaps. They stated that CDSs can be made not only on an asset but also on a portfolio and emphasized that it is a derivative that can be used as a risk management tool. Carr and Wu (2007) emphasized that changes in credit quality during the normal course of financial markets should be reflected in the prices of credit-sensitive derivatives such as CDSs. Kunt and Taş (2008) developed a model that can predict Turkey's CDS premium. They tested the total availability of 7 different maturities, including 1, 2, 3, 4, 5, 7 and 10-year CDS premiums of Turkey. First, they did the stationarity test on 3-months LIBOR rate, Turkey's 2030 maturity Eurobond return and the volatility of variable. Then, they created different CDS equations for each year and concluded that there was a long-term relationship between the variables. Thus, it is found that there is a relationship between CDS premium and 3-months LIBOR interest which is risk-free interest rate, reference asset returns and volatility. The coincidence of the predicted period with the global crisis and the occurrence of credit crises reduced the testability of the model. Due to the rapid increase in interest rates and volatility and the markets being alone with the liquidity crisis, the model did not show the expected result.

Chan et al. (2009) investigated the relationship between CDS premiums of 7 Asian countries and equity prices. The data covers January 2001-February 2007 period. In general, a negative correlation was found between CDS premiums and equity indices. It is understood that the CDS market leads the equity market in 5 countries. According to Hull (2012), there is a



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significant difference between CDSs and other over-the-counter derivatives. Over the counter derivatives depend on interest rates, exchange rates, equity indices and commodity prices. Almost every participant in this market has the same level of information. Credit default swaps depend on the possibility of default within a certain time. Some participants in the CDS market have more information than other participants. It is both normal and highly probable that a financial institution that works closely by giving advice, providing credit or other purpose to the company will have more information. According to Hull, this is the most important difference.

Hancı (2014) examined the credit default swap and the volatility of the returns of BIST-100 between January 2, 2008 and December, 31 2012. In conclusion, the volatility between Turkey's CDS basis points and BIST 100 returns was very high. In addition, it was concluded that the shocks were resistant and it took time to return to the average. As a result, the author pointed out that the fragility was high. Gün et al. (2016) studied the effect of Gezi Park Events on Turkey's CDS premiums. They concluded that social events such as Gezi Park had an impact on country risk. Başarır and Keten (2016) examined the relationship between CDS premiums and equity and exchange rates in 12 developing countries. The study, which covers the period between January 2010 and January 2016, deals with the short and long-term relationships between variables. As a result of panel data analysis, it was found that there was a relationship between the variables. Akkaya (2017) investigated the relationship between CDS premium and various variables. The research consists of two stages. In the first stage of the research the relationship between the period January 2008 to December 2016 Turkey's 5 year CDS premiums of USD bonds with other variables were examined by multiple regression analysis. In the second stage, the same relationship was examined by VAR (Vector Autoregression) analysis. It was determined that Turkey's 5 year CDS premiums of US dollar bonds, BIST return index, risk premiums of Turkish Eurobonds, US Dollar and Chicago option exchange volatility index were correlated. US dollar exchange rate and the Eurobonds risk premium monthly change in Turkey Index TR USD 5 year bonds has been shown to be effective on the monthly changes of CDS premiums. The findings of VAR analysis show that the changes in gold price and BIST return index are effective. Yüksel and Yüksel (2017) stated that the debt crisis in Greece had a significant impact on CDS premiums in almost all countries in the world. The reason for this was the reflection of global risk fears in the countries to CDS premiums.

### **3.OVERVIEW OF CREDIT DEFAULT SWAPS**

Credit default swaps can be explained as insuring itself by who buys the protection. In other words, it is the process of guaranteeing that it will take the risk by selling it. The purpose of credit default swaps can be grouped under four main headings (Karabiyik and Anbar, 2006: 3):



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- ✓ Transferring credit risk
- ✓ To increase the credit limit of a specific customer
- ✓ To provide additional return by taking credit risk
- ✓ To diversify the portfolio

When the headings are examined, it is easily understood that credit default swaps are preferred by the banks. The bank wants to transfer the risk of the loan, thus minimizing its risk and even removing it from its balance sheet. On the other hand, an investor on the other side thinks that the borrowing party of the bank is being surveyed and sufficiently secure before giving the loan, so instead of turning to other investments, the bank wants to provide additional return by taking the risk of the customer already surveyed. In this case, the bank can increase the credit limit of the customer as well as transfer the risk because the customer does not have any risk on the bank side. Thus, the bank also frees itself from the concentration risk. In addition, banks can diversify their portfolios and reduce risk through the purchase and sale of CDS contracts of two sectors that do not correlate with each other or have very low correlation.

CDSs are made possible with the assurance that the loan provision or capital obligation allocated from the bank balance sheets for the reference asset can be calculated at a lower rate (Aydın, 2015: 57). According to Basel II criteria, banks are required to meet a minimum equity ratio of 8% compared to assets at risk. However, if the bank can demonstrate that it has transferred a credit risk to a bank by making a CDS agreement with the bank of any OECD country, it can reduce the minimum capital adequacy ratio by less than 8% (Karabiyik and Anbar, 2006: 3).

One of the important issues in the credit default swap transaction is that the default status and payment terms should be well defined in the contract. The definition of default should be made clearly and without any dispute. The default situation changes according to each event and generally arises as a result of the bankruptcy of the debtor of the reference asset, loss of ability to pay, restructuring of the loan, failure of a due date to be paid and debtor's credit rating below a certain level (Turguttopbaş, 2013: 49).

The buyer of the protection buys protection against the risk of the company that owes it. However, it should be noted that the party selling the protection also has a risk. Longstaff et al. (2012) state that the party receiving the protection also takes at least three risks:

- ✓ The protection seller suddenly faces a major loss and as a result falls into financial distress. In this case, the protection buyer may not receive the protection payment he/she expects.

- ✓ Although CDS risks were initially zero when CDS contracts were concluded, the increase in CDS risk premium over time with the change in credit markets increases the risk of protection buyer.



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✓ The third situation in which the protection buyer can be seriously damaged may result from the guarantee provided by the protection seller. If the security provided is not legally appropriate and the protection seller cannot compensate the protection buyer for bankruptcy etc., the protection buyer will not be able to receive the contractual receivable. For these reasons, the CDS contract should be made in a very detailed way and every detail should be examined thoroughly.

One of the most important ways the CDS market tries to reduce counterparty credit risk is the market infrastructure provided by ISDA (International Swaps and Derivatives Association). ISDA has developed specific legal frameworks for standardized articles of association, credit support supplements and auctions, sales at a loss, credit support and new protocols. These legal frameworks are widely used by market participants. It serves to significantly reduce the potential losses arising from the default of the counterparty in a swap or derivative contract (Longstaff et al., 2012: 283).

### **4.CREDIT DEFAULT SWAPS OF COUNTRIES**

Economic or political uncertainty and instability in a country can worsen credit quality and often lead to a decline in the value of the currency and increased volatility. While financial markets are in a normal course, expected changes in the credit quality of a borrower should be reflected in the prices of credit-sensitive derivative instruments such as credit default swaps (Carr and Wu, 2007: 2384).

The risks of countries are determined through the CDS premiums of the countries. For example, while the CDS basis points of European countries such as Greece, Portugal, Spain and Italy were at most 30 basis points in 2007, Greece increased to 300 basis points and other countries to 150 basis points in 2010. In fact, Greece was excluded from the index in 2011 (Hanci, 2014: 1). After the 2008 crisis, CDS became much more popular with loss of confidence in credit rating agencies.

The higher the CDS premium of a country or company, the lower the confidence in the country's ability to repay its debts, and hence the borrowing interest. Because this premium is necessarily reflected in interest (<http://www.mahfiegilmez.com>). The CDS premium may change every day depending on the economy, politics and the country's political situation. Therefore, it is a much more variable and dynamic indicator than the country ratings determined by institutions such as S&P, Moody's and Fitch.

#### **4.1. The Impact of Political and Economic Developments on CDS Premiums in Turkey**

Studies show that country CDS premiums are affected by political and social events in the country. Gezi Park events in Turkey which were organized to protest the construction work to

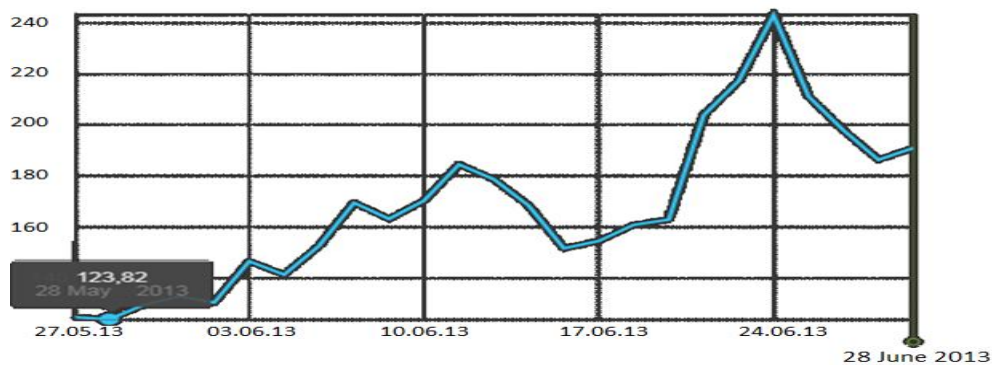




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rebuild the Gezi Park in Istanbul are among the political developments of the last five years. It started in May 27, 2013. Then in the night of May 31, it returned to a clash between the police and the demonstrators. It reached its peak between June 1, 2013 and June 15, 2013, and in the night of June 15, 2013, the violence of the demonstrations began to diminish and gradually ended.

**Figure 2:** Turkey's CDS's Premiums During Gezi Park Events in 2013



**Reference:** <https://www.paragaranti.com/cds>.

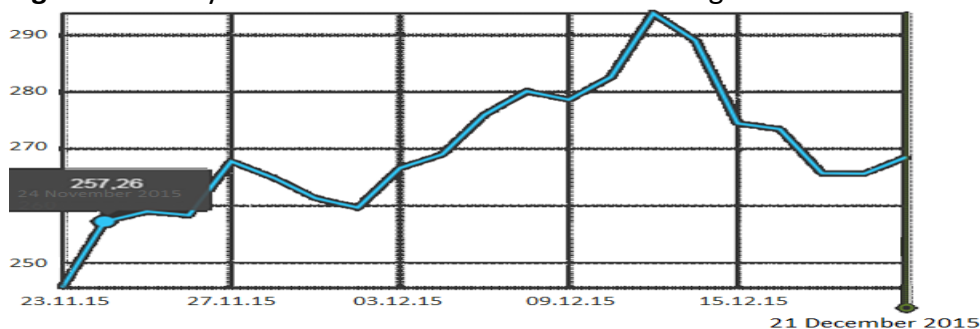
As shown in Figure 2 during the Gezi Park events, the country's CDS premium increased continuously and when the events gradually came to an end, the risk premium reacted immediately and decreased.

In November 24, 2015 at the Turkey-Syria border, a Russian fighter jet shot for violating the borders of Turkey by Turkish jets. After the event, some of the sanctions applied to Turkey by Russia. Likewise, some sanctions were applied to Russia by Turkey. Mutual prohibitions have been applied in many areas from tourism to fruit and vegetable import and export and this process has continued for more than six months. Within about 20 days after the first day of incident Turkey's risk premium increased from 250 up to 300 levels.



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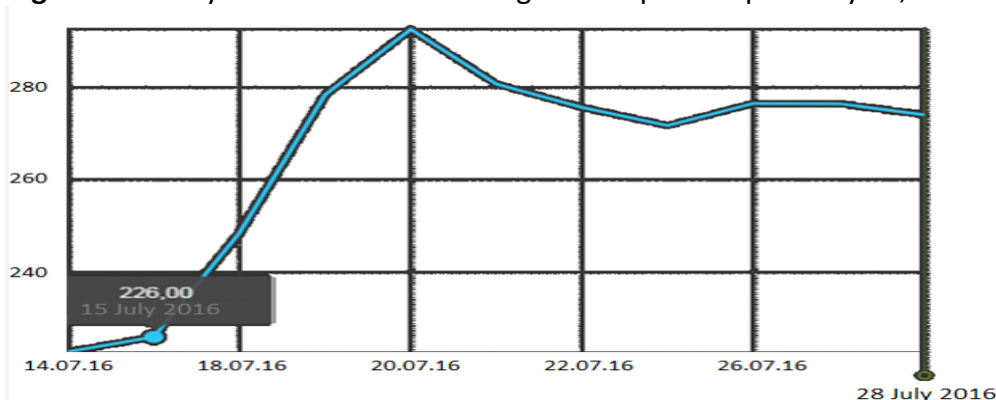
**Figure 3:** Turkey's CDS Premiums When the Russian Fighter Jet Shot Down by Turkey



Reference: <https://www.paragaranti.com/cds>.

In the night July 15, 2016, Turkey was faced with a treacherous attack. A coup attempt was made by a group within the Turkish Armed Forces. The treacherous coup attempt which thousands of ordinary citizens withstood by gathering in streets and squares around Anatolia, continued until the morning of the same night. Although the coup attempt was not successful and repulsed, the country's risk premium increased from 226 to 290 and also increased the country's borrowing costs.

**Figure 4:** Turkey's CDS Premiums During the Coup Attempt in July 15, 2016



Reference: <https://www.paragaranti.com/cds>.

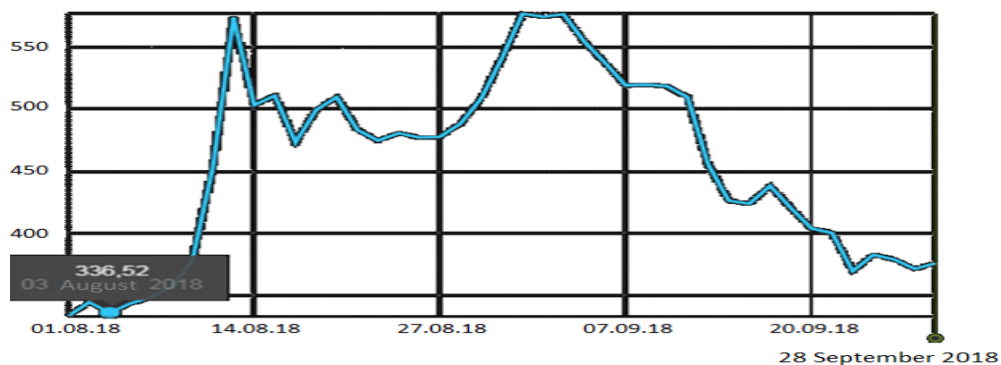
In August 2018, Turkey was faced with an economic attack, and there has been a sudden attack in the exchange rate. In August 1, 2018, the US dollar was at the level of TL 5.05 while the Euro was at the level of TL 5.86. However, the Pastor Andrew Brunson incident in the foreign policy and the developments related to the Russian defense system S-400s have put the economy into an environment of uncertainty. Turkish economy was faced with an economic attack and after a short period of 12 days, in August 13, 2018, the US Dollar rose to



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TL 6.70 and Euro TL 7.60, and the Turkish Lira depreciated approximately 30%. Turkey CDS premiums were up to the level of 575 from level of 340. Turkey's risk premium has increased at a rate close to 70%.

**Figure 5:** Turkey's CDS Premiums During the Economic Attack in August 2018



Reference: <https://www.paragaranti.com/cds>.

## 5.CONCLUSION

Countries or companies that will invest in any country, conduct a research on country's risk situation before the investment decisions. Firms, wishing to see how country risk goes in the investment period, can draw a conclusion by looking at the values of CDS premiums. The fact that the credit default swaps market emerged strongly from the 2008 crisis increased the confidence of countries and firms in making decisions on this instrument.

The fact that, CDS is the best product that shows the risk, can be understood as a result of their immediate reactions to political and economic situations in the countries. This is an indication that CDS is a very important player in the derivative markets. CDSs, a very important tool for managing credit risk, can reduce the credit risk of financial institutions. Financial institutions can mitigate credit risks by purchasing protection through CDSs, or CDSs can be used to diversify credit risk.

The CDS market is thought to be a much larger market in the future. However, the biggest risk to this is the information problem, which is asymmetrical compared to other markets. While almost every participant in other markets has the same level of information, some participants in the credit default swaps market probably have more information than other participants in the CDS market. For this reason, the fact that information is shared asymmetrically arises as a big problem for the development of the CDS market. Many economists are concerned that derivatives are destabilizing markets for such reasons. However, many studies reveal the benefits of derivative products and therefore CDSs.



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By increasing investments and reducing the likelihood of default, CDSs are making existing projects more efficient. And CDSs are a leading indicator of risk sharing and estimation of prices among investors. In this way, it enables capital to be used more efficiently and it is thought that it will be one of the important derivative products that can contribute to the increase of economic welfare in the near future.

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**FINANCIAL GLOBALIZATION AND SYNDICATED LOANS**

**Ahmet KARAKAŞ<sup>1</sup>, Melek ACAR<sup>2</sup>**

**Abstract**

Globalization in the financial services industry is increasing day by day. The development and globalization of the financial services sector has facilitated investors' access to international markets. Financial globalization has enabled investors to access capital from international markets with appropriate maturities, amounts and costs. In addition to instruments such as bonds, bills and shares, syndicated loans have become an important way of accessing to capital. Borrowers of syndicated loans in developed countries are generally large companies, that unlike in Turkey borrowers are generally commercial banks. However, some firms also borrow from international banks. Funds received are generally used for foreign trade financing. In this study, the characteristics of syndicated loans, process of disbursement of syndicated loans, development of syndicated loans in the World and Turkey and the effect of the syndicated loan agreement announcements on the market value of borrower are being investigated.

**Keywords:** Syndicated Loan, Financial Services Industry, Market Value.

**1. INTRODUCTION**

Globalization in the financial services sector is increasing day by day. Financial globalization has made it easier for banks and companies to obtain capital from international markets. Liberalization of national financial markets, technological progress in information technology and telecommunications and faster flow of information have increased financial globalization. The rise of globalization paved the way for a competitive and efficient global financial system and reshaped the structure of global markets (Kutlu et al., 2012: 628, Schmukler, 2004: 39, 42-47, Rybinski, 2006: 6-7).

The oil crisis in the 1970s and the failure of the Bretton Woods system led to a new wave of globalization. Increasing fund accumulation in oil exporting countries during the oil crisis was channeled funds to developing countries in Asia, Africa and Latin America through syndicated loans. These funds were initially used to finance public debts. The collapse of Bretton Woods and the disruption of the fixed exchange rate system have led to greater capital mobility while maintaining the autonomy of countries' monetary policies. However, in 1982, the debt crisis

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in Latin American countries, whose external debts consisted mainly of syndicated loans, made it difficult to repay the debt. The debt crisis was solved by replacing lenders' rights on these loans with US Treasury-guaranteed bonds. The losses which they experienced during this period forced banks to use more effective risk measurement techniques. The syndicated loans market, which has continued to grow with the improvements in financial markets and developments in financial globalization since the 1990s, reached a global size of \$ 5 Trillion in 2018 (Kutlu et al., 2012: 629, Schmukler, 2004: 40, Thomson Reuters, 2018: 2).

### **2. OVERVIEW OF SYNDICATED LOANS**

A syndicated loan is a high volume loan to a company, project or government that requests funds for a specific purpose under similar terms and conditions under the leadership of a lead bank, known as the arranger, the agent, or the lead lender. A lead bank is a bank overseeing the arrangement of a loan syndication, recruiting syndicate members and negotiating terms. The lead bank may put up a proportionally bigger share of the loan, or it may perform duties such as dispersing cash flows among the other syndicate members, and administrative tasks. Lenders may have different rights on borrowers. Lending amounts may not be equal, but transactions are performed under a single common documentation with similar terms and conditions (Parasız, 2009: 223, 735-740, Kutlu et al., 2012: 629).

Syndicated loans can be used for any commercial purpose. Besides, these loans can be used in energy and construction industries, foreign trade financing and other industries. The maturity of loans may vary from 3 months to 20 years. Medium and long-term loans in developed countries generally are in use, and the maturity of the loans in Turkey for almost a year. Interest rates on the syndicated loans can be fixed or floating, based on a benchmark rate such as the London Interbank Offered Rate (LIBOR). Interest is collected monthly or quarterly (Kutlu et al., 2012: 629, Miller, 2011: 21, 2005: 7, Sakarya and Sezgin, 2015: 7).

The widespread use of syndicated loans has started to transform borrowing / lending into a more efficient manageable process. Today, the international syndicated loan market is in a much more effective, professional and transparent position than it first appeared.

Banks are the biggest lenders for projects and other cash needs. Banks are the backbone of the financial system and lend to borrowers with various types, maturities and costs. However, syndicated loans needed when a project requires too large a loan for a single lender. For example, the Yavuz Sultan Selim Bridge and Istanbul Airport were large-scale projects that a single bank could not provide loans and could be financed by the combination of multiple banks. Syndicated loans arise when a project requires too large a loan for a single lender. Syndicating the loan allows lenders to spread risk and take part in financial opportunities that may be too large for their individual capital base. It is also an alternative financing method



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that allows investors to provide loans with faster and more flexible procedures than can be provided when applying to banks one by one (Sarigül, 2015: 114).

Measuring credibility of borrowers by scoring, obtaining collaterals, establishing some early warning systems related to credit risk, and distributing loans to regions and industries are risk management techniques that reduce credit risk. Syndicated loans are also effective in credit risk management. Dividing the loan into tranches and lending by more than one creditor spread risk.

The main features of syndicated loans are listed below (Sakarya and Sezgin, 2015: 7-8):

**Volume of the Loan:** When a project requires too large loan for a single lender, it is possible that some lenders create a syndicate and fulfill the customer's loan needs. Banks do not have to give equal amounts of loans. It is possible for the participating banks to lend different amounts. This method also gives banks an advantage in capital adequacy.

**Term:** Syndicated loans can be lended from 3 months to 20 years. If borrowed to purchase tangible assets, acquire another company, finance projects built for years or refinance the debt, it is preferable that the syndicated loans are medium or long-term. However, the maturity of syndicated loans borrowed by Turkish banks is 1 year, unlike developed countries. Most of these loans are used in foreign trade financing.

**Floating Interest Rate:** Floating interest rates are generally applied to syndicated loans. The interest rate is determined by the lenders by adding a margin to the cost of capital. The cost of deposits and other funds is floating for banks. This forces banks to apply floating interest rates when they lend to customers. Usually the margin is added, based on a benchmarkrate such as LIBOR or EURIBOR.

**Common Interest Rate:** The interest rate applied in syndicated loans is the same. However, if the loan consists of more than one tranche, a different interest rate may be applied for each tranche.

**Separation of Responsibilities:** Syndicate members are responsible for their loans and do not have to fulfill the commitments of other creditors.

**Common Documentation:** In syndicated loans, all transactions are carried out through a common documentation that includes terms and conditions of credit use and a lead bank issues the transactions.

**Openness:** Borrowing syndicated loans from international banks is a reputation-enhancing situation for banks and companies. Therefore, companies want to publish it. For example, public companies in Turkey publish announcements in the Public Disclosure Platform (PDP).



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### 3. PROCESS OF DISBURSEMENT OF SYNDICATED LOANS

The parties to the syndicated loan agreements are the creditors and the investors who need financing for their investments. The creation of a syndicate by multiple lenders is the most important feature that distinguishes this way from traditional bilateral financing. In addition to commercial banks or investment banks, it is possible to see financial companies and institutional investors such as pension funds or hedge funds as creditors (Miller, 2011: 10).

There are 3 types of loan syndications (Miller, 2011: 8-9, Sarıgül, 2015: 118):

- ✓ Underwritten Deal: Syndicated loan agreements in which a lead bank and other participants undertake to lend the entire investment. In this method, the lead bank undertakes to provide loans to the borrower even if there is not enough participation from syndicate members.
- ✓ Best Efforts Deal: The lead bank undertakes to provide loans to the borrower under certain conditions from the market, but the borrowing may not occur if there is insufficient participation. In this case, the lead bank has no responsibility. It is often used for customers with low credibility or for complex investments.
- ✓ Club Deal: In case of specific needs of \$ 25-100 Million, syndicated loans can be lent with the participation of small number of banks that recognize the customer.

The syndication process begins with the borrower's receiving proposals from the banks, selecting one of them, signing a mandatory letter in agreement with the bank of its choice and authorizing the bank. Once the mandate is awarded, the syndication process starts. The bank chosen by borrower is generally the lead bank. The lead bank prepares and sends an information memo (IM) to the banks it intends to participate in. IM includes investment conditions, industry characteristics, credit conditions and financial model. The banks that are planning to participate in the syndicate agreement to provide a part of the loan requested negotiate with the customer. They also negotiate financing techniques and how to repay the loan. If the terms of the loan are agreed, collaterals are created and a credit agreement is signed. Thus, the syndication process is completed and the loan is ready for use (Sarıgül, 2015: 118, Kutlu et al., 2012: 631, Miller, 2011: 9).

Floating interest rates are generally applied to syndicated loans. It is most preferred to add a certain margin to the base indicator rate. Usually the margin is added, based on a benchmark rate such as LIBOR or EURIBOR. In addition, a ratio indexed to the CD (deposit certificate) or another investment instrument may be specified. Borrower's credit rating and rates are the factors that determine the interest rate. In addition to interest, a commission can be charged (Miller, 2011: 21, Sarıgül, 2015: 119).



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After the loan is activated, the lead bank undertakes tasks such as obtaining collateral from the borrower, making the loan payment, transferring the principal and interest collections to other creditors and informing the investors about the developments related to the loan (Kutlu et al., 2012: 631). If the required conditions for the targeted loan amount cannot be met, the process works differently according to the lead bank's offer of underwriting. The bank has the right to cancel the syndicated loan agreement if it has made the "best effort syndication". However, in the case of a "underwritten deal" the lead bank may have to fund a higher amount than it has planned if it fails to achieve the targeted credit amount as a result of negotiations with creditors and may experience financial losses (Kutlu, et al., 2012: 631, Miller, 2011: 8, Sarigül, 2015: 118).

It is also possible to sell credit tranches in the secondary market with the participation of syndicate members. Syndicate members may make a deal with each other or with an external investor on the sale of all or part of the participation amounts. In the event that a creditor transfers the entire tranche, a new financial agreement is drawn up between the borrower and the bank that takes over the loan. In this process, the approval of the borrower and the lead bank is usually sought. The investor who buys the loan in the secondary market takes over all the rights of the institutions providing the loan for the first time and starts to collect the principal and interest payments. If a certain portion of the loan tranche is transferred, the original agreement is not changed. Generally, the approval of the lead bank and the borrower is not sought. In this method, the investor who buys the loan in the secondary market becomes the financier of the original participant (Miller, 2011: 19, Kutlu et al., 2012: 632).

Large banks that reduce credit risk through syndicated loan agreements diversify their portfolios and increase interest and commission income. On the other hand, the small banks and institutions involved in the syndicate have the opportunity to establish relationships with customers that they cannot reach and participate in international markets. Borrowers may provide funds they need through syndicated loans more flexible procedures and cheaper.

Syndicated loans can be used as term loans or revolving credits according to the borrower's needs. According to the reimbursement table agreed in the term disbursement, a single payment can be made at the end of the maturity, but it is not possible to re-use the amounts paid by the borrower. Credit terms vary from 3 months to 20 years. Short-term loans are generally preferred for working capital needs, loans with a term of more than one year are preferred for the purchase of tangible fixed assets, the acquisition of another company or the refinancing of the loan. Depending on the credibility of the borrower, it may be taken collateral or not. In the case of revolving credits, loans are granted within a certain maturity and limit and it is possible for the borrowers to be able to reuse the part repaid. As a flexible financing tool, revolving credits are used mostly for the financing of daily and seasonal fund needs (Kutlu et al., 2012: 632-633).





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It is possible to categorize syndicated loans into two groups according to the credibility of the borrower. These are investment grade and leveraged. Moody's classifies Baa and above, Standard & Poor's and Fitch BBB and above syndicated loans as investment grade and others as leveraged; based on the interest added to LIBOR, Bloomberg classifies LIBOR + 250 interest and above, Thompson Financial LIBOR + 275 and above as leveraged loans (Kutlu et al., 2012: 633). Companies that can obtain investment-grade loans are generally large-scale, institutionalized and profitable firms. These firms, which mostly provide their financing needs from more cost-effective bonds may also choose to use revolving syndicated loans for short-term needs. In particular, commercial banks invest in these low-yield loans. Leveraged loans, which are riskier than investment-grade loans, may be subject to a commission as well as a higher interest rate. Nevertheless, syndication loans are an important financing alternative for companies with limited opportunities to obtain funds from equity and bond markets. In leveraged loans used for high consistent capital expenditures, refinancing and dividend payments to shareholders, it is possible to consider insurance companies, mutual funds and securitization institutions as creditors rather than commercial banks (Kutlu et al., 2012: 633).

#### **4. USAGE CRITERIAS AND INTEREST RATES OF SYNDICATED LOANS**

Factors such as turnover of the firm, profitability ratios, market share, tangible fixed assets ratio, whether its shares are traded on the stock exchange, the ratio of debts to assets, whether the debts are in short or long term, and the matching of debts and receivables with maturities will be effective on the interest rate of the firm. In addition, macroeconomic variables such as GDP, growth rate, official reserve assets and foreign currency reserves, exchange rates, interest rates and inflation rate are also effective on the credit utilization of the firms and the interest rate to be applied.

The factors affecting the interest rate in syndicated loans can be listed as follows (Pişkin, 2016: 117-123):

- Global factors: LIBOR and other global economic datas have an impact on interest rates on syndicated loans.
- Macroeconomic factors: High-speed economic growth and official reserve assets and foreign currency reserves have the effect of reducing the syndication cost and increasing the cost of high indebtedness of the country and especially of the public sector.
- Factors related to the borrower: High-turnover firms can borrow at lower cost. The interest rate decreases as the tangible fixed asset ratio increases in the firm's balance sheets. The fact that the firm has a credit rating and the effect of being traded on the stock exchange has a cost reducing effect. There is an inverse relationship between credit rating and interest rate just like profitability (EBITDA) and interest rate. It is seen that banks and financial companies



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can borrow with lower interest rate than other industries and public institutions can borrow at lower cost than private sector firms.

- Conditions of contract: Especially the costs of syndications related to mergers, acquisitions and restructuring of credits are higher than the others and it is seen that there is an inverse relationship between the volume of the loan and the long term maturity and interest rate.
- Structure of loan syndication: Syndications established by bilateral relations with a small number of club dealings may have lower interest rates, while there are also findings showing that the cost of large consistent loans extended with the participation of many banks is lower. In less developed countries, syndicated loan agreements with local banks may also result in lower costs than those of all foreign banks.

### **5. DEVELOPMENT OF SYNDICATED LOANS IN THE WORLD AND TURKEY**

The global syndicated loan market, which has grown rapidly since the 1990s, reached a total of \$ 5 Trillion in 10,069 transactions in 2018. This amount indicates 8% growth compared to the previous year. Large companies prefer syndicated loans especially in the developed countries of North America, Europe and the Far East. Despite the relatively high volume of bills and bonds in developing countries, the use of syndicated loans is constantly increasing (Thomson Reuters, 2018: 2).

Walt Disney (USA) \$ 35.7 Billion, Comcast Corp. (USA) \$ 32 Billion, Takeda Pharmaceutical Co. Ltd. (Japan) \$ 30.8 Billion, Cigna Corp. (USA) \$ 23.7 Billion, Fujian Jinhua Integrated (China) \$ 22.9 Billion, Hochtief AG (Germany) \$ 22.4 Billion and IBM Corp. (USA) \$ 20 Billion attract attention as the companies with the highest amount of syndicated loans in 2018 (Thomson Reuters, 2018: 2).

According to the loan syndication transaction volume that it mandated arranger globally, the major banks are as follows: JP Morgan \$ 424.7 Billion, Bank of America Merrill Lynch \$ 407 Billion, Citi \$ 271.4 Billion, Wells Fargo and Co \$ 261.8 Billion and Mitsubishi UFJ Financial Group \$ 197 Billion (Thomson Reuters, 2018: 2).

The countries with the most syndicated loans in 2018 are as follows: USA \$ 2.9 Trillion, Canada \$ 267.3 Billion, UK \$ 178.6 Billion, France \$163.2 Billion, Germany \$ 128.3 Billion, China \$ 111.2 Billion, Hong Kong \$ 110.6 Billion and Australia \$ 95.5 Billion (Thomson Reuters, 2018: 2).

Banks in Turkey began using syndicated loans in the 1990s. In addition to reasons such as the lack of domestic capital accumulation and insufficient domestic savings to meet investment needs, Turkish banks turned to foreign funds due to the relatively stable economic program after 2000. In this period, the main funds of the banking system apart from deposits were syndicated loans and securitization of loans obtained from international markets. However, more than half of the bank liabilities consist of deposits (Demiralp, 2008: 5).



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In the post-1980 period, the easing of foreign currency borrowing was accompanied by financial liberalization. In this period, it was observed that borrowers mainly were the Undersecretariat of Treasury, the Central Bank of the Republic of Turkey and state-owned enterprises, followed by private sector firms and mostly banks (Pişkin, 2016: 116).

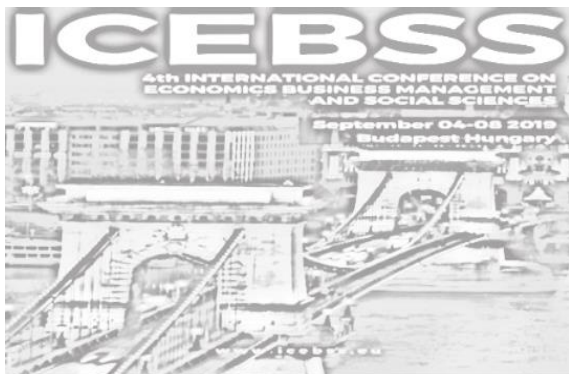
Turkish banks make use of the funds they provide through syndicated loans for the financing of foreign trade needs of firms. Unlike developed countries, loans are short-term, with a maturity of about one year. Syndicated loans borrowed by banks decreased from \$ 19,062 Billion in 2018 to \$ 17,6 Billion in 2019. The share of syndicated loans in total liabilities was 2.91% in 2018 and 2.67% in July 2019 (BRSA, 2019). Table 1 shows the ratio of syndicated loans borrowed by Turkish banks from international markets (BRSA, 2019).

**Table 1:** The Ratio of Syndicated Loans and Liabilities Borrowed by Banks in 2002-2019 Period (Million \$)

Years	Syndicated Loans for Foreign Trade Finance	Syndicated Loans out of Foreign Trade Finance	Liabilities	Syndicated Loans/ Liabilities (%)
2002	2.159	4	115.137	1,88
2005	7.972	204	261.468	3,13
2010	13.938	353	568.842	2,51
2015	18.388	1.282	722.919	2,72
2016	18.179	918	692.875	2,75
2017	19.594	1.500	767.847	2,75
2018	17.419	1.643	654.718	2,91
July 2019	16.245	982	754.851	2,28

Source: BRSA, 2019.

The syndicated loans borrowed by banks and companies are given in Table 2, which is based on PDP (Public Disclosure Platform) announcements.



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**Table 2:** Syndicated Loans Borrowed by Turkish Banks and Companies in 2018 – Q2 2019

Date	Borrowers	Amount of Loans	Term	Interest Rate and Margin (bps)	Lenders
27 March 2018	Akbank	\$ 604.500.000 € 483.000.000	1 Year years	2 Libor+130 Euribor+120 Libor+210	Foreign banks
9 April 2018	Ziraat Bankası	\$ 452.000.000 € 797.500.000	367 days	Libor+130 Euribor+120	Foreign banks
24 April 2018	Vakıfbank	\$ 329.000.000 € 778.800.000	1 year years+1 day	2 Libor+130 Euribor+120 Libor+210	Foreign banks
25 April 2018	Albaraka Türk	\$ 245.000.000 € 60.000.000	370 days 370 days	Libor+125 Euribor+115	17 Foreign banks
03 May 2018	Garanti Bankası	\$ 457.000.000 € 670.500.000 \$ 145.000.000	367 days 367 days 2 years+1 day	Libor+130 Euribor+120 Libor+210	38 Foreign banks
08 May 2018	Vakıf Katılım	\$ 145.000.000 € 82.000.000	370 days		13 Foreign banks
09 May 2018	Yapı Kredi	\$ 332.000.000 € 898.128.278 \$ 50.000.000 € 25.000.000	367 days 2 years+1 day	Libor+130 Euribor+120 Libor+210 Euribor+150	48 Foreign banks
17 May 2018	İş Bankası	\$ 447.000.000 € 867.600.000	367 days	Libor+130 Euribor+120	Foreign banks
24 June 2018	Aksa Akrilik	\$ 52.500.000 € 36.000.000	2+5 Years		EBDR and other foreign banks
03 July 2018	TSKB	\$ 25.000.000 € 168.500.000	367 days		Foreign banks
04 July 2018	ING Bank	\$ 42.000.000 € 498.500.000	367 days	Libor+130 Euribor+120	28 Foreign banks
27 September 2018	Akbank	\$ 285.000.000 € 591.000.000	367 days	Libor+275 Euribor+265	Foreign banks
11 October 2018	TEB	\$ 33.500.000 € 433.500.000	367 days	Libor+275 Euribor+265	Foreign banks
19 October 2018	İş Bankası	\$ 276.000.000 € 605.000.000	367 days	Libor+275 Euribor+265	Foreign banks
30 October 2018	Yapı Kredi	\$ 275.000.000 € 690.700.000	367 days	Libor+275 Euribor+265	27 Foreign banks
21 November 2018	Vakıfbank	\$ 122.000.000 € 528.500.000 \$ 130.000.000	367 days 2 years	Libor+275 Euribor+265 Libor+350	20 Foreign banks



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**Table 2:** Syndicated Loans Borrowed by Turkish Banks and Companies in 2018 – Q2 2019 (Continue)

14 December 2018	QNB Finansbank	\$ 239.000.000 € 450.500.000	367 days 367 days	Libor+275 Euribor+265	27 Foreign banks
27 March 2019	Akbank	\$ 356.000.000 € 303.000.000	367 days	Libor+250 Euribor+240	Foreign banks
29 March 2019	Ziraat Bankası	\$ 469.500.000 € 848.500.000	367 days	Libor+250 Euribor+240	40 Foreign banks
26 April 2019	Vakıfbank	\$ 279.500.000 € 723.500.000	367 days	Libor+250 Euribor+240	Foreign banks
08 May 2019	Yapı Kredi	\$ 350.379.534 € 606.803.988	367 days	Libor+250 Euribor+240	49 Foreign banks
17 May 2019	Garanti Bankası	\$ 326.000.000 € 408.750.000	367 days	Libor+250 Euribor+240	35 Foreign banks
23 May 2019	İş Bankası	\$ 323.500.000 € 644.900.000	367 days	Libor+250 Euribor+240	Foreign banks

Source: PDP, 2019/1.

According to Table 2, in the first half of 2019 and the whole 2018, there is no firm using syndicated loans, only Aksa Akrilik Kimya San. Inc. Companies prefer long-term syndicated loans, whereas most of the loans borrowed by banks from foreign banks are one-year maturity and are used to for foreign trade finance. Companies using syndicated loans are generally BIST listed companies with strong financial data, also having foreign partners (PDP, 2019/2). In 2018, 17 and in the first 5 months of 2019, only 5 syndicated loan agreements were signed. The decrease stemmed from the fluctuations in exchange rates that occurred in the second half of 2018 and continued to affect in 2019 (PDP, 2019/1). Interest rates of one-year loans remained at Libor / Euribor + 130/120 bps average in the first half of 2018, but increased to Libor / Euribor + 275/265 ratio in the second half of 2018 due to the volatility in exchange rates (BRSA, 2019, PDP, 2019/1).

## 6. THE EFFECTS OF SYNDICATED LOANS ON THE MARKET VALUE OF BORROWER

Various studies have been made about the effects of syndicated loans on borrowers' market value in the world and Turkey. Billett et al. (1995) in their research based on 626 borrowing announcements, they found that unlike public debt issuances private loan announcements had a positive effect on the stock price of the borrowing company regardless of whether the borrowing institution was a bank or a non-bank lender. On the other hand, they observed that





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the effect of announcements on borrowing from banks or creditors with high credibility on the stock price of the borrower was significantly positive compared to borrowing from mediocre banks. Byers et al. (1998) showed that while stock prices of US companies borrowed from foreign banks increased significantly, borrowings from domestic banks had no remarkable effect. Mosebach (1999) investigated the effect of loan agreements over \$ 1 Billion on the stock prices of borrowers in 1993-1996 period. The results of the research revealed that the market learning of the loan agreement had a significant positive effect on the stock prices of the borrower. Fery et al. (2003) found that the announcement of credit agreements positively affected the companies' stock prices and that there was no significant change in the value of the companies in non-publicized agreements. Godlewski et al. (2011) investigated whether the companies' declarations on the use of syndicated loans or issuance of bonds in the period 2004-2008 caused abnormal returns on stock prices. They concluded that the market reacts negatively to both types of borrowing. Ongena and Roscovan (2013) conducted a survey on the effects of borrowing agreements on borrowers' market value. Majority of the agreements were about syndicated loans between 1980-2003 period. They found that regardless of whether the lender bank is national or foreign, stock prices are affected positively in domestic borrowings. However, they found that there was no positive effect on stock prices in borrowings from another country.

In their study, Sakarya and Sezgin (2015) analyzed the effect of the syndicated loan agreement announcements of the banks through the "case study" method. In this study, the data regarding the credit agreements issued by 13 banks whose shares are traded on Bors Istanbul (BIST) in 2010 - 2013 period were evaluated. Based on the daily return rates covering the 5 days before and 5 days after the date of the credit agreement, it was tried to determine whether the announcements provided an abnormal return on the stocks of the related banks. According to the study, which was carried out with the announcement of a total of 71 syndicated loan agreements of 13 banks, the cumulative abnormal returns in 2010, 2012 and 2013 were positive (t-3) 3 days before the event date and reached the highest levels by climbing (t-0) until the day of the event, after the announcement (event day t-0), the cumulative yields were positive but tended to decrease (t + 3) until 3 days after the event date, and it was possible to obtain abnormal returns from the shares of the companies through announcements regarding the use of syndicated loans. In 2011, contrary to the situation experienced in other years, it was observed that the cumulative returns have been negative since the day of the event.

Sarigül (2015) conducted a study to determine the effects of public disclosure announcements about the syndicated loans borrowed by the banks to their stock prices. Banks were selected whose shares are traded on Borsa Istanbul. In the study, he used the "case study" method. In the study, the 20-day period before and after the issuance of the loan agreement in the period



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2006-2013 was considered as the “event window” and the period covering the 100 trading days before the event window was considered as the “forecast window”. In this study, after filtering the overlapping announcements of the same bank in the forecast window, the effect of 87 credit notifications of 14 banks on stock prices were analyzed. Abnormal return calculation and t test were used to evaluate the effects of the event. The results showed that the announcements of banks regarding the use of syndicated loans did not cause significant abnormal returns on the BIST in the research period.

### 7. CONCLUSION

The expansion of financial globalization and the removal of restrictions in the national and international markets in the financial field have facilitated national companies' access to international markets and enabled the use of alternative funds and investment instruments. Syndicated loans are one of the alternative funding methods. Syndicated loan agreements reduce the risks of creditors by co-disbursing loans that are too large to be extended by a single bank. In addition, it is an alternative financing method that allows investors to obtain more of the funds to be provided by applying to banks one by one through faster and more flexible procedures.

In developed countries, many companies, especially in the finance, energy and telecommunications industries borrows with syndicated loans. In contrast, the use of syndicated loans in Turkey remains limited mostly to commercial banks. Especially in the 2000s, the fact that Turkish banks could borrow more easily from international markets increased the volume of syndicated loans. Syndicated loans, most of which are used to financing foreign trade, offer a variety of funds and alternatives to banks, as well as extending the maturity of the banking sector. The use of syndicated loans in Turkey is increasing as the years but is far behind the developed countries. The more active participation of Turkish banks and companies in international markets will increase the use of syndicated loans and contribute to the development of financial markets. In addition to being an alternative financing way for borrowers, syndicated loans, which draw attention with their contribution to profitability and risk management of lenders, maintain their development potential over the years.

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**FINANCIAL DEVELOPMENT AND INCOME INEQUALITY IN THE US SINCE 1870: EVIDENCE  
FROM TIME-VARYING COINTEGRATION**

**Mehmet Akif DESTEK<sup>1</sup>**

**Abstract**

The impact of financial development on income inequality remains elusive due to endogeneity, complex interactions and small sample sizes. Based on this reason, the purpose of this study is to investigate the time-varying impact of financial development on income inequality with the historical perspective in the US economy. For this purpose, the annual period from 1870 to 2014 is examined with the both bootstrap time-varying cointegration approach and the bootstrap rolling-window estimation procedure. In doing so, we also consider the polynomials trends of obtained parameters to check the possible non-linear relationship between financial development and income inequality. The findings from time-varying cointegration test confirms the time-variant cointegration between variables. In addition, in case of polynomial trend, the results reveal that the inequality reducing effect of financial development is valid for the period from 1870 to 1960s while the inequality increasing trend is observed since the 1960s. Furthermore, the U-shaped relationship between financial development and income inequality is validated in the US economy.

**Keywords:** Financial Development, Income Inequality, Historical Perspective, Time-Varying Procedure.

**1. INTRODUCTION**

In recent years, there is a consensus among economists that well-functioning financial sector stimulates economic growth by several channels such as ensuring the exchange of goods and services through the delivery of payment services, allocating the savings to the most productive areas, monitoring investments and conducting corporate governance and diversifying and increasing liquidity and reducing intertemporal risk (Meniago and Asongu, 2018). However, it is unclear how increased wealth as a result of financial development reflects to segments of different incomes. In other words, there is no consensus about the impact of financial development on income inequality.

The arguments related the effect of financial development on income inequality are mainly constructed with three views. The first one is called as "inequality widening hypothesis" and this hypothesis argues that financial development is operating at an intense margin, improving financial services only for existing users and leading to higher income inequality due to weak

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financial institutions or incomplete financial regulations. The second view is called as “inequality narrowing hypothesis” and argues that financial development alleviates credit constraints and reduces dependence on parental welfare and promotes human and physical capital accumulation, economic growth and income equality. The third one is called as “financial Kuznets curve hypothesis” and this hypothesis is actually a combination of “inequality widening hypothesis” and “inequality narrowing hypothesis”. According to this hypothesis, in the first stage that countries have underdeveloped financial markets, financial development works on the intensive margin and only benefits the rich segment thus the inequality increases. After the turning point or in second stage, financial development mostly benefits the poor segment and reduces the income inequality. Therefore, there is an inverted U-shaped relationship between financial development and income inequality (Baiardi and Morana, 2018). In empirical literature, mentioned hypothesis are confirmed by many studies. The “inequality widening hypothesis” is confirmed by Cragg and Epelbaum (1996); Clark et al. (2006); Denk and Cournede (2015) and Jauch and Watzka (2016). On the other hand, the “inequality narrowing hypothesis” is supported by Ang (2010); Jalil and Feridun (2011); Law and Singh (2014). In addition, the inverted U-shaped relation is also found by the studies of Nikoloski (2010); Shahbaz et al. (2015); Baiardi and Morana (2018). Further, the U-shaped relationship between financial development and inequality is also validated by Satti et al. (2015). Therefore, there is not any widely accepted view about the finance-inequality nexus. Based on above discussions, this study aims to examine the impact of financial development on income inequality for the period from 1870 to 2014 in the US economy. There are some reasons of chosen country. First, the validity of the historical data of the US gives us a chance to observe the real long-run impact of financial development on inequality. Second, in the observed period, the US economy witnessed a poorly managed financial order as well as a well-organized financial system. Therefore, if there is a non-linear relationship between finance and inequality, this parabolic relationship can be observed for this country. The contributions of this study to the existing literature threefold: i) this is the first study to investigate the impact of financial development on income inequality in the US economy fusing with the historical data. ii) unlike previous studies, this study examines whether the cointegration relation between variables is time variant or time invariant. iii) this study utilizes with rolling window estimation procedure to observe time-varying coefficients.

## 2. DATA AND METHODOLOGY

The data used in this study covers the annual period from 1870 to 2014 for the US economy. The credits to GDP is used as a proxy for financial development (FD) and the income of top 10% share in total GDP is used as an indicator of income inequality (INE). The data is obtained



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from Ang and Madsen (2014), Madsen et al. (2018) and World Inequality Database. All variables are used in natural logarithmic form. In empirical procedure, first the stationary properties of variables should be examined to determine the integration order of variables. In addition, it is important to consider the possible structural breaks when testing the stationarity. Therefore, this study employs the unit root test developed by Narayan and Popp (2010) that allow two structural breaks. In testing procedure, the null hypothesis of unit root is tested against the alternative which implies the stationarity. After determining the stationary level of variables, the cointegration relationship between financial development and income inequality is investigated with time-varying cointegration tests of Bierens and Martins (2010) and the bootstrap time-varying cointegration test of Martins (2018) to observe the long-run relationship between variables is time-variant or time-invariant. In next step, the time-varying effect of financial development on income inequality is examined with bootstrap rolling window estimation method of Balcilar et al. (2010).

### 3. EMPIRICAL FINDINGS

First, we investigate the stationary properties of variables using with unit root test of Narayan and Popp (2010) which allows structural breaks and the results are given in Table 1. As a seen, the null hypothesis of unit root is not rejected in level forms of both variables. However, in first differenced form, the null hypothesis is strongly rejected and both series become stationary. Therefore, it can be said that the variables are integrated of order one  $I(1)$  and the cointegration relationship between variables can be examined.

**Table 1:** Narayan-Popp Unit Root Test Results

	t-stat.	CV 1%	CV 5%	CV 10%	Break Dates
INE	-0.597	-5.576	-4.937	-4.596	1920,1941
FD	-2.376	-5.576	-4.937	-4.596	1908.1944
$\Delta$ INE	-12.160***	-5.576	-4.937	-4.596	
$\Delta$ FD	-12.380***	-5.576	-4.937	-4.596	

Note: \*\*\* indicates the statistical significance at 1 percent level.

Second, the long-run relationship between financial development and income inequality is searched with cointegration test. In doing so, we focus on whether the possible cointegration relationship changes over the time. For this, the time-variant cointegration relationship is examined with time-varying cointegration test of Bierens and Martins (2010) and bootstrap time-varying cointegration test of Martins (2018) and the results are shown in Table 2. According to the findings, the null hypothesis of time-invariant cointegration is rejected and the time-invariant cointegration relationship is confirmed for 3 and 4 Chebyshev polynomials



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by both of test. This situation can be explained with the theorem developed by Swamy and Mehta (1975) that any non-linear functional form can be fully represented by a model that is linear in the variables, but it has time-varying coefficients. Therefore, the long-run impact of financial development on income inequality should be examined with time-varying coefficients.

**Table 2:** Time-Varying Cointegration Test Results

	Test Statistic	Bierens and Martins (2010) TV Cointegration		Martins (2018) Bootstrap TV Cointegration	
		5% CV	p-value	5% CV	p-value
Chebyshev Time Polynomials					
m=1	2.214	5.991	0.330	12.963	0.754
m=2	5.732	9.487	0.220	23.280	0.809
m=3	33.658**	12.591	0.000	30.803	0.027
m=4	41.922**	15.507	0.000	37.685	0.010

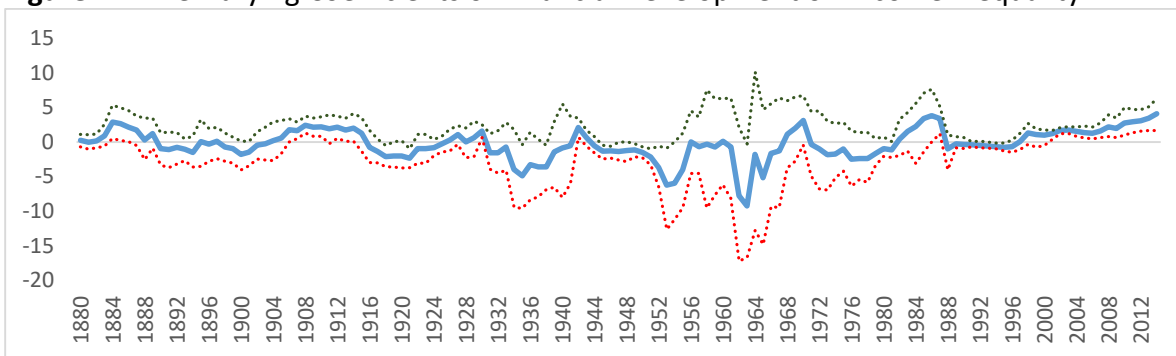
Note: We follow Lucey et al. (2017) in reporting results for m up to four and conclude that time-variation is observed unless at least one m fails to reject the null hypothesis. \*\* stands for the rejection of the null hypothesis of time-invariance at the 5% level.

In the next step, we examine the long-run effect of financial development on income inequality with rolling window estimation procedure of Balcilar et al. (2010) to observe the time-varying coefficients. The findings are plotted in Figure 1 and the blue line shows the time-varying coefficient while red and green lines indicate the lower and upper bound, respectively. In early stages, it can be seen that the inequality increasing impact of financial development is valid for the 1880-1888 sub-period. This positive effect is probably sourced from the panic of 1873 which is also called as “the first great depression”. After the crisis, the inequality is negatively affected by financial development in 1888-1904 sub-sample period. After this period, the negative impact of financial development on income inequality is valid in almost all years between 1917-1981, excluding in 1928-1930, 1941-1944 and 1968-1971 sub-periods. After 1981, the impact of financial development on inequality is positive trend until 2014 excluding 1989-1996 sub-period.

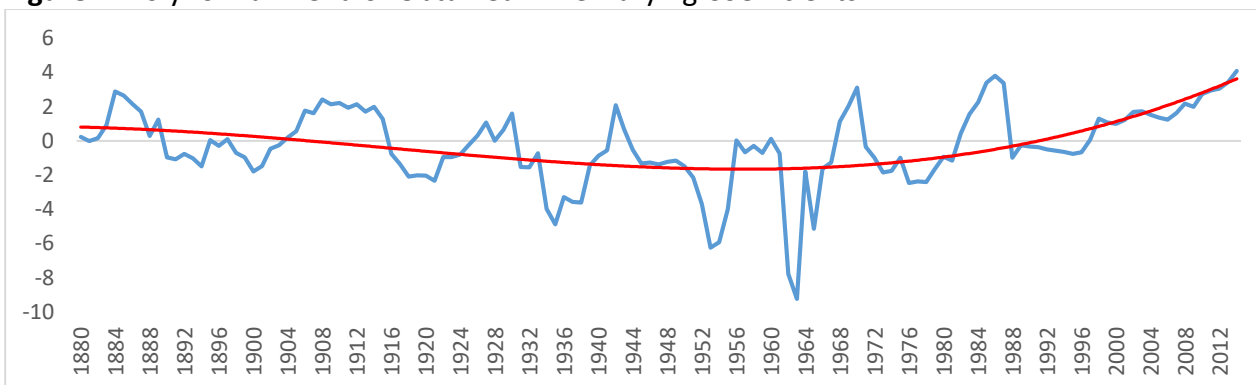


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**Figure 1:** Time-Varying Coefficients of Financial Development on Income Inequality



**Figure 2:** Polynomial Trend of Obtained Time-Varying Coefficients



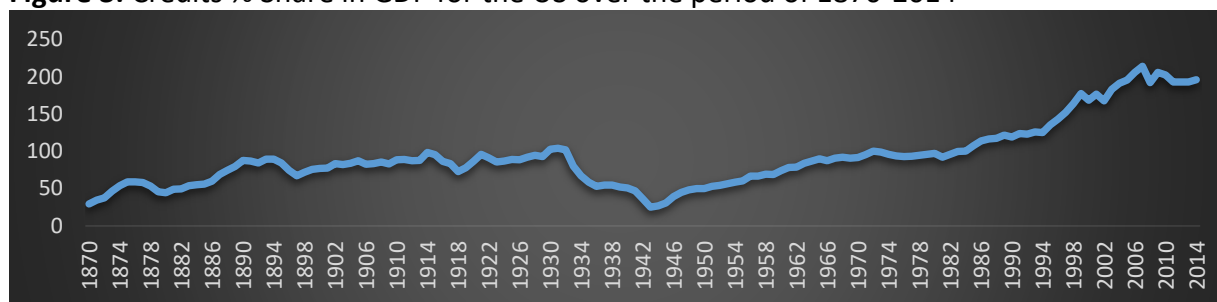
Based on the findings from time-varying cointegration test, we also aim to show the parabolic trend of financial development on income inequality with using 4 polynomial trends on obtained time-varying coefficients as a seen in Figure 2. In Fig 2, the blue line shows the time-varying coefficients and the red line shows the polynomial trend of the coefficients. It can be seen from the Figure 2, there is one turning point while using four polynomial trends. Based on this, the negative trend is valid for the period from 1880 to 1960's and the positive trend exists after 1960's. Therefore, the U-shaped curve between financial development and income inequality is validated instead of inverted U-shaped curve. Compared with the previous studies, our findings do not support the "Financial Kuznets Curve" argument of Greenwood and Jovanovic (1990). Therefore, the results of this study conflict with the studies of Clarke et al. (2006); Kappel (2010); Kim and Lin (2011); Batuo et al., (2012); Nikoloski (2010); Shahbaz et al., (2015) and Baiardi and Morana (2015). There may be some possible reasons of this conflict; i) None of these studies examined the nexus for the US economy. ii) The empirical analysis of all these studies are based on the assumption of



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parameter stability and time-invariant coefficients. iii) All these studies have pre-assumption of quadratic function. iv) Even in the studies examining the widest sample period among these studies, a period of approximately 50 years is examined.

**Figure 3:** Credits % Share in GDP for the US over the period of 1870-2014



The U-shaped relationship between financial development and income inequality is associated with “too much finance” effect by Arcand et al. (2015). This argument is based on the view that the presence of a large and complicated financial system increases the probability of “catastrophic meltdown” (Rajan, 2005). In the same direction, Easterly (2001) argues that mentioned negative impacts of finance system start when credits reach 80% - 100% of GDP. When our finding that the inequality increasing impact begins in 1960’s is evaluated with the Figure 3 that shows credits % share in GDP for the period of 1870-2014, it can be seen that the share of credits in GDP has been consistently above 90% starting from 1967. Therefore, our findings support the inequality increasing effect of financial development based on the “too much finance” effect.

#### 4. CONCLUDING REMARK

This study investigates the impact of financial development on income inequality for the annual period from 1870 to 2014 in the US. For this, first the stationary properties of variables are examined with unit root test which allows structural breaks. After this, possible long-run relationship between variables are searched with time-varying cointegration tests. In addition, the long-run parameter that shows the impact of financial development on income inequality is examined with the bootstrap rolling window estimation procedure.

The time-varying cointegration test results show that the long-run relationship between financial development and income inequality is time-variant. Based on this finding, we examine the impact of financial development on income inequality with rolling window estimation to obtain time-varying coefficients. When we look at the time-varying coefficients, it can be seen that the inequality increasing impact of financial development is valid for the





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1880-1888 sub-period. Mentioned positive effect is probably sourced from the panic of 1873 which is also called as “the first great depression”. After the crisis, the inequality is negatively affected by financial development in 1888-1904 sub-sample period. After this period, the negative impact of financial development on income inequality is valid in almost all years between 1917-1981, excluding in 1928-1930, 1941-1944 and 1968-1971 sub-periods. After 1981, the impact of financial development on inequality is positive trend until 2014 excluding 1989-1996 sub-period. In case of the polynomial trend of obtained coefficients are added, it seems that the negative trend is valid for the period from 1880 to 1960’s and the positive trend exists after 1960’s. Therefore, the U-shaped curve between financial development and income inequality is validated instead of inverted U-shaped curve. According to Arcand et al. (2015), financial development may have negative effect on economic growth if credit to private sector reaches 80-100 per cent of GDP and this situation which is called as “too much finance” may lead to the U-shaped nexus between financial development and inequality. This is also associated with the consequences of misallocation of increased resources and financial liberalization policies. As Checchetti and Kharroubi (2012) argue, in this case the resources allocated to financial investment cannot be used to finance alternative investments in physical and human capital and technological innovations. Diminishing returns on financial investments may have negative effects even if the environment is financially sound.

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**REALIZING RIGHT TO HEALTH IN THE GLOBAL INFORMATION SOCIETY**

**Olga SOVOVA<sup>1</sup>**

**Abstract**

Health is considered a fundamental human right that is the basis for the exercise of other human rights and is essential for a dignified life. An effective system of health care provision is a crucial institution within a society, one which carries the same significance as the justice and democratic political system. Whilst a consideration of the right to health and the highest possible standard of health care services generally concerns decisions regarding the provision of public resources, the fundamental human right to life and health remains an integral consideration within legal doctrine and judicial practice in terms of assessments of liability for damage. The right to health does not only concern the provision of health care, in the European context usually by public insurance, but also the human right when seeking health services not to become a mere faceless object within a system administered by the state or by other authorities. The paper examines the issues of healthcare and its legal boundaries within the modern information society of knowledge. In healthcare, the issue of transitioning to an information society is closely linked with protection of personality of the patient in general and with safety of health care provision. On one hand, global information society in healthcare is a great advantage as it enables sharing and rationalizing of patient care and spreading of highly innovative technologies. On the other hand, entry of information technologies into this area is connected with particular risks to the general safety when delivering health care as well as to the individual privacy. The paper analyses examples based on the Czech strategy of digitization in healthcare services and addresses issues of possible intrusion to private sphere of patients as well as medical professional. The paper uses the methodology of economic approach and analysis of law comparing the figures of health expenditures of European Union countries on public health and the social costs of public health services. The paper emphasises possible legal and economic advantages of digitisation in health care, concluding with caveat that the exaggerated duty of digitisation may exclude groups which do not have a daily access to internet or are not able to use it properly.

**Keywords:** healthcare; global information society; human rights; privacy protection; duty of confidentiality; digitisation

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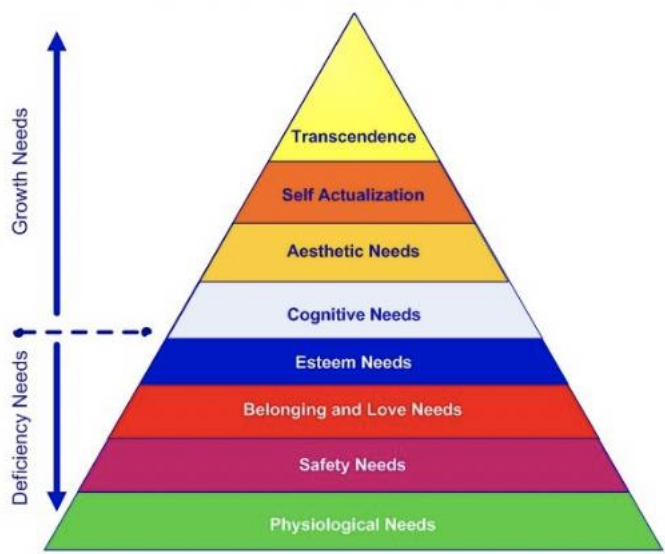
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**1. INTRODUCTION**

Health is considered a fundamental human right that is the basis for the exercise of other human rights and is essential for a dignified life (Riedel, 2009). An effective system of health care provision is a crucial institution within a society, one which carries the same significance as the justice and democratic political system.

The protection of health and the safety and security belong to the basic needs of any human being. The Maslow’s Pyramid of Needs (Maslow, 1943) puts the need for health safety and security on the second highest place of the scale.

**Table 1:** Maslow’s Motivation Model



Ensuring safety and security entails providing stable institutional framework by which individual needs can be met. The terms security and safety can be vague and elusive, taking different connotations in different settings, but they are always closely connected with the law and legal remedies (York and MacAlister, 2015).

The contemporary society of knowledge offers new possibilities for how to realize the right to health using modern technologies and Artificial Intelligence (AI). Enough economic and human resources form the primary condition for realizing all possibilities offered by health care systems of modern states and society. The paper exploits the economic approach to law and compares data from selected Organisation for Economic Co-operation and Development



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(OECD) states to provide relevant information and to highlight how the right to health is and could be realized.

### 2. HEALTHCARE IN THE ERA OF DIGITIZATION

The development of technology and science in medicine repeatedly bring new issues. The gap between what science can do and what financially sustainable and legally allowed is widening. The era of digitization causes new challenges in the relationship patient-medical professional and provider of healthcare. New technologies and artificial intelligence (AI) in healthcare can compile, process, and share data and information quicker, in more detail and to a much greater extent than the man can do. AI can analyze not only enormous amounts of data (big data) in a short time, but also these processes of analyses could be easily improved by learning of the machine itself. Based on the technical development, the Czech Republic adopted the National eHealth Strategy in 2017 (national strategy). as the Action Plan for years 2016- 2020. The main goals of the national strategy are the digitization in daily health care and the creation of an extensive network of convenient access to eHealth services for all inhabitants (Ministerstvo Zdravotnictva Ceskej Republiky, 2019).

The European Union (EU) adopted the strategy of the Digital Single Market (DSM) (European Commission, 2019a). The DSM in healthcare settled three primary goals for the next future:

- Secure access to health data across the EU. E-Health, as one of the policies, should assure personalized medicine throughout Europe and enable secure access to the relevant health data within the EU
- Personalized medicine through shared European data infrastructure. Achieving this goal will promote to pool resources -data, expertise, computing processing, and storage capacities- across the EU;
- Digital tools for user feedback and person-centered care. Digital tools should empower people to look after their health, stimulate prevention, and enable feedback and interaction between users and healthcare providers (European Commission, 2019b).

The main issue of the future of digitized society is the aging of the population. Nowadays, the average life expectancy is about 80 year in OECD states. This issue requires to increase public financial resources, especially for social services and healthcare. We have analyzed the expenditures on health, allocated form the gross domestic product (GDP). We also looked at the incidence of doctor consultations per capita. We have chosen the period 2010- 2017 or 2018, based on the data availability, for the purposes of the paper. The selected countries are neighboring countries to the Czech Republic with a similar economic and historical background or important market players. Full OECD countries data are available under the

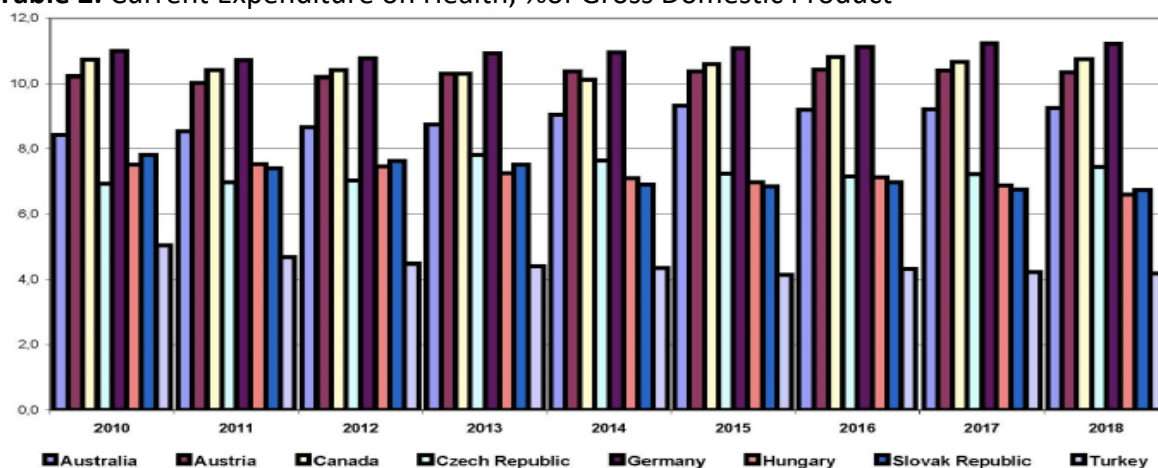




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reference stated below graphs. The graph No.1 shows the percentage of GDP allocated for healthcare in selected OECD states in the last decade.

**Table 2:** Current Expenditure on Health, %of Gross Domestic Product

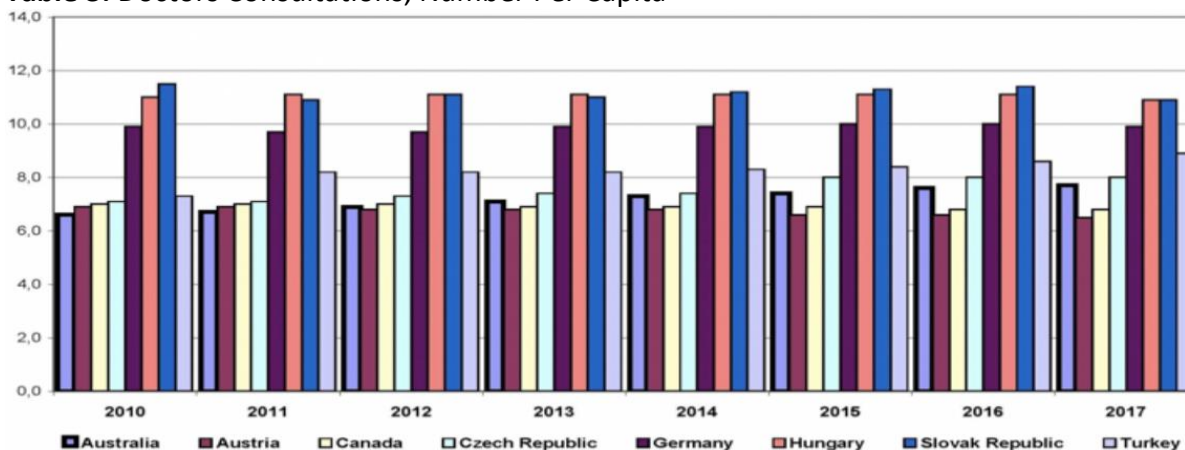


Source: OECD Health Statistics 2019, <http://www.oecd.org/health/health-data.htm>

We deduce from the data in graph No. 1 the growing need for public finance resources due to the demographic changes, detection, and treatment of previously fatal diseases and the development of modern technologies in medicine.

The graph No. 2 indicates that the number of personal visits to the doctor's office steadily grows within the last decade.

**Table 3:** Doctors Consultations, Number Per Capita



Source: OECD Health Statistics 2019, <http://www.oecd.org/health/health-data.htm>



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We can ascribe the figures to the changes in population structure and health conditions, especially to the growth of civilization diseases.

However, if we weigh up data from both graphs, we can argue that the steady growth of healthcare expenses is connected not only with the above-discussed changes or better economic condition of OECD countries. We assume that the increasing consumption of public resources is closely connected with the insufficient utilization of possibilities of the global information society. We examine issues and their solutions below.

### **3. DISCUSSION ON ISSUES OF THE GLOBAL INFORMATION SOCIETY IN HEALTHCARE**

The digitization and telemedicine could help to reduce the number of personal visits and help to reduce costs. The patients equipped with a quick internet connection and smart mobile devices welcome opportunities for reducing dependency on personal appearance during their working hours or free time. Public health insurance companies offer benefits, like vaccination allowances, after the registration via their web sites.

Some clients of healthcare services were and still are in a different situation. People who are not able to use the internet or do not have an internet connection, are excluded from some healthcare benefits. They need to come personally to obtain services, otherwise available via web sites. In many countries, geographical distance is a challenge, particularly for those who do not have their cars and live in rural communities. OECD states are generally well covered by the internet network, which is also freely accessible, for example in public libraries. Of course, in small villages or communities, there is no free public internet and inhabitants have to provide the connection themselves, usually through a wired connection.

Also, the impairments make it difficult to use digital communication, even when available. Another group of people might be excluded from the use of the internet for more accessible communication with health services. The wired connection needs flat monthly payment, regardless of consumed data. Not everybody can afford it. Moreover, outside big towns, this type of connection is much slower than the mobile one. So even digitally literate people could be excluded from e-health services and benefits, for example, when they move for the pension or other change in their life out of the town (Sovova and Wallin, 2019).

Privacy protection is another issue of digitization and global exchange of information. The EU adopted the General Data Protection Regulation (GDPR) (European Union, 2016). Despite the fact, that medical data are considered to be very sensible, the transition from voluntary to the compulsory use of the web or mobile applications for both medical professionals, providers, and patients generates the main risk for privacy protection. The exchange of data and the possibility of medical professionals to see patient's records without the knowledge of the



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person concerned is against the basic rule of privacy protection – the informed consent of the data owner.

### 4. CONCLUSION

Solutions for the issue as mentioned above must be sought within the community, not on websites. Municipalities must offer the citizens a free and accessible internet connection to communicate with public authorities, including health insurance companies and healthcare providers. The community planning must include assistance, at least voluntarily, for citizens, who are not able to use modern technologies.

AI, e-health, and digitization form a new bridge between medical professionals and patients, while the internet law is typically a soft law, with lower intensity of enforcement. However, medical professionalism, observing the managerial and ethical duties, including the duty of confidentiality and patients' right for privacy together with appropriate legal regulation should guarantee that technologies are used solely for providing adequate healthcare. Despite the discussed risks, resources of global information society open doors to respecting the patient's autonomy and to increased transparency of health care costs, and indeed can serve to amplify the respect to the patient's autonomy (Sovova and Sova, 2017).

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**INVESTIGATING THE IMPACT OF FINANCIAL DEVELOPMENT ON ENERGY CONSUMPTION IN  
GCC COUNTRIES**

**Mehmet Akif DESTEK<sup>1</sup>**

**Abstract**

This study aims to examine the impact of financial development on energy consumption in six Gulf Council Cooperation (GCC) countries: Bahrain, Kuwait, Qatar, Oman, Saudi Arabia and United Arab Emirates. For this purpose, the relationship between real income, domestic credits to private sector, trade openness, urbanization and energy consumption is investigated for the period of 1980-2015. In doing so, the study employs second generation panel data methodologies to take into account the possible cross-sectional dependence among GCC countries. First, the cross-sectional dependency test results confirm the presence of cross-sectional dependence among observed countries. In case of the group mean results, we found that economic growth, financial development, urbanization and trade openness increases the energy consumption of GCC countries. However, increasing trade openness reduces the energy usage. In case of country-specific findings, energy usage increasing impact of financial development is also validated in Kuwait, United Arab Emirates and Qatar while the financial development does not significantly affect the energy consumption level of Bahrain, Oman and Saudi Arabia. Furthermore, the panel causality test results reveal that there are bidirectional causal relationships between real income and energy consumption, urbanization and energy consumption and urbanization and real income. We also found the evidence that unidirectional causality exists from financial development and trade openness to energy consumption.

**Keywords:** Energy consumption, financial development, urbanization, GCC countries, panel data method.

**1. INTRODUCTION**

In recent years, the determinants of energy consumption have become a crucial issue to reduce energy dependency. This situation is sourced from many reasons such as reducing energy dependence also reduces current account deficit problem for many energy-importer countries, reducing energy consumption increase the environmental quality for many countries whose production structure are mainly based on fossil fuel energy sources. However, energy usage is accepted as one of the main drivers of economic growth so reducing

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energy consumption without stabilizing or increasing energy efficiency may be harmful on economic activities. In this case, the R&D projects on increasing energy efficiency has become important but there is a funding deficiency for such projects especially in developing countries. Therefore, many researchers argue that the developed financial system plays a vital role for financing such projects. On the other hand, there are some also some arguments on energy consumption increasing effect of financial development. For instance, financial development can make it easier for consumers to access durable goods that increase energy consumption. Second, enterprises can benefit from access to financial capital that will enable them to grow their existing businesses and increase production that directly affects energy demand. Third, increasing stock market activity with financial development can also have a rich impact on both consumer and business confidence, and increased economic confidence can increase demand for energy-intensive goods (Destek, 2018). Therefore, the relationship between financial development and energy consumption remains an uncertain issue and needs to be investigated.

Based on above explanations, this study aims to examine the relationship between financial development and energy consumption for the period from 1980 to 2015 in 6 Gulf Council Cooperation (GCC) countries: S. Arabia, Kuwait, U.A.E., Qatar, Bahrain and Oman. The reason of chosen country group is selected countries are oil-rich countries and their economic activities are mainly based on fossil resources.

## 2. EMPIRICAL MODEL, DATA AND METHODOLOGY

In order to examine the nexus between financial development and energy consumption, the energy consumption is described as a function of real GDP, financial development, urbanization and trade openness as follows:

$$\ln EC_{it} = \beta_0 + \beta_1 \ln GDP_{it} + \beta_2 \ln FD_{it} + \beta_3 \ln URB_{it} + \beta_4 \ln TR_{it} + u_{it} \quad (1)$$

where EC indicates the energy consumption per capita measured in kg of oil equivalent, GDP indicates the real GDP per capita measured in 2010 constant US dollars, FD indicates the financial development measured in domestic credit to private sector % share in GDP, URB indicates the urbanization measured in urban population % share in total population, TR indicates the trade openness measured in the total trade % share in GDP and  $u_{it}$  is the residual term. All variables are used in natural logarithmic form. The empirical analysis is employed for the annual period from 1980 to 2015. In addition, the data of all series is obtained from World Development Indicators of World Bank.



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In empirical procedure, first, the possible cross-sectional dependence among countries is checked with the cross-sectional dependence (CD) test of Pesaran (2004). After that, the integration level of the variables is examined with the CIPS unit root test developed by Pesaran (2007). Next, the cointegration relationship between variables is searched with the ECM based cointegration test of Westerlund (2007). After determining the cointegration nexus between variables, the long-run impact of explanatory variables on energy consumption is investigated with the AMG estimation of Eberhardt and Bond (2009). Finally, the causal connection between variables are observed with the panel causality test of Dumitrescu and Hurlin (2012).

### 3. EMPIRICAL FINDINGS

In studies that using panel data econometrics, the existence of cross-sectional dependence should be examined to decide the methods to be used in the next stages of empirical analysis. Hence, the validity of cross-sectional dependence among GCC countries is investigated with CD (cross-sectional dependence) test of Pesaran (2004) and the results are presented in Table 1. As a shown in Table 1, the null hypothesis of there is no cross-sectional dependence among countries is strongly rejected thus the validity of cross-sectional dependence is confirmed. This finding point that the possible shock of one of the GCC countries may be easily transmitted to the other GCC countries. Therefore, the second-generation panel data methodologies which allows cross-sectional dependence should be used in the next stages.

**Table 1:** The Results of CD Test

	lnEC	lnGDP	lnFD	lnURB	lnTR
CD-test	19.470	20.970	21.300	21.950	21.640
p-value	0.000	0.000	0.000	0.000	0.000

After determining the cross-sectional dependency, the stationary properties of variables are investigated with the CIPS unit root test of Pesaran (2007). As a shown in Table 2, the unit root test results imply that all variables have unit root process at the level form of variables. However, all variables have become stationary at 1 percent statistical significance level in first differenced form. Thus, the possible long-run relationship between variables can be examined with cointegration tests.



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**Table 2:** The Results of CIPS Unit Root Test

	Level	First Differences
lnEC	-2.640	-6.227
lnGDP	-2.385	-4.887
lnFD	-2.806	-5.021
lnURB	-2.310	-4.547
lnTR	-2.481	-5.600

Note: Critical values for 10%: -2.710, 5%: -2.860, 1%: -3.150

In next step, we examine the long-run relationship between variables with using ECM based cointegration test of Westerlund (2007). According to the results from Table 3, excluding Ga statistic, all statistics reject the null of there is no cointegration between variables thus the existence of long-run relationship between energy consumption, real GDP, financial development, urbanization and trade openness is confirmed.

**Table 3:** The Results of ECM Based Panel Cointegration Test

	Statistics	p-value
Gt	-3.717	0.010
Ga	-8.257	0.260
Pt	-8.730	0.010
Pa	-9.728	0.040

Based on the finding that the cointegration relationship between variables, we investigate the cointegrated coefficients of variables with Augmented Mean Group (AMG) estimator of Eberhardt and Bond (2009). The findings obtained from AMG estimation show that economic growth, financial development, urbanization and trade openness increases energy usage of GCC countries.

**Table 4:** The Results of AMG Estimation

	Coefficient	t-statistics	p-value
lnGDP	0.231	1.810	0.070
lnFD	0.214	2.040	0.041
lnURB	0.601	2.640	0.008
lnTR	0.206	2.480	0.013
Constant	5.518	0.250	0.799



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In case of country specific results, Table 5 illustrates that economic growth increases energy consumption in Saudi Arabia, United Arab Emirates, Qatar and Oman while the impact of real GDP on energy consumption is statistically insignificant in Kuwait and Bahrain. In addition, financial development increases energy usage in Kuwait, United Arab Emirates and Qatar. Moreover, urbanization increases energy consumption in Kuwait, United Arab Emirates and Qatar. However, trade openness increases energy consumption level only in Saudi Arabia and Oman.

**Table 5:** The Results of Country-Specific AMG Estimation

Country	lnGDP	lnFD	lnURB	lnTR
S. Arabia	0.450 [0.015]	0.006 [0.973]	0.228 [0.735]	0.314 [0.067]
Kuwait	0.251 [0.453]	0.364 [0.081]	1.045 [0.089]	0.311 [0.198]
U.A.E.	0.210 [0.038]	0.362 [0.062]	0.261 [0.072]	0.127 [0.572]
Qatar	0.451 [0.030]	0.249 [0.028]	1.339 [0.016]	0.239 [0.237]
Bahrain	0.090 [0.836]	0.007 [0.942]	0.647 [0.295]	0.163 [0.225]
Oman	0.537 [0.024]	0.585 [0.139]	0.539 [0.494]	0.408 [0.036]

Note: Numbers in brackets are p-values.

In the last step of empirical analysis, we investigate the causal connections between variables with the panel causality test of Dumitrescu and Hurlin (2012) and the results can be shown in Table 6. The results show that there are bidirectional causal relationships between economic growth and energy consumption, urbanization and energy consumption, urbanization and economic growth, urbanization and financial development and urbanization and trade openness. In addition, there are unidirectional causal relationships from financial development to energy consumption, trade openness to energy consumption, economic growth to financial development.



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**Table 6:** The Results of Panel Causality Test

Null hypothesis	Wald stat.	p-value
InGDP does not homogeneously cause InEC	10.425***	0.000
InEC does not homogeneously cause InGDP	14.995***	0.000
InFD does not homogeneously cause InEC	8.438***	0.005
InEC does not homogeneously cause InFD	4.699	0.826
InURB does not homogeneously cause InEC	13.522***	0.000
InEC does not homogeneously cause InURB	12.948***	0.000
InTR does not homogeneously cause InEC	9.225***	0.001
InEC does not homogeneously cause InTR	6.613	0.124
InFD does not homogeneously cause InGDP	4.920	0.710
InGDP does not homogeneously cause InFD	8.649***	0.003
InURB does not homogeneously cause InGDP	7.315***	0.043
InGDP does not homogeneously cause InURB	9.821***	0.000
InTR does not homogeneously cause InGDP	5.296	0.528
InGDP does not homogeneously cause InTR	4.968	0.686
InURB does not homogeneously cause InFD	14.691***	0.000
InFD does not homogeneously cause InURB	13.196***	0.000
InTR does not homogeneously cause InFD	5.949	0.280
InFD does not homogeneously cause InTR	4.651	0.853
InTR does not homogeneously cause InURB	12.343***	0.000
InURB does not homogeneously cause InTR	17.368***	0.000

Note: \*\*\* indicates the statistical significance at 1 percent level.

#### 4. CONCLUSIONS

This study mainly examines the impact of financial development on energy consumption for the period from 1980 to 2015 in 6 Gulf Council Cooperation countries: S. Arabia, Kuwait, U.A.E., Qatar, Bahrain and Oman. In doing so, the relationship between energy consumption, real GDP, financial development, urbanization and trade openness is searched with second generation panel data methodologies to take into account the possible cross-sectional dependence among observed countries.

Our results show that economic growth, trade openness, financial development and urbanization increases energy usage in the long-run. In addition, we found the unidirectional causal relationships from financial development to energy consumption, trade openness to energy consumption, economic growth to financial development. Therefore, it is concluded that the targets of financial development and reducing energy consumption are conflicted each other for GCC countries. Based on this, it can be suggested that the financial resources





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should be directed toward investments that enhance energy efficiency and access to eco-friendly technologies.

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**ADAPTIVE CHANGE MANAGEMENT IN THE SELF-MURDER CORNER OF  
OCHS MATRIX**

**Zoltán VERÉB<sup>1</sup>**

**Abstract**

The savory snack market in Hungary and Central Europe is already highly matured. To gain higher market share in existing market segment or have new market segment is highly challenging and expensive. The companies must be innovating on new attractive products to the consumers. This case study explains the business situation when an FMCG company implement a new food product to new market by using new manufacturing technology. This business situation was described in Ochs 3-dimensional matrix as “self-murder corner”. Considered the project complexity and the all 3 dimensions are new - even the careful planning - cannot be foreseen all risks and issue before the project. Consequently, in the different phases of the project timeline the company faced multiplied issue. This study is intending to explain the ways what can be applied as adaptive change management to recognize and eliminate the risks from phase 0 until the products are already in the market. Adaptive change management is a way of working of teams who can adapt all complex and cross functional decisions even on their structure rather than application of pre-defined scenarios and response problems. The study describes the project teams as “small companies”. The result of the project proved that this difficult situation could be successfully solved if the organization is open enough to learn ongoing, the teams are cross-functional, strong, and authorized to decide in time. Additionally, the complexity of the project can be a “masterpiece” base for the entire organization learning curve.

**Keywords:** change management, technology, product, FMCG, Ochs matrix, learning.

**1.INTRODUCTION**

The savory snack market in Hungary and Central Europe is already highly matured. There are the traditionally strong players like Pepsico or Mondelez and recent years the private label players like Aldi, Lidl, getting stronger and covering almost half of the snack market by owned private label products. Additionally, the consumers can select any other substitution products like rice chips. To gain higher market share in existing market segment or have new market segment is highly challenging and expensive. The companies must be innovating on new

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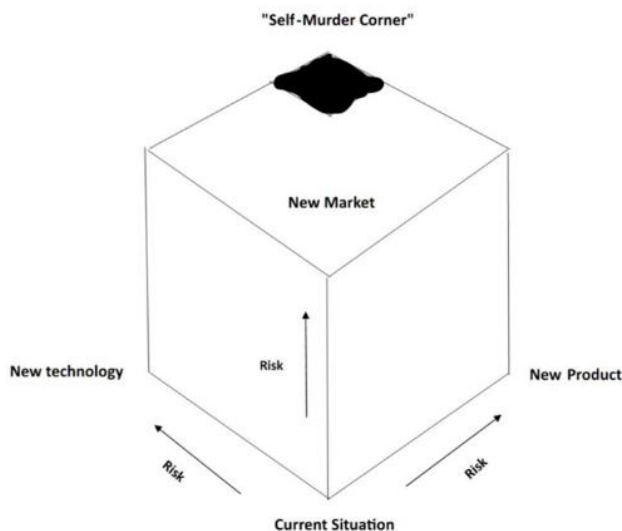


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attractive products to the consumers. This case study explains the business situation when an FMCG company implements a new food product to new market by using new manufacturing technology.

In this study, the product was a new cracker, includes healthy seeds, the targeted market segment was the young generation. Two new technologies were applied: new lamination technology in order to get crispy baked product and new packaging technology to secure the highly fragile product. This business situation - new product, new market, new technology - was described in Ochs 3-dimensional matrix as “self-murder corner”.

**Diagram 1:** Risk Cube Model of Ochs (Steele, 1989; Gaynor, 1993)  
Pataki Béla: Change Management 2013



## 2.THE BASIC STATEMENT

The traditional way of new product implementation can be applied because all possible changes can be foreseen, and scenarios can be done to answer any changes what happening during the implementation.

### Assumptions for basic statement

- Undisputed legal background describes the rules and regulations of a baked product
- The company has approved recipes which are conform with that rules & regulations



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- Product samples for consumer testing already manufactured and the targeted consumer groups can select the proper one
- The packaging method is ideal for that product and fulfill all requirements
- The label includes all relevant food parameters described by regulations
- The time frame of new product implementation is enough conservative to cover all non-calculated issue during the implementation
- The decision-making hierarchy is well defined, and all decisions have been made in time.

During the execution the team faced multiplied unexpected factors. There is a chemical component in the new product, called "Acryl Amid" which is necessary element of any baked product. This chemical component generated by heat as result of high temperature burning. Researchers proved that above a certain level of Acryl Amid can cause unhealthy conditions. The exact maximum level of approved Acryl Amid was a "rubber target" subject and the same time of the new product implementation was discussed by European Union even the final decision was not made yet. Due the delivery lead time of label, all information of the label should have been pre-defined and printed far before the product package and implementation. This label should include all Acryl Amid relevant elements. Unfortunately, the measurement capability of Acryl Amid level was limited by measurement capability and was not able to measure the level of Acryl Amid which was proposed by European Union committee. The basic ingredients which are influence the Acryl Amid level, influences the softness of the product too. This fact implicates technological changes also in the baking and packaging areas which should have been aligned with the new requirements. The timeline of the new product implementation was precisely calculated not considered the non-expected factors caused time delays.

### 3. CONCLUSIONS

The basic assumption has been failed. The traditional way of new product implementation didn't work properly in situation where the new product comes to new market by applying new technology. The issue what the company faced was not foreseen and the solutions for that problems couldn't be solved by separated functional departments. Physically, was not possible to create so much scenarios before the implementation which can answer all issue what can happened.

Considered the project complexity and the all 3 dimensions are new - even the careful planning - cannot be foreseen all risks and issue before the project. Consequently, in the different phases of the project timeline the company faced multiplied unsucces. This study



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explains that the traditional ways of working of new product implementation cannot be applied in the “self-murder corner” successfully.

### **4. ADAPTIVE CHANGE-MANAGEMENT**

Adaptive change management is the way, what can be applied as alternative methodology to recognize and eliminate the risks from phase 0 until the products are already in the market. Adaptive change management is a way of working of teams who can adapt all complex and cross functional decisions even on their structure rather than application of pre-defined scenarios and response problems.

#### **4.1.The Elements of Adaptive Change-Management**

##### **4.1.1.Organization Capability: involve the organization along the entire timeline**

To ensure that the entire organization and particular the core team understands the scope of the project, gained all information and have operations resources, capabilities to execute the initiative. This involvement should have contained all relevant information & learning of previous projects. The core team needs to be representative all business functions of the company. The core team must understand other team members professions and other function’s cross-functional impact on its owned function. The team must have the right to decide on all relevant questions.

##### **4.1.2.Organization & Manufacturing Readiness**

The entire organization is ready for the new challenge. The organization is mentally prepared, the core team supported by all functional areas. The allocated time to the project enough and covers a safety reserve. The readiness report created and proves that the basic elements of the manufacturing capabilities are ready. Established a master plan ensures that all resources and impacts to production systems are optimized.

##### **4.1.3.Competency & Skills**

The core team must contain of all representative of Different functions of the company. The required competency level is very high the members have to have high level mastery on its areas. Additionally, they need to be open to learn and understand other subject matter experts’ functions and motivations.





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### **4.1.4. Risk Assessment & Mitigation Plan**

All relevant risks needed to understand by the team, the risks to the execution, risks to business results. The current operation capability assessed by all risks and align on the mitigation plans and project scope. Failure Mode and Effect Analysis needs to be done before the start to showing the riskiest point of the project.

### **4.1.5. Initiative Success Criteria & Results**

It needed to establish, communicate initiative operations success criteria's and results. Develop Start-Up Work Process Execution Plans. The project milestones must contain success criteria for the toll gate review. Establishing the success criteria for all relevant partners from Marketing, Sales, Finance, Engineering, Manufacturing and R&D as well as Seamless Technical Community are fully aligned and committed to the results.

### **4.1.6. Detailed Initiative Budget**

All tasks needed to develop integrated initiative execution plan of budget and overall initiative execution schedule. The budget must contain contingency resource for any issue which can not foresee. Financially, is highly desired to calculate the project as an investment with has cost, income, profit. It should be applied the project lifecycle management type of return of Investment calculation (ROI). This confirms the "small company approach"

The elements of adaptive change management could show some overlaps with traditional way of new product implementation. The reason behind are that the fundamental elements of the implementation could create stability for the project and includes many elements of project management. The real difference is the way how the teams are working on the change.

Two types of changes have been defined the primary or morfostatic change when only the way of working changes while the system not changing. The secondary or morfogenetic change means when the system structure changes. Based on that definition is the adaptive change management is a primary change. In the reality, the adaptive change management works as a "small company" in frame of the entire company. The real advantage of adaptive change management model is that the "small company" team can execute secondary change in this "small company". In this way, the adaptivity level has been increasing and the authority is high. Finally, as a next steps of adaptive change management the entire company can move in "small companies" mode.

Adaptive change management describes the project teams as "small companies". The result of the project proved that this difficult situation could be successfully solved if the organization is open enough to learn ongoing, the teams are cross-functional, strong, and



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authorized to decide in time. Additionally, the complexity of the project can be a “masterpiece” base for the entire organization learning curve.

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**THE IMPACT OF TRADE ON GROWTH: EVIDENCE FOR BRICS COUNTRIES**

**Aslı ÖZPOLAT<sup>1</sup>**

**Abstract**

The relationship between Growth and Trade is among the most important research topics in economic literature. There are different views in the literature about the impact of trade on growth in general. The most remarkable of these views is the Export-Led Growth Hypothesis and Import-Led Growth Hypothesis. The aim of this study is examine to differences of hypothesis and analyze the valid of hypothesizes. In the view of the above, the impact of trade on growth has been examine according to export-led growth and import led growth hypothesis in this study. The valid of these hypothesizes has been estimated by the Boostrapt Granger Causality Analysis (Konya, 2006) ranging from 1989 to 2018 for the BRICS Countries.

**Keywords:** Export-Led Growth, Import-Led Growth, Economic Growth, BRICS Countries.

**1. INTRODUCTION**

Growth and sources of growth are among the most important research topics in the economic literature. The most important factor among the sources of growth is the increase in production (McCombie ve Thirwall, 1994:21), but factors such as education, environment, institutional structure, foreign trade, innovation, technological developments, industrial investments, agricultural developments, foreign capital and research and development activities are among the factors that trigger growth (Dura vd., 2017:295). In addition, after 1960 internal growth theories suggesting that imports and exports are important factors for growth indicate that differences in development between countries will decrease due to with trade, labor productivity and capacity utilization rates, competition, transition to scale economy and productivity increase.

In this study, the impact of foreign trade, which is expressed as one of the sources of growth, on growth has been analyzed. Foreign trade has two different effects in terms of export and import. According to the so-called export-based growth hypothesis (SCI), exports need to be increased in order to achieve long-term growth. With this increase in exports, demand increase is triggered and real output rates in the country increase. In addition, the increase in the production of export products brings about specialization (Giles ve Williams, 1999:3). On the other hand, there are also approaches that indicate that exports increase with growth.

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Accordingly, the market structure of underdeveloped countries is inadequate compared to developed countries due to uncertainties and vulnerabilities. Therefore, import substitution policies would be more appropriate in these countries (Giles ve Williams, 2015:263-264). According to many economists, raw material exports have no spreading effect on the economy. At the same time, the increase in raw material exports in these countries may cause the resources to move away from the production sector. Therefore, it cannot support sustainable growth (Herzer, 2007:909). The other approach is called as import lead growth. Accordingly, growth will increase with the increase in imports. In addition to this, imports can be a channel for long-run economic growth because it provides domestic firms with access to needed intermediate factors and foreign technology (Coe and Helpman, 1995).

For all these reasons, the causality relationship between exports, imports and growth was analyzed for BRICS Countries (Brazil, Russia, India, South Africa and China). In the analysis covering the annual series between 1989-2018, the Bootstrap Granger Causality Analysis (Konya, 2006) was conducted. The study was planned as 3 sections. In the first part, a summary of the literature will be given and in the second part the methodology used will be shared. In the third and final section, the results of the analysis will be explained and policy recommendations will be included.

## 2.LITERATURE

There are many studies in the international economic literature that focus on the relationship between export and growth. When the empirical studies are examined, it is seen that the relationship between export and growth varies according to country groups and time interval. Kavoussi (1984), Ram (1987), Mbaku (1989), Ahmed ve Kwan (1991), Gharthey (1993), Dutt ve Ghosh (1994), Yaghmaian ve Ghorashi (1995) Adjaye ve Charaborty (1999), Vohra (2001), Awokuse (2003), Dritsakis (2006), Herrerias ve Orts (2010) , Teododa ve Marinela (2011), Bashir vd. (2015) can be shown examples for export lead growth.

In the current literature where a causality relationship between exports and growth or two-way causality relationship was investigated, Balassa (1978), in his study for 23 countries between 1960 and 1973, stated that exports has a significant impact on economic growth and that there was a positive relationship between exports, domestic and foreign capital and labor. Dodaro (1991) stata that there is a positive relationship from export to growth. Sung-Shen et al. (1990) investigated the causal relationship between economic growth and exports for Japan, Korea, and Taiwan range from 1957-1987. According to the results of the analysis conducted, there is a two-way causality relationship between export and growth. McCarville and Nndozie (1995) and Li (1999), Cota (2017), stated that the export-based growth hypothesis is valid for Mexico. Rahmaddi and Ichihashi (2011) investigated the relationship



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between exports, imports and growth between 1971-2008 and concluded that the export-based growth hypothesis is valid in Indonesia. Heller ve Porter (1978), Jang ve Marshall (1983), Hsiao (1987), Chow (1987), Dutt ve Ghosh (1994), Ahmed ve Kwan (1999), Sinha ve Sinha (1999), Pannas ve Vamvokas (2002), Akbar ve Naqvi (2000), Richards (2001), Love ve Chandra (2005) can be shown as examples that find no causality among variables. In addition to these studies, De Gregorio (1992) conducted a study on the determinants of economic growth for 12 Latin American countries between 1950 and 1985, and foreign trade did not have a significant effect on the growth. Dodaro (1993) estimated the Granger causality test for 87 countries and found a weak relationship between exports and growth in these countries. There have been a few study about import led growth (ILG). Herreias and Orts (2009), in their study in China, have found that imports affect labor productivity and hence have an impact on growth. Akter and Bubul (2017) conducted a Granger causality analysis for the D8 countries between 2001 and 2015, and failed to obtain a causal relationship between Pakistan and India for imports and growth, but for the existence of the relationship for Bangladesh, Egypt, Indonesia, Malaysia and Turkey. Ramos (2000) investigated the relationship between import, export and growth for Portugal between 1865 and 1998 and could not obtain a relationship between these variables. Awokuse (2007), applied Granger Causality Analysis and found that ELG and ILG hypotheses were valid for Bulgaria, Czech republic and Poland. Finally, Table 1 provides a summary of the literature on export-led growth and import-led growth hypothesis. The information in Table 1 is classified according to time period, sample, method and analysis variables. The validity of ELG and ILG varies according to the method of analysis, time and cross-sectional size.

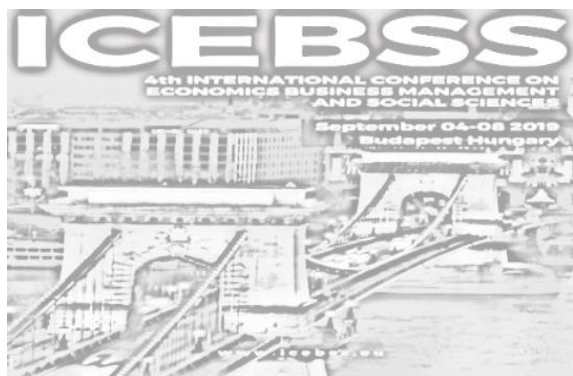




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**Table 1: ELG Literature**

Study	Time Period	Sampling	Methods	Variables	Other Variables	Results
Colombatto (1990)	1971,1978, 1985	47 Countries	Cross Section Analysis	GDP, export		ELG is invalide
Serletis (1992)	1870-1985	Canada	Time Series Analysis	GDP, export	Import	ELG is valide in Short run
Lussier (1993)	1960-1990	43 African Countires	Panel Data Anaysis-Causality	GDP, export	Labor Growth rate, Capital Growth Rate, GDP and relative prices	ELG is valide
Henriques and Sadorsky(1996)	1870-1991	Canada	Time Series Analysis	GDP, export	Trade Openness	ELG is invalide
Shan and Sun (1998)	1978-1996	China	Time Series Analysis-causality	Real Production export	Industry Rate,	ELG is invalide
Panos and Serletis (2000)	1970-1993	50 developing countries	Panel Data Anaysis-Causality	GDP, export	Import	ELG is invalide
Karim (2005)	1972-1999	Bangladesh	Time Series Analysis-causality	GDP, export		ELG is invalide
Alimi and Muse (2013)	1970-2009	Nigeria	Time Series Analysis-causality	GDP, export		ELG is invalide
Uçan, Akyıldız and Maimaitiaili (2016)	2006-2015	Turkey	Time Series Analysis-causality	GDP growth, export	Import	ELG is invalide
Yüksel and Zengin (2016)	1961-2014	Argentina, Brazil, China, Malaysia, Mexico, Turkey	Panel Data Anaysis-Causality	GDP growth, export	Import	ELG is just valide In Argentina



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### 3. DATA AND METHODOLOGY

In the study, the relationship between exports, imports and growth between the years 1989-2018 for BRISC countries (Brazil, Russia, India, South Africa and China) was analyzed. The GDP (Real, US \$ 2010) is the dependent variable, while the independent variables are export (Real, US \$ 2010) and imports (Real, US \$ 2010). Data were obtained from the World Bank Development Indicators Database.

In the analysis of the relationship between GDP and EXP and IM, cross-sectional dependence, which is frequently encountered in panel data analysis between variables, was investigated. If there is a cross-sectional dependence among the variables, the selected unit root, cointegration and causality analyzes should be tests that take this dependency into account. Otherwise, the statistical significance of the findings decreases. In order to estimate Cross Section Dependence, CD; In order to investigate homogeneity, Pesaran-Yamagata (2008) homogeneity test was performed. In the last stage of the analysis, Konya (2006) causality test was applied.

#### 3.1. Cross Section Dependency Test (CD)

In panel analysis, it is assumed that the fractures and changes between units are independent of each other and do not affect each other. However, the units that make up the panel are unlikely to be independent of each other. Therefore, it is necessary to investigate the existence of interdependence between units in panel analysis. This interdependence between units is expressed as cross-sectional dependence and the dependency is analyzed by cross-sectional dependency tests developed by Breush Pagan (1980) and Pesaran (2004). The CD test developed by Pesaran (2004: 1-7) is calculated as follows:

$$CD = \sqrt{\frac{2T}{N(N-1)}} \left( \sum_{i=1}^{N-1} \sum_{j=i+1}^N \hat{\rho}_{ij} \right) \quad (1)$$

#### 3.2. Homogeneity Test

The homogeneity test assumes that a shock from one of the units constituting the panel does not affect the others. In this context, homogeneity test of slope coefficients for Swamy (1970) and Pesaran and Yamagata (2008) according to F test were developed for panel data models. Pesaran and Yamagata (2008) state that Swamy (1970) and F tests provide more effective results for sample groups where the horizontal dimension of the panel is smaller than the time dimension. In contrast, Pesaran and Yamagata (2008) homogeneity test is also suitable for large sample groups.



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### 3.3. Konya (2016) Causality Test

Konya (2016) causality test is a test that gives statistically significant results in cases of cross-sectional dependence and heterogeneity. The test is estimated taking into account the horizontal cross-section dependence and heterogeneity between the units forming the panel. The prediction of the model is based on the SUR (seemingly unrelated regression) method and the Wald test is used to estimate the direction of causality. In addition, as stated in Konya (2006), it does not require a pre-test such as unit root and cointegration before causality analysis.

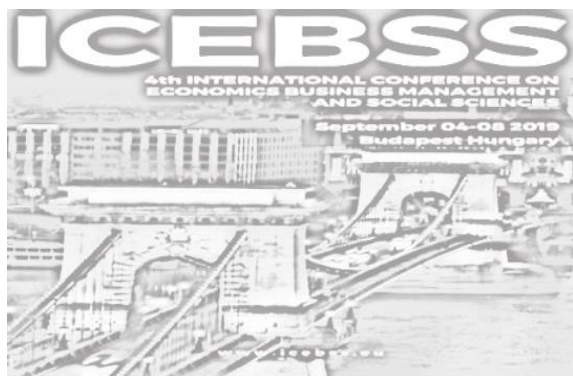
Konya (2006) panel causality test is formulated as follows.

$$\begin{aligned}
 y_{1,t} &= \alpha_{1,1} + \sum_{i=1}^{ly_1} \beta_{1,1,i} y_{1,t-i} + \sum_{i=1}^{lx_1} \delta_{1,1,i} x_{k,1,t-i} + \varepsilon_{1,1,t} \\
 y_{2,t} &= \alpha_{1,2} + \sum_{i=1}^{ly_1} \beta_{1,2,i} y_{2,t-i} + \sum_{i=1}^{lx_1} \delta_{1,2,i} x_{k,2,t-i} + \varepsilon_{1,2,t} \\
 &\dots \\
 &\dots \\
 &\dots \\
 y_{N,t} &= \alpha_{1,N} + \sum_{i=1}^{ly_1} \beta_{1,N,i} y_{N,t-i} + \sum_{i=1}^{lx_1} \delta_{1,N,i} x_{k,N,t-i} + \varepsilon_{1,N,t}
 \end{aligned} \tag{7}$$

and

$$\begin{aligned}
 x_{k,1,t} &= \alpha_{2,1} + \sum_{i=1}^{ly_2} \beta_{2,1,i} y_{1,t-i} + \sum_{i=1}^{lx_2} \delta_{2,1,i} x_{k,1,t-i} + \varepsilon_{2,1,t} \\
 x_{k,2,t} &= \alpha_{2,2} + \sum_{i=1}^{ly_2} \beta_{2,2,i} y_{2,t-i} + \sum_{i=1}^{lx_2} \delta_{2,1,i} x_{k,2,t-i} + \varepsilon_{2,2,t} \\
 &\dots \\
 &\dots \\
 &\dots \\
 x_{k,N,t} &= \alpha_{2,N} + \sum_{i=1}^{ly_2} \beta_{2,N,i} y_{N,t-i} + \sum_{i=1}^{lx_2} \delta_{2,N,i} x_{k,N,t-i} + \varepsilon_{2,N,t}
 \end{aligned} \tag{8}$$

In the equations, Y stands for real GDP, X stands for exports of goods and services. N denotes the number of units and T time interval in the panel.



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**4.RESULTS OF ANALYSIS**

In this study, firstly, Cross Section Dependence among the variables was analyzed with CD test. The results obtained are shown in Table 2.

**Table 2:** CD Test Results

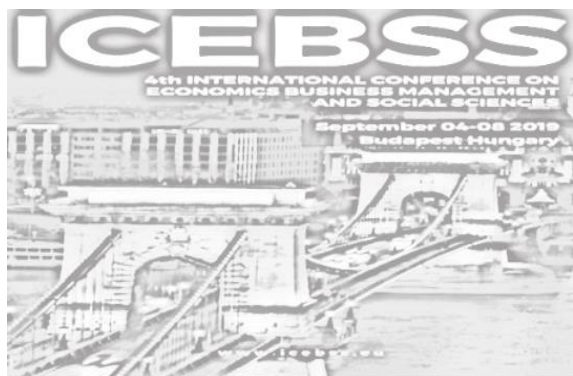
Tests	Value	P-Value
LM (Breush, Pagan 1980)	289.413	0.000
CD <sub>LM</sub> (Pesaran, 2004)	62.479	0.000
CD (Pesara, 2004)	17.011	0.000
LM <sub>adj</sub> (Pesaran et al., 2008)	16.553	0.000

According to the results in Table 2, there is no cross Section Dependency null hypothesis is rejected. In other words, the variables include cross Section Dependency. Table 3 shows the homogeneity results of the variables. The homogeneity test is a test that expresses economic independence among the countries that make up the panel. Accordingly, the economic policies between the units constituting the panel do not affect each other. According to the test results in Table 3, there is no homogeneity between the units. Economic decisions of countries are not independent of each other. Considering that globalization is at a high level, this result is expected.

**Table 3:** Homogeneity Test Results

Test	İstatistik	P-değeri
□	1.789	0.037
△		
□	1.885	0.030
△ <sub>adj</sub>		

The causality tests used in the current economic literature often neglect the cross-sectional dependence and heterogeneity between the units. The causality test which takes horizontal cross-section dependence and heterogeneity into consideration is the causality test of Konya (2006). The results of the test are given in Table 4.



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**Table 4:** Konya (2006) Causality Test Results

Country	<i>InY → InEXP</i>				<i>InEXP → InY</i>			
	Critical Values				Critical Values			
	Prob	%1	%5	%10	Prob	%1	%5	%10
Brazil	1.729	5.413	3.759	3.000	0.116*	2.207	1.161	0.809
Russia	2.594	9.997	6.090	4.343	1.296	9.769	4.632	2.953
India	0.026	10.408	7.247	5.936	1.683*	3.954	2.618	1.632
China	2.287**	2.943	1.950	1.430	20.385***	12.206	8.250	6.290
South Africa	5.418	28.281	20.067	17.225	0.260	18.138	12.457	10.370

Country	<i>InY → In Im</i>				<i>In Im → InY</i>			
	Critical Values				Critical Values			
	Prob	%1	%5	%10	Prob	%1	%5	%10
Brazil	5.108	10.329	8.035	6.658	0.028	4.095	2.991	2.530
Russia	4.143*	8.615	4.831	3.353	1.549	11.956	7.284	5.300
India	0.180	11.674	9.033	7.689	0.491	5.813	3.345	2.696
China	0.193	8.533	6.291	5.043	8.859	21.095	14.347	11.348
South Africa	2.498	28.588	23.224	19.909	0.276	33.236	22.261	18.339

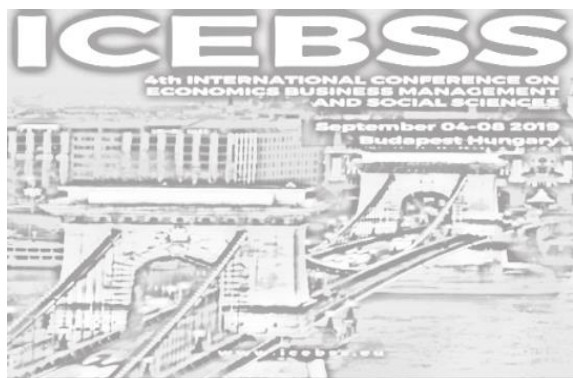
The signs \*, \*\*, \*\*\*, represent 10%, 5% and 1% probability levels, respectively. Critical values are based on 10,000 bootstrap repeat.

When the results were evaluated, a two-way causality relationship was found between export and growth in China. In Brazil and India, the causality relationship from export to growth was obtained. When the relationship between imports and growth is examined, only the causality relationship from growth to imports has been found in Russia. In South Africa, however, no causal relationship was found between exports, imports and growth. Therefore, while the ELG is valid only in China, Brazil and India, the ILG is invalid in any country. However, there is a one-way causality relationship from growth to imports in Russia.

## 5.CONCLUSION

In economic literature, theories of growth generally investigate the differences in development among countries. Export and Import are among the differences. According to





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the export-based growth hypothesis, which has an important place among these studies, exports should be increased in order to achieve long-term growth. Because the increase in exports shows a spread effect in the economies of the country and supports the fields such as production, capital increase and investment which are the sources of growth. However, there are many studies suggesting that this increase is not available in developing countries. According to this approach, the increase in exports and the distribution of resources of developing countries is ineffective and production is affected negatively. In addition, import lead growth theory, import can trigger growth with domestic production and technology. But there is a few empirical study to support import lead growth.

In this study, the effect of export and import on growth is examined. The main objective of the study is to analyze the long-run relationship between GDP, import and exports with the annual series 1989-2018 for BRICS countries. For this purpose, The Bootstrap Granger Causality test (Konya, 2006), which takes was estimated. When the results obtained are evaluated, the countries where ELG is valid are Brazil, India and China. The ILG is invalid in any country. However, there is a one-way causality relationship from growth to imports in Russia. Therefore, it can be stated that exports and imports are not the only source of growth.

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**THE ROLE OF TOURISM ON ENVIRONMENTAL DEGRADATION: EVIDENCE FROM TOP 10  
MOST VISITED COUNTRIES**

**İbrahim Halil OĞUZ<sup>1</sup>**

**Abstract**

Although tourism revenues are considered as one of the important catalysts for the national economy, the impact of tourism on environmental quality is still inconclusive. Based on this reason, this paper aims to examine the relationship between tourism and environmental degradation in top 10 most visited countries: China, France, Germany, Italy, Mexico, Spain, Thailand, Turkey, the United Kingdom and the United States. In doing so, the impact of tourist arrivals, real gross domestic product per capita, the square of real gross domestic product per capita and energy consumption per capita on carbon dioxide emission per capita is analyzed for the period of 1995-2014 in mentioned countries. In empirical analysis, we first detect the stationary properties of variables with panel unit root tests. After determining the integration order of the variables, we search the possible long-run relationship between variables with panel cointegration tests. In addition, the long-run effect of explanatory variables on carbon emission is examined with fully modified ordinary least squares (FMOLS) estimator. The findings show that increasing tourist arrivals reduces the carbon emissions in the long-run. In addition, the U-shaped relationship between economic growth and environmental degradation is found for observed country group. It is also found that the impact of energy consumption on environmental degradation is positive and statistically significant.

**Keywords:** Tourism, Environmental Degradation, Panel Data Methodology, Energy Consumption

**1. INTRODUCTION**

Tourism sector is associated to energy consumption and the environment because tourism activities involve energy consumption directly through fossil fuels or indirectly through electricity power in each step of tourism activities from transportation to accommodation. Depending on the source of energy use (e.g. renewable and non-renewable energy) in tourism sector, it may either decrease or increase the pollution. In addition, the impact of tourism on the environment may differ through supportive policies and government interventions for low level of greenhouse gas emissions, and the use of clean technologies in the sector. Therefore,

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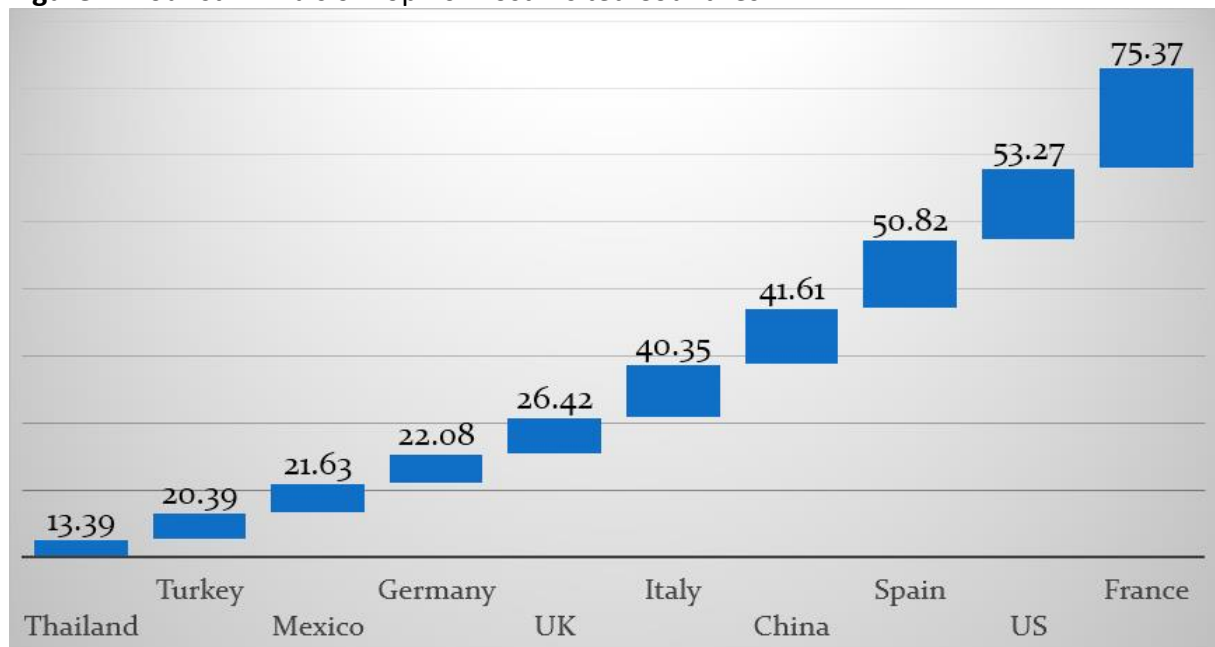




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this study aims to examine the impact of tourism on environmental pollution for top 10 most visited countries.

**Figure 1:** Tourist Arrivals of Top 10 Most Visited Countries



Before, empirical analysis, we can observe the recent tourist arrivals of selected countries in Figure 1. In this graph, we show the average tourist arrivals number of selected countries for 1995-2014 period. It can be seen that the most tourist arrival countries are France, US and Spain in this period. In empirical literature, Lee and Brahmairene (2013) examined the impact of tourism on environmental pollution for European Union countries for the period from 1988 to 2009 with panel cointegration test and found that increasing tourism reduces environmental pollution. In addition, Katircioğlu (2014) searched the impact of tourism on environmental degradation in Cyprus for the period of 1970-2009 with using Auto Regressive Distributed Lag approach and concluded that increasing tourism increases environmental degradation. Similarly, Dogan et al. (2015) investigated the effect of tourism on environmental pollution in OECD countries for the period of 1995-2010 with panel DOLS estimation and found that increasing tourism on environmental pollution.



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## 2. MODEL, DATA AND METHODOLOGY

In literature, many studies concentrate on the linkages between tourist arrivals or tourist receipts, real GDP and energy consumption. Following the study of Dogan and Aslan (2017), empirical model is as following:

$$\ln CO = f(\ln GDP, \ln GDP^2, \ln EC, \ln TOUR)$$

*CO: Carbon Emission Per Capita in Metric Ton (WB)*

*GDP: Real GDP Per Capita in cons 2010 US Dollar (WB)*

*GDP<sup>2</sup> : The square of real GDP*

*EC: Energy consumption per capita (WB)*

*TOUR: Tourist Arrivals (WB)*

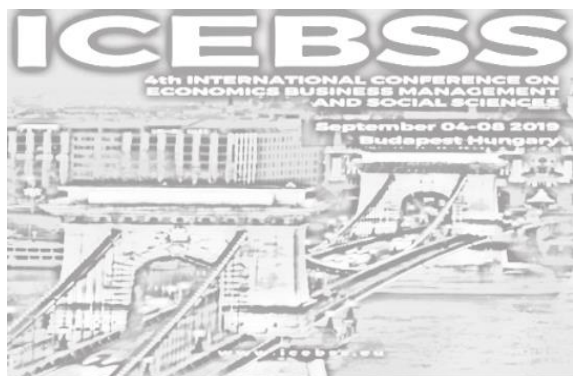
The data used in this study is obtained from World Development Indicators\* and also the natural logarithm of the data is used. The annual period of 1995-2014 is observed for China, France, Germany, Italy, Mexico, Spain, Thailand, Turkey, the United Kingdom and the United States. In methodological procedure, the unit root properties of variables are examined with LLC and IPS unit root tests. Moreover, cointegration relationship between variables is investigated with Pedroni cointegration test. Finally, the long run effects of independent variables on environmental pollution are searched with fully modified ordinary least squares (FMOLS).

## 3. EMPIRICAL RESULTS

In panel data studies, the unit root properties of variables should be examined before observing the existence of long-run relationship between variables. Based on this reason, we used the LLC and IPS unit root tests and present the results in Table 1. In this table, the panel unit root test results are presented. While the variables include the unit root in level form, in first differenced form, all series have become stationary.

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\* <https://data.worldbank.org/>



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**Table 1:** LLC and IPS Unit Root Test Results

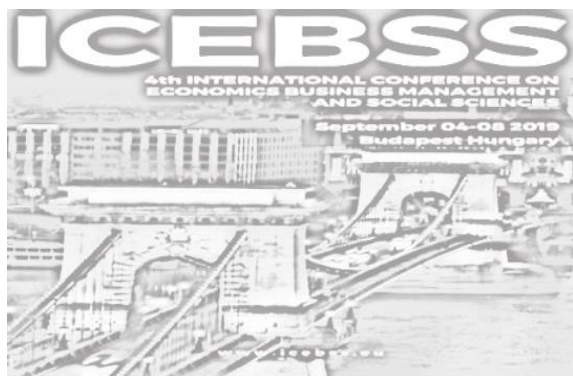
	LLC		IPS	
	t-statistic	prob.	t-statistic	prob.
lnCO	1.52834	0.9368	5.07152	1.0000
lnGDP	-1.65924	0.0485	-0.53945	0.2948
lnEC	0.52619	0.7006	3.46700	0.9997
lnTOUR	-0.29076	0.3856	2.55194	0.9946
ΔlnCO	-7.60583	0.0000	-7.45002	0.0000
ΔlnGDP	-5.66658	0.0000	-4.69244	0.0000
ΔlnEC	-4.85581	0.0000	-5.75652	0.0000
ΔlnTOUR	-7.15945	0.0000	-7.46677	0.0000

After determining the integrated level of variables, the cointegration relationship between variables should be examined with panel cointegration test. The long-run relation between variables are searched with Pedroni cointegration test and the results can be shown in Table 2. Table Show that there is long-run relation between variables based on four statistics.

**Table 2:** Pedroni Cointegration Test Results

	Statistic	Prob.
Panel v-Statistic	-0.26166	0.6032
Panel rho-Statistic	0.126496	0.5503
Panel PP-Statistic	-3.19907	0.0007
Panel ADF-Statistic	-2.7603	0.0029
Group rho-Statistic	1.622949	0.9477
Group PP-Statistic	-2.58633	0.0049
Group ADF-Statistic	-2.1568	0.0155

After checking the validity of cointegration relationship between variables, we should examine the long-run impact of real GDP, the square of real GDP, energy consumption and tourist arrivals on carbon emissions with long-run coefficient estimator. Based on this, we use FMOLS estimation method and the results are given in Table 3. In this table, the impact of independent variables on carbon emission is shown for each country. When we focus on only the impact of tourism, the significantly negative impact of tourism on pollution is found only for Germany, Italy and US. In addition, the U-shaped relationship between economic growth and carbon emission is found for Germany, Spain and United Kingdom. However, the inverted



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U-shaped nexus is validated for Thailand. Moreover, the environmental pollution increasing effect of energy consumption on carbon emissions is found for all countries.

In case of panel results, the U-shaped relationship is confirmed between GDP and carbon emission. In addition, increasing energy consumption increases pollution while the tourism reduces it.

**Table 3: FMOLS result**

	lnGDP	lnGDPK	lnEC	lnTOUR
1. China	0.215844 [0.6877]	-0.026837 [0.4109]	1.497820 [0.0000]	-0.102451 [0.1018]
2. France	4.280685 [0.9021]	-0.228798 [0.8893]	1.756081 [0.0000]	0.110238 [0.5771]
3. Germany	-48.88935 [0.0000]	2.320674 [0.0000]	1.070833 [0.0000]	-0.177729 [0.0007]
4. Italy	111.6424 [0.2437]	-5.293788 [0.2449]	0.828299 [0.0784]	-0.573203 [0.0036]
5. Mexico	42.29952 [0.1514]	-2.321658 [0.1524]	1.090204 [0.0000]	-0.059176 [0.3333]
6. Spain	-49.01760 [0.0000]	2.367899 [0.0000]	1.793213 [0.0000]	0.013101 [0.7498]
7. Thailand	7.232271 [0.0653]	-0.432990 [0.0640]	0.880667 [0.0003]	-0.025475 [0.5974]
8. Turkey	2.160931 [0.1317]	-0.115039 [0.1330]	1.008053 [0.0000]	-0.009251 [0.3397]
9. United Kingdom	-30.55960 [0.0268]	1.464134 [0.0265]	1.180783 [0.1317]	-0.015599 [0.7626]
10. United States	7.187944 [0.1069]	-0.335175 [0.1077]	1.245205 [0.0000]	-0.043102 [0.0030]
PANEL	-0.590222** [0.0365]	0.034923** [0.0317]	1.198437*** [0.0000]	-0.101322*** [0.0000]

Note: Numbers in parantheses are p-values.

#### 4. CONCLUSIONS

This study examines the relationship between tourism and environmental pollution. For this, the impact of real GDP, tourist arrivals and energy consumption on carbon emissions in top 10 most visited countries for the period of 1995-2014. In addition, the square of real GDP is added to empirical model to observe the validity of Environmental Kuznets Curve hypothesis.



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Our results show that the impact of tourism, the significantly negative impact of tourism on pollution is found only for Germany, Italy and US. In addition, the U-shaped relationship between economic growth and carbon emission is found for Germany, Spain and United Kingdom. However, the inverted U-shaped nexus is validated for Thailand. Moreover, the environmental pollution increasing effect of energy consumption on carbon emissions is found for all countries. In case of panel results, the U-shaped relationship is confirmed between GDP and carbon emission. In addition, increasing energy consumption increases pollution while the tourism reduces it.

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## AN INVESTIGATION ON DOCTORS' VIEWS ABOUT THE REASONS OF CHILDREN DISEASES (SINGLE CENTER EXPERIENCE)

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### Abstract

In this study it was aimed to examine the doctors' view about the factors causing children diseases. The study group was determined using one of the sampling methods; the criterion sampling. The study was conducted with the doctors working in Kırşehir state hospital. The interview technique, one of the qualitative methods, was employed in the study. "Semi-Structured Interview Form" developed by the researchers was used in the study and descriptive analysis was also employed for the evaluation of the data. As a result of the study, which was conducted to examine the doctors' view, according to their branches, about the factors causing children diseases, the doctors stated that the children were brought to the hospital for infection, diseases caused by mid-season, lack of nutrition, problems of school adaptation, jealousy of siblings, aggressiveness, difficulty in learning and lack of attention, anxiety disorders, mood confusion. Also, the doctors suggested paying attention to hygiene, preventing the lack of nutrition, isolating the contagious diseases, clothing children with clothes appropriate for the season, informing families about diseases, emergency treatment and the use of technological devices and increasing the fluid intake. Further, the doctors emphasized that the families should be conscious. It was also determined that the majority of the doctors laid stress on the necessity of coming to controls regularly, taking the medicine regularly and obeying the hospital rules.

**Keywords:** Children Diseases, Semi-Structured Interview Form

### 1. INTRODUCTION

Throughout the ages, health was perceived according to people's physical and mental conditions and defined in this direction. In the earlier times the impairment of physical and mental health was believed to be related to supernatural powers, but later, it was supported with the scientific studies that in addition to the effect of biological and physical factors on health, the social and cultural factors also affect the health. Today, people's level of health is

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one of the most important indicators showing the development level of countries. While determining the level of health of a society, the prevalence rate of diseases, mortality rate, health expenditure per capita and money allocated for the health can be taken into consideration. (Erdem, 2011). The increase in the money allocated for health expenditure from the government budget brings the savings measures for the health expenditure into the forefront (Kalaycı, 2018). Savings are not only in the field of economics, it also requires different disciplines to work together. In this sense, the hospitals, which cover the therapeutic health services, have an important place (Erdem, 2011). There are many departments in hospital with the aim of early diagnosis of diseases, screening the diseases and treating them and many branches work together there. It is known that the children are transferred to the doctors working in different units according to their specialty. The children form an important part of the population and if the reasons of the children diseases are known, some studies can be done to prevent them; accordingly the health expenditure allocated for the treatment can be decreased. Money spent for the treatment of a disease is more than the money spent to prevent the occurrence of it. Further, decreasing the number of patients can decrease the work load of doctors working hard. In order to provide efficiency in health services and decrease the load of increasing health expenditures on the government budget, it is important to determine the doctors' view about the reasons of children diseases, who work at hospitals in secondary health service system. It was found that there was no interdisciplinary study on determining the doctors' views about the reasons of the children diseases, but there were studies about the children applying to children cardiology with chest pain complaint (Çiçek et al., 2019), the children staying in child intensive care unit (Konca et al., 2015; Orhan et al., 2012), the children applying to children emergency with poisoning complaint (Kendirici et al., 2011) and these studies were planned retrospective and cross-sectional. The integration of the views of doctors in different branches about the reasons of children diseases, which were transferred to their units, with the child development field can be regarded as an example for interdisciplinary studies and it is believed that new studies in parallel with the results of this study can also contribute to the economy indirectly. In this sense, in this study it was aimed to examine the doctors' view about the factors causing the children diseases.

## **2.MATERIAL METHOD**

A qualitative process was followed in order to reveal the events and cases in their natural environment with a holistic view. Interview technique, one of the qualitative research methods, was used to understand and reflects the point of views of the doctors who are the participants of this study (Yıldırım and Şimşek, 2009). The interview is a powerful method which is used to reveal people's point of view, experiences, feelings and perceptions (Bogdan



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and Biklen, 1992, as cited in: Yıldırım and Şimşek, 2009). During the determination of the study group (doctors) the criterion sampling method which is one of the purposeful samplings and defined as the study of conditions meeting predetermined a range of criteria (Yıldırım and Şimşek, 2009). The study group was determined using one of the purposeful sampling methods; the criterion sampling. 18 doctors, who have worked in Kırşehir Training and Research Hospital for at least one year, have at least two staff in his/her unit and work actively (have a position in the hospital and not an employee in other institutions), were included in the study. Among the doctors who were included in the study 6 of them work in otorhinolaryngology clinic, 5 in ophthalmology clinic, 3 in emergency service, 2 in psychiatry clinic, 1 in general surgery clinic and 1 in cardiology clinic.

In the study Semi-Structured Interview Form developed by the researchers was used in the study. In interview form there were questions with the aim of determining the reasons the children come/are transferred to the hospital, doctors' opinion about what should be done so that children do not get sick and their expectations from the children and families during the treatment.

First, the aim of the study was told to the doctors then they were asked whether they wished to participate in the study or not and those, who voluntarily accepted to participate, were interviewed face-to-face. During the interviews the responses were written down. The data obtained in the study were commented according to the predetermined themes (Şimşekve Yıldırım, 2009). From the data obtained from the study group using Semi-Structured Interview Form the themes were formed at first, the doctors participating in the study were coded as H1, H2, ...H31, the doctors' views were evaluated via descriptive analysis and the results were presented with direct quotation.

### **3.FINDINGS AND DISCUSSION**

The findings belonging to the doctors' view on the factors causing the children diseases were presented below.

The doctors in the study were asked "What are the reasons that children come/are transferred to your clinic?" The doctors gave more than one answer to this question. Almost all the doctors (11) indicated that the children came to their clinic due to infection. 6 of the 11 doctors; 5 from otorhinolaryngology clinic, 2 from ophthalmology clinic, 1 from cardiology clinic, 1 from general surgery clinic, 2 from emergency service, expressed that not paying attention to hygiene rules caused the infection and the other 5 doctors remarked that communal life areas such as the schools caused the infection. Also, two doctors working in emergency service told that the children came due to mid-season and 2 of the doctors working in otorhinolaryngology clinic explained that they came due to the lack of nutrition. All the



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doctors (2) working in psychiatry clinic firstly indicated that the applications varied according to the ages; in pre-school period; the problems about adaptations to school, jealousy of siblings, aggressiveness, in six years and older; the difficulties in learning and lack of attention, in the puberty period; anxiety disorders and mood confusions. 6 of the doctors working in ophthalmology clinic stated that they came to hospital due to visual disorder (one due to infection) or they were transferred to the hospital. In addition, there were some other responses of ophthalmologists such as the lazy eye and allergic problems in the eye.

11 of the doctors, who were included in the study, mentioned infectious diseases as the reason of children's coming or being transferred to the hospital. In the children age group, the infectious diseases are the on the first rank among the reasons that cause to children apply to doctors (Collins and Shane, 2017; Hatipoğlu et al., 2011), especially in the developing countries they create destructive effect on the children's health. In addition to causing death directly, the childhood infections also ruin the quality of life (Deniz and Özer, 2012). Tests which are used for the diagnosis of infectious diseases can be usually time-consuming and sometimes expensive and unfortunately not available all the time (Hatipoğlu et al., 2011).

Öner (2018) in his study found that 89 (73.5%) of 121 patients staying in Child Infection Clinic of Ankara Dr. Sami Ulus Maternity and Children's Health Training and Research Hospital in 2016 due to high fever were diagnosed with infectious diseases. The range of diseases especially the infectious diseases show local and seasonal diversification (Hatipoğlu et al., 2011). Therefore, as this study involves Kırşehir province, it is believed that it can lead to local response programs which are prepared against all diseases at the outset the infection.

The doctors were asked: "What should be done so that the children coming to your hospital do not get sick?" All of the otolaryngologists (6) expressed their opinion that attention should be paid to the hygiene. 5 of the other doctors in the same clinic (otorhinolaryngology) told that the lack of nutrition should be prevented and 3 doctors remarked that the children should not go to schools when they get sick in order not to contaminate the disease, 2 doctors indicated that the mothers should clothe their children appropriate to the weather conditions. In addition to doctors who told that the mothers should be informed about the diseases (1) and emergency treatment (1), there is 1 doctor who expressed that the fluid intake should be increased.

When the responses of eye specialists to the same question were examined; all of them (5) emphasized that the families should be conscious. "The use of the technological devices should be diminished" (4) response ranks number two. One doctor (H1) underlines the importance of early diagnosis and one other remarked the attention should be paid to hygiene. H5 from eye specialists responded as such: "**Families, whose children have allergic problems, should be conscious about the allergies. The children should wash their faces with cold water, wear hats and glasses and the most important thing is that they should keep**



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**away from allergic things”**. Another doctor also answered as such: **“The attention should be paid to the hygiene, the cleaning of the hands and the living environment; the mobile phones they use are also microbial”**

When the responses of emergency doctors to the same question were examined the rate of doctors, who told that the attention should be paid to hygiene (2) and nutrition (2), is equal to each other, one of the two doctors, who indicated that the families should be conscious, emphasized that the families should be informed about the use of antibiotics. Doctor (H18), who works in cardiology clinic, explained that attention to the hygiene as such: **“They should know the protective methods against contagious diseases in communal living environments like dressing room. Adopting them the habit correct hand wash, the cleaning after the toilet should be taught and done correctly”**.

The doctor, who works in general surgery clinic (H17), presented his opinion that the attention should be paid to the hygiene and nutrition.

The doctor, who works in the psychiatry clinic (H16), emphasized the inherited disorders and shared his opinion as such: **“Parents should have information about the genetic predisposition in terms of mental health, there are some protective applications”**. Other doctor working in the same clinic indicated that the room temperature should be 22-24°C, the attention should be paid to the children’s regular sleep pattern and routine check-in should be done. It is seen that regardless of the branches, all the doctors emphasized the hygiene, nutrition and conscious families. The hygiene, on which the doctors focus, has an important place in preventing infectious diseases.

Hygiene practices are directly effective both on the health protection and on the growth (Rah et al., 2015). One of the efficient methods regarding the hygiene is hand wash. Almost all the prevalent infections are contaminated with dirty hands (Benaroch, 2007). Paying attention to the hygiene is the easiest, the most practical and the most economical method. Families’ paying attention to only hygiene prevents many diseases before they occur. Studies should be done in all level of education starting with pre-school period in order to make children gain permanent habit on the desired level about the hygiene. At schools the children should be given training about efficient hand wash and both the children and the other working people at schools should pay attention to hand cleaning (Deniz and Özer, 2012). The hygiene practices decrease the diarrhea risk 48% in children (Baker et al., 2016). Including the school environment, every kind of factors affecting the health negatively should be removed; the health condition of the children and all other personnel in the school should be evaluated and improved (Erdem, 2011). Appropriate to the conditions and needs of the areas; an accessible, qualified, sustainable and inclusive school health service model should be developed and put into operation (Şahinöz et al., 2017). It is also known that the isolation is also effective on protection from infectious diseases (Lee, 2008). Some measures which should be paid





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attention in this issues are as such; isolating the patient completely according to the disease factors, not using his/her belongings and toys, providing adequate ventilation at schools, providing the environmental cleaning, frequently washing toys and other belongings that children use, paying attention to some certain substances like play dough (Deniz and Özer, 2012, Dülger et al., 2017; Şimşek et al., 2019). Further, providing suitable nutrition in terms of children's health is very crucial since the first days of life and at schools the children's nutrition programs should be adequate, balanced and appropriate to health rules (Erdem, 2011). It is also regarded important to raise the awareness of families about health protection, diseases, the use of medicine, emergency treatment and the damages of technological devices. Such issues should be dealt with by establishing the connection between families and economy of the country. Also, how families can reach the daily practices of those issues in the most economical way should also be told them. The families' becoming a role model for their children about healthy behaviors is also important (Benaroch, 2007). Parents, who make an effort to be a right role model for their children, also protect their own health. It can be claimed that the training families receive about the health protection affect the children's health, accordingly the health of society.

When the doctors were asked which the points the families should take into consideration in the treatment of their children, 5 of the otolaryngologists mentioned the importance of coming to hospital regularly for controls. It was also found that the rate of doctors, who indicated that the families should pay attention to use the medicine regularly (4) and come to the appointment in time and wait for their turn (4), is equal to each other. There is also one doctor who denoted that the attention should be paid to the cleaning of the child coming to the control during the treatment. When the responses of the doctors working in the psychiatry clinic; it was determined that the rate of doctors, who stated that the families should come their appointment in time and wait for their turn (2) and the children should not come to hospital on their own (2), is equal to each other. There are also some other responses such as; the medicine should be used regularly, the treatment should not be left unfinished and the doctors' advices should not ignored. The doctor working in the general surgery clinic emphasized that the medicine given should be used as the doctors advised and the controls should not be ignored. Further, the doctor working in cardiology clinic indicated that in addition to the use of medicine correctly, the families should respect to all the staff in the hospital and other patients. When the responses of the doctors from the ophthalmology clinic was examined, it was detected the rate of doctors who emphasized the importance of regular control (2) and coming to the appointment in time and waiting for their turn (2), is equal to each other. There are also some other doctors who gave the following responses; the medicine should be used regularly, the treatment should not be left unfinished, the families should support the doctors during their responses to the children, the children should not



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come to hospital with oily food in their hands and the children should not play with their toys on the treatment tools. Upon the examination of the responses of all the doctors in the study, it was concluded that they focused on regular control, taking the medicine regularly and hospital rules. Treatment is the healing of a detected disease with medicine, surgery or other methods, recovering the child from pain and disease and regaining his/her health. The treatment services both are expensive and they mean loss of workforce and time (Akyıldız, 2000). The doctors indicated that the families' awareness should be raised about the use of medicine. Medicine consumption has been increasing dramatically every passing year. In addition to the population growth, the increasing stress in the globalizing world also has an important share in the increase in the medicine consumption. Rationalist medicine use both means contribution to the treatment method of the disease and to the economy of individual and country. It causes a great loss in terms of the economy of the country to keep the medicine unnecessarily till they become expired and throw away the medicine which remained after the treatment (Barutçuetal., 2017; Sürmelioglu et al., 2015). Time, medicine and the money allocated for the treatment cause to the increase in health expenditure day by day, therefore, the preventive studies in the treatment of diseases have become important every passing day. Further, thanks to the preventive studies the workforce and money spent for beds, intensive care, hematological, biochemical, microbiological, radiological examinations, antibiotics and other medicine, consumables and additional surgery operations are to be lessened. The doctors, children and their families' observances to the hospital rules show the necessity for preparatory training. The preparatory training raise children's awareness about the diseases and hospital rules, further it can protect them from the diseases. The preparatory trainings for hospitals are given by the child development specialists working at hospitals. Therefore, adequate number of child development specialists should be at hospitals. Internet, telephone or social media are required to be used in order to organize seminars with families about healthy life and send informative and educational messages.

#### **4.RESULT AND SUGGESTIONS**

As a result of the study which was carried out with the aim of the investigation of doctors' view, according to their branches, on factors causing children diseases, it was found that the children come to hospital for the following reasons; infection, diseases caused by the mid-seasons, lack of nutrition, problems about adaptations to school, jealousy of siblings, aggressiveness, difficulty in learning and lack of attention, anxiety disorders and mood confusion. Besides, the doctors emphasized that the families should be conscious and they also suggested the followings; attention should be paid to hygiene, lack of nutrition should be prevented, isolation should be provided for contagious diseases, children should be clothed



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appropriate for the seasons, families should be informed about diseases, emergency treatment and the use of technological devices and fluid intake should be increased. It was also determined that the majority of the doctors focused on coming to controls regularly during the treatment, using the medicine regularly and obeying the hospital rules. The followings can be suggested in parallel with the findings obtained from the study:

- Planning the national preventive health services and their application with regional updates,
- Doing the studies regularly in all cities about determining the data of service given in the hospitals and commenting them,
- Carrying out interdisciplinary studies regarding the health protection and improvement can be suggested.
- Hospital rules and health training can be given to the children and families within the context of preparatory training.

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**AN EXAMINATION OF MOTHERS' LEVEL OF SELF-EFFICACY IN TERMS OF SOME VARIABLES**

**Neriman ARAL<sup>1</sup>, Figen GÜRSOY<sup>2</sup>, Fatih AYDOĞDU<sup>3</sup>, Burçin AYSU<sup>4</sup>**

**Abstract**

Self-efficacy requires sufficient level of information about child care, confidence in fulfilling motherhood task and the belief that child's development and behaviors can be supported by those around him/her. Skills that mother has such as; communicating with child affirmatively, providing stimulus to child, accepting child and communicating with him effectively show that her self-efficacy is high. Mother's having high self-efficacy provides a healthy development process for her child but low self-efficacy can cause the emergence of psychiatric symptoms and behavioral problems, accordingly it can cause the child's development negatively. Mothers' self-efficacy can be more effective on the development of children who are in early childhood period and spend most of their time with their mothers. It is believed It is considered that the determination of the factors which are effective on the mothers' self-efficacy will create a resource for the studies about the mothers' self-efficacy, and the studies about the mothers' self-efficacy will decrease the problematic behaviors of the children, thus the money spent in the health services for the treatment of the psychiatric problems of children will also diminish. Based on this point of view, this study, was done to determine whether the self-efficacy levels of mothers who have 1-3 years old children differentiate according to the mother's age, mother's level of education, mother's employment status, number of children and the gender of the children. To that end, mothers, who had 1-3 years old children, consulted to three family health centers between 22.07.2019 and 22.08.2019 in Erzincan city center and accepted to participate in the study, were included to this study. In the study, mothers' self-efficacy levels were determined using Self-Efficacy for Parenting Task Index which was developed by Emde (1989) and adapted to Turkish by Elibol et al., (2007). As a result of the study it was found that the level of education was influential on the mothers' self-efficacy levels, but the mother's age, the mother's employment status, the number of children and the gender of child were not influential. In parallel with the obtained results, it was suggested that the practices for developing the self-efficacy of mothers who had low level

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of education and the studies for determining the factors which are believed to be effective on the self-efficacy should be carried out.

**Keywords:** Self-Efficacy, child, mother, variable

### 1. INTRODUCTION

When the development of children who spent most of their early years with their mothers was considered, it is understood that the mothers' self-efficacy is an important issue (Coleman and Karraker, 2003). It is because of the fact that the self-efficacy requires having sufficient level of knowledge about the child care, the confidence in order to fulfill the motherhood duty and the belief that the development and behaviors of the child can be supported by the people around him. The self-efficacy is the individual's perception of his ability for performing a duty in an environment sufficiently and effectively (Kendall and Bloomfield, 2005). In other words, it is the individual' attitude for the ability of organizing the necessary activities in order to show a certain performance and fulfilling it successfully (Cavkaytar et al., 2014). Parents' self-efficacy is defined as the parents' attitudes and beliefs about the capacity they have for some duties about the child care and bringing up (Montigny and Lacharite, 2005). When the related studies was examined, it was found that the parents possessing high level of self-efficacy also have high capacity about providing appropriate environment for their children's needs (Coleman and Karraker, 2003), the mothers' perception of the self-efficacy is effective on the children's social skills-self-care, but mothers' perception of the self-efficacy is on the medium level (Büyüктаşkapu, 2012), the mothers, whose parental self-efficacy is low, perceive the hyperactive behavior of the children with ADHD as something extremely negative (Maniadaki et al., 2005). The self-efficacy of mothers can be a possible predictor of the child development or maybe a risk indicator (Jones and Prinz, 2005). In this sense, the studies about the self-efficacy of mothers can be effective on the early response studies about the development (Jones and Prinz, 2005), because a mother's high level of self-efficacy provides a healthy development for her child, but it is also believed that the low level of self-efficacy can cause the behavioral problems and the emergence of psychiatric symptoms thus affect the child's development negatively. The limited number of studies about the self-efficacy show the importance of this study once more and it can also be stated that this study can be a resource for the future studies about the self-efficacy of mothers. It is considered that the determination of the factors which are effective on the mothers' self-efficacy will create a resource for the studies about the mothers' self-efficacy, and the studies about the mothers' self-efficacy will decrease the problematic behaviors of the children, thus the money spent in the health services for the treatment of the children's such behaviors will also diminish. Accordingly, it is suggested to carry out experimental and longitudinal patterned studies for



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the effects of the mothers' level of self-efficacy on the children (Jones and Prinz, 2005). Based on this point of view, this study, was done to determine whether the variables such as the mother's age, mother's level of education, mother's employment status, number of children and the gender of the children make a significant difference on the self-efficacy levels of mothers who have 1-3 years old children.

### **2.METHOD**

This study, which is carried out as a scanning model, was done to determine whether the self-efficacy of mothers, who have 1-3 years old children, makes significant difference according to the mother's age, mother's level of education, mother's employment status, number of children and the gender of the children. In the scanning models the participants' opinions about a subject or an event or the characteristics of their skills and attitudes etc. are determined, also they are generally carried out on larger samplings compared to the other studies (Büyüköztürk et al., 2008).

#### **2.1. Population and Sampling**

The study was performed with the mothers who had 1-3 years old children and consulted to Family Health Centers in Erzincan province. Accordingly, 88 mothers, who consulted to the randomly selected three Family Health Centers from eleven Family Health Centers in Erzincan province and participated to the study voluntarily, were included in the study. During the analysis process, 5 mothers, who did not fill the data appropriately, were excluded from the study therefore, the date of the study was evaluated using the data obtained from 83 mothers. It was determined it the study that 60,2% of mothers, who were included in the study, were aged 30 years younger, 69,9% of them work, 61,4% of them have high school and higher level of education and 51,8% of them have more than one child, also 54,2% of the children are girls and 67,5% of them are the first child.

#### **2.2. Data Collection Tools**

In the study the data were obtained using the General Information Form and Self-Efficacy Scale in Parental Skills which were developed by the researchers. The General information form was prepared by the researchers with the aim of obtaining some information about the children and their mothers. In this form, there are questions to determine the age of mother, number of children, employment status of the mother, education level of the mother and child's gender.

In the study, the self-efficacy levels of the mothers were determined using the Self-Efficacy Scale in Parental Skills which was developed by Emde (1989) and adapted to Turkish by Elibol



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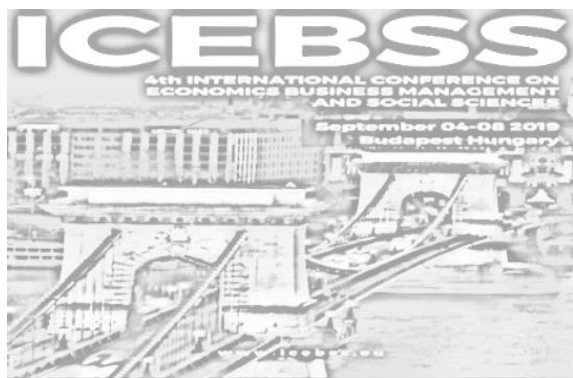
et al. (2007). The 53 items of the scale were reduced to 51 after the adaptation. 5 point Likert scale was used for rating and the participants responded to the items from “totally agree” towards “totally disagree”. In the evaluation carried out for the validity and reliability of the scale, it was found that Cronbach alpha coefficient was  $\alpha=0,931$  and test-retest reliability coefficient was 0,86. Further, 0,57 correlation was found between the Parenting Sense of Competence Scale (PSOC) and the Self-Efficacy Scale in Parental Skills (1-3 age) (Elibol et al., 2007).

### **2.3. Data Collection**

During the data collection phase, firstly the necessary permissions were received with correspondence for the use of scales. Later on, the related units were interviewed and the purpose of the study was explained so that the General Information Form and the scales, developed by the researchers, could be applied to the mothers consulting to the Family Health Centers. Having obtained the necessary permissions, the mothers were interviewed. The data collection tools were applied to the mothers, who consulted to three Family Health Centers in Erzincan province and had children aged 1-3, by interviewing them face-to-face.

### **2.4. Analysis of the Data**

While the self-efficacy scores of the mothers were being calculated, their responses to the scale were graded according to the answer key and they were added. The data of the study were collected from 88 mothers, but 5 of them were excluded from the study as they did not give appropriate responses according to the scale so the analysis were done using 83 mothers' responses. Before the data were analyzed the reverse items were turned. For the analysis of the study, which was carried out to determine whether the variables included in the study such as mother's age, mother's education level, mother's employment status, number of children and the gender of children were effective on the self-efficacy levels of mothers, it was found that the results of Kolmogorov Smirnov test were significant which was done to test whether the scores obtained from the study disperse normally ( $p > .05$ ). Therefore, the independent samples t-test, one of the parametric tests, was done to determine whether the average scores the mothers got from the Self-Efficacy Scale differentiated or not in terms of several variables.



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### 3. FINDINGS AND DISCUSSION

This study was performed to determine whether some variables such as mother’s age, mother’s education level, mother’s employment status, number of children and the gender of children made significant differences on the self-efficacy levels of mothers. In this section, data obtained from the study were evaluated and the results were discussed.

The results of the t-test, which was performed with the aim of determining whether the self-efficacy levels of mothers differentiate according to their ages, were given in Table 1.

**Table 1:** The Results of the T-Test about the Self-Efficacy Levels of Mothers According to Their Ages

Age	n	$\bar{X}$	SS	Sd	t	p
30 and younger	50	193,15	18,99020	81	-1,131	,261
31 and older	33	197,65	15,57176			

When the table 1 was examined, it was seen that the age did not make a significant difference in the self-efficacy levels of mothers ( $t_{81}=-1,131, p>.05$ ). In a study carried out by Öztürk and Giren (2015), it was revealed that there was no significant difference in the mothers’ interest in parentage, competence and satiation sub-dimensions provided by the parentage according to the mothers’ age. Upon the examination of average scores got from the study; it was found that the mothers aged 31 and older had higher self-efficacy scores. Accordingly, it can be claimed that as the mother’s age increases, her perception about fulfilling the duties and the necessary activities for her child successfully is affected positively. The self-efficacy perceived by the mothers mediates the relationship between her knowledge and behaviors (Teti and Gelfand, 1991), and this situation shows that the mothers can use the experiences and knowledge they gain for their children Öztürk and Giren (2015) revealed that the children of young mothers had more problematic behaviors in proportion to the children of other mothers.

The results of the t-test, which was performed with the aim of determining whether the self-efficacy levels of mothers differentiate according to the number of children, were given in Table 2.

**Table 2:** The Results of the T-Test about the Self-Efficacy Levels of Mothers According to the Number of Children

Number or Children	n	$\bar{X}$	SS	Sd	t	p
Only Child	40	198,18	13,10096	81	1,622	,109
2 and more	43	191,92	20,88813			



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When the table 2 was examined, it was seen that the number of children did not make a significant difference in the self-efficacy levels of mothers ( $t_{81}=1,622, p>.05$ ). In a study carried out by Öztürk and Giren (2015), it was revealed that there was no significant difference in the mothers' general attitude to parentage, the satiation provided by the parentage and their perception of competence for the parentage according to the number of children. Murdock (2013) found more parentage self-efficacy in the mothers who declared that they had more experiences with their children. In parallel with the average scores, the higher self-efficacy scores of the mothers, who had only child, can be explained with the fact that there is more time reserved for the only child and the time reserved for the only child is more qualified, and having fewer numbers of children can be more positive in terms of the self-efficacy.

The results of the t-test, which was performed with the aim of determining whether the self-efficacy levels of mothers differentiate according to the employment status, were given in Table 3.

**Table 3:** The Results of the T-Test about the Self-Efficacy Levels of Mothers According to the Employment Status

Employment Status	n	$\bar{X}$	SS	Sd	t	p
Not Working	24	191,66	18,47529	81	-1,100	,275
Working	58	196,42	17,54605			

When the table 3 was examined, it was seen that the employment status did not make a significant difference in the self-efficacy levels of mothers ( $t_{81}=-1,100, p>.05$ ). The result found by Sevigny and Loutzenhiser (2009) supported this finding, they detected that there was no significant relation between the mothers' level of education and their perception of self-efficacy for the parentage. Mothers and Fathers' perceptions about fulfilling their parental duties constitute the mothers and fathers' parental self-efficacy (Troutman et al., 2012). The mothers' fulfillment of many parental duties, whether or not she works, and having higher perceptions about the parentage can be explained with the cultural roles and women's undertaking of the child care in our culture. It was found that the working mothers' self-efficacy scores were higher although there was no significant difference. It can be indicated that the mothers' taking an active role in the working life contributes to the marriage positively. Levels of income can also be examined apart from the mothers' employment status. Murdock (2013) found, in his study, that the mothers, whose family income is higher, have more parental self-efficacy. Further, Altındağ Kumaş and Sümer (2019) detected a significant difference between the levels of income of mothers with special needs and their self-efficacy.





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The results of the t-test, which was performed with the aim of determining whether the self-efficacy levels of mothers differentiate according to their level of education, were given in Table 4.

**Table 4:** The Results of the T-Test about the Self-Efficacy Levels of Mothers According to their Level of Education

Level of Education	n	$\bar{X}$	SS	Sd	t	p
High School and Lower	32	189,47	20,22245	81	-2,282	,025
University and Higher	51	198,37	15,22763			

When the table 3 was examined, it was seen that the level of education made a significant difference in the self-efficacy levels of mothers ( $t_{81}=-2,282, p>.05$ ). Accordingly, it can be stated that the levels of self-efficacy of mothers who had university or higher level of education ( $\bar{X}=198,37$ ) were significantly higher than those who had high school or lower level of education ( $\bar{X}=189,47$ ). Having a high level of education can affect the mothers' self-reliance and their self-efficacy. In a study carried out by Aktürk and Aylaz (2013) it was found that as the mothers' levels of education rose, the students' self-efficacy and their scores of preventive health, interpersonal relations, drug addiction and academic success rose, too. Moreover, in another study done by Öztürk and Giren (2015) it was determined that the mothers, who were elementary school graduates, had higher perceptions of general parentage and more interest in the parentage than the mothers who were high-school or university graduates. Also, Demirkaya and Abali (2012) found that the mothers, whose levels of education were lower than the high-school, had more negative attitudes towards their children. However, Holloway et al., (2005) found that Japanese mothers' levels of education were not an important indicator for the self-efficacy.

The results of the t-test, which was performed with the aim of determining whether the self-efficacy levels of mothers differentiate according to the gender of child, were given in Table 5.

**Table 5:** The Results of the T-Test about the Self-Efficacy Levels of Mothers According to the Gender of Child

Gender of Child	n	$\bar{X}$	SS	Sd	t	p
Girl	45	194,29	19,68592	81	-,363	,718
Boy	38	195,71	15,36810			

When the table 3 was examined, it was seen that the gender of child did not make a significant difference in the self-efficacy levels of mothers ( $t_{81}=-,363, p>.05$ ). This results show that the



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gender of children are not influential on the mothers' self-efficacy and their parental skills. Özkan et al., (2013) carried out a study on postnatal mothers and found that the gender of the child were not influential on the mothers' parental behaviors. Also, Yağmur et al., (2019) indicated that the gender of the babies desired by the pregnant women were not effective on their level of happiness.

In this study it was found that the mothers' age, their employment status, the number of children and the gender of child were not influential on the level of self-efficacy. This situation can be explained with the fact that apart from those variables, other factors have a role in the mothers' levels of self-efficacy. Jones and Prinz (2005) emphasized, in their study, that the mothers' levels of self-efficacy can vary between the parents, children and cultural-contextual factors. Aksoy and Diken (2009) indicated that the development of parents' self-efficacy is affected by the parents' attachment experiences with their own mothers and fathers, the social support they receive from their spouses and immediate environment and their level of education. Yılmaz (2018) found that as the mothers' levels of education increased, their democratic attitudes increased, too. In another study carried out by Holloway and Behrens, (2002) it was concluded that the Japanese women's low levels of parental self-efficacy stemmed from their dissatisfaction from their husbands' support.

#### **4.RESULT AND SUGGESTIONS**

It can be emphasized once more that the determination of the variables which are effective on the mothers' self-efficacy is important. It can also be stated that the results of this study create resource for the future studies about the mothers' self-efficacy. Further, it is emphasized that the studies about the mothers' self-efficacy decrease the children's problematic behaviors, thus the money spent in the health services for the treatment of children's problematic behaviors is diminished.

The followings can be suggested in parallel with the findings obtained from the study;

- Comprehensive studies can be carried out about the determination of the mothers' levels of self-efficacy.
- In-depth investigations can be planned for the determination of the factors affecting the mothers' levels of self-efficacy
- Family training studies can be benefitted in order to increase the level of self-efficacy with the training. The levels of self-efficacy of the mothers, whose level of education is low, can be increased thanks to the trainings
- This study was carried out by including only the mothers; some other studies can also be done by including the fathers in addition to the mothers.



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**CONSUMER ATTITUDES AND BEHAVIOR TOWARDS THE WELL-BEING OF THE SOCIETY IN  
TERMS OF ENVIRONMENTAL PROTECTION - A FIELD STUDY FROM ANKARA, TURKEY**

**M. Gökhan TURAN<sup>1</sup>**

**Abstract**

The purpose of this study is to find out the attitudes and the behavior of the consumers who feel themselves as responsible and therefore put forward effort to protect the environmental factors which are deemed to have positive effects on the well-being of the society. A field survey on 472 respondents who are selected via stratified sampling of whom 451 are selected as eligible to be analyzed. The respondents are required to answer 35 questions of which five are related to demographic characteristics of these respondents. The rest 30 are statements which are designed to reflect the behavior of these people. The study consists of five parts. The first part is an introduction where the scope and the purpose of the study are concisely stated. The second part relates to the theoretical background of the subject matter and the prior researches carried out so far. The third part deals with research methodology, basic premises and hypotheses attached to these premises. Research model and analyses take place in this section. Theoretical framework is built and a variable name is assigned to each of the question asked or proposition forwarded to the respondents of this survey. 30 statements or propositions given to the respondents are placed on a five-point Likert scale. The remaining five questions about demographic traits as age, gender, occupation, educational level and monthly income are placed either on a nominal or ratio scale with respect to the nature of the trait. Ten research hypotheses are formulated in this section. The fourth part mainly deals with the results of the hypothesis tests and a factor analysis is applied to the data on hand. Here exploratory factor analysis reduces 30 variables to six basic components. Cronbach's Alpha for scale reliability is ( $\alpha = 0.697$ ) and so is the sample adequacy ratio is ( $KMO = 0.908$ ). In addition non-parametric bivariate analysis in terms of Chi-Square is applied to test the hypotheses formulated in this respect. The fifth part is the conclusion where a finding of this survey is listed.

**Keywords:** Environmental consciousness, incorrect habitat, institutional responsibility, recycling, conservation of resources, indifference to social issues.

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### 1. INTRODUCTION

Environmental protection is a concept which can be said as it is derived from another concept or fact namely as “pollution”. Environmental protection policy mainly deals with two basic issues (Lazarus, 1993, p. 989): “(1) what is an acceptable level of pollution; and (2) what kinds of legal rules would be best suited for reducing pollution to that level. By contrast, policymakers have paid much less attention to the distributional effects, including the potential for distributional inequities, of environmental protection generally. To be sure, scholars have engaged in considerable discussion of how the costs of environmental controls affect particular industries, and how these costs place a disproportionate burden on new versus existing, and large versus small, industrial sources of pollution. But there has been at best only an ad hoc accounting of how the benefits of environmental protection are spread among groups of persons. And, when the costs of pollution control have been considered, such discussions have been narrowly confined to the economic cost there has been virtually no accounting of how pollution controls redistribute environmental risks among groups of persons, thereby imposing a cost on some for the benefit of others. 3 The 1970s marked the heyday of the modern environmental era.4 Earth Day in 1970 caught the imagination of a nation seeking consensus in the midst of the internal conflict engendered by the Vietnam War. Largely ignored in the celebration that accompanied the passage of a series of ambitious environmental protection laws during this time were those distinct voices within minority communities that questioned the value of environmentalism to their communities. They did not share in the national consensus that these new laws marked a significant movement towards a more socially progressive era. Some minority leaders described environmentalism as “irrelevant” at best and, at worst, “a deliberate attempt by a bigoted and selfish white middle-class society to perpetuate its own values and protect its own life style at the expense of the poor and the underprivileged.”5 Environmentalists were seen as ignoring both the “urban environment” and the needs of the poor in favor of seeking “governmental assistance to avoid the unpleasant externalities of the very system from which they themselves have already been fitted so extensively.”

### 2. THEORETICAL BACKGROUND AND PRIOR STUDIES

It may sound weird but it is most possible that environmental protection goes hand in hand with public health. Therefore we can place environmental protection as the antecedents for public health. Scientific uncertainty is cannot be undrestimated in designing disease prevention programs. Toxic chemicals cannot be offered to the people by the scientists. Both

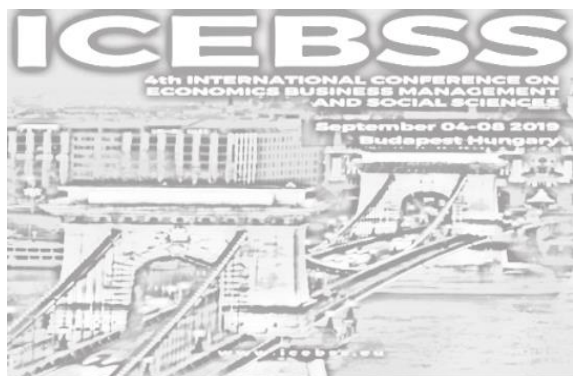


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epidemiologic and laboratory studies have many uncertainties, and scientists must find out from specific evidence to make causal inferences and recommend preventive measures (Michaels and Monforton, p. 539). Government involvement and governmental decision making at some level of the environmental affairs is inevitable for environmental protection. Government licence given to a project (as well as a rejection of permit) the governmental process affects the environment. The way that the government makes decisions have a significant impact on the environment and on the people and other living things who inhabit it. For most of the times the impact on the environment is drastic and immediate since the government is supposed to have direct control on toxic materials and pesticides (Ppopovic, p.1). Place identity and place attachment are important bonds that people form with their surroundings within the scope of their daily activities and and get together with their personal lives. Place identity, also, implies a liaison with their self conception. (Hay, 1998; Uzzell, Pol, & Badenas, 2002). Place attachment suggests significant bonds between people and their surroundings (DevineWright, 2007; Low & Altman, 1992;) and the desire to maintain the relationship with the place over time and at different stages in their lives (Giuliani, 2003). It is evident that the relationship between place attachment and emotional context have stringent bonds between them. The human population of the earth has increased almost five-fold during the past 100 years (Brown & Flavin, 1999, pp,3-21; Cohen, 2003). On the other hand the advances made in science and technology have changed the lives of human beings by making them more mobile and more comfortable and effective consumers. However all these progresses in science and technology today is far from being sufficient since the limitation of resources will make it impossible to carry out effective transactions among future generations. The basic needs of human beings require these resources to carry out a decent way of life. Ninety percent of energy consumption in industrialized countries comes from the burning of fossil fuels (Flavin & Dunn, 1999, pp. 22-40) All these fossil fuels when burned (consumed) yields a variety of byproducts, including carbon dioxide, carbon monoxide, nitrogen, sulfur oxides and particulate matter which are hazardous to human health.

### **3. RESEARCH MODEL AND HYPOTHESES**

This field research was conducted in May 2016 in Eskisehir, Turkey, a large city with 800,000 inhabitants. 540 consumers are selected via stratified sampling. A field survey on 472 respondents who are selected via stratified sampling of whom 451 are selected as eligible to be analyzed. The respondents are required to answer 35 questions of which five are related to demographic characteristics of these respondents. The rest 30 are statements which are designed to reflect the behavior of these people. All these questions (statements are put on a five-point Likert scale type ranging from "1= strongly disagree" to "5= strongly agree." The

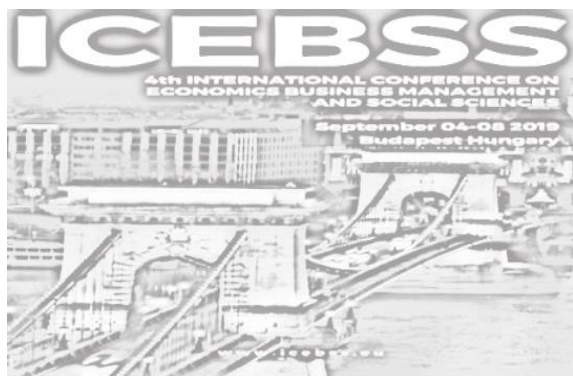


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survey also included one ordinal scale type and five nominal and interval type demographic questions. The variables used in the analyses and their explanations are as follows:

**Table 1: Variables and Their Explanations**

Variable	Explanation	Mean	SD
<b>Part 1 environmental consciousness</b>			
NEWSETTL	The destruction of green areas should not be allowed while constructing new settlements or extending the existing ones.	3.74	1.37
DETTOENV	I don't buy the products which are detrimental to environment even if their prices were convenient.	2.22	1.59
NOTRUNEN	I try not to leave the engine of my car unnecessarily running, and avoid not to use too much spray.	3.44	1.24
PACKAGES	The production companies should produce the packages of their products so as not to give harm to the environment.	3.66	1.35
USEMASKG	I always use mask and gloves when using toxic chemicals (insecticides, pesticides, and plant and construction chemicals).	3.39	1.22
FUTUREGEN	I believe thate efforts I put forth today for the protection of the environment will contribute to the prosperity of the future generations.	3.54	1.25
BOYCOTTC	If I get to know that some companies do not protect the environment; and even on the contrary give damage to it, I boycott the products of such companies.	3.41	1.11
COLLECTLDS	I collect plastic bottle lids so as to contribute to wheelchair etc. campaigns.	3.21	1.19
CLEANSTR	Those people who pollute the environment should be forced to clean the streets as well as fining them	3.48	1.29
OZONLAY	I agree completely with the major concerns about the destruction of the ozone layer.	3.71	1.28
<b>Part 2 indifference to social issues</b>			
PROFUSEUS	The natural resources of eath should be used profusely since they are abundant and unending.	2.40	1.28
INDCONTR	The individual contribution of the citizens for the protection of the environment is not very much.	2.52	1.38
LESSINDEF	To my mind, individuals don't have much affect on global environment since the world is too big.	2.49	1.32
WEARFURL	Wearing or carrying fur or leather garments has no ecological drawbacks from my point of view.	2.31	1.20
ACIDRAIN	Acid rain affects only a certain part of a country.	2.65	1,14
FUTILETO	I regard futile to think more about the environmental problems since I know that I have not thing to do about it.	2.55	1.26
POLLUSLF	I sometimes pollute the environment when I am alone.	2.58	1.35



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**Table 1:** Variables and Their Explanations (continue)

<b>Part 3 individual responsibility feeling</b>			
SELFRESP	I regard myself as responsible and volunteer from environment.	3.23	1.14
LESSHEAT	Homes and business places should not be warmed up much during winter.	3.34	1.12
MASSTRAN	I prefer to travel by mass transportation rather than using my private vehicle.	3,11	1.20
SUBMRECY	I submit the recyclable wastes to the interested parties without mixing them with the other trash.	3.19	1.19
VOTELOCL	I prefer to give my vote to local administrators (e.g. majors) who possess environmental consciousness.	3.33	1.19
<b>Part 4 incorrect settlement</b>			
ATTENDFR	I attend frequently meetings/conferences which are held to instill environment consciousness.	2.89	1.24
FLORACAR	The major countries are the major producers of flora-carbon.	3.45	1.13
SETTLEDA	The damage given to the natural resources is inevitable as long as the new settlements are established or the existing ones are extended.	3.35	1.33
ECONDEVP	I believe that, economic development is more significant than the environmental problems.	2.86	1.17
<b>Part 5 ignoring environmental issues</b>			
NOSERHRM	I believe, the personal energy consuming means that I use do not give serious harm to the environment.	2.87	1.31
SHORTLIV	I think the effects of the natural disasters which are seen frequently nowadays are short-lived.	2.57	1.24
IVORYKEY	Ivory is a tough material uses in piano keys.	3.08	1.05
<b>Part 6 conservation of resources</b>			
FULFILLTS	The public and private institutions fulfill their tasks thoroughly with respect to environment protection.	2.83	1.19
<b>Consumer demographics</b>			
AGE	Age	2.08	0.92
GENDER	Gender	N.A.	N.A.
OCCUPATI	Occupation	N.A.	N.A.
EDULEVEL	Educational level	2.34	0.65
INCOMELV	Income level	2.27	1.67

***Hypotheses Formulated***

***H1:*** Environmental consciousness and indifference to social issues is inversely related to each other.



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**Table 2:** Environmental Consciousness vs, Indifference to Social Issues

Indifference to Social Issues						
		The natural resources of earth should be used profusely since they are abundant and unending.	The individual contribution of the citizens for the protection of the environment is not very much.	To my mind, individuals don't have much affect on global environment since the world is too big.	Wearing or carrying fur or leather garments has no ecological drawbacks from my point of view.	Acid rain affects only a certain part of a country.
	The destruction of green areas should not be allowed while constructing new settlements or extending the existing ones.	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01
	I don't buy the products which are detrimental to environment even if their prices were convenient.	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01
Environmental	I try not to leave the engine of my car unnecessarily running, and avoid not to use too much spray.	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01





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**Table 2:** Environmental Consciousness vs, Indifference to Social Issues (Continue)

Consciousness	The production companies should produce the packages of their products so as not to give harm to the environment.	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01
	I always use mask and gloves when using toxic chemicals (insecticides, pesticides, and plant and construction chemicals).	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01
	The destruction of green areas should not be allowed while constructing new settlements or extending the existing ones.	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01



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*H2: Individual responsibility feeling is inversely related to ignoring environmental issues.*

**Table 3:** Individual Responsibility Feeling vs Ignoring Environment Issues

Individual Responsibility Feeling						
		I regard myself as responsible and volunteer from environment.	Homes and business places should not be warmed up much during winter.	I prefer to travel by mass transportation rather than using my private vehicle	I submit the recyclable wastes to the interested parties without mixing them with the other trash.	I prefer to give my vote to local administrators (e.g. majors) who possess environmental consciousness
Ignoring	I believe, the personal energy consuming means that I use do not give serious harm to the environment	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.05
Environmental Issues	I think the effects of the natural disasters which are seen frequently nowadays are short-lived.	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01
	Ivory is a tough material used in piano keys.	Accepted p<0.01	Accepted p<0.05	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01



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*H3: Indifference to social issues is positively correlated to ignoring environmental issues.*

**Table 4:** Indifference to Social Issues vs Ignoring Environmental Issues

Indifference to Social Issues						
		The natural resources of earth should be used profusely since they are abundant and unending.	The individual contribution of the citizens for the protection of the environment is not very much.	To my mind, individuals don't have much affect on global environment since the world is too big.	Wearing or carrying fur or leather garments has no ecological drawbacks from my point of view.	Acid rain affects only a certain part of a country.
Ignoring	I believe, the personal energy consuming means that I use do not give serious harm to the environment	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01
Environmental Issues	I think the effects of the natural disasters which are seen frequently nowadays are short-lived.	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01
	Ivory is a tough material used in piano keys.	Accepted p<0.01	Rejected	Accepted p<0.01	Accepted p<0.01	Accepted p<0.01



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**H4:** *There is a significant difference between environmental consciousness and consumer demographics.*

**Table 5:** Relationship between Environmental Consciousness and Consumer Demographics

	Age		Gender		Occupation		Education		Income	
	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %
The destruction of green areas should not be allowed while constructing new settlements or extending the existing ones.	66.7	23.8	66.0	21.3	62.7	25.5	44.2	30.2	63,4	22.8
	59.2	22.2	77.0	22.6	66.4	25.5	71.0	19.4	59.1	32.8
		Rejected		Rejected		Rejected	Accepted at p<0.05 elementary			Rejected
I don't buy the products which are detrimental to environment even if their prices were convenient.	40.2	30.6	44.3	29.9	42.2	18.3	30.3	48.9	37.2	33.1
	59.3	33.3	48.7	29.3	59.5	35.7	56.2	23.0	66.6	22.7
	Accepted at p<0.10 +62			Rejected	Accepted at p<0.05 (x)	(xx)	Accepted at p<0.01 university		Accepted at p<0.01 (xxx)	
I try not to leave the engine of my car unnecessarily running, and avoid not to use too much spray.	54.4	26.1	55.7	24.9	78.1	11.0	48.9	34.9	59.3	20.7
	48.1	33.3	61.3	23.5	49.0	32.4	64.3	17.8	54.6	27.3
		Rejected		Rejected	Accepted at p<0.01 (xxxx)	(xxxxx)	Accepted at p<0.01 university			Rejected



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**Table 5:** Relationship between Environmental Consciousness and Consumer Demographics (continue)

The production companies should produce the packages of their products so as not to give harm to the environment.	64.6	25.1	65.6	22.2	70.7	23.2	40.2	34.9	64.2	22.7
	67.4	21.4	64.4	26.5	61.8	29.0	67.8	24.0	72.8	27.5
		Rejected		Rejected		Rejected	Accepted at p<0.05 (xxxxx)			Rejected
I always use mask and gloves when using toxic chemicals (insecticides, pesticides, and plant and construction chemicals).	50.4	28.6	50.2	24.4	58.1	13.5	37.2	32.5	44.3	32.5
	55.5	25.9	54.1	28.0	55.8	32.3	57.1	26.0	33.8	9.0
		Rejected		Rejected		Rejected		Rejected		Rejected
I believe that efforts I put forth today for the protection of the environment will contribute to the prosperity of the future generations..	57.1	20.4	60.2	22.6	54,1	10.4	32.6	51.2	57.9	24.2
	55.5	37.0	57.8	22.4	64.6	31.0	68.4	16.8	62.7	22.7
		Rejected		Rejected	Accepted at p<0.05	(xxxxxxx)	Accepted at p<0.01 university		Accepted at p<0.10 Upper middle	





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**Table 5:** Relationship between Environmental Consciousness and Consumer Demographics (continue)

The production companies should produce the packages of their products so as not to give harm to the environment.	64.6	25.1	65.6	22.2	70.7	23.2	40.2	34.9	64.2	22.7
	67.4	21.4	64.4	26.5	61.8	29.0	67.8	24.0	72.8	27.5
		Rejected		Rejected		Rejected	Accepted at p<0.05 (xxxxx)			Rejected
I always use mask and gloves when using toxic chemicals (insecticides, pesticides, and plant and construction chemicals).	50.4	28.6	50.2	24.4	58.1	13.5	37.2	32.5	44.3	32.5
	55.5	25.9	54.1	28.0	55.8	32.3	57.1	26.0	33.8	9.0
		Rejected		Rejected		Rejected		Rejected		Rejected
I believe that efforts I put forth today for the protection of the environment will contribute to the prosperity of the future generations..	57.1	20.4	60.2	22.6	54.1	10.4	32.6	51.2	57.9	24.2
	55.5	37.0	57.8	22.4	64.6	31.0	68.4	16.8	62.7	22.7
		Rejected		Rejected	Accepted at p<0.05	(xxxxxxx)	Accepted at p<0.01 university		Accepted at p<0.10 Upper middle	
<b>(x) = Wage and salary earners vs retired</b>		<b>(xxx) = Lowest income group vs. upper middle income group</b>				<b>(xxxxx) = Self-employed vs wage and salary earners</b>				
<b>(xx) = Self-employed vs retired</b>		<b>(xxxx) = Self-employed vs wage and salary earners</b>				<b>(xxxxxx) = Businessman vs self-employed</b>				
						<b>(xxxxxxx) = Businessman vs retired</b>				



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**H5: There is a significant difference between environmental consciousness and consumer demographics**

**Table 6: Relationship between Environmental Consciousness and Consumer Demographics**

	Age		Gender		Occupation		Education		Income	
	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %
The natural resources of earth should be used profusely since they are abundant and unending.	18.3	55.0	24.4	56.6	23.0	52.1	44.2	30.3	21.4	60.0
	44.4	51.8	21.2	63.3	19.5	72.0	15.8	70.4	25.5	60.8
		Rejected		Rejected	Accepted at p<0.10	(x)	Accepted at p<0.01		Accepted at p<0.05	
The individual contribution of the citizens for the protection of the environment is not very much.	27.9	58.5	25.3	60.6	40.5	57.6	46.5	37.2	26.9	60.0
	40.7	59.2	29.5	55.6	18.9	75.9	23.0	65.3	31.8	45.5
		Rejected		Rejected		Rejected (xx)	Accepted at p<0.05		Accepted at p<0.01	(xxx)
To my mind, individuals don't have much affect on global environment since the world is too big.	23.1	62.6	25.3	57.5	33.3	47.6	37.2	34.9	22.7	60.7
	33.3	55.5	26.6	58.4	18.8	66.4	22.4	63.8	27.2	50.0
		Rejected		Rejected		Rejected (xxxx)	Accepted at p<0.05		Accepted at p<0.05	



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**Table 6:** Relationship between Environmental Consciousness and Consumer Demographics (continue)

Wearing or carrying fur or leather garments has no ecological drawbacks from my point of view.	17.7	67.4	16.7	66.5	27.1	54.2	27.9	55.8	17.2	64.9
	37.0	59.2	22.2	63.1	18.3	68.3	17.7	69.9	36.3	54.5
	Accepted at p<0.05			Rejected		Rejected (xxxxx)		Rejected		Rejected
Acid rain affects only a certain part of a country.	20.4	50.3	24.0	45.2	23.0	35.4	44.2	37.2	24.8	44.5
	22.2	48.1	22.2	47.0	17.2	51.6	18.9	58.7	27.2	31.8
		Rejected				Rejected (xxxxxx)	Accepted at p<0.01			Rejected
I regard futile to think more about the environmental problems since I know that I have not thing to do about it.	24.5	54.4	25.8	60.2	50.0	45.2	51.2	34.9	26.9	53.8
	37.0	59.2	27.1	53.1	16.9	63.4	21.5	63.2	22.7	45.5
		Rejected		Rejected		Rejected (xxxxxxx)	Accepted at p<0.01			Rejected



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**Table 6:** Relationship between Environmental Consciousness and Consumer Demographics (continue)

I sometimes pollute the environment when I am alone.	27.8	56.5	29.0	56.5	34.3	50.0	44.2	48.9	33.8	47.9
	29.6	62.9	31.3	53.9	22.0	61.0	27.5	61.2	17.7	68.7
		Rejected		Rejected	Accepted at p<0.10 (xxxxxxx)		Accepted at p<0.01		Accepted at p<0.01	
<b>(x) = Businessman vs self-employed</b>		<b>(xxxx) = Retired vs student</b>			<b>(xxxxxxx) = Retired vs self-employed</b>					
<b>(xx) = Retired vs self-employed</b>		<b>(xxxxx) = Self-employed vs. Retired</b>			<b>(xxxxxxx) = Wage and salary earner vs. Self-employed</b>					
<b>(xxx) = Accepted reverse</b>		<b>(xxxxxx) Businessman vs. student</b>								



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*H6: Individual responsibly feeling differs significantly among consumer demographics*

**Table 7:** Individual Responsibly Feeling and Consumer Demographics

	Age		Gender		Occupation		Education		Income	
	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %
I regard myself as responsible and voluteer from environment.	45.6	24.5	48.9	20.4	56.1	18.3	34.9	37.2	42.1	24.2
	55.5	29.6 (Rejected)	44.3 Accepted at p<0.10	31.8	40.2	32.3 (Rejected) (x)	53.0 Accepted at p<0.05	22.9	54.6 Accepted at p<0.01	36.4
Homes and business places should not be warmed up much during winter.	55.1	27.8	56.5	23.5	68.3	15.9	48.8	37.3	55.8	26.9
	62.9	29.6 (Rejected)	50.9	28.3	57.2 Accepted at p<0.01 (xx)	30.9	62.2 Accepted at p<0.01	20.4	50.0 Accepted at p<0.05	31.8
I prefer to trevel by mass pransportation rather than using my private vehicle.	39.4	32.9	48.0	29,4	39.3	28.7	41.9	44.2	42.0	32.4
	55.2	33.3 Rejected	36.1	36.5 Rejected	36.3	39.2 Rejected (xxx)	48.0 Accepted at p<0.10	28.5	40.9	36.4 Rejected





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**Table 7:** Individual Responsibility Feeling and Consumer Demographics (continue)

I submit the recyclable wastes to the interested parties without mixing them with the other trash.	45.6	30.6	47.5	29.4	53.3	17.1	17.9	53.5	39.3	34.5
	55.5	37.0 Rejected	41.8	30.9 Rejected	53.6 Accepted at p<0.10  (xxxx)	35.3	54.6 Accepted at p<0.01	23.0	40.9	22.7 Rejected
I prefer to give my vote to local administrators (e.g. majors) who possess environmental consciousness.	47.6	27.9	51.6	25.3	62.4	14.7	35.6	37.2	51.1	26.2
	55.5	25.9 Rejected	51.7	24.8 Rejected	47.1	33.3 Rejected (xxxxx)	60.7 Accepted at p<0.05	18.3	40.9	27.2 Rejected
<p>(x) = Self employed vs. Wage and salary earner      (xxx) = Student vs. Wage and salary earner      (xxxxx) = Self-employed vs. Retired            (xx) = Self-employed vs. Retired      (xxxx) = Self employed vs. Wage and salary earner</p>										



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*H7: Customers react significantly different to incorrect settlement*

**Table 8:** Incorrect Settlement and Consumer Demographics

	Age		Gender		Occupation		Education		Income	
	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %
I attend frequently meetings/conferences which are held to instill environment consciousness.	36.7	44.9	36.6	41.2	48.8	35.3	25.6	62.8	26.2	49.7
	55.5	40.7	32.1	47.4	21.9	54.5	42.4	39.3	45.4	31.8
	Accepted at p<0.05			Rejected			Rejected (x)	Accepted at p<0.01		Accepted at p<0.05
The major countries are the major producers of flora-carbon.	55.8	14.9	56.1	19.0	52.5	13.1	46.6	39.5	53.1	17.9
	48.1	40.7	51.3	23.1	50.0	31.0	60.3	20.4	31.8	40.9
	Accepted at p<0.05			Rejected			Rejected (xx)	Accepted at p<0.01		Rejected



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**Table 8:** Incorrect Settlement and Consumer Demographics (continue)

The damage given to the natural resources is inevitable as long as the new settlements are established or the existing ones are extended.	56.4	27.2	58.4	27.1	59.9	23.0	41.9	48.8	60.7	28.3
	40.7	40.7	50.5	34.3	441	42,2	55.1	29.5	36.3	36.3
		Rejected		Rejete		Rejected (xxx)		Rejected	Accepted at p<0.05	
I believe that, economic development is more significant than the environmental problems.	29.9	40.8	32.1	42.5	41.7	33.4	62.8	25.6	38.6	33.8
	25.9	62.9	32.2	45.2	21.9	60.9	25.0	52.5	27.3	40.9
		Rejecte		Rejected		Rejected (xxxx)	Accepted at p<0.01		Accepted at p<0.10	
<b>(x) = Self-employed vs. Housewife</b>					<b>(xxx) = Student vs. Wage and salary earner</b>					
<b>(xx) = Student vs. Retired</b>					<b>(xxxx) = Businessman vs. Self-employed</b>					



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**H8:** Some consumers care for environmental issues significantly more than the others

**Table 9:** Ignoring Environmental Issues and Consumer Demographics

	Age		Gender		Occupation		Education		Income	
	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %
I believe, the personal energy consuming means that I use do not give serious harm to the environment.	35.4	46.9	35.8	48.0	41.7	31.3	34.9	48.9	33.1	49.6
	48.1	44.4	38.7	44.0	34.6	56.4	38.3	44.9	40.9	40.9
		Rejected		Rejected		Rejected (x)		Rejected		Rejected
I think the effects of the natural disasters which are seen frequently nowadays are short-lived.	25.8	54.4	28.0	58.8	16.7	45.9	25.6	60.4	24.1	60.0
	44.4	37.0	28.3	52.6	23.6	65.5	39.0	58.2	27.3	40.9
		Rejected	Accepted at p<0.10		Accepted at p<0.10 (xx)		Rejected		Accepted at p<0.10	
Ivory is a tough material uses in piano keys.	36.0	17.7	33.5	24.4	36.8	18.1	17.9	30.3	33.8	20.0
	44.4	22.2	30.9	25.2	30.9	30.9	40.9	23.5	31.8	31.8
	Accepted at p<0.05			Rejected	Accepted at p<0.10 (xxx)		Accepted at p<0.01			Rejected
<b>(x) = Self-employed vs. Housewife</b>		<b>(xx) = Businessman vs. housewife</b>				<b>(xxx) = Student vs. retired</b>				



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*H9: Conservation of resources differ significantly among some consumers.*

**Table 10:** Conservation of Resources and Consumer Demographics

	Age		Gender		Occupation		Education		Income	
	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %	Agree %	Disagree %
The public and private institutions fulfill their tasks thoroughly with respect to environment protection.	27.2	40.8	30.3	44.4	41.6	27.1	46.6	39.6	28.3	41.4
	40.7	37.0	33.4	37.4	28.4	50.0	34.7	41.3	50.0	22.7
	Accepted at p<0.05			Rejected	Accepted at p<0.10		Accepted at p<0.05			Rejected
(x)										
<b>(x) = Businessman vs. Wage and salary earner</b>										



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**4. FACTOR ANALYSIS**

An explanatory factor analysis carried out in this study yielded the following results:

**Table 11:** Sampling Adequacy Test Results

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,908
Bartlett's Test of Sphericity	Approx. Chi-Square	5943,439
	df	435
	Sig.	,000

As could be seen from the above table “sampling adequacy score” is quite high (0.908).

**Table 12:** Scale Reliability Test Scores

Case Processing Summary			
		N	%
Cases	Valid	450	99,8
	Excluded(a)	1	,2
	Total	451	100,0
Reliability Statistics			
Cronbach's Alpha		N of Items	
,697		30	

a Listwise deletion based on all variables in the procedure.

The scale reliability is not very high but instilled in the researchers as “acceptable.

**Table 13:** Rotated Component Matrix

Component 1 Environmental Consciousness						
The destruction of green areas should not be allowed while constructing new settlements or extending the existing ones.	,721					
I don't buy the products which are detrimental to environment even if their prices were convenient.	,691					
I try not to leave the engine of my car unnecessarily, and avoid not to use too much spray.	,673					





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**Table 13:** Rotated Component Matrix (continue)

The production companies should produce the packages of their products so as not to give harm to the environment.	,649					
I always use mask and gloves when using toxic chemicals (insecticides, pesticides, and plant and construction chemicals).	,602					
I believe taht the efforts I put forth today for the protection of the environment will contribute to the prosperity of the future generations.	,583					
If I get to know that some companies do not protect the environment; and even on the contrary give damage to it, I boycott the products of such companies.	,581					
I collect plastic bottle lids so as to contribute to wheelchair etc. campaigns.	,544					
Those people who pollute the environment should be forced to clean the streets as well as fining them	,518					
I agree completely with the major concerns about the destruction of the ozone layer.	,404					
The natural resources of eath should be used profusely since they are abundant and unending.	-,325					
<b>Component 2 Indifference to Social Issues</b>						
The individual contribution of the citizens for the protection of the environment is not very much.		,690				
To my mind, individuals don't have much affect on global environment since the world is too big.		,683				
Wearing or carrying fur or leather garments has no ecological drawbacks from my point of view.		,637				
Acid rain affects only a certain part of a country.		,606				
I regard futile to think more about the environmental problems since I know that I have not thing to do about it.		,543				
I sometimes pollute the environment when I am alone.	,504					
<b>Component 3 Individual Responsibility Feeling</b>						
I regard myself as responsible and voluteer from environment.			,710			



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**Table 13:** Rotated Component Matrix (continue)

Homes and business places should not be warmed up much during winter.				,681		
I prefer to travel by mass transportation rather than using my private vehicle.				,650		
I submit the recyclable wastes to the interested parties without mixing them with the other trash.				,623		
I prefer to give my vote to local administrators (e.g. majors) who possess environmental consciousness.				,550		
<b>Component 4 Incorrect Settlement</b>						
I attend frequently to the meetings/conferences which are held to instill environment consciousness.					-,685	
The major countries are the major producers of flora-carbon.					,525	
The damage given to the natural resources is inevitable as long as the new settlements are established or the existing ones are extended.					,463	
I believe that, economic development is more significant than the environmental problems.					,426	
<b>Component 5 ignoring environmental issues</b>						
I believe, the personal energy consuming means that I use do not give serious harm to the environment.						,758
I think the effects of the natural disasters which are seen frequently nowadays are short-lived.						,648
Ivory is a tough material uses in piano keys.						-,399
<b>Component 6 Conservation of Resources</b>						
The public and private institutions fulfill their tasks thoroughly with respect to environment protection.						,736

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 10 iterations.



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## 5. FINDINGS

The following conclusion is derived from this study:

1. People with High Environmental Consciousness:
  - Elementary School Graduates
  - Senior Citizens
  - Wage and Salary Earners
  - Businessmen
  - Self-employed Professionals
  - Upper-middle Income Group
2. People Who Fell Themselves Responsible for Social Issues Social Issues:
  - Females
  - University Graduates
  - Upper-middle Income Earners
  - Self-employed Professionals
  - University Graduates
3. People Who Regard Incorrect Settlement as a Cause for Environmental Destruction:
  - Young Adults (26-40) and Youngsters (18-25)
  - University Graduates
  - Upper-middle Income Class
4. People Whd Reject that Economic Development is More Important than Environmental Issues:
  - University Graduates
  - Middle Income Group
5. People Who Care for the Conservakion of Resources:
  - Seior Citizens (+62)
  - Retirees
  - Elementary School Graduates

(All those profiles listed above ari significantly different from other group members at either  $p<0.01$ ,  $p<0.01$ , or  $p<0.01$  levels.)



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## IS THERE A MOVE FROM CORPORATE SOCIAL RESPONSIBILITY TO CORPORATE SOCIAL INNOVATION? : A THEORETICAL EVALUATION IN THE CONTEXT OF NEXT GENERATION PR

Kadir CANÖZ<sup>1</sup>, Ümmü Özlem ÇERÇİ<sup>2</sup>

### Abstract

In decades, corporates worldwide have been dealing with Corporate Social Responsibility (CSR) in order to show their sensitivity to problems of societies in which they operate and this public relations practice has resulted in good corporate image as people expect corporates being socially more responsible. However, in today's world, although CSR provides many social benefits, it remains insufficient in the current economic and social environment in which society expects companies to be more socially responsible (Jali et al., 2017: 6), and at this point Corporate social innovation is effective in improving people's quality of life and it is a new paradigm that seems to be more sufficient in the information age enriched by social media that provides a real change in finding lasting solutions. Day by day, we have been witnessing that more and more companies adopt corporate social innovation to their visions and business processes. In this study whether the corporate social innovation is just a new form of corporate social responsibility or a totally new path was evaluated with a deep literature review. In the light of obtained information it is clear that corporate social responsibility still exist but yes there is a remarkable move from corporate social responsibility to corporate social innovation.

**Keywords:** Corporate Social Responsibility, Corporate Social Innovation, Public Relations

### 1. INTRODUCTION

In order to reduce the harmful environmental and social impacts that have emerged as a result of technological developments in recent years, the awareness of social responsibility, which is often referred to as sustainable development, has been increasing. The decrease in the natural resources of the world, which is more and more destroyed by the passing day, and consequently the destruction of the healthy and clean environment that the next generations will live in, disadvantaged segments and employment problems that have emerged as a result of significant changes such as roboticization of production methods, occupy an important place on the agenda of the world and societies endeavor to overcome these deteriorating problems. Social, economic and technological changes not only led to differences in cultural

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life, but also strengthened the competitive environment in which businesses tried to exist, forcing businesses to engage in social responsibility activities in addition to producing innovative products. In decades, corporates worldwide have been dealing with Corporate Social Responsibility (CSR) in order to show their sensitivity to problems of societies in which they operate. This public relations practice has resulted in good corporate image as people expect corporates being socially more responsible. However, in today's world, although CSR provides many social benefits, it remains insufficient in the current economic and social environment in which society expects companies to be more socially responsible (Jali et al., 2017: 6). At this point Corporate Social Innovation is effective in improving people's quality of life and it is a new paradigm that seems to be more sufficient in the information age enriched by social media that provides a real change in finding lasting solutions. Day by day, we have been witnessing that more and more companies adopt corporate social innovation to their visions and business processes. In this study whether the corporate social innovation is just a new form of corporate social responsibility or a totally new path (so whether there is a move from corporate social responsibility to corporate social innovation) was evaluated with a theoretical perspective in the context of next generation PR.

### **2. CORPORATE SOCIAL RESPONSIBILITY**

In the historical process, enterprises have become organizations which aim to profit only, to satisfy their owners by making as much profit as possible and to push the welfare of both employees and society to the second plan (Özüpek, 2013: 15). The enterprises in this structure have been disinterested in issues such as environmental problems, unemployment and lack of education. Nowadays, as a result of globalization, the expectation of showing sensitivity to such social problems has arisen and businesses have become indifferent to this and gained a social dimension. Holme and Watts (2001: 3) define CSR as an ongoing responsibility to act ethically and contribute to economic development while enhancing the quality of life of the business community and the community as well as the workforce and their families.

It is possible to mention four elements that are common to most of the definitions related to the concept of Corporate Social Responsibility which are tried to be explained in different ways in different sources (Sönmez and Bircan, 2004: 476-490):

1. Enterprises have responsibilities beyond producing goods and services for profit.
2. These responsibilities include contributing to the solution of social problems in which they contribute to the emergence of businesses.
3. Businesses are responsible not only to shareholders, but also to the social stakeholders, the environment.
4. Businesses do not only focus on economic values, they serve human values in a wider sense.

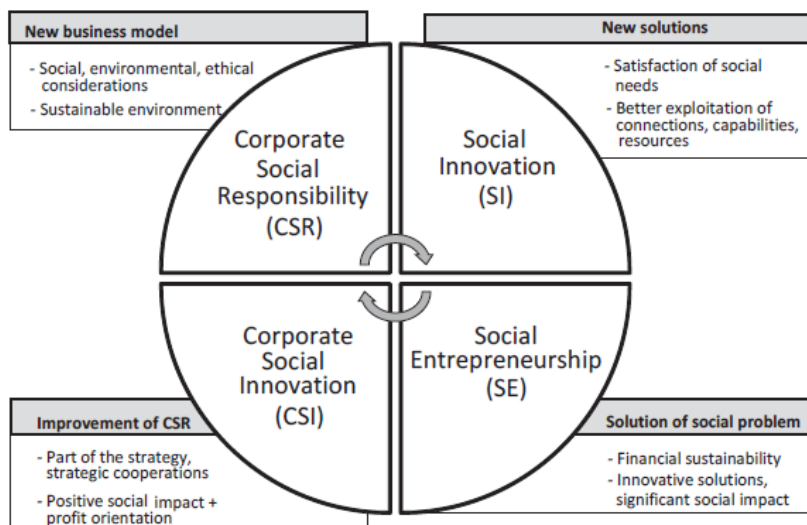




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In the last 20 years, there has been a boom in the application of business ideas and practices to non-profit organizations and government work. It is seen that enterprises have the mission of creating social value under the umbrellas of corporate social responsibility and corporate citizenship (Phills et al., 2008: 36). Szegedi et al. (2016) in his work 'Social Entrepreneurship, CSR and Social Innovation: Theory and Practice' (CSR and Corporate Social Innovation: In Theory and Practice), social innovation, social entrepreneurship, corporate social responsibility and developed a model that shows the relationship between corporate social innovation.

**Figure 1:** The Integrated Model of Corporate Social Responsibility, Corporate Social Innovation and Social Entrepreneurship



**2.1.Examples of CSR**

Google: Google earned Reputation Institute’s highest CSR score much in part due to their data center using 50% less energy than others in the world. They also have committed over \$1 billion to renewable energy projects.

**Figure 2:** Google Example



Ford Motor Company: Ford plans to reduce their greenhouse gas emissions using their EcoBoost engine to increase fuel efficiency. It also plans to introduce 40 electrified vehicles (electric and hybrid) by 2022.



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**Figure 3:** Ford Example



Starbucks: With an eye to hiring, Starbucks is looking to diversify their workforce and provide opportunities for certain cohorts. By 2025 it has pledged to hire 25,000 veterans by 2025 as part of their socially responsible efforts. This hiring initiative will also look to hire more younger people with the aim of "helping jump-start careers by giving them their first job".

**Figure 4:** Starbucks Example



However, the challenges facing our world are increasingly complex and affect corporations, communities, citizens, and the natural environment. For many companies, even those with strong traditions of philanthropy and corporate social responsibility, there is a growing consensus that current models of corporate engagement in society are no longer sufficient. They see that new approaches are needed. Fortunately, the past decade has seen an explosion of interest and development in social innovation—a discipline that employs entrepreneurial knowledge and methods to develop solutions to pressing social issues. The new trend in social responsibility is a shift to Corporate Social Innovations (CSI). Some group of companies now use core business strategies and activities to address social and environmental problems. These companies are moving away from just being “good” corporate citizens and going beyond the traditional CSR programs to address societal problems in a way that create social and business values (Mirvis, et al., 2016; Davidsen, 2016; Herrera, 2015; and Birchall et al., 2014).

### 3.SOCIAL ENTREPRENEURSHIP

Nelson and Jenkins (2006: 2) describe social entrepreneurs as corporate innovators serving the public welfare. According to Kotler ve Lee Corporate social enterprises are large-scale activities undertaken by an organization to support social goals and to fulfill corporate social responsibility obligations. From the perspective of social innovation and social



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entrepreneurship, the most important name that comes to mind is Muhammed Yunus, a Bangladeshi professor of economics, who first established the 'Micro Credit' system and created Grameen Bank to lend. Grameen Bank (Todaro and Smith, 2005: 241), one of the most important examples in the world that shows that credit can be provided to the poor with minimum risk without wasting resources, brought Muhammed Yunus the Nobel Peace Prize in 2006.



**Table 1:** Links Between Social Innovation And Social Entrepreneurship (Melece,2015:145)

Social Innovation	Social entrepreneurship
New solutions to social challenges	New responses to social challenges.
Improving individual and collective welfare and quality of life	Clear quest for positive externalities.
Conceptual change, process or product change, institutional change, changes in finance and new relationships with stakeholders / regions	New forms of internal and external management.
Changes in financing	Mixed financing (public, private, monetary and non-monetary).
Changes in relations with regions	Strong connections with regions.

#### 4. CORPORATE SOCIAL INNOVATION

Corporate Social Innovation is a strategy that brings together a unique set of corporate assets, such as innovation capacities, marketing skills, managerial intelligence, employee involvement, to collaborate with the assets of other sectors and firms to produce innovative solutions to complex economic, social and environmental problems that affect the sustainability of both the enterprise and society (Mirvis and Googins, 2017: 2). In other words, corporate social innovation can be defined as new and unique solutions placed in products, processes and services to meet social needs and improve the quality of life (Jali et al., 2017: 4).



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**Table 2:** What Makes CSI Different?

Traditional CSR	Corporate Social Innovation
-Philanthropic Intent	-Strategic Intent
-Money, Manpower	-R&D, Corporate Assets
-Employee Volunteerism	-Employee Development
-Contracted Service Providers	-NGO/Government Partners
-Social and Eco-Services	-Social and Eco-Innovations
-Social Good	-Sustainable Social Change

**4.1. The benefits of corporate social innovation**

The benefits of corporate social innovation can be listed as follows;

- Improves the living conditions of the society,
- Enables better environmental conditions,
- It enables to meet unmet social needs in areas such as health and education,
- Provides permanent solutions for social problems such as unemployment and environmental pollution,
- Provides business sustainability,
- Provides competitive advantage,
- Provides economic growth,
- Strengthens the corporate image.

**4.2. Examples of CSI**

Fair Trade: An organized movement that sets high trade standards for coffee, chocolate, sugar and other products. By certifying traders who pay producers a living wage and meet other social and environmental standards, the fair trade movement improves farmers' lives and promotes environmental sustainability.

**Figure 5:** Starbucks Example



Health Innovation: It is impossible for a limited number of experts to follow MRI systems and guess the failures around the World Hitachi analyzed three-year sensor data from 100 MRI



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systems and created a mechanism to investigate patterns that caused equipment failure. Possible malfunctions have been detected for months in advance and scheduled maintenance is possible before the systems fail. As a result, downtime due to breakdowns was reduced by 16.3%.

**Figure 6:** Hitachi Example



Unobstructed products: Arçelik A.Ş. realizes new solutions and practices that will facilitate the lives of visually impaired individuals. Arçelik A.Ş. and Altınokta Association of the Blind have come together to develop the 'Barrier-Free Products' project, visually impaired people can use their home appliances more easily without the need for anyone.

**Figure 7:** Arçelik example from Turkey



**5.NEXT GENERATION PR**

Public relations is a management function that creates and maintains relationships based on mutual benefit between the organization and the target audience who interacts with the organization and affected by the success and failure of the organization (Cutlip et al., 1994: 6). Although an institution pioneering the creation of a new category or being a pioneer in a new field does not always guarantee the leadership of the organization in the eyes of the target audience, it provides considerable advantages in leaving its competitors behind (Baytekin and Köseoğlu, 2011: 270). It is possible to say that the same applies to public relations management. With increasing communication opportunities and platforms that eliminate time / space distances such as social media, people become more and more aware of each other's experiences and feelings. This has made public relations management,





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following new developments and updating public relations practices according to these developments a priority for institutions that want to leave their competitors.

Today, it is necessary to make sure to engage with the community in such a way that the 4Ps (product, place, promotion, price) of marketing become the 6Ps (adding people and planet). Important to be sure it's strategic and brand-aligned (strategic CSR or "creating shared value"): Cliff Bars encourage healthy living (and teaching that to the community), Google pays its employees to spend their time on pet projects, and companies like Target, Starbucks, and IKEA have pushed gender equity, sexuality equity, and environmental responsibility in various ways to connect both to employees and their customers (with incredible success). Let's not forget that Gmail came from Google's 20% idea, and Starbucks gained much-needed brand goodwill (and talent retention) from its stance on marriage equality and its efforts to support employees with education and healthcare. But the idea that new pr practitioners can find inspiration and opportunity by combining social needs with corporate strategy isn't new; it's just becoming even more important with millennials and gen-z. The key is to always innovate, but also always consider suitability and sustainability of the project. But even if it doesn't work (right now), the push towards an innovative mindset always pays off. Regardless of which road a company take, it's essential to remember that the stakeholder/user comes first, and that a good strategy not only means a good story, it also means the company might need indirect tactics to get your message across in a way that doesn't alienate or sound fake. While corporate's personality makes itself visible, memorable, and engaging, it also is still corporate; find a balance between who you are and what you want, and the potential ambassadors that the next generations want to be and listen to. There are two important PR company examples; 1.DENTSU PR: 'Public Relations has evolved. Simply designing a communications strategy is no longer sufficient. It is about creating new value and building advocacy. At Dentsu PR, social innovation is the basis of the solutions that we offer to drive our clients' brands.'

2.DEVENEY: the idea that we can find inspiration and opportunity by combining social needs with corporate strategy isn't new; it's just becoming even more important with millennials and gen-z. The key is to always innovate, but also always consider suitability and sustainability of the project.

### **6.CONCLUSION**

Although corporate social responsibility provides many social benefits, it remains insufficient in the current economic and social environment where global companies need to balance global corporate goals, image and strategy with local realities (Husted ve Allen, 2006:102-103). At this point, Corporate Social Innovation is a new paradigm that appears to be more sufficient in the age of information enriched with social media, which provides a real change in improving the quality of life of people and finding effective and lasting solutions to ongoing





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social problems (Jali ve diğ., 2017:6). In the light of obtained information it is clear that corporate social responsibility still exist but yes there is a remarkable move from corporate social responsibility to corporate social innovation.

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**LINKS BETWEEN THE ASSESSMENT OF CROSS-BORDER MERGER AND ACQUISITION  
MOTIVATION ATTRIBUTES AND PERCEPTION OF THE PRE-MERGER-AND-ACQUISITION  
PROCESS FACTORS**

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**Abstract**

Capital re-allocation through implementation of cross-border mergers and acquisitions is one of the major global phenomena. These processes are an important indicator of economic activity and the development of capital markets. The aim of the paper is to characterize the links between the perception of motivation attributes of cross-border merger and acquisition implementation by means of the mM&A methodology (Motivation Attributes of Cross-Border Mergers and Acquisitions) and the specified factors of perception of the pre-merger-and-acquisition process identified by the aDM&A methodology (ante-Determinants of Mergers and Acquisitions). The analyses were conducted on the basis of the data collected from 120 enterprises. The context analysis was carried out between six motivational attributes- Growth acceleration, Synergistic attributes utilization, Goal and vision achievement, Product and service extension, Cost saving, and Capacity expansion – and four factors of the pre-merger-and-acquisition process perception-Synergy potential, Business environment, Investment benefit, and Financial management. The correlation analysis confirmed existence of several statistically significant correlations between the assessment of the merger and acquisition motives and the assessment of the pre-merger-and-acquisition factors. The decisive links were recorded between the Business environment factor and the motives of Growth acceleration and Goal and vision achievement, and also between the Financial management factor and the Synergistic attributes utilization motive. From the point of view of limiting factors and the future orientation of research in this area, it is necessary to accentuate the acceptance of a holistic approach in the context of a comprehensive, interdisciplinary examination of this issue. At the same time it is crucial to draw attention to the impact of

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sociocultural and global factors influencing the cross-border merger and acquisition processes.

**Keywords:** pre-merger-and-acquisition process, motivation attributes, aDM&A methodology, mM&A methodology

### 1. INTRODUCTION

Cross-border mergers and acquisitions (M&As) are one of the major types of foreign investment worldwide, which has been documented by a 27% increase in M&A volume value globally in the third quarter of 2018 compared to the same period a year earlier and, according to Bloomberg (2018), reaching a value in this period in absolute terms of \$3.0 trillion. The implementation and efficiency of M&A processes is multifactorially conditioned. Factors of different macro- and microeconomic nature enter these processes, as evidenced by numerous published research studies (e.g. Asquith et al. 1983; Loverde 1990; Trautwein 1990; Matsusaka 1993; Sirower 1997; Larsson & Finkelstein 1999; Kim & Olsen 1999; Fuller et al. 2002; Mercer 2002; Goergen & Renneboog 2004; Sirower & Sahni 2006; Ficery et al. 2007; Björkman et al. 2007; Mercer & Harms 2008; Stahl & Voigt 2008; Caprio et al. 2011; Chang et al. 2014; Hečková et al. 2017a; Hečková et al. 2017b; Hečková et al. 2017c; Hečková et al. 2018). One of the important aspects is also their subjective perception. Within the framework of this concept, the paper focuses on the managerial view and identification of the links between the perception of the cross-border merger and acquisition motivation attributes and the specified perception factors of their implementation in the pre-merger-and-acquisition process. The merits of this view were also based on our efforts to implement the concept of approach to behavioral economics, which by means of the synergy effect supports the exploration of the potential of the economic sciences by more real psychological aspects of the economic and managerial behavior. It is the concept of behavioral economics that is currently one of the innovative disciplines with regard to the ability to integrate psychological phenomena into economic models so that these predict human behavior and decision making more accurately and reliably.

In this context, the presented paper has the following structure: The next section presents the description of an own methodology, the research sample and the methodological apparatus. The subsequent section presents the results of the correlation analysis, on the basis of which we have identified the correlations between the motivational attributes of cross-border M&As and the key factors for their implementation in the pre-merger-and-acquisition process. In the next, discussion section, we discuss in detail the four key attributes of implementation of a future merger and acquisition process and the six motivational attributes of cross-border



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M&As. In the last section, based on the results obtained, we present our conclusions, including implications for further research in the subject area of investigation.

### **2.METHODOLOGY**

In order to identify and investigate the key factors of the pre-merger-and-acquisition process, a questionnaire research was carried out to identify significant factors related to decision-making and the subsequent preparation of the merger or acquisition process before its implementation. Based on our previous research published in a scientific study (Hečková et al. 2018), four key factors of the pre-merger-and-acquisition process were identified according to our original aDM&A methodology – ante-Determinants of Mergers and Acquisitions, namely Synergy potential, Business environment, Investment benefit, and Financial management.

In the case of identifying and investigating the key motivational attributes of cross-border mergers and acquisitions implementation, our original mM&A methodology (Motivation Attributes of Cross-Border M&As) was also used to identify six motivational attributes of implementing capital reallocation through M&As, namely Growth acceleration, Synergistic attributes utilization, Goal and vision achievement, Product and service extension, Cost saving, and Capacity expansion. The identification and specification of the key factors of the pre-merger-and-acquisition process and the motivational attributes of cross-border mergers and acquisitions were based on an analysis of the views of the managers of 120 companies (international corporations) located in 45 EEA countries, which had been subject of a cross-border M&A process in the period of 2010-2016, and which had market capitalization of more than €100 million.

Enterprises were selected from the Zephyr database (Bureau van Dijk 2017); 1000 companies were addressed. The responses received from the 120 companies involved in the research were analyzed. This selection can be considered intentional and at the same time volunteer-based. The way in which companies were selected is also related to an adequate level of generalization of the results obtained. The research sample consisted of 108 male managers and 12 female managers aged 21 to 65 years (average age: 42.90 years, standard deviation: 11.270 years) who worked in the company from 1 to 25 years (average: 11.50 years, standard deviation: 6.118 years). These managers held the position within the top management of the company. Building on our previous research (Hečková et al. 2018), our intention in this paper is to characterize the relationship between the perception of motivational attributes of cross-border M&As implementation by means of mM&A methodology (Motivation Attributes of Cross-Border M&A), and the specified perception factors of the pre-M&A process identified by the aDM&A methodology (Ante-Determinants of Mergers and Acquisitions). The context



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analysis was therefore performed between six motivational attributes - Growth acceleration, Synergistic attributes utilization, Goal and vision achievement, Product and service extension, Cost saving, and Capacity expansion, and four factors of perception of pre-merger-and-acquisition process – Synergy potential, Business environment, Investment benefit, and Financial management.

### 3.RESULTS

The results of the data analysis presented confirmed the existence of several statistically significant correlations between the assessment of M&A motives and the assessment of pre-acquisition factors (Table 1).

**Table 1:** Links Between Cross-Border M&A Motivation Attributes And Synergy Potential

	Growth acceleration	Synergistic attributes utilization	Goal and vision achievement	Product and service extension	Cost saving	Capacity expansion
Synergy potential	.169	<b>.289</b>	<b>.208</b>	<b>.419</b>	<b>.320</b>	.081
Significance	.066	<b>.001</b>	<b>.023</b>	<b>.000</b>	<b>.000</b>	.381

The pre-acquisition factor of Synergy potential positively correlates with the motives of Synergistic attributes utilization, Goal and vision achievement, Product and service extension, and Cost saving. This means that those managers, who assessed the importance of synergy potential as a pre-acquisition attribute in the sense of performance synergies, financial synergies and operational synergies at a higher level, also attributed greater importance to the motives of Synergistic attributes utilization, Goal and vision achievement, Product and service extension, and Cost saving. The results of data analysis also confirmed the existence of statistically significant positive correlations between the assessment of the pre-acquisition factor Business environment and the motives of Growth acceleration, Goal and vision achievement, Product and service extension, Cost saving, and Capacity expansion (Table 2).



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**Table 2:** Links Between Cross-Border M&A Motivation Attributes And Business Environment

	Growth acceleration	Synergistic attributes utilization	Goal and vision achievement	Product and service extension	Cost saving	Capacity expansion
Business environment	<b>.711</b>	.088	<b>.747</b>	<b>.356</b>	<b>.438</b>	<b>.365</b>
Significance	<b>.000</b>	.340	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>

This means that those managers, who have assessed the importance of the business environment as a pre-acquisition attribute in the sense of strategic relationship between the acquirer and the target business, taking into account cultural aspects and the resulting differences, geographic location of the investment, access to and compatibility of the target business with the information system infrastructure of the acquirer's company at a higher level, at the same time gave greater importance to the motive of using Growth acceleration, Goal and vision achievement, Product and service extension, Cost saving, and Capacity expansion.

The results of the data analysis further confirmed the existence of statistically significant positive correlations between the assessment of the pre-acquisition factor of Investment benefit and the motives of Growth acceleration, Goal and vision achievement, Product and service extension, and Capacity expansion (Table 3).

**Table 3:** Links Between Cross-Border M&A Motivation Attributes And Investment Benefit

	Growth acceleration	Synergistic attributes utilization	Goal and vision achievement	Product and service extension	Cost saving	Capacity expansion
Investment benefit	<b>.347</b>	-.002	<b>.189</b>	<b>.313</b>	.066	<b>.291</b>
Significance	<b>.000</b>	.987	<b>.038</b>	<b>.000</b>	.471	<b>.001</b>





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This means that those managers, who assessed at a higher level the importance of Investment benefit as a pre-acquisition attribute in the sense of the following indicators: acquisition premium, multiple bids, due diligence, investment banking advisory, at the same time attributed greater importance to the motives of Growth acceleration, Goal and vision achievement, Product and service extension, and Capacity expansion.

The correlation analysis of the data also confirmed the existence of statistically significant positive correlations between the assessment of the pre-acquisition factor of Financial management, and the motives of Synergistic attributes utilization, Product and service extension, Cost saving, and Capacity expansion (Table 4).

**Table 4:** Links Between Cross-Border M&A Motivation Attributes And Financial Management

	Growth acceleratio n	Synergistic attributes utilization	Goal and vision achievemen t	Product and service extension	Cost saving	Capacity expansion
Financial managemen t	.095	<b>.713</b>	.084	<b>.347</b>	<b>.289</b>	<b>.475</b>
Significance	.304	<b>.000</b>	.360	<b>.000</b>	<b>.001</b>	<b>.000</b>

This means that the managers who assessed at a higher level the importance of financial management as a pre-acquisition attribute in terms of spreading investment risk in a new business, creating the effect of an umbrella of financial synergy, a larger, more financially stable business with better capital structure and better access to credit facilities for lower interest, and in the sense of better financial opportunities for the business as a result of its growth, access to cheaper foreign resources in larger volumes, and lower transaction costs, also attributed greater importance to the motives of Synergistic attributes utilization, Product and service extension, Cost saving, Capacity expansion.

#### 4.DISCUSSION

The extracted key factors of the pre-merger-and-acquisition process, taking into account the knowledge published in scientific literature (Sirower, 1997; Larsson, Finkelstein, 1999; Sirower, Sahni, 2006; Ficery et al., 2007; Björkman et al., 2007; Stahl, Voigt, 2008; Loverde,



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1990; Chang et al., 2014; Mercer, 2002; Mercer, Harms, 2008; Kim, Olsen, 1999; Asquith et al., 1983; Fuller et al., 2002; Goergen, Renneboog, 2004) characterized content-wise as follows:

- **Synergy potential**

Synergy potential in terms of M&A efficiency is the achievement of synergies in the following directions: performance synergy, financial synergy and operational synergy. Performance synergy, together with the potential financial synergy, integrate the growth trend of the overall performance of the target enterprise (cash flow, capital expenditure requirements), lower capital costs due to better access to credit resources at lower interest rates and lower tax rates, provided that the specific legal form of the related undertakings is appropriately chosen. Ultimately, performance synergies with financial synergies lead to a reduction in total tax costs and even permanent tax savings. Operational synergy results from the merging and improvement of the operational efficiency of the various business areas of the merged enterprises, in particular in the areas of product manufacturing and service provision, knowledge capital and know-how within the merged enterprise and ultimately to more efficient management and elimination of duplicate activities as well as the concentration of knowledge, know-how, research and development.

In any case, the synergy potential leads to a higher value of the post-merger business compared to the difference that arises between the present value of the newly created business and the sum of the present values of these businesses before the merger or acquisition. As with any investment, cross-border M&A is seen by managers as an opportunity to increase business value, as evidenced by the positive correlation of Synergy potential as one of the key factors of the pre-merger-and-acquisition process with the motivational attributes, such as Synergistic attributes utilization, Goal and vision achievement, Product and service extension, and Cost saving.

- **Business environment**

In pre-M&A phase, account should also be taken of information relating to the selected aspects of the business environment, such as the strategic relationship between the acquirer and the target business, the cultural aspects and the resulting differences, the geographical location of the investment, access and compatibility of the target business with the information system's infrastructure of the business of the acquirer. These aspects of the Business environment factor contribute, in a comprehensive perception, to building "empires"



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to diversify and hedge against shocks in the sector, effectiveness of the functioning of the corporation as a whole, and facilitating operational and organizational integration while creating a competitive advantage, ultimately explaining the higher degree of importance of the M&A motivational attributes in the context of Growth acceleration, Goal and vision achievement, Product and service extension, Cost saving, and Capacity expansion.

- **Investment benefit**

When creating an investment benefit from a merger or acquisition transaction, the following indicators must be considered: acquisition premium, multiple bids, due diligence, investment banking advisory. In a merger or acquisition, an enterprise gains the opportunity to control the assets of another enterprise or the entire enterprise at a price that reflects the acquisition premium, while the price offered, including the acquisition premium, depends on the competitive position of the target company, its market share, the existence of a brand, goodwill and know-how. This is also confirmed by the positive correlation of Investment benefit as one of the pre-M&A factors with the motivational attributes of the whole process in the form of Growth acceleration, Goal and vision achievement, Product and service extension, and Capacity expansion.

Due diligence is an essential requirement of any transactional activity and a minimum requirement to eliminate the negative consequences of incorrect decisions. In essence, in the case of a merger or acquisition, it is an analysis of the target enterprise, in the case of a sale (by the target enterprise) it is an analysis of an own enterprise, while the purpose of the analysis is to objectively identify the current state of the enterprise, primarily in the legal, financial, taxation, and ecological areas. The basic objectives of due diligence include assessing the compliance of the external presentation of the company under review with its actual status, i.e. whether the undertaking under examination is indeed in a condition as it appears to be externally and a verification that the intended investment will meet the investment criteria required by the investor. In the case of M&A banking advisory firms, investment bankers have developed on the market dominant independent entities that act as "lead architects of business combinations" in a more aggressive role throughout the process.



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- **Financial management**

Financial management of a M&A transaction has the effect of an umbrella of financial synergy due to the spread of investment risk in the new business, thereby strengthening the financial stability of the larger company with a better capital structure and better access to credit facilities at lower interest rates (lower foreign capital costs). At the same time, as the financial opportunities of the company increase, potential improvements in the brand and reputation of the company occur, which is subsequently reflected in the growth of the market value of the company (expressed by higher prices of the company shares). For this reason, this factor positively correlates with motivational attributes such as Synergistic attributes utilization, Product and service extension, Cost saving, and Capacity expansion.

- **Motivational attributes of mergers and acquisitions**

It can be specified within the framework of the already published findings in this area of knowledge (Florio et al., 2018; Wang et al., 2016; Boateng et al., 2008) and in the context of implementation of the pre-M&A process, taking into account the success of the entire transaction (in the post-M&A phase), in terms of their content as follows:

- **Growth acceleration: accelerate growth of the acquiring company**

One of the primary motives for mergers and acquisitions implementation is achieving growth. Companies, which have an ambition to grow, must choose between an internal (organic) growth and a growth through mergers and acquisitions. Internal growth can be a slow and uncertain process, while growth through mergers and acquisitions is a much faster process, although it brings its own uncertainties. Companies can grow in their own industry or outside their business category. Extending beyond the industry means diversifying the business. If a company seeks to grow, it may conclude that internal growth is not an acceptable alternative to it, as the company's slow growth through internal expansion allows competitors to gain more market share. Corporate managers are under constant pressure to grow, all the more so if the company had managed to grow in the past. However, when demand for products or services slows, growth is difficult to achieve. For this reason, M&As are considered a solution. Managers assume that reallocation of the capital through mergers and acquisitions will lead



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not only to revenue growth, but also to improving the company's profitability through synergies (using synergy attributes).

- **Synergistic attributes utilization: utilize synergistic attributes of the acquired company with the reference to the acquiring company**

The successfulness of mergers and acquisitions depends to a large extent on the ability of managers to manage the pre- and post-acquisition critical success factors with the necessary and constant subjective confidence in the successful implementation of the M&A project in order to benefit from the synergies that are brought by the merging of two companies.

Some mergers and acquisitions are motivated by the belief that the management of the acquiring company can better manage the resources of the target company. The source company believes that its managerial abilities and skills will increase the value of the target company. That is why the acquiring company is willing to pay more for the target company than the current value of the shares of that company. The argument of using the synergic attributes of an acquired company with reference to the acquiring company is particularly valid in the case of large companies applying for small, growing companies.

- **Goal and vision achievement: achieve the personal goals, vision, and particular objectives of the acquiring company's chief executive**

On the one hand, mergers and acquisitions bring positive synergy effects, but at the same time they place greater demands on the management of an even larger company. Managing growth through M&A strategies is ultimately intended to improve the shareholders' position and bring them higher returns, commensurate with the size of the merged company.

- **Product and service extension: broaden the acquiring company's customer base by extending products and services**

Smaller companies managed by entrepreneurs may offer a unique product or service that sells well and show the potential for further rapid growth. This growing business must gradually oversee a much larger distribution network and will have to adopt a different marketing philosophy that requires a different set of managerial skills. Lack of managerial experience and skills can hinder a smaller growing company and limit its ability to compete in the wider market. It is these management resources that the acquiring company can offer to the target



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company. Mergers and acquisitions may also be driven by the desire to gain access to new markets and the associated new client base. For example, if one bank merges with another bank, each acquires the other bank's client base. In some cases, the acquired client base may be a market that was previously unavailable. For instance, if one bank specialized in foreign clients and the other bank in domestic clients, after the merger, the new company will have a more balanced client base.

- **Cost saving: capture scale economies to save costs through combining two firms within an industry**

Mergers and acquisitions are a tool for “expanded entrepreneurship” in new areas in order to achieve strategic goals of the new business, while increasing managerial efficiency and performance with an emphasis on the cost savings by joining two companies and achieving synergistic “expanded business” attributes, including expanding the capacities at lower costs, like creating new qualities and skills.

- **Capacity expansion: expand capacity at less cost than constructing new properties**

The aim of M&As may also be an effort of a company to acquire a specific skill (in the case of personnel issues) or resources owned by another company. This type of merger occurs mainly when a smaller company has developed specific skills with high added value over several years and it would take a long time for the source (acquiring) company to create the same skills and require significant investment. The presented results of the obtained data analysis, as well as our previous findings (Hečková et al. 2017a,b,c), unambiguously confirmed the multidimensional concepts of both the motivational attributes of cross-border mergers and acquisitions and the pre-merger-and-acquisition process factors. At the same time, these results confirmed the meaningfulness of considering the links between the motivational factors of cross-border mergers and acquisitions and the assessment of the pre-merger and acquisition factors. In this context, it is necessary to draw particular attention to the connection between the Business environment factor and the motives of Growth acceleration and Goal and vision achievement, or the factor of Financial management and the motive of Synergistic attributes utilization. The presented results confirmed the importance of the primary goal of cross-border mergers and acquisitions to strengthen the financial stability of a larger company and its capital structure. This ultimately allows for market value growth, which correlates highly with the motive of using synergistic attributes. These findings also support the need to adopt a comprehensive cross-border merger and acquisition approach





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that includes the geographical location of investment related to the cultural, value, political, and security aspects of the society (Chen, 2019; Li et al., 2010; Liu et al., 2006).

### **5.CONCLUSION**

Research into the relationship between the perception of motivational attributes of cross-border mergers and acquisitions by means of the mM&A methodology (Motivation Attributes of Cross-Border M&A) and the specified perception factors of the pre-merger and acquisition process identified by the aDM&A methodology present one of the possible concepts of behavioral economics. The results presented in the previous studies as well as in this paper illustrate the merits of this approach. At the same time, they contribute to a holistic view of the issues examined. As in other conclusions, in this case it is necessary to consider the degree of generalization, the universality of the findings. In this sense, there is a need to analyze data from a larger number of companies and to take into account the socio-cultural attributes and the traditional values of the environment in which mergers and acquisitions take place (Chen, 2019; Li et al., 2010; Liu et al., 2006). In connection with the presented results and their interpretation, it is necessary to point out that this is only one possible view of the motivational structure of cross-border mergers and acquisitions and the assessment of pre-merger-and-acquisition process factors.

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**SOCIAL RESPONSIBILITY PRACTICES OF HEALTH ORGANIZATIONS**

**Kadir CANÖZ<sup>1</sup>, Nilüfer CANÖZ<sup>2</sup>**

**Abstract**

Health institutions that want to see every segment of the society as their target audience and want to make them accept themselves, need intensive public relations activities. Therefore, they take care to perform all the practices of public relations systematically and consciously. In their public relations practices, rather than the interests of the organization, social responsibility practices in the areas needed by the society attract attention. However, it is not known which types of social responsibility practices which are cared for by hospitals and used as a means of reaching the target groups are most important. The world's largest health accreditor of JCI accredited by the social responsibility practices of private health institutions operating in Turkey for the removal of this uncertainty, was investigated over web pages. As a result of this research using content analysis method, it was found that six hospitals with social responsibility links on their web pages carried out social responsibility practices for symposia, health screening, health awareness and important weeks at most.

**Keywords:** Health, Health Organization, Public Relations, Social Responsibility, Social Responsibility Practices

**1. INTRODUCTION**

Corporate social responsibility is one of the parts of public relations. These are the activities that are carried out with the belief that businesses owe to the communities in which they are located, and which are intended to be carried out by target groups. According to Anderson (1986), beyond the requirements of the law, an organization's obligations and functions to protect and develop the society in which they live (cited Nimalathasan, 2009: 228). It requires responsibility beyond social economic activities. For that purpose, various activities are carried out on the basis of voluntarism in the form of investing in environmental protection, sustainability and socially sensitive issues in order to carry out joint activities with local governments and other target groups (Ismail, 2009: 199).

Corporate social responsibility, which became widespread due to the social needs that emerged after the First World War, arose from the necessity of making voluntary and unrequited investments and organizations in the fields needed by the society rather than

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perceiving the enterprises as profitable places only and creating the perception (acceptance) of one of us. Today, it is a concept that attracts the attention of all kinds of businesses. It is an indispensable feature of modern enterprises that strive to be sustainable in a particularly competitive, dynamic, global market. It requires special efforts to address other stakeholders related to policies, decisions and operations (Carroll, 2015: 87). They care about issues such as protecting society from harmful environments and habits and improving healthy living, education, social consensus / awareness, natural life and social welfare (Carroll, 2015: 90).

At this stage, it will be useful to highlight one more thing concerning sponsorship. Sponsorship is a contemporary version of patronage. Industrial organizations are very interested in sponsorship practices. It seems that the developing industry in such practices has replaced the philanthropists of the past years. In other words, sponsorship is not a charity. Because when a company sponsors any institution, it hopes to earn much more than the money spent there (Aslan, 2010: 31).

Modern businesses have four stages of social responsibility. These are (Öztürk et al., 2013: 33); economic, legal, moral and voluntary responsibilities.

Businesses are now giving more importance to social responsibility practices in order to create a good image by showing to their target audiences that they are sensitive to social problems (Kalender, 2008: 35). At the beginning of the issues they attach importance to; Community Health, Community Safety, Education, Employment, Environment, Social and Economic Development, Basic Human Needs and Desires (Kotler and Lee, 2006: 3-4).

Health institutions that produce technical, critical and acclaimed services for almost all segments of the society are engaged in social responsibility practices in order to communicate with their target audiences, to ensure acceptance within them and to create a positive image. There are also specific reasons for health institutions to focus on social responsibility practices. For example, one of those reasons is the prohibition of advertising for them.

According to a law titled "The Law on the Style of Applications of Medicine and its Branches", which was issued in 1928, numbered 1219 and still in force, health institutions are among the organizations that are prohibited from advertising. Not only for the law enforcement, but also because of the minimum error margin; being open to the crisis environment at any moment; requiring expertise, training and skills; being a service sector that produces services to the whole society and can be measured with human life, health institutions are the leading sectors that require the most social responsibility. However, However, in which areas/subjects the health institutions do the most, and which hospitals constitute the highest rate of service in the total activities of social responsibility is a case to be investigated.





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### 2. METHODOLOGY

This study aims to determine the levels of efforts of hospital chains in Turkey with regards to the social responsibility to reach a good amount of the target audience. Therefore, it is limited to Medicana, Memorial, LivHospital (Medical Park), Acıbadem, Dünya Göz and Medipol hospitals, which are accredited by JCI and have a Social Responsibility link on their websites. Medline and Florence Nightingale hospitals are excluded from the evaluation because there is no Social Responsibility link on their websites.

In the light of the information obtained by scanning the literature on social responsibility, a coding table was formed by us. The social responsibility practices that can be accessed from the web pages of the hospitals were evaluated with the coding table at issue.

In the study where Content Analysis method was applied, the number of social responsibility practices, which hospitals they belong to, the types and subjects that are necessary for obtaining the standard data suitable for the purpose were measured with a standard template created by us. So the main questions of the study are:

Question 1.) How many social responsibility practices have been conducted according to the information on the web pages of health institutions?

Question 2.) Which of the social responsibility issues did hospitals prefer more?

Question 3.) Which hospital does more social responsibility work?

### 3.FINDING

The findings obtained from the data of six hospitals that have social responsibility links on their web pages are examined in terms of their contents. They are as follows.

#### 3.1. Social Responsibility Practices

Health institutions need public relations when they want to communicate with their target audiences, ensure their acceptance and create a positive image. In the scope of public relations, social responsibility practices are the most common applications. In Turkey, according to the data of the five health institutions that have social responsibility links on the JCI accredited web pages, the distribution of social responsibility practices according to the hospitals is as follows (See Table 1).



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**Table 1:** Distribution of Social Responsibility Practices According To Hospitals

	Number of Social Responsibility practices of Hospitals
Medicana	<b>28</b>
Memorial	<b>16</b>
LivHospital +Medical Park	<b>13</b>
Acibadem	<b>11</b>
Dünya Göz	<b>8</b>
Medipol	<b>3</b>
TOTAL	<b>79</b>

According to these data, it is seen that Medicana Hospital has 28, Memorial Hospital has 16, LivHospital + Medical Park Hospital has 13, Acibadem Hospital has 11, Dünya Göz Hospital has 8, and Medipol Hospital has 3 different activities of social responsibility. It can be said that Medicana and Memorial hospitals respectively carry out more activities of social responsibility than all the others. It can be said that the least operating organization in public relations is Medipol hospital.

### 3.2. Subjects of Social Responsibilities of Health Organizations

Areas, subjects and periods of social responsibility practices give information about the target audience and the image to be created. When the data given in the social responsibility link are examined in order to reveal the direction of this situation, the hospitals that choose every segment of the society as a target group have conducted social responsibility practices on 9 different subjects (See Table 2).

**Table 2:** Distribution of Social Responsibility Practices According to Their Subjects

	NUMBER %
Social Activity	<b>39 (%49.4)</b>
Healthy Living Schools	<b>9 (%11.4)</b>
Important Day and Week Activities	<b>8 (%10.1)</b>
Social Awareness	<b>8 (%10.1)</b>
Exhibition	<b>4 (%5.1)</b>
Organ Donation	<b>3 (%3.8)</b>
Donation	<b>3 (%3.8)</b>
Walking	<b>3 (%3.8)</b>
Competition	<b>2 (%2.5)</b>
TOTAL	<b>79 (%100.0)</b>



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The subjects of the social responsibilities of the hospitals: 49.4% Social Activity, 11.4% Healthy Life Schools, 10.1% Important Day and Week Activities, 10.1% Social Awareness, 5.1% Exhibition, 3.8% Organ Donation, 3.8% Donation, 3.8% in the form of walking and 2.5% competition. According to these data, "Activity" (49.4%) constitutes the most social responsibility of health institutions. Then, Healthy Life Schools (11.4%), Important Day and Week Activities (10.1%) and Social Awareness (10.1%). "Competition" (2.5%), "Organ Donation" (3.8%), "Donation (3.8%) and "Walking"(3.8%) come at last.

### 3.3. Distribution of Social Responsibility Practices of Hospitals According to Issues

It gives information about the amount of social responsibility practices in which hospitals and in which subjects the health institutions perceive social responsibility. For this reason, it is necessary to look at the social responsibility study of each health institution and make an evaluation (See Table 3).

**Table 3:** Distribution of Hospitals' Social Responsibility Practices by Subject

	Organ Donation	Important Day and Week Activities	Exhibition	Donation	Walking	Social Activity	Social Awareness	Contest	Healthy Living Schools	Total
Memorial	2 (%12.5)	1 (%6.25)	2 (%12.5)	1 (%6.25)	1 (%6.25)	3 (%18.75)	1 (%6.25)	1 (%6.25)	4 (%25.0)	16 (%100.0)
Dünya Göz			1 (%12.5)			5 (%62.5)	2 (%25.0)			8 (%100.0)
Medipol	1 (%33.3)	1 (%33.3)				1 (%33.3)				3 (%100.0)
LivHospital +Medical Park		2 (%15.4)		1 (%7.7)	2 (%15.4)	6 (%46.1)	2 (%15.4)			13 (%100.0)
Medicana		4 (%14.3)	1 (%3.6)			18 (%64.2)	2 (%7.1)		3 (%10.7)	28 (%100.0)
Acibadem				1 (%9.0)		6 (%54.5)	1 (%9.0)	1 (%9.0)	2 (%18.2)	11 (%100.0)
TOTAL										79 (%100.0)

Social responsibility practices of Memorial Hospital consisted of 12.5% Organ Donation ", 6.25% " Important Day and Week Activities ", 12.5% " Exhibition ", 6.25% " Donation ", 6.25% " Walking 18, 18.75% "Social Activity", 6.25% "Social Awareness", 6.25% "Competition" and 25.0% "Healthy Life Schools". Dünya Göz Hospital carried out the activities of 12.5% exhibition, 62.5% social activity and 25.0% social awareness. Medipol Hospital carried out the activities of 33.3% "Organ Donation", 33.3% "Important Day and Week Activities", 33.3% "Social Activity". LivHospital + Medical Park Hospitals carried out the activities of 15.4%



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“Important Day and Week Activities”, 7.7% “Donation”, 15.4% “Walking”, 46.1% “Social Activity” and 15.4% “Social Awareness”. Medicana Hospitals carried out the activities of 14.3% “Important Day and Week Activities”, 3.6% “Exhibition”, 54.2% Social Activity”, 7.1% “Social Awareness”, 10.7% “Healthy Living Schools”. Acıbadem Hospital announced 9.0% donations, 54.5% “Social Activities”, 9.0% “Social Awareness”, 9.0% “Competition” and 18.2% “Healthy Living Schools”.

From the data of Table 3, Dünya Göz (62.5%), LivHospital + Medical Park (46.1%); Medicana (64.2%) Acıbadem (54.5%) and Medipol (33.3%) Hospitals carried out the most social responsibility activities. On the other hand, Memorial Hospital carried out the most activities of “Healthy Living Schools” (25.0%). From this point of view, it can be said that the majority of health institutions prefer and do social responsibility practices (83.3%).

### 3.4. Distribution of Social Responsibility Practices According to Health Organizations

Knowing how much of the social responsibility practices are carried out by which hospital is important in terms of showing the importance attached to social responsibility issues by hospitals. Therefore, it is necessary to look at the distribution of each subject according to hospitals (See Table 4).

**Table 4:** Distribution of Social Responsibility Practices Made by Hospitals

	Memorial	Dünya Göz	Medipol	LivHospital +Medical Park	Medicana	Acıbadem	TOTAL
Organ donation	2 (%66.7)		1(%33.3)				3(%100.0)
Important Day and Week Events	1(%12.5)		1(%12.5)	2(%25.0)	4(%50.0)		8(%100.0)
Exhibition	2(%50.0)	1(%25.0)			1(%25.0)		4(%100.0)
Donation	1(%33.3)			1(%33.3)		1(%33.3)	3(%100.0)
Walk	1(%33.3)			2(%66.7)			3(%100.0)
Social activity	3(%7.7)	5(%12.8)	1(%2.6)	6(%15.3)	18(%46.3)	6(%15.3)	39(%100.0)
Social Awareness	1(%12.5)	2(%25.0)		2(%25.0)	2(%25.0)	1(%12.5)	8 (%100.0)
Competition	1(%50.0)					1(%50.0)	2 (%100.0)
Healthy Living Schools	4(%44.4)				3 (%33.3)	2(%22.2)	9 (%100.0)
TOTAL							79(%100.0)

Memorial has carried out the activities of organ donation at the rate of 66.7% and Medipol did it at the rate of 33.3%. Important Day and Week activities has been carried out at the rate of 12.5% by Memorial, 12.5% by Medipol, 25.0% by LivHospital + Medical Park and 50.0% by



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Medicana. Exhibition has been carried out at the rate of 50.0% by Memorial, 25.0% by Dünya Göz and 25.0% by Medicana. Organ donation has been done at the rate of 33.3% by Memorial, 33.3% by LivHospital + Medical Park and 33.3% by Acıbadem. Walking has been carried out at the rate of 33.3% by Memorial and 66.7% by LivHospital + Medical Park. Social Activities has been carried out at the rate of 7.7% by Memorial, 12.8% by Dünya Göz, 2.6% by Medipol, 15.3% by LivHospital + Medical Park, 46.3% by Medicana and 15.3% by Acıbadem. Social Awareness activities carried out at the rate of 12.5% by Memorial, 25.0% by Dünya Göz, 25.0% by LivHospital + Medical Park and 12.5% Acıbadem. Competition has been carried out at the rate of 50.0% by Memorial and 50.0% by Acıbadem. Healthy Life Schools were organized at the rate of 44.4% by Memorial, 33.3% by Medicana and 22.2% by Acıbadem hospitals. According to the data obtained from the table; Organ Donation, Exhibition and Healthy Life Schools activities were mostly carried out by Memorial Hospital. The majority of the activities of Important Day and Week Activities and the Social Activity (46.3%) were done mostly by Medicana. The donation activities were done mostly by Memorial, LivHospital + Medical Park and Acıbadem hospitals. The majority of Walking Activity was done by LivHospital + Medical Park. The Social Awareness activity was mostly supported by Dünya Göz, LivHospital + Medical Park and Medicana. Memorial and Acıbadem hospitals made the most of the competition activities.

### 5.RESULTS

In Turkey, the social responsibility efforts made by health care organizations accredited by the Joint Commission International (JCI), for communicating with their target audience, to be recognized, to be admitted and to create a positive image are published on their official websites. In the event that the activity data obtained from these areas are subjected to content analysis and interpreted, the following conclusions are reached regarding the social responsibility practices applied in health institutions:

Medicana, a hospital chain, carries out the most social responsibility practices among health institutions. Medipol has done the least. Medicana Hospitals are in the cities of Ankara, Konya, Bursa, Istanbul and some others in Turkey and they go on serving towards more and more diverse target groups. In order to establish and maintain good communication with the target groups, more social responsibility practices are needed. When the target group changes geographically or demographically, it becomes more inevitable to carry out social responsibility practices accordingly.

Health organizations mostly organize "Social Activities" or support "Social Activities" and they are interested in "Organizing Competitions" the least. Hospitals with the highest rate of





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activities of “Social Activity Organization” are Medicana, Dünya Göz ve Acıbadem Hospitals respectively.

The activities of Organ Donation, Exhibition and Healthy Life Schools are the most important social responsibility issues. Important Day and Week Activities and Social Events are carried out mostly by Medicana. The donation activities were mostly carried out by Memorial, LivHospital + Medical Park and Acıbadem hospitals. Walking activities were carried out mostly by most LivHospital + Medical Park. The Social Awareness activities were mostly conducted by Dünya Göz, LivHospital + Medical Park and Medicana. The competitions were mostly held by Memorial and Acıbadem hospitals.

As a result of this study, almost all hospitals perform social responsibility activities at different rates for reaching the target groups. Most of these social responsibility practices are organizing a “Social Activity”. The Medicana Hospital is the one that conducts the most of all social activities. According to these data, it can be said that health institutions attach importance to social responsibility practices in their efforts to get closer to the public and they are doing intensive work on organizing Social Activities for this purpose.

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**IMPLEMENTATION OF PUBLIC INFORMATION MODEL THROUGH VISUAL AND AUDITORY1  
INSTRUMENTS: GENERAL DIRECTORATE OF CONSUMER PROTECTION AND MARKET  
SURVEILLANCE CASE\***

**Nilüfer CANÖZ<sup>1</sup>, Ümmü Özlem ÇERÇİ<sup>2</sup>**

**Abstract**

Public relations, which helps organizations to achieve their goals and which is considered as strategic communication management realized with the target groups that vary according to the structure of the organization such as consumer, sometimes distributor and employees are of significant importance for both private and public organizations . Under this importance lies the fact that the institution approaches its target audience with real and unbiased data while describing itself. The basis of the Public Information Model is the sharing of real data. The purpose of the institutions using the model is to ensure that real and accurate information is disseminated rather than convincing the target audience. In this context this study examines the public relations activities carried out by the Ministry of Commerce, General Directorate of Consumer Protection and Market Surveillance through audio visual tools aiming to protect consumers within the framework of public information model; and aims to present the public relations studies of the institution within the framework of public information model. In order to realize this aim, literature review and case study method were used. As a result of the study, it was concluded that the public relations activities carried out by the General Directorate through visual and audio tools within the framework of public information model were effective in raising awareness and training of consumers.

**Keywords:** Public Relations, Public Information Model, Consumer, Consumer Information, General Directorate of Consumer Protection and Market Surveillance

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\* This study was conducted by T.C. Selcuk University Institute of Social Sciences Public Relations and Publicity Research Methods in the Department of Research adopted in 2011 Korum Consumer Protection Activities for the Protection of the Public Relations: Consumer and Competition Protection Genel was produced from the master's thesis.



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### 1. INTRODUCTION

With the developments in the fields of communication and technology, the world is changing and the borders separating the countries are disappearing. As a result of this, commercial life is changing, besides the traditional shopping system, e-shopping system without technology-time-space constraint emerges, national enterprises are transformed into international enterprises, and the products and services produced are rapidly differentiating and diversifying. This change in the field of production and marketing affects every field as well as the public relations field. This influence makes it more important than ever for all kinds of institutions and organizations to communicate more with their environment, to introduce themselves better, to explain their activities and to influence their target groups. Public relations (Grunig ve Hunt 1984:6) being defined as communication management between an organization and its target audience includes planned activities to determine the promotion policy necessary for the organizations to have a positive image, to guide the organizations in this direction, to ensure the information flow and to achieve the intended result by gaining the necessary efficiency (Paksoy, 1999:24). In addition, the objectives of public relations; to enlighten the people and to adopt the work to them, to facilitate the work of the people in their relations with the management, to create positive public attitudes towards the people in the administration, to increase the accuracy of decisions to get information from the public, in order to ensure compliance with laws and regulations to provide information to the public about them (Traffic rules, prohibitions, consumer rights) etc.), to ensure that the services are delivered more quickly and easily by cooperating with the public; to benefit from the wishes, requests, recommendations, suggestions and complaints of the people, in the laws, regulations and other drafts prepared; evaluating them in the studies to eliminate the problems; trying to respond to private and public benefits and creating a sense of social responsibility by paying homage to everyone (Tortop, 1993: 10). When we look at these aims of public relations in general, it is noteworthy that public information functions are more intense. Public information consisting of the stages of recognition and promotion and stated among the aims of public relations, is a method mostly applied by public institutions in their public relations and aims to explain and adopt the decisions and applications to the public and it is one of the models in the quadruple model developed by Grunig and Hunt. Our study is limited to public relations within the framework of public information model. Within this framework, the public relations practices of the General Directorate of Consumer Protection and Market Surveillance were examined. In our study, literature review and case study method were used as methods.



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The aim of our study is to present the public relations studies conducted by the General Directorate of Consumer Protection and Market Surveillance within the framework of public disclosure model. For this purpose, the public relations activities carried out by the General Directorate of Consumer Protection and Market Surveillance between 1995 and 2017 were examined.

### **1.1. Public Information Model**

The four public relations models developed by Grunig and Hunt (1984: 21) and defined as the stages in the history of public relations; Press Agency / Publicity, Public Information, Two-Way Asymmetric and Two-Way Symmetric model. The aim of the Press Agency model is propaganda, while accuracy is not always prioritized; The objective of the public disclosure model is to provide the public with accurate information about the organization. In the two-way asymmetric model, while the aim is scientific persuasion; In the two-way symmetrical model, there is mutual understanding and balanced communication (Gruning and Hunt 1984: 21). Particularly in the public information model, which is sometimes used by governmental organizations, non-governmental organizations and commercial organizations (Erdoğan 2006: 187), the aim is not to convince but to disseminate information. It is also important to convey this information in an unbiased and real way (Gruning and Hunt 1984: 22). Public institutions today use the public information model in order to inform, educate, enlighten the public, to announce the decisions they take and to show the ways to protect their rights. Ivy Lee is the biggest representative of the public disclosure model in the historical process. According to Ivy Lee, public relations "is to provide immediate and accurate information on matters of public interest and interest that are publicly and publicly, honestly and openly, in the name of the public interest (Erdoğan 2006: 58). Ivy Lee's best known practices are the Anthracite Coal Strike, Pennsylvania Railways, Colorado Coal Strike incidents. Ivy Lee clearly argues that it is more useful to transfer information correctly, without requiring any information to be kept by businesses, and that it is important to gain the trust of the public and the press by providing effective communication without resorting to any compelling pressure (Tortop 2001: 72). Public institutions started to use this model in the early 1900s to inform the public. These organizations feel obliged to convey information to the governed in order to explain their decisions, enlighten the public and to eliminate the lack of recognition caused by the complex management event. The administration wants the public to agree with them and at the same time to fulfill the requirements of the supervision established by the administration. It also tries to fulfill this request through the publicity. In other words, they try to explain their internal processes, how they do transactions and what are these



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processes to the pressure and interest groups that they have influenced with their decisions. This is an important tool to strengthen the legitimacy of the institution before the public (Kazancı, 1982: 41-42). According to Flieger and Sohl, positive relations with journalists are very important in the public information model. The informative activities provided by the public relations employee to the journalists are always in the best interest of the organization. When organizations do not inform journalists about themselves, they will begin to write about what they hear from the environment, not the truth. This will have negative consequences for the organization. In other words, the organization should aim to be “glass house” (transparent) and to inform the press on positive and negative issues. Even if it is against the organization, telling the truth to the press is considered as the philosophy of the institution in this model (Okay ve Okay 2007:147). Within the framework of the public information model, many public relations environments and tools are utilized. These include press releases, brochures, leaflets, guide books, fact-packs, videos and exhibitions. TV, radio, film, telephone lines, internet, competition, photos etc. can be used as visual and audio tools. As an example of the tools and environments used in public information model; television and radio programs transmitting daily weather can be seen in the form of statements made by any government non-profit organization to inform members of a new regulation by the government spokesperson (Tarhan 2008:132.)

## **2. METHOD**

### **2.1.Implementation of Research and Sample**

In our study, case study, which is one of the qualitative research methods, was conducted. According to Stake (1978: 7); “a case study” may be a person, institution, program, collection, responsibility or population. Case studies are defined as the intense and holistic identification and analysis of a small sample, phenomenon of a person, a phenomenon or a social unit (Merriam 1998:27). A case study is a qualitative approach in which a researcher investigates a limited system (an event) or multiple limited systems (events) through detailed, in-depth data collection (observations, interviews, audiovisual material and documentation and reports), which includes a large number of information sources (Creswell 2007:73). In this study, audio-visual public relations activities of the General Directorate of Consumer Protection and Market Surveillance to protect the consumer are handled within the framework of the public information model as a case study. The study consists of a review of the visual and audio public relations activities conducted by the General Directorate of Consumer Protection and Market Surveillance between 1995 and 2017 in order to protect consumers.



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The study is important because it contains research findings on consumer protection within the framework of public information model.

### **2.2. Data Collection and Interpretation**

In this case study, interview, observation and document analysis as qualitative data collection tools, were used. Information and documents on the subject were asked by visiting the Ministry, meeting with the relevant personnel at the General Directorate. Observations were made on the website, TV and Radio broadcasts, public spots, films and CDs. All the activity reports, which can be accessed between 1995 and 2017, were tried to be reached as documents, newsletters, books, hand brochures, posters and booklets were examined.

### **3. RESULTS AND INTERPRETATION**

In this study, which aims to determine the public relations activities carried out by the General Directorate of Consumer Protection and Market Surveillance for consumers within the framework of public information model, firstly information will be given about the establishment and duties of the General Directorate and then the public relations activities will be analyzed for consumers.

#### **3.1. General Directorate of Consumer Protection and Market Surveillance**

General Directorate of Protection of Consumers and Competition established within the Ministry of Industry and Trade on 10.08.1993 by Decree Law No 494, in 2011, 649 with the decree Law No. 649 and the Ministry of Customs and Trade with the Decree Law on the Organization and Duties of the Ministry of Customs and Trade by connecting to the Ministry of Consumer Protection and Market Surveillance General Directorate. (Ministry of Customs and Trade Performance Program 2018: 1-2). Later, it was conjoined to the Ministry of Commerce on Decree 10 on July 10, 2018 and still serves as the service unit of this Ministry. ([www.resmigazete.gov.tr](http://www.resmigazete.gov.tr)).

The duties of the General Directorate of Consumer Protection and Market Surveillance are stated in the establishment law as follows ([www.tuketici.ticaret.gov.tr](http://www.tuketici.ticaret.gov.tr)):

- a) Establishing policies for consumer protection and cooperating with domestic and international institutions and organizations for this purpose,
- b) To take measures to protect consumers' health, safety and economic interests, to eliminate losses and to make necessary arrangements,





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- c) To cooperate with the relevant ministries and organizations in order to protect consumers from environmental hazards in terms of consumables,
- d) To conduct quality control in order to increase the quality of goods and services offered to the market,
- e) Taking enlightening and educating measures for consumers,
- f) To do the duties given by other laws regarding the solution of consumer problems,
- g) To make market surveillance and control of the products which are not provided with technical legislation and offered directly to the consumer, to make the necessary arrangements,
- h) To carry out similar tasks assigned by the Minister.

### **3.2. Public Relations Activities of the General Directorate of Consumer Protection and Market Surveillance**

The General Directorate of Consumer Protection and Market Surveillance, which was established on 09.09.1993, has given priority to legislation studies, examining and finalizing consumer complaints, and quality and standard audits studies in the first years. With the entry into force of the Law on Consumer Protection in 1995, the first public relations activity aimed at protecting the consumer started with the establishment of “175 ALO CONSUMER” lines in 1996. In 1998, the “Consumer Awards” award ceremony, which is one of the public relations tools, was organized. The General Directorate of Consumer Protection and Market Surveillance contributed to and participated in meetings, conferences, seminars related to raising awareness, informing and educating consumers. The Consumer Awareness Campaign launched in 2004-2005 with the slogan “BE INTERESTED-BE INFORMED” is aimed at introducing, explaining, informing and enlightening the Consumer Protection Legislation introduced to consumers, and provided training for them. Spot films, spot announcements, printed materials related to the Law on Consumer Protection No. 4077 and sub-legislation were prepared and the films were broadcast on national television and radio stations. Brochures, posters, inserts, large-sized posters prepared for hanging on billboards and advertisements given to municipal buses were used. In addition, all the materials belonging to the campaign were distributed and presented to the consumers in the stands established within the major market chains. Workshops have been carried out regarding “Strengthening the Capacity of Turkey” in Full Compliance, Implementation and Implementation of Consumer Protection Legislation Project carried out by General Directorate within the scope of Turkey-EU Pre-Accession





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Programme. Law No. 4077 on the Protection of Consumers On 28<sup>th</sup> November 2013, a new law was published in the Official Gazette numbered 6502 on the Protection of Consumers. Thereupon, the General Directorate continues to engage in rights relations activities with new projects to introduce the new Law, inform consumers about new rights and obligations and enlighten them.

### **3.2.1. Installation of “ALO 175 CONSUMER” line**

The General Directorate of Consumer Protection and Market Surveillance has performed the telephone interview process, which is one of the oral tools used in public relations, by establishing the “175 ALO CONSUMERS” line. The 175 ALO CONSUMER lines operating in each province serve as a call center where solutions to the problems faced by consumers are presented and directed to the relevant authorities where they should apply for the settlement of consumer disputes.

### **3.2.2. Participated Radio-Television Programs**

Radio, which is one of the tools that appeal to the ears in public relations, is one of the communication tools that the General Directorate of Consumer and Competition Protection makes great use in informing and educating consumers. For this purpose; Since 2001, the General Directorate has participated in various Radio programs regarding the regulations envisaged in the Draft Law Amending the Law No. 4077 on the Protection of Consumers. Some of these are those: TRT Ankara Radio, Sizin Radio, Radio 1, Radio Anadolu, TRT FM, at Meteor Radio various radio programs such as “be interested-be informed campaign”, “Consumer's Ways to Seek Rights and Arbitration Committees”, “Consumer Awards and Credit Cards”.

The General Directorate has also frequently participated in television programs that make it easier and more effective to transmit messages in public relations as they appeal to both the eye and the ear. To inform consumers about consumer rights NTV, TRT, Channel A, TRT Gap, TRT 1, ATV, TRT, CNN Turk, TGRT, Manisa ETV, Channel 7, Channel A, CNBC-E, Eurasian Radio-TV, such as the news programs and different names under the name of different television programs.

Between the years of 2011-2017, there were 20; 20 units in 2014; 25 units in 2015 TV programs continued in 2016 and 2017 as well.

### **3.2.3. Preparation of Film, Videoband or CDs**

The General Directorate of Consumer and Competition Protection provides both promotional and educational information to the consumers through the films, video tapes



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and CDs that are important among the activities that can be included in the public relations activities. In this context, it enables the consumer to analyze by transmitting messages in the direction of informing the consumer by making spot films using celebrities who are familiar with the public for a period of at least 20 and a maximum of 60 seconds (Campaign for Consumer Protection Law, 2005: 1). The film, which was prepared to inform consumers about "Application to Consumer Arbitration Committees", is still in the broadcast.

In addition, CDs were replicated and distributed to schools, public institutions, governorships and consumer related institutions so that the campaigns could be followed repeatedly, to be more permanent, to be kept and to be used in trainings.

In 2013, Alo State, a program on Alo 175 Consumer Lines, and a visual film about consumer rights and ways of application in TRT Information Screen (Annual Report, 2013: 174), 25 short films in 2015, 1 short film in 2017 movies and public spots were prepared.

### **3.2.4. Internet and Web Page Preparation**

The General Directorate of Consumer and Competition Protection has launched a web page within the scope of the Consumer Information System, whereby all non-governmental organizations, particularly NGOs, which serve to inform and raise awareness of consumers, can announce their activities.

The website can be accessed from [www.tuketici.gov.tr](http://www.tuketici.gov.tr), [www.tuketici.gov.tr](http://www.tuketici.gov.tr), [www.consumer.gov.tr](http://www.consumer.gov.tr) and [www.turco.gov.tr](http://www.turco.gov.tr). In the design of the website, being the smiling face of the state is determined as the main objective. It is aimed to guide not only consumers but also producers, industrialists, craftsmen and merchants. Today, consumers are informed via [www.tuketiciakademisi.gov.tr](http://www.tuketiciakademisi.gov.tr) address.

In parallel with the increasing use of social media, the General Directorate conducts efforts to inform and raise awareness among consumers via "facebook" and "twitter". In 2013, there were 800 Facebook and 230 Twitter followers. (İdare Faaliyet Raporu 2013:175). Subsequent years, the Head Office continues to use social media (Twitter, Facebook and YoyTube) to inform consumers through the e-consumer portal.

In 2013, the Mobile Consumer (M-Consumer) application was introduced, which allows consumers to apply and receive information.

### **3.2.5. Giving Consumer Awards**

The award ceremonies, which are an important public relations activity in terms of keeping the Consumer Rights issue on the agenda and explaining the importance to the society and



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business circles, are made traditional by the General Directorate of Consumer and Competition Protection and distributed every year.

In 1998, for the first time, in order to develop consumer awareness, to encourage consumers to exercise their legal rights, and to encourage companies that take consumer demands and preferences into consideration, the Company granted Consumer Awards in 5 branches in 1997. These branches were developed in the following years and were extended to 7 branches. These; Radio-Television Program Award, Written Press Consumer Corner Award, Conscious consumers, Successful Institution Award in the Implementation of the Law on Consumer Protection, Award for the principle of consumer satisfaction, Scientific Study Award and Service Award branches and still continues. As of 2017, awards continue in 6 categories.

### **3.2.6. Stands**

The stands, which are the environments where direct face-to-face communication with the target audience is experienced, were opened by the General Directorate of Consumer and Competition Protection at different places and times. For example, at the CEBIT Informatics Fair in Istanbul in 2005, stands were launched to promote e-consumer and consumer information campaigns.

### **3.2.7. Premiere Night**

The Consumer Awareness Campaign was announced to the press and public on 4 January 2005 by the Ministry of Industry and Trade with the aim of informing, enlightening and educating consumers about changes in legislation on consumer protection.

## **4.RESULT**

Recognition and promotion, which are at the core of public relations activities, reach to a wider scope and reveal the dependency of the institution with its target audience. The General Directorate of Consumer Protection and Market Surveillance also tries to demonstrate its dependence with consumers, the most important target audience, through its public relations activities. It accomplishes this by using traditional public relations activities, tools and environments as well as new technologies that evolve over time, thereby informing, educating and enlightening consumers.

The General Directorate has undertaken this field as its duty by taking measures related to the education, information and organization of consumers on the protection of consumer rights, by making legal arrangements, by carrying out audit and training activities. This task is to convey information in an unbiased and real manner within the framework of the public information model, but its aim is not to persuade consumers, but to inform them about



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their rights and to disseminate information. They also benefit from public relations activities in their efforts to promote protective measures and consumer rights in order to prevent them from becoming victims.

When disseminating information; radio and television programs, advertising internet that will help in consumer education, prizes for developing consumer awareness, web pages, public information tools and organization activities such as telephone informations were benefited to a great extent.

The most comprehensive public relations activities for the Directorate General of consumer protection, which began with Be interested-Be informed slogan "Awareness Consumer Campaign", "Full Harmonization of Consumer Protection Legislation, Execution and Implementation Strengthening Turkey's Capacity in Operation", "Consumer Academy" took place in the name of the project. As a result of public relations activities, the number of complaints filed between 30,000-60,000 annually until the beginning of 2004 increased to 91,029 in 2004 with the implementation of the campaign and reached 185,760 in 2009 and 5,445,308 in 2014 and 636,779 in 2017 (Activity report 2017:111). According to these statistical data, public relations activities carried out by the General Directorate aiming at introducing, explaining, informing and enlightening the Consumer Protection Legislation to the consumers and providing them to be educated in this direction have been effective on both the society and the sellers and provided the desired result.

As a result, public relations activities offered by the General Directorate of Consumer Protection and Market Surveillance within the framework of informing, educating and organizing the consumer about the protection of the consumer increase the intelligibility of the subject and keep the subject on the agenda and contribute to the desired success.

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**ANALYSING THE DECISIVE FACTORS OF THE ECONOMIC COMPETITIVENESS OF A  
SETTLEMENT IN EASTERN EUROPE WITH PORTER'S DIAMOND COMPETITIVE ADVANTAGE  
MODEL<sup>1</sup>**

**Árpád DUCZON<sup>2</sup>**

**Abstract**

What are the decisive factors of the competitiveness of a settlement? Is it its location in the region, its historical, economic and social situation or is it the activity of the local economic and social operators, perhaps the absorption capacity of the resources and capital?

The objective of this paper is to adapt Porter's Diamond Model for regions. This is necessitated by the fact that many countries show a diverse picture with regards to development. Less developed regions cannot be expected to competently contribute to the fulfillment of a national strategy. The result is that a select number of regions partake in this national strategy and others are left behind without much purpose or directive. This further diminishes their ability to contribute, creating a downward spiral.

The adapted model allows settlements to take better stock of their strategic assets, which in turn helps them tailor activities so that they fit together and can ultimately interlock to form a coherent, regional strategy that can serve as a dynamo for development.

The neglected status of these regions means that many crucial assets are missing or in bad state, including financial resources and infrastructure. This results in a heavy competition for funds on the settlement, regional and national levels. These resources form the basis for an economic and social basis for recovery. Without it, the opportunity to follow a solid pathway of developmental is difficult to imagine.

Using both secondary sources and my own primary research involving Abaliget and various others local settlements, I intend to showcase how the adapted model helps formulate a proper strategy.

**Keywords:** competitiveness, economic potential, core competencies, rural development, competitive advantage.

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<sup>1</sup> This study was presented in the III. ICEBSS in 2018 and not included in the related proceedings book; hence it's included in this year's book of abstracts and proceedings.

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### 1. INTRODUCTION

In this study I aim to examine Porter's competitive advantage model (1990) in the field of rural development. Hungary is diversified with respect to development, fault line separating developed regions from those that are increasingly left behind.

Porter (1990) developed a widely studied model for analyzing how different factors influence the competitiveness of nations. Since Porter's (1990) model works on the national level where countries compete, its use is diminished when the country does not show a unified picture with respect to strategic opportunities and development. The result of this disparity between the strategic possibilities of a country and the strategic possibilities of a specific region means that those regions that cannot actively participate in the national strategy are left without purpose.

In the absence of a strategy tailored to the needs and capabilities of the region, most are left to futilely try to mimic successful local strategies, which in turn diminishes its value. By adapting the model for these smaller regions, my aim is to produce a framework that can help regions develop more efficient and unique strategies.

A misconception I have observed to be widespread is the notion that while companies undergo fierce competition, government bodies are subject to no such heavy rivalry. Another aim of this paper is to show a fierce competition that goes on between different administrative units, at the national, regional and even settlement level. The Porter (1990) model supply of resources forms the basis of identifying the various valuable resources that regions vie for.

Using this adapted mode, I give an overview of the South Transdanubian region, Baranya county and Abaliget village with respect to economic growth, infrastructure and labor market, the specific challenges and opportunities and show how the correct identification of valuable resources helps formulate a successful set of interlocked activities that each play off each other's strength, a strategy (Pisano and Shih, 2009).

### 2. ADAPTING PORTER'S MODEL FOR SMALLER REGIONS

Porter's model is comprised of four areas that are interlocked and together determine competitive advantage. The areas are supply of resources; terms of demand; supporting and related industries; and strategy, structure and rivalry. Porter (1990) further identifies government and chance as major factors that ultimately influence competitiveness.

#### 2.1. Supply of Resources

Supply of resources is the natural resources of the country and what is referred to as created conditions, such as a skilled labor force, a developed infrastructure, scientific expertise or



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financial resources. Natural resources and infrastructure can easily be determined and understood on the regional level.

The natural resources of the region strongly influence its development opportunities. Mineral resources lend themselves to the development of a mining industry, large arable land naturally steers a region towards agriculture. In Hungary, Lake Balaton has a massive impact on the regions, counties and settlements that surround it, with over 16% of international and 30% of domestic tourism directed towards it (KSH, 2017).

Similarly, where the infrastructure of a country determines how well it can compete on the national level, the infrastructure of a region determines its competitive capabilities. For Eastern European countries, where the weight of the capital city is disproportionate, infrastructure usually comes down to how well the specific region connects to the nation's capital city. The lack of supporting infrastructure means that even though cities such as Szeged and Pécs are geographically close, they nevertheless only connect through Budapest.

Harder to adapt are financial and human resources. The primary source of financial resources for a settlement is the municipal budget and development funds. For human resources, the intellectual potential of the people living and working in the region or settlement must also be considered. While a highly educated workforce is a competitive asset, it will not contribute to the region's competitive edge if people move to better developed regions once they complete their education. The flow of highly educated and smart people from the periphery of Hungary towards the capital diminishes the competitive potential of the region and further amplifies the problems caused by the weight of the capital city.

**Figure 1:** A visualization of Porter's Diamond Model



Source: Porter (1990)



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### **2.2. Terms of Demand**

Under Porter's system, differences in demand are accentuated. This unique home demand pushes different industries to grow. These industries boosted by the home demand develop a high enough capital and a large enough expertise that they can then become competitors on the world market.

Based on practical observations, it can be established that in a market-based competition a settlement can gain similar competitive advantages as a more traditional business in the provision of services. Settlements provide some services, either market-based or social, and are often required to maintain some historical landmarks, parks, forests and others. A similar effect to the home demand boosting an industry can then be observed. The population creates some demand for the services or for visiting these local attractions. The settlements, in turn, develop these services and landmarks to accommodate the increased demand. Over time, these gradual improvements may result in the settlement becoming known for a cultural activity or a unique landmark.

An example would be carnivals, which causes an annual influx of visitors, proportional to the size and significance of that carnival. These carnivals arguably first come to be to satisfy a demand from the population's side to maintain a tradition and not as a focused attempt at establishing a tourism industry, nevertheless, a tourism industry can and often does build around such events.

### **2.3. Supporting and Related Industries**

Porter describes companies as being connected to a number of entities along the value chain, including suppliers, buyers, sales groups and horizontal and vertical market operators. Porter (1990) describes stickiness, that is, the relative immobility caused by specialization. Pisano and Shih (2009) describes this as the industrial commons, a critical mass of specialists, suppliers and buyers that cause a location to become a hub for a certain industry.

Adapting these concepts for the regional and settlement level, if settlements are thought of as mostly cultural and social service providers for their community than their suppliers can be identified as those that help them maintain these functions. A typical example would be the energy industry, garbage disposal or recycling service, which all have long-term relationships with the municipal governments and are crucial related and supporting players.

Similarly, in this framework, buyers are everyone that partake in the social or cultural services provided by the settlement. The medium of exchange are taxes paid rather than money spent, but overall, the parallels can be easily seen.

The energy industry is a market-based operator and is a supplier of the municipal governments, Similarly, the municipal governments' buyers, as it is understood on this level,



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may also be partly market operators or non-profit organizations. An example would be a transportation company that uses the roads that these governments maintain. Another would be a municipal government leasing property or buildings.

### **2.4. Strategy, Structure and Rivalry**

According to Porter (1990), firms depend on the national environment and the rivalry in their home markets to ultimately be able to compete on the international market. This was described in supply of resources, where home demand prepares a company for the international markets by demanding quality, innovation and capacity. The basis of acquiring and maintaining competitive advantage for a company is strategy. Pisano and Shih (2015) summarize strategy as a number of interlocked activities that strengthen each other and are focused on reaching some objective.

Identifying a valuable resource is not enough. An effective strategy to exploit it must be based on a well thought-out organizational structure and complemented by the benefits of rivalry between settlements and regions, which drives continuous improvement. The strategy must have clear, achievable goals and it must be based on activities that are coherent and work well with each other. It is difficult to build both an industrial powerhouse and a beautiful tourist destination. Trying to do both may very well result in activity mismatch.

### **2.5. Government**

Porter (2015) discusses government as an external force that strongly influences both the supply of resources, such as educated labor force or infrastructure, and strategy and rivalry, through laws and regulations. The municipal governments, however, are in the unique position of both being affected by the state's central government largely outside their control while at the same time begin de jure part of the general government subsystem. This means that while some of its functions are largely dictated by the central governments policies, other functions are partly or fully market-based.

On the one hand, government policies strongly affect the competitiveness of the settlement that the municipal government has no say in. Such areas include taxing, industrial or financial regulations. On the other hand, leasing a locally owned property, for example, is a unique source of income independent of the central government.

An example of this duality is the very fact that municipal governments themselves are legislators and can strongly affect their own settlement's competitiveness. In Hungary, settlements may choose to introduce a number of taxes and can set the level of business tax. This affects their budget, which helps them provide better services, but at the same time, have



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an effect on the private sector. Balancing these is a unique task for both national and municipal governments.

### 3. COMPETITION BETWEEN ADMINISTRATIVE UNITS

**Figure 2:** NUTS-2 Regions of Hungary



**Source:** Központi Statisztikai Hivatal (2018)

Although scales and specific objectives differ, governments, regions and settlements all compete for resources, be they financial, human or knowledge resources or infrastructure. In Eastern Europe, the different administrative units all compete in three broad categories: funds from the European Union, investment opportunities and population.

#### 3.1. Governmental Competition

Governments compete for research grants and cohesion funds from the European Union. While they may then be distributed to the regional level, the regions have an interest in the allocated cohesion funds for their country.

Countries also compete for population. While the freedom of movement granted by the Schengen Agreement removed many barriers that previously existed and this facilitates trade and development, many eastern member states face a heavy drain of skilled and highly educated people towards western, better developed member states.

Finally, governments are in fierce competition to entice foreign direct investment. Countries that offer the most skilled workers at the lowest price can look forward to heavy investments, while countries that cannot see their manufacturing outsourced.





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### **3.2. Regional Competition**

Hungary has 7 large NUTS-2 regions (Figure 2.), 19 counties and 174 smaller administrative units, townships (Hungarian: járás). They compete for the same resources as countries on a smaller scale.

Regions compete for the distribution of the cohesion funds won on the governmental level. Improving infrastructure, out-patient care or the funds to execute a regional social program are vitally important for the competitiveness of a region.

Population is another important aspect of competitiveness that regions vie for. Showing a reliable, trustworthy vision of the future and a competitive income can trigger the same phenomena observed on the governmental level to occur within a country where people move from less developed regions to more developed regions. Coupled with the infrastructural problems presented earlier in this paper, this is one of the more pronounced reasons for the imbalanced growth of the capital city in Hungary and most of Eastern Europe. Lastly, regions also compete for private investment opportunities. If an international company decides to choose a particular country, it still has to decide which region to settle in.

### **3.3. Micro Level Competition**

On the micro level are towns and cities, again competing for the same resources as the levels above on a yet again smaller scale. Yet the competition is not any less fierce. Indeed, since many towns and cities in underdeveloped regions cannot depend on private investments, government and union funds make up a larger percentage of their overall income.

Towns and cities that successfully lobby for funds get to improve their draining and sewage systems, schools and marketplaces, while others stagnate.

The cities that can offer better basic services, kindergartens and primary schools have a better chance of enticing people to settle there. Otherwise, towns might specialize in having vacation homes or weekend houses.

## **4. A DESCRIPTION OF THE ECONOMIC SITUATION OF BARANYA COUNTY AND THE SOUTH TRANS-DANUBIA REGION**

### **4.1. Characteristics of the Region**

The European Union consists of highly differentiated regions of economic development, bordered by increasingly well-defined break-lines. These break-lines are running through both Europe and Hungary. While the developing Western market economies are characterized by high-level employment and high productivity, Central and Eastern European countries, including Hungary, are struggling to keep up.





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As I have pointed out previously, Hungary in particular, and the former Eastern European countries in general are characterized mainly by the dominance of their capital city and more pronounced differences between regions. Due to this, there are relatively few development zones – that is, a larger region of roughly equal level of development – in the country.

Hungary is mostly dominated by underdeveloped, peripheral regions. Considerable competitive potential is only seen in the case of Central Hungary and Western Transdanubia, while the other regions are increasingly left behind and struggle with low competitiveness (Rechnitzer 2016: 46-47). Recent investments in Northern Great Plain may improve the situation of the region somewhat, but for the time being it remains underdeveloped. Accordingly, there is a so-called regional fault line, separating developing zones from the ones that are barely developing – or not at all.

In Baranya County, following the decline and demolition of the mining industry, the industrial structure was unable to regenerate. The closure of the mines resulted in the loss of about 27,000 jobs. In 2011, in terms of industrial production per capita, Baranya came last in the country. This situation has not changed since.

### **4.2. Economic Situation**

Based on gross domestic product and population data, Baranya accounts for 3.9% of the total population, but generates only 2.7% of the gross domestic product. Agriculture is by far the most relevant sector with agriculture, forestry and fishing representing approximately 6% of nationwide production in these categories (Regional Development Concept of Baranya 2013: 56).

Baranya is lagging behind in many key performance indicators and the situation is becoming worse every year. While in 2007, Baranya still had an average GDP per capita equal to 71.1% of the national average, this has since diminished to 67.6% in 2010 and to 65.8% in 2013. While the 2010 figure placed Baranya as 13<sup>th</sup> out of the 19 counties, the 2013 figure now only places it as 14<sup>th</sup>.

## **5. THE VILLAGE OF ABALIGET**

### **5.1. Overview**

Abaliget is a settlement in the Pécs district, in Baranya County, found in the South Transdanubian region. The area of the village is approximately 1700 hectares, of which 96



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hectares is residential and recreational area. The population of the settlement was 607 people in 2011, based on the census data and 654 people in 2017, based on the Town Archive of the Central Statistical Office. An increase of 7%, the population shows a slightly growing trend, which is unusual for a settlement in this region.

Due to the geographic characteristics of the village, agriculture, and more specifically forestry is a source of livelihood for the inhabitants of the settlement. However, due to the natural features of Abaliget, tourism is considered to be the most important economic sector. The village has significant tourism resources. Abaliget has the only dripstone cave in Southern Transdanubia. It was opened to tourist in 1958 and can be visited from March to October every year.

The cave is also used for educational and therapeutic purposes alongside tourism.

A strategy has to have a number of interlocked activities that strengthen each other (Pisano and Shih, 2015). Further thematic attractions and leisure programs are connected to the dripstone cave: The Bat Museum, the Boating and Fishing lake, as well as several educational trails in the settlement that connect the village to the touristic circulation of the Mecsek mountains.

### **5.2. Traffic and Transportation Infrastructure**

Although the recent construction of the motorway towards the capital has improved the situation somewhat, the main transport and traffic problem is the absence of the county's south and east-west traffic corridors.

It is not possible to cross the 50 kilometers-long southern border section of the Dráva river, which somewhat isolates Baranya from neighbouring Croatia. The railway passenger transport has ceased on several sections. The development of the railway network would be highly important, as the capital is not available by means of railways from the south and east parts of the county. Based on public surveys, public transport is unsatisfactory, it does not help the employment situation. (Area Development Concept of Baranya County, 2013:7) This is a major problem affecting small villages and small settlements far from the county seat.

### **5.3. Economy**

Regarding the income and wealth of the Abaliget families, the general financial situation of the population can be considered acceptable due to seasonal work and casual work related to tourism. Despite the fact that renting out homes for holidaymakers are mainly typical of resort areas, one of every 20 families in the settlement supplement their income in the summer by letting out a part of their houses (Local Program for Equal Chances 2013-2018).



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In Abaliget, the number of taxpayers, i.e. the population having taxable incomes per 100 inhabitants is somewhat higher (46.26%), than the national (45.67%), the Baranya-County (44%), the Pécs district (44.25%) averages as well as the relevant figures of the Southern Transdanubian region (44.38%). (TEIR, 2018)

### **5.4. Local labour market and public work program**

Considering employment and locally available job opportunities, it can be established that the village can provide a low number of permanent jobs. The largest employer is the municipality and its institutions, where the total number of civil servants and public employees is 9, and 3 people perform physical work. They are all local residents.

Abaliget usually provides employment for 20 to 25 people under the public employment program. In this context, most people participated in the Start public employment program in the field of tourism and tourism projects, ground water management, maintenance of agricultural dirt roads and in traditional social work programs.

### **5.5. Unemployment indicators**

Unemployment alone cannot show or explain the economic competitiveness of a settlement concerned, but it reveals a lot about the general situation of the labour market. These figures are in line with the situation detailed above, i.e. the number of registered unemployed has been decreasing following the introduction of the public work program in 2011. While this development is crucial for the survival of the settlement, it is nevertheless unlikely that it will result in quality development.

However, the number of registered people does not reflect the actual unemployment situation, because there are those who work as casual workers or find employment in the "black economy". According to the Local Equal Chances Program, the younger age groups have a better percentage employment than older age groups. This is reflected in the relatively low figures of young job-seekers. Most of the registered unemployed people are not permanently unemployed, and this is also well reflected in rates comparable to national data.

## **6. OPPORTUNITIES OF COMPETITIVE ADVANTAGE**

### **6.1. Tourism**

Tourism affects most industries through secondary effects. However, its most direct relationship is with accommodation and catering industry providing 1.7% of GDP. The weight of this economic sector is obviously the largest in the counties around lake Balaton (3.0-3.9%) and in Heves county (2.5%), which is locally known for its wines and mountain. The number of



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guest nights spent at commercial accommodation increased dynamically between 2010 and 2015 nationwide. The main destination of tourism has not ceased to be Budapest and Lake Balaton, where 34 and 20% of tourist nights were spent respectively in 2015. The capital is highly attractive for foreign tourists Sixteen per cent of the guest nights spent by foreigners in the country can be linked to some commercial accommodation in Budapest. (CSO 2016b: 42)

### **6.2. Culture as a Cultural Industry?**

The selection of Pécs as the European Capital of Culture in 2010 and Palkonya as the cultural village of Europe in 2007 have shown decisively the opportunities provided by the unique cultural heritage of the county and have enormous impact on the state of tourism. There are appropriate conditions for pursuing cultural activities, but the utilization of cultural sites and landmarks, such as the unique churches typical solely in the Ormánság, a smaller region within Baranya, is low. Active cultural life can generate demand for different areas and businesses of the cultural industry and creative industries (Baranya County Regional Development Concept 2013). The cultural industry can also increase demand through secondary effects for lodging, foodstuffs and souvenirs.

### **6.3. Natural Resources and Potential**

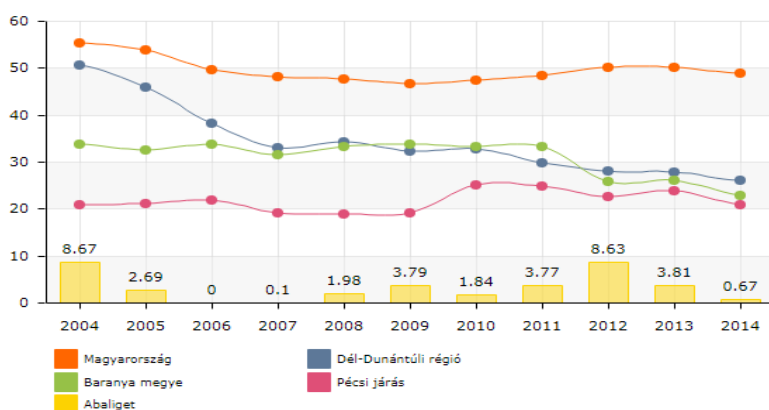
Considering the natural and geographic features of Abaliget found in the Pécs district as well as its immediate and wider environment, it is considered one of the most varied areas of the country, although, as previously mentioned, the state of infrastructure dampens the competitive edge this could produce. However, the region where the village of Abaliget is located is one of the most important tourist destinations in Baranya County. Its unique sub-Mediterranean climate and special architectural values, the cultural, sports and economic events it offers including horse riding, fishing, golf, village, cultural, event tourism and nationality traditions explains the special role it plays in the region. Focusing on the town of Abaliget, according to data by TEIR (2018), the number of guest nights per thousand inhabitants is high. Taking a closer look at the number of nights spent by guests on accommodation, the data of the settlement exceed both the national, regional, county and district averages over the 2004-2014 period. The most recent data for 2014 in Abaliget (5038 guest nights) is a downturn compared to the previous year, when there were 7489 guest nights. The 5038 guest nights spent on Abaliget are well above the national (2479 guest nights), the regional (2786 guest nights), the county (1708 guest nights) and the district (1571 guest nights) averages (TEIR, 2018). Regarding the proportion of guest nights spent by foreign guests, however, the relevant data are far less promising. Studying the proportion of nights spent by foreigners at the local accommodations, it is significantly below the national,



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regional, county and district averages. The proportion of foreign tourist in the guest nights spent in Abaliget has not reached 1% in several years: 2006 (0%), 2007 (0.1%) and in 2014 (0.67%).

**Figure 3:** Proportion of guest nights spent by foreign guests (%)



Source: TEIR – Helyzet-Tér-Kép, 2018

### 6.4. Opportunities in Health Tourism

There is only one medicinal cave in Baranya County and Pécs district, and it is found in Abaliget. It has a so called "healing room", and these caves have a unique climate that has a very positive and beneficial effect on the symptoms of allergic diseases. In its decision of 5 September 2000, based on Decree 74/1999 (XII.25) by the Ministry of Health, the National Agency for Medicinal places and Medical Spas of the National Public Health and Medical Officer's Service, classified the so-called physiotherapy section of the highly protected cave as a medicinal cave.

The Abaliget cave can affect the prognosis of individual diseases not only locally but also at regional level. In the long run, it can improve the quality of life of patients, contribute to their more active participation in society and increase the number of years spent in health. There is no similar natural heritage in the county and throughout the Southern Transdanubia region, which would also be suitable for medical purposes.

I am convinced that unique features and special local characteristics are capable of creating the potential competitive factors whereby stable, sustainable growth and development can be achieved. In the case of Abaliget and the region under study, this is clearly to be found in health and other nature-related touristic potential.





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### 7. CONCLUSION

In this study, I aimed to adapt Porter's (1990) diamond model to describe the competitiveness of smaller regions. This was necessitated by the fact that the original model is mostly concerned with the competitiveness of countries competing on the global markets, yet the development of different regions in Hungary show such disparity that many regions are unable to take part in a nationwide strategy. For these regions, a development of a local strategy based on their unique supply of resources, natural resources and labor market conditions is necessary.

I have explored the general state of Baranya county and the greater Southern Transdanubia region in which it resides. Although the development of the region is slow, I believe that health tourism, fishing, cycling tourism, ecotourism, conference and event tourism are all activities that together form the basis of a coherent tourism strategy. Further investments in infrastructure are necessary in order to fully realize this strategy and allow the region to begin closing the development gap with the more developed regions of the country.

The only way to execute such strategy is to aggressively compete for resources from the national government, the European Union and from the private sector. Abaliget is certainly not the first village to recognize this imperative, which is why such fierce competition exists for these resources not only at the settlement level, but also the regional and national level.

With the development of local tourism, it is possible to increase the number of accommodation in the country, and thus to boost local tourism and catering industry. The development of domestic and foreign tourism may offer opportunities to villages to break out. In summary, it can be said that the striving of health tourism offers a great potential for Abaliget. The exploitation of the rare natural treasures will have national prospects, and in addition to mass tourism, the village of Abaliget may develop into a health-tourism centre as well as a destination for ecological and fishing tourism, possibly coupled with event and conference tourism.

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## THE RELATIONSHIP BETWEEN HUMAN CAPITAL AND ECONOMIC GROWTH: PANEL REGRESSION ANALYSIS

Mahmut ZORTUK<sup>1</sup>, Kübra ÇELİK<sup>2</sup>

### Abstract

The panel data models contain the dimensions of the horizontal cross-sectional data and time series together. By incorporating unobtrusive individual effects into the model, it can control the deviations that neglected variables can create and provide a broad perspective to the researcher. The main purpose of this study is to estimate the relationship between human capital and economic growth. The data used in this study covers the annual period from 2005-2015 for 89 United Nations member countries. The empirical results show that fixed effect model is very satisfactory and all variables are statistically significant.

**Keywords:** Human Capital, Economic Growth, Panel Data

### 1. CONCEPTUAL FRAMEWORK

Human capital constitutes the basis of economic growth and expresses concepts such as education, health status, knowledge, skills, and social relations of the individual or society (Aksu, 2016: 72). In the 20th century, human capital, as well as physical capital, such as vehicles, machinery and other production equipment, became important in the development of national economies (Stroombergen et al. 2002: 1; Soubbotina, 2004: 43). Human capital is a driving force for national economies because human capital is the reflection of the knowledge, skills and experiences of all individuals in a society to the production process. For this reason, human capital is mentioned in the literature together with the concepts of growth and development, which are the indicators of development of national economies (Meçik, 2010: 26).

After understanding the importance of human capital in economic growth, governments aimed at sustainable growth by investing in people and increasing production. Because human capital brings together the factors of production to ensure that these factors work in harmony (Soubbotina, 2004: 44).

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## 2. METHODS AND FINDINGS

### 2.1. Panel Data Models

Panel data is formed by the combination of horizontal cross-sectional data and time series. The time dimension varies according to time cause, while the horizontal cross-section dimension varies according to units. Therefore, panel data models are constructed to include both dimensions. By examining the two dimensions together, both the estimation of the parameters of the models and the interpretation of the predicted parameters are strengthened (Güriş & Çağlayan, 2010: 11).

### 2.2. Fixed Effects Model (FEM)

Models in which coefficients change according to units, time or both units and time are expressed as fixed effect model. If fixed effects model is established to determine the change by units or time, we can use the single factor fixed effects model. However, if the fixed effect models contain both units and time, we can use two factor fixed effect model. (Güriş et al. 2015: 13).

### 2.3. Random Effect Model (REM)

The changes in the panel data models that occur in units or time or depending on both units and time are called random effect models as a component of the error term in the model. The reason why these changes take place as a component of the error term in the model is that the loss of the degree of freedom encountered in the models disappears in REM (Bayraktutan & Demirtaş, 2011: 8).

## 3. FINDINGS

The data used in this study covers the annual period from 2005-2015 for 89 United Nations member countries. The main purpose of this study is estimated the relationship between human capital and economic growth. The model who developed by Mankiw et al. (1992) is used as follows:

$$\ln(\text{gdp}_{i,t}) - \ln(\text{gdp}_{i,t-1}) = \alpha_i + \beta_1 \ln(\text{gdp}_{i,t-1}) + \beta_2 \ln(\text{inv}_{i,t}) - \beta_3 \ln(\eta + g^* + n_{i,t}) + \beta_6 \ln(\text{hdi}_{i,t}) + \beta_7 \ln(\text{open}_{i,t}) + \beta_8 \ln(\text{inf}_{i,t}) + \varepsilon_{i,t} \quad (\text{Eq.1})$$

In the independent variable  $\ln(\eta + g^* + n_{i,t})$ ,  $\eta$  represents the depreciation rate of the capital,  $g^*$  represents the technological development rate, and  $n$  is the population growth rate. The value of  $(\eta + g^*)$  is equal 0.05 in Mankiw et al.(1992) model. Other independent



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variables are  $\ln(\text{open}_{i,t})$ ,  $\ln(\text{hdi}_{i,t})$ ,  $\ln(\text{inv}_{i,t})$ ,  $\ln(\text{inf}_{i,t})$  represents trade openness, human development index, investment and inflation, respectively.

**Table 1.** Panel regression test results

<i>Variables</i>	<i>Panel OLS Model</i>	<i>Fixed Effect Model</i>	<i>Random Effect Model</i>
<b>Constant</b>	<b>5.70e+15***</b> (5.39e+14)	<b>3.90e+15***</b> (4.20e+14)	<b>4.12e+15 ***</b> (4.93e+14)
<b>ln<math>gdp_{t-1}</math></b>	<b>-0.1182354***</b> (0.1158329)	<b>-1.008541***</b> (0.039761)	<b>-1.044176***</b> (0.040356)
<b>lnopen</b>	-0.1182354 (0.1158329)	<b>-0.3731482**</b> (0.1620119)	<b>0.160688*</b> (0.0886435)
<b>lninv</b>	<b>0.2108835**</b> (0.0994323)	<b>0.204485**</b> (0.0876552)	<b>0.190106**</b> (0.0936044)
<b>lninf</b>	<b>1.008747***</b> (0.0996444)	<b>0.2146231**</b> (0.0961284)	<b>0.3044202***</b> (0.0883996)
<b>lnhdi</b>	0.526446 (0.8587989)	<b>1.079451*</b> (0.7793633)	0.9174588 (0.7685299)
<b>lnno</b>	<b>-0.2302737*</b> (0.1317175)	<b>0.1534859*</b> (0.0897434)	<b>-0.2739623*</b> (0.1492021)

Note: \*\*\*, \*\*, \* indicate that the statistical significance at %1, %5 and %10, respectively. And also the standard error values are in closed brackets.

The results of panel regression model estimates are presented in Table1. The general performance of the fixed effect model is very satisfactory. According the results displayed **lnhdi** and **lnopen** are not statistically significant but other variables are significant at panel OLS model estimation. Besides that, all independent variables are statistically significant in fixed effect model. The similar results are obtained in random effect model.

#### 4. RESULTS

In our study, panel data models and fixed effect panel data models for United Nations countries were examined and the relationship between human capital and economic growth was examined.

Panel data models are formed by combining horizontal cross-section and time series data. Panel data models with a higher number of observations provide more degree of freedom and provide more reliable prediction results. In addition, panel data models are included in the model for individual effects that cannot be observed, allowing the variance to be controlled in case of neglected variables.



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The Least Squares method, which is one of the classical regression estimation methods, provides consistent estimation results if there is no unit time effect in the panel data models. A different application is needed for models in which the coefficients change according to unit and time. For this purpose, fixed-effect and random-effect panel data models have been developed. In our analysis, estimation results obtained by least squares method, fixed effect and random effect panel data models are included. The coefficients of the fixed effect models vary according to units, time or units and time. In the random effect model, in contrast to the fixed effect model, the unit or time effect is added as a random variable as a component of the error term in the model. According the results displayed lnhd and lnopen are not statistically significant but other variables are significant at panel OLS model estimation. Besides that, all independent variables are statistically significant in fixed effect model. The similar results are obtained in random effect model.

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**TRADE OPENNESS AND ECONOMIC GROWTH: PANEL COINTEGRATION EVIDENCE FROM G7  
COUNTRIES**

**Mahmut ZORTUK<sup>1</sup>, Derya BOZKAYA<sup>2</sup>**

**Abstract**

In this study, the trade openness will be examined first conceptually and theoretically, and the relationship between the trade openness theories and the trade openness and economic openness will be revealed in order to establish the relationship between trade openness and economic growth. Panel co-integration and panel causality analysis will be applied to the 1995-2017 gross domestic product, import, export and the difference between the export and import data set of the G7 countries (Canada, France, Italy, Germany, Japan, England, America), which are members of the WTO and one of the most developed countries in the world, provided by the OECD. As a result of the analysis, it was concluded that economic growth could be realized through trade openness and this growth was mainly due to imports.

**Keywords:** Economic Growth, Panel Co-integration Test, Panel Causality Test, Trade Openness

**1. CONCEPTUAL FRAMEWORK**

Commercial openness, which accounts for a large share of trade openness, is achieved by reducing or removing barriers to international goods and services mobility. Reducing and liberalizing barriers to exports and imports is the most common definition of export openness from a commercial perspective. (Türker, 2007: 24).

Basic grounds for removing or reducing barriers to international trade to boost economic growth are;

1. Commercial decline due to barriers to trade clearance leads to lower levels of growth,
2. In case of being far away from technological developments, more use of manpower deprives the advantages of technology,
3. The country's economy is being damaged by incompatible commercial barriers imposed on the economies of the country (Rruka, 2004: 6).

There are, however, views that are anti-trade openness and restrictive views. The main reason for this is the protection of domestic industry and strengthening of competition between countries.

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**2. METHODS AND FINDINGS**

**2.1. Panel Cointegration Test**

As with time series analysis, the approach developed to study the long-term relationship between panel data series is called the co-integration approach.

To examine the long-term relationship between variables, several panel co-integration tests have been developed recently. In this study Pedroni and Westerlund co-integration tests are used.

**3. FINDINGS**

The relationship between trade openness and economic growth has been studied through two models for the G7 countries.

**Model 1:**  $GDP = \beta_{it} + \beta(\text{export})_{it} + \beta(\text{import})_{it} + \mu_{it}$

**Model 2:**  $GDP = \beta_{it} + \beta(\text{export-import})_{it} + \mu_{it}$

*The results of the panel co-integration test applied to the stationary data set are as follows:*

*H<sub>0</sub>: There is no long-term relationship between variables.*

*H<sub>1</sub>: There is a long-term relationship between variables.*

**Table 1.** Pedroni Panel Co-integration Test results

<b>Model 1</b>			<b>Model 2</b>		
<b>Test Stats.</b>	<b>Panel</b>	<b>Group</b>	<b>Test Stats.</b>	<b>Panel</b>	<b>Group</b>
V	1.138	.	V	2.297	.
Rho	-2.206	-1.164	Rho	-4.752	-3.175
T	-3.482	-3.723	T	-5.078	-5.119
Adf	.515	1.053	Adf	0.1963	-0.544

The panel co-integration test was applied in Model 1, the export and import values representing trade openness; in Model 2, whether the difference between the export and import that is used in order to determine which item of trade openness affects more had an effect on economic growth in the long term. The results of the panel co-integration test showed that there was co-integration and a systematic and common relationship between the variables in the long term. In other words, the H<sub>0</sub> hypothesis, which argues that there is no co-integration, has been rejected, and the H<sub>1</sub> alternative hypothesis has been accepted.



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According to the Westerlund Panel co-integration test, the results of the analysis are as follows:

**Table 2:** Westerlund co-integration test for GDP and exports

Statistic	Value	Z-value	p-value
Gt	-3.380	-4.722	0.000
Ga	-13.225	-2.941	0.002
Pt	-8.860	-4.895	0.000
Pa	-14.321	-5.746	0.000

$H_0$ : There is no long-term relationship between GDP and exports.

$H_1$ : There is a long-term relationship between GDP and exports.

As the probability values are less than 0.05,  $H_0$  is rejected and the conclusion is reached that the two variables are in a long-term relationship.

**Table 3:** Westerlund co-integration test for GDP and imports

Statistic	Value	Z-value	p-value
Gt	-2.410	-1.837	0.033
Ga	-10.699	-1.707	0.044
Pt	-9.595	-5.620	0.000
Pa	-11.379	-4.050	0.000

$H_0$ : There is no long-term relationship between GDP and imports.

$H_1$ : There is a long-term relationship between GDP and imports.

In this analysis, which is based on Model 2,  $H_0$  is rejected because the probability values are less than 0.05 and the results indicate that the two variables are in a long-term relationship.

**Table 4:** Westerlund co-integration test for GDP and (Export-Import)

Statistic	Value	Z-value	p-value
Gt	-2.416	-1.853	0.032
Ga	-15.384	-3.995	0.000
Pt	-11.268	-7.272	0.000
Pa	-14.468	-5.831	0.000



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$H_0$ : There is no long – term relationship between GDP and (Export-Import).

$H_1$ : There is a long – term relationship between GDP and (Export-Import).

As the probability values are less than 0.05,  $H_0$  is rejected and the result is reached that the two variables are in a long-term relationship.

### 4. RESULT

There is a two-way relationship between foreign trade and economic growth based on studies in the literature. In other words, foreign trade is affected by economic growth as well as economic growth is affected by foreign trade. The size and direction of this effect is influenced by the level of development of the country, the breadth of the domestic economy, the geographical position of the countries and the sustainable stable foreign trade realized in this position, the ease of supply and export of intermediate goods and raw materials used in production.

There is an interaction between trade openness and economic growth as a result of co-integration tests, and the causality test is supported. In addition, the panel regression analysis shows that economic growth is based on imports compared to exports. As globalization increases and countries become more dependent on each other, imports increase as a result of the increase in raw materials, intermediate goods and materials for production and the demand for direct goods and services. In this case, it is concluded that increasing imports in developed countries has positive effects on economic growth.

As a result of the studies in the literature and the results of the analysis reached in this study, the overall evaluation concluded that trade openness in general positively affects economic growth and that there is a significant relationship between each other in the long term.

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**EVALUATION OF INSTITUTIONALIZATION LEVELS IN LOGISTICS ENTERPRISES AND  
LOGISTICS DEPARTMENTS WITH THE PERSPECTIVES OF INTERNS**

**Mesut ATASEVER<sup>1</sup>**

**Abstract**

Institutionalization can be defined as in the operation of an enterprise in accordance with established rules and operating procedures without being affected by the daily life of individuals all. Institutionalization in enterprises is primarily one of the prerequisites of long life, success and sustainability. In this respect, institutionalization is important for all enterprises, especially in terms of logistics and logistics services.

There are many obstacles to institutionalization. The most important ones are not to distinguish between family relations and business relations. This issue becomes even more important when it is thought that most of the enterprises in the world are family businesses. Businesses that cannot overcome this problem have to make more efforts in terms of success and longevity.

A long working period may be required to feel the existence of institutionalization in a business. In this study, the perspectives and views of logistic undergraduate students, who have been working in the logistics department or in the logistics department of an enterprise for 40 working days, were studied. In a short time, these students were asked about how they felt about the institutionalization by the survey method. This questionnaire was administered to the Turkey-based business running. Data on institutionalization levels were collected by means of survey method and interpreted qualitatively.

These are the candidates who will work as logistics experts and managers when they graduate. In this respect, the results of their knowledge and experience related to the institutionalization obtained from their eyes will be beneficial to both the sector and academicians in the related field.

**Keywords:** Institutionalization, Institutionalization level, business management

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**REFLECTIONS ON WATER: GLOBALIZATION, TOURISM, AND THE SOCIAL  
CONSTRUCTION OF RESOURCE SUSTAINABILITY IN SOUTHWEST FLORIDA**

**Mari DEWEES<sup>1</sup>, Joanna SALAPSKA-GELLER<sup>2</sup>**

**Abstract**

Tourism has become a worldwide growth industry, particularly in coastal communities. Issues surrounding the sustainability of water resources and economic and environmental problems such as pollution, the cost of healthcare, and algae bloom have dominated the academic literature and the public media domain. Concerns regarding the economic and environmental costs of water problems abound with substantially less attention given to the consequences of the social impacts of tourism and economic growth. At the same time, scholarly research on globalization (Bauman 1998) suggests a strong symbiotic dichotomy between tourists and permanent residents living in these areas. The key objective of this study is to explore in more depth public discourse surrounding water issues (red tide) in growing tourist coastal communities around the world with focused attention on Southwest Florida. To address the this local (and global) problem, this work investigates the nexus and discord between media and scientific coverage of these issues and public opinion and the actions of key policy and claimsmakers. Utilizing social constructionism as the primary theoretical framework, this qualitative thematic content analysis examines the framing of water problems in the media and the relationship to how subsequent directives are crafted in terms of potential solutions. Themes among the most prevalent claims presented by key stakeholders are highlighted (environmental, economic) with an emphasis on the need to include more points regarding the impact of water-related problems in tourist areas on the local populations supporting these industries and social sustainability of the coastal communities.

**Keywords:** Sustainability, Tourism, Water, Globalization, Sociology

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## INVESTIGATING THE IMPACT OF GOVERNMENT SIZE ON ENVIRONMENTAL POLLUTION: EVIDENCE FROM TURKEY

İbrahim Halil OĞUZ<sup>1</sup>

### Abstract

Despite the environmental quality is considered as a public good, the effects of government expenditures on the environment is mostly ignored. Based on this reason, this paper aims to examine the impact of government size on environmental pollution in Turkey. For this aim, the relationship between carbon dioxide emission per capita, real gross domestic product per capita and the government size in investigated for the period from 1970 to 2014. In addition, the square of real gross domestic product is included to the empirical model as a non-linear term to consider the validity of Environmental Kuznets Curve hypothesis. In doing so, we first detect the stationary properties of variables with unit root test that allows structural break and obtained break date is used as a dummy variable. Moreover, in order to observe the short and long-run effects of government size on environmental pollution, we utilize with ARDL bound test approach. The findings show that inverted U-shaped relationship between economic growth and environmental pollution is valid both for short and long-run. It is also found that the impact of government size on environment is statistically insignificant in the short-run while increasing government size reduces environmental pollution in the long-run. Further, it is concluded that the oil shock in 1978 reduces the environmental pollution level of Turkey.

**Keywords:** Government Size, Environmental Pollution, Public Good, ARDL Bound Test

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**DATA ENVELOPMENT ANALYSIS – A NEW APPROACH IN EVALUATION OF PENSION FUNDS'  
PERFORMANCE**

**Dražen NOVAKOVIĆ<sup>1</sup>**

**Abstract**

Due to the large differences in investment strategies and their long-term character, the comparison of the performance of investment and pension funds has always been a problematic issue. As the comparison on an annual and/or international basis is not appropriate, the performance assessment of pension funds implies standard financial performance measures such as Sharpe, Sortino, and information ratios that consider investment risk. In the last decade, a new approach – data envelopment analysis (DEA) approach – emerged as a method of performance evaluation of securities and their portfolios, which was developed at the end of the last century. This nonparametric model measures and compares the relative performance of different subjects. As it enables solving various decision-making problems, it is an appropriate tool for making investment strategies for pension funds. The data envelopment analysis has already been investigated on the pension funds in foreign literature, but in Croatia research has been focused only to investment funds and insurance. Therefore, the aim of this paper is to give an exhaustive overview of the use of data envelopment analysis in foreign research and to analyze the financial performance of Croatian mandatory and voluntary pension funds using the same methodology. This paper will thus combine operational and financial variables to determine whether data envelopment analysis can be a useful model for assessing the financial performance of pension funds in Croatia.

**Keywords:** Pension Funds, Evaluation, Data Envelopment Analysis, Croatia

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**PUBLIC ASSESSMENT OF THE ENERGY TRANSITION POLICY: THE CASE OF SOUTH  
KOREA**

**Ju-Hee KIM<sup>1</sup>**

**Abstract**

The South Korean government is pushing for energy transition policy (ETP) of increasing the share of the generation from renewable energy and natural gas in total generation, and decreasing that from nuclear energy and coal. Since the ETP will lead to an increase in electricity charges, an investigation of whether the public is for or against the ETP is needed. This article tries to look into the public assessment of the ETP using the data from a nationwide survey of 1,000 individuals asking their opinion about the ETP through a Likert five-point scale (absolutely disagree, disagree, neutral, agree, and absolutely agree). To this end, the ordered probit model is applied to analyzing the determinants of pros and cons of the ETP. 41.9% and 31.5% of respondents agreed and disagreed to the ETP, respectively, which reveal that there are more pros than cons of the ETP. Moreover, the confidence in pros is slightly greater than that in cons. Overall, South Koreans are more supportive of ETP with greater confidence. An ordered probit analysis of the data shows that people who live in the Metropolitan area, think that the environment is more important than new jobs, and/or knew the renewable energy 100% campaign before the survey are more supportive of the ETP than others. On the other hand, the respondents using electricity for heating tend to oppose the ETP. People agree with the policy as the age increases, but when it goes beyond a certain level, they oppose it. These results could be used as an important reference in the government's push for the ETP.

**Keywords:** Energy Transition Policy, Public Opinion, Pros And Cons, Ordered Probit Model

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**DEMAND FUNCTION FOR INDUSTRIAL ELECTRICITY: EVIDENCE FROM SOUTH KOREAN  
MANUFACTURING FIRMS**

**Hyo-Jin KIM<sup>1</sup>, Seul-Ye LIM<sup>2</sup>**

**Abstract**

Electricity is a crucial input to the industrial production of South Korea. Estimating the demand function for electricity in the manufacturing sector is all the more important a task in terms of policy because electricity consumption in the manufacturing sector accounts for 56.3 percent of total electricity consumption in South Korea. Therefore, it is necessary to estimate the industrial power demand function by identifying the determinants affecting the power demand for industrial use. This article tries to estimate the demand function for industrial electricity in the manufacturing sector of South Korea using cross-sectional data for analyzing the influence of manufacturing firms' characteristics. To this end, 946 observations collected from a nationwide survey of manufacturing firms in 2018 are used and analyzed. As a robust approach, the least absolute deviations estimation method is applied to obtain the demand function. The results show that the price elasticity and the sales amount elasticity of the industrial electricity demand are estimated to be -0.9620 and 0.1628, respectively, which are statistically significant at the 1% level. Furthermore, the economic benefits of the industrial electricity consumption are computed to be 1.52 times as great as the price of electricity. The results of this study can be utilized in policy planning, making, and evaluation.

**Keywords:** Industrial Electricity, Demand Function, Price Elasticity, Least Absolute Deviations, Economic Benefits

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## ADOPTION OF UTILIZATION MAXIMIZATION OBJECTIVE FOR A JOB-SHOP SCHEDULING PROBLEM IN GROUP TECHNOLOGY PRODUCTION

Uğur BAC<sup>1</sup>, Erman ERKAN<sup>2</sup>

### Abstract

From the perspectives of reducing costs and increasing efficiency; effective applications of production planning approaches and optimization methods are necessary for the survivability of companies in heavy industrial sectors. A real-life case study has been carried out in a group-tech production facility of a well-known steel and construction machinery manufacturing factory from Turkey in this study. Modeling efforts begins with the determination of best layout combination and order of parts for the cutting operation which is focused on different products that can be placed on different types of steel plates. The main objective is to minimize the waiting and idle time between the operations which are followed by the cutting operation. Also, consideration of reducing scrap rate has been utilized in multi-objective optimization models. For this purpose firstly a time study has been done to collect required data. Then Monte Carlo Simulation has been conducted to determine priority weights which will be used as objective function coefficients. And finally, a series of Pure Linear Integer and Mixed Integer optimization models has been formulated to optimize the machine utilization and scrap rates which are followed by a simulation study to test the outputs of the proposed approach. Findings of the proposed models promises a significant increase in productivity of group technology production facility that has been inspected.

**Keywords:** Job-Shop Scheduling, Group Technology Production, Machine Utilization, Mixed Integer Programming, Monte Carlo Simulation

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**RESOURCE ASSIGNMENT MODELLING: A CASE STUDY IN HEALTH SECTOR**

**Erman ERKAN<sup>1</sup>, Uğur BAC<sup>2</sup>**

**Abstract**

This study is prepared for a research carried out in the international patient services department of a hospital. In this research, it is aimed to optimize the number of employees and to make their assignment to the languages spoken by patients of high demand. All the observations and analyses have been carried out for these purposes in order to justify the problem.

In order to identify the problem clearly, interviews were realized with the employees of the international patient services department and a work study was conducted on the related business processes in the department. The problem to be solved is found in the ineffective usage of employees in the international patient services department. The objective is finding out the optimal number of international patient relations specialists in the department and their assignments according to their languages spoken by international patients. An appropriate model was found out and examined. The found out linear programming model is solved after so many iterations. The linear programming model is also validated by a discrete event simulation carried out by a reputable software in its field. As a conclusion, there is an improvement in the number of staff in the international patient services department.

**Keywords:** Health Sector, Linear Programming, Simulation

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**INTERNATIONALIZATION PROCESS IN CENTRAL-EASTERN EUROPEAN COUNTRIES'  
HIGHER EDUCATIONAL INSTITUTIONS**

**Adrien RÁTKAI-FÜZESI<sup>1</sup>, Béla PATAKI<sup>2</sup>**

**Abstract**

The main topic of this paper is to know the change capacity of the Hungarian governmental higher educational institutions (HEIs) compared to that of the other Central-Eastern European Countries (CEECs). According to our survey, it turned out that—besides the fact that CEECs started their internationalization processes nearly 20 years ago—there have been some developments but only a few institutions have been internationalized to a great extent. However, internationalization is an important way for all HEIs to be competitive, and to survive.

There have been many articles and studies confirming that, and also clarifying the targets of the internationalization of HEIs: gaining profit and reputation, raising the competitiveness of the institution, and the number of foreign students coming to study here, and improving their industrial relations. From the point of view of the institutions, of course, it could give the opportunity for them mainly to improve the quality of the educational system, and that of research. From these literatures, we can learn about the obstacles, which stop these processes. Recognising it, we were to study the present CEEC governmental higher educational institutions' change capacities from the point of view of the internationalization. We used a modified version of a questionnaire by Kerber and Buono (2010) for this purpose. Their method examines the organizations' change capacity on three levels: organizational members, structure and culture. This survey originally was developed mainly for companies but we made some changes in it to make it appropriate for studying HEIs. By the outcomes it can be stated that nearly never can be characterized the studied sector by good changing capacity, the main reasons for it can be the followings: lack of resources, organisational structure, bound to the legal specifications and the difficulties of the decision making process.

**Keywords:** Internationalization, Higher Education

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**A FIELD STUDY ON THE PSYCHOLOGICAL AND THE SOCIAL NEEDS OF THE CONSUMERS  
WHIN PURCHASING SHOPPING GOODS AND SPECIALTY ITEMS**

**Nezihe Figen ERSOY ARCA<sup>1</sup>, Nuri ÇALIK<sup>2</sup>**

**Abstract**

This study intends to find out the psychological and social needs of Turkish consumers in terms of maximization, recognition need, evaluation need, and uniqueness need, towards A survey on 495 consumers over eighteen years of age are selected via stratified sampling to answer 35 questions of which five are related to demographic characteristics whereas the rest 30 are statements which are designed on a five-point Likert scale. The study consists of five parts. The first part is an introduction where the scope and the purpose of the study are mentioned. The second part comprises the theoretical background and the prior researches in conformity with this subject matter. The research methodology is the basic theme of the third part, and basic premises and hypotheses attached to these premises form the backbone for further analyses. Theoretical framework is built and a variable name is assigned to each of the question asked or proposition forwarded to the respondents of this survey. Five research hypotheses are formulated in this section. The fourth part mainly deals with the results of the hypothesis tests and a factor analysis is applied to the data on hand. Here exploratory factor analysis reduces 30 variables to five basic components. Cronbach's Alpha for (KMO = 0.810) In addition non-parametric bivariate analysis in terms of Chi-Square is applied to test the hypotheses formulated in this respect. The fifth part is the conclusion where the finding of this survey is listed.

**Keywords:** Maximization, Recognition Need, Evaluation Need, Uniqueness Need

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**STUDY ON THE IMPACTS OF INFORMATIZATION ON POLITICAL PARTICIPATION OF  
KOREAN BABY BOOMERS**

**Hyeji CHOI<sup>1</sup>, Hyejin CHOI<sup>2</sup>**

**Abstract**

This study aims to determine whether informatization would encourage democratic political participation of the baby boomer generation in Korea. The study analyzed the data collected from 171 Korean baby boomers who were born between 1995 to 1963. The study measured informatization with 33 questions that asked about the participants' possession of PC and the Internet, ability to use word processing software, and ability to use smart devices. Political participation was measured with three questions regarding voting and political protest participation. Multiple regression was used to analyze the causal relationship between informatization and political participation. Analyzed how the three sub-categories of informatization, information access, information competency, and information application, influence the political participation of Korean baby boomers. Information access, information competency, and information application accounts for 15.8% of the political participation of the baby boomers. While information access and competency do not have any significant influence, information application significantly impacts the political participation of the baby boomer generation ( $b=0.02$ ,  $t=2.38$ ). Although informatization reconstructs multiple dimensions of modern life including the way an individual interacts with society, the convenience it provides are not equally enjoyed across different gender groups, socio-economic classes, generations which ultimately reproduces and enlarges existing information inequalities. By proving that political participation, through which individuals participate in the decision-making process of a society, is determined by information inequality, the study illustrates how informatization further structuralizes socio-economic inequalities through its influence on political participation.

**Keywords:** Informatization, Political Participation, Baby Boomer, Generation

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**DOES CORPORATE SOCIAL RESPONSIBILITY FACILITATE THE ACCESS TO FINANCIAL  
MARKETS? (EVIDENCES FROM ITALY AND SERBIA)**

**Siniša ZARIC<sup>1</sup>**  
**Rossana PICCOLO<sup>2</sup>**  
**Vojislav BABIC<sup>3</sup>**

**Abstract**

There is increasing literature on the phenomenon of CSR. Although CSR is defined differently, most of companies are aware of the importance of the topic. Together with increasing investments in CSR there is a rise of criticism which dates back to the famous article of Friedman (1970). Today we can notice a number of scholarly texts which point the critic on the rising regulation on a national and supranational level (Directive 2014/95/EU) of many of the aspects that suppose to be inherent to the social responsibility of the companies. There are two methods used: statistical and comparative analyses. The online questionnaire is used as methodological instrument for collecting data. The data were collected from Italian and Serbian companies, countries with different organizational culture. The focus is on the role of CSR in easing the approach to financial sources (credit allocations, funds and projects). In Serbia, only 2.9 % companies reported the positive impact of their CSR efforts on their approach to national and international funds. Quantitative analysis (Orsi, 2019) reports that some 85% of Italian companies consider positive effects of CSR on facilitating access to financial markets. Finally, according to recently undertaken PhD research based on behavioral economics, ethical factors and CSR influence the credit authorization process in the region of Campania (Italy).

**Keywords:** corporate social responsibility, instrumental theories, financial markets, reputation, social initiatives

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### 1. INTRODUCTION

The Corporate Social Responsibility researches make one of the most frequent theoretical approaches to the modern conditions of doing business and, so-called, corporate citizenship. The academic literature and scholarly articles are characterized by even different vocabulary (terminology) used, different concepts or even, when using the same terminology, having different meaning. Garriga and Mele (Garriga & Mele, 2004) made a strong impact on the academic community focused on corporate social responsibility problem offering a kind of a mapping the territory of the problem. In fact, two Spanish authors launched a kind of classification of the corporate social sustainability theories, trying to group various approach and offer a characteristic tetrahomy. Their typology of social responsibility theories has four groups:

- a. instrumental theories
- b. political theories
- c. integrative theories
- d. ethical theories.

The common understanding of corporate social responsibility lies in its role in the reputation management. Companies are adopting CSR strategies in order to reach a good economic results (instrumental theories). Besides the sharp comments of Milton Friedman (Friedman, 1970) that the company as a juridical "person" cannot be responsible (responsible could be the managers of the company and they are responsible to the shareholders), who concludes that "the social responsibility of business is to increase its profit", we can say that instrumental approach, in fact, gives evidences of the role of CSR in creating benefits for the corporations. In the following research, the focus was in getting empirical evidence about the role of social corporate responsibility in easing the approach of companies to financial markets. Having an insight into a number of academic literature, we could see that this kind of research is not dominating the empirical studies. Empirical studies are more often focused on CSR role in fulfilling social goals, sustainability standards or ethical behavior. The following analyses have taking the studies of CSR in Italy and Serbia: two countries belonging to different tradition, one as a mature economy (Italy), the other one post-transitional society (Serbia), Italy as one of the founding countries of the European Union and Serbia as a country-candidate.





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### **2. SERBIAN AND ITALIAN COMPANIES: SAMPLE DESIGN**

The research analyzes achievements of corporate social responsibility in Serbian and Italian companies. As for Serbia, the selection of towns for the sample was intentional. The sample included companies in the most important economic centers in Serbia: Belgrade, Novi Sad and Niš. The sample covered the following six business sectors: industry, construction, IT, banking sector, trade and services. When planning a sample, we have paid attention to the fact that the ratio of Serbian business sectors in GDP must be credibly reflected in the sample (CIA Fact Book, 2018). It was also taken into account that the Serbian sample represents the real ratio between the number of micro, small, medium and large companies in Serbia. For the definition of the companies' size, it was used a valid national criterion (Vlada Republike Srbije, 2013). A selection of companies from the list of the Serbian Business Directory (Stojanović, 2018) was made by using simple random sampling without repeating. As an instrument for collecting data, it was used an online questionnaire with closed answers and Likert scales. An online self-administered questionnaire was conducted on managers of selected companies. The interview was conducted from 4<sup>th</sup> to 18<sup>th</sup> August 2019. The questionnaire was distributed twice at intervals of 7 days. The second time, questionnaires were sent again to companies that did not provide answers after the first attempt. We sent 320 questionnaires and got answers from 70 companies. As for Italy, 2016 survey data were used (Orsi, 2016). The sample included 400 Italian companies with 80 or more employees. In the research it was used an online questionnaire. The respondents were chosen randomly from online panelists and selected based on defined profile requirements. The data was weighted to ensure representativeness compared to the macro-area, sector and turnover parameters on based on the most recent data provided by ISTAT. The survey will also show the comparative results on relevance of ethical factors in the credit authorisation process in Campania (Italy) and Scotland (Piccolo, 2017).

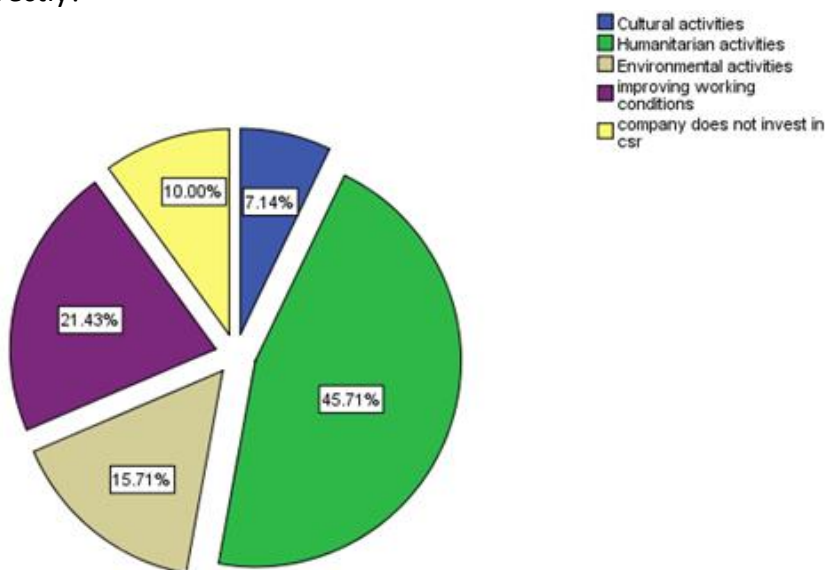


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**3. COMPARATIVE STATISTICS AND RESULTS**

According to the results, Serbian companies invest most in humanitarian activities, while investments in improving working conditions are in the second place (Figure 1).

**Figure 1:** Serbia: Does your company invest in corporate social responsibility initiatives? Which of the activities offered does the company support, fund or perform directly?



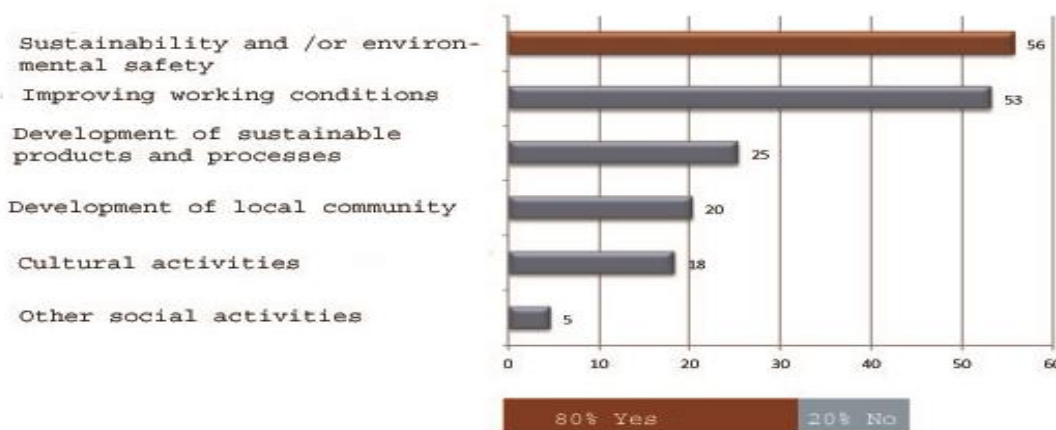
Source: Authors' Calculations

As can be seen on the Figure 2, Italian companies invest the most in sustainability and environmental safety. Unlike Serbia, a large share of Italian companies responded by not investing in improving working conditions.



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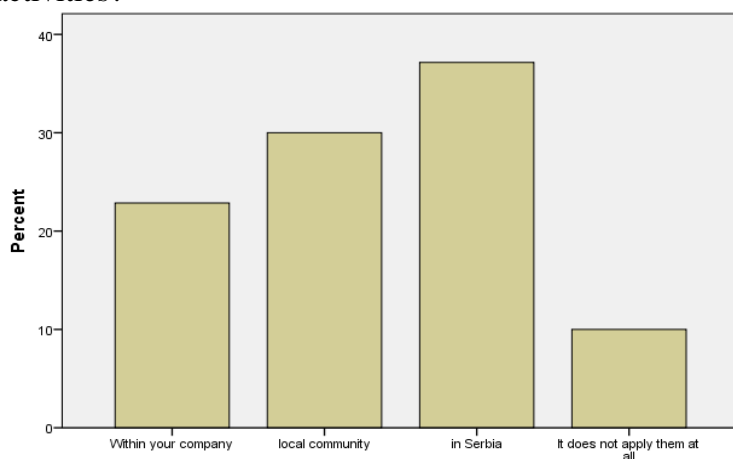
**Figure 2:** Italy: In 2015, did your company invest in Corporate Social Responsibility initiatives? (We refer to all activities supported / financed or carried out directly by a company that have a social character: by nature cultural, humanitarian, environmental or even activities to improve internal working conditions of the company)



Source: Orsi, Roberto 2016. L'impegno sociale delle aziende in Italia. VII Raporto di Indagine. Istituto Ixè srl

According to the results, the largest number of Serbian companies (37.1%) invest in CSR activities at the national level, while the investments in the local community are on the second place (Figure 3).

**Figure 3:** Serbia: Where is your company most involved in corporate social responsibility activities?



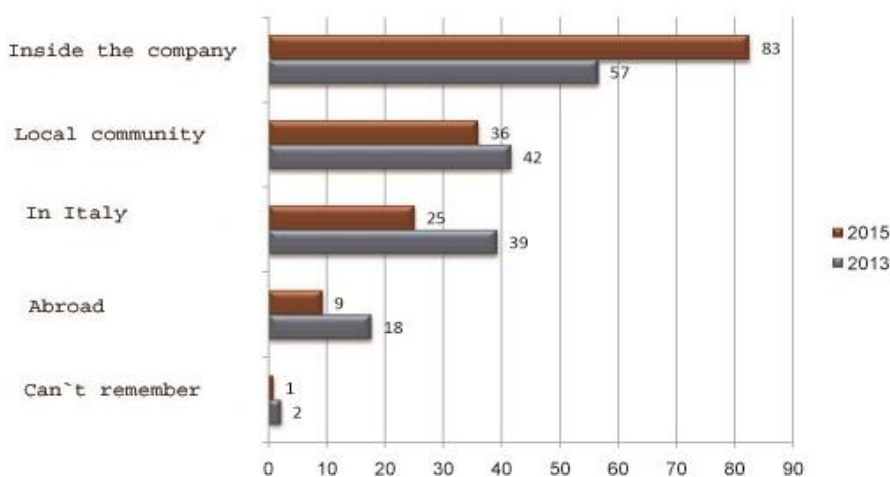
Source: Authors' Calculations



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In Italy, most companies invest in CSR activities within the firm, following by investments in the local community.

**Figure 4.** Italy: Where is your company most involved in corporate social responsibility activities?



Source: Orsi, Roberto 2016.

Investments abroad are also noticeable, which is not the case in Serbia. Table 1 shows the biggest benefit of investing in corporate social responsibility initiatives in Serbia. According to 38.6% of respondents the greatest benefit is improving the company reputation. According to the report, 20% of companies believe that consumer trust in companies is the biggest benefit.



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**Table 1:** Serbia: In your opinion, what is the biggest benefit of investing in corporate social responsibility initiatives?

		Frequency	Valid Percent
Valid	Improving the reputation	27	38.6
	Improving company visibility	6	8.6
	Increase in sales	6	8.6
	Improving organizational climate and work productivity in the company	9	12.9
	Improving communication with public administration and the local community	7	10.0
	Growing consumer trust in your company	14	20.0
	Tax reliefs	1	1.4
	Total	70	100.0

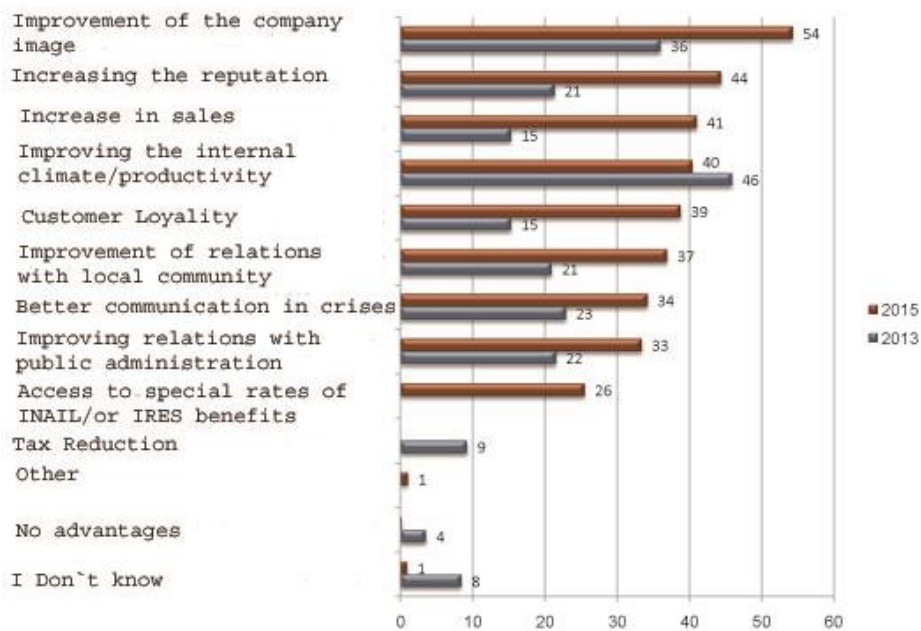
**Source:** Authors' Calculations

The largest number of Italian companies cite improving of the company image as the biggest benefit. On the second place is increasing the reputation followed by increase in sales (Figure 5).



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**Figure 5:** Italy: The advantages for your company of CSR initiatives



Source: Orsi, R. 2016.

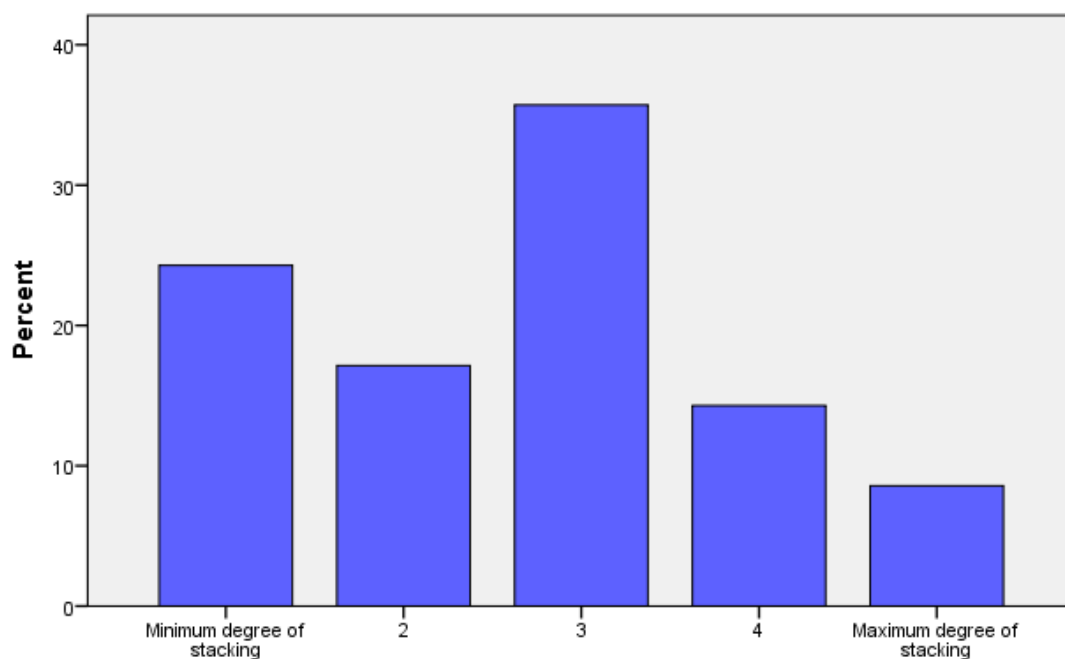
In the case of Serbia, the following attitude was measured: The primary purpose of investing a company in corporate social responsibility initiatives is to increase the company's profits (Figure 6).





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**Figure 6:** Serbia: On the scale from 1 to 5, please select the degree of agreement with the following statement: The primary purpose of investing a company in corporate social responsibility initiatives is to increase the company's profits.



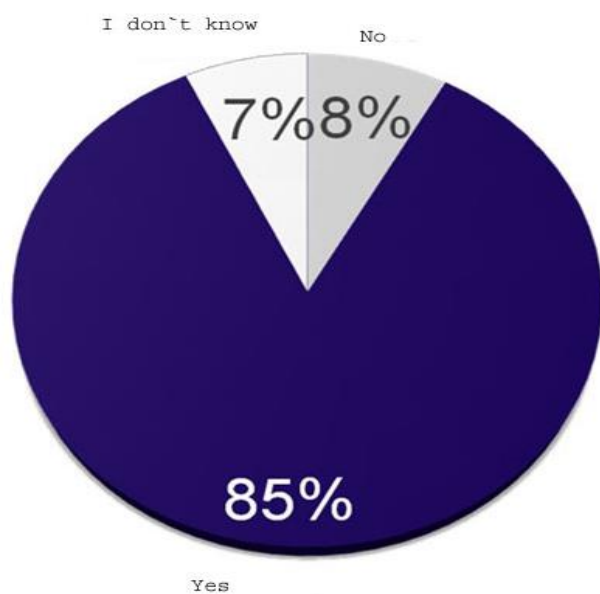
**Source:** Authors' Calculations

Based on the results, a significantly smaller share of responses that expressed agreement with the attitude was noticed. This indirectly indicates that the managers of Serbian companies do not attach investing in CSR activities to profit increasing but probably to altruistic motives. In 2018 survey, Orsi analyzed the impact of investing in CSR on access to financial markets. According to Italian author, 80% of Italian companies believe that investing in CSR facilitates access to financial markets (Figure 7).



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**Figure 7:** Italy: CSR effects on facilitated access to financial markets



**Source:** Orsi, R. (2018).

The results of Campania survey (Italy), showed, in the perceptions of the respondents, the influence of the ethical values of the applicant on the decision to grant a loan or not.

Structured questionnaires were administered on the web through the hosting platform Survey Monkey, submitted to the operators of the Campania banks. The target population was made up of managers and collaborators assigned to the various phases of the process of opening and authorizing credit in the Campania banks.

The sampling procedure led to the selection of 213 people involved in the credit opening and authorization processes of the banks concerned. The data collection phase took several months to complete, from November 2014 to March 2015. The approach used was quantitative. The indicators were measured by means of scales from 1 to 10 Cantril scales and then processed with SPSS.

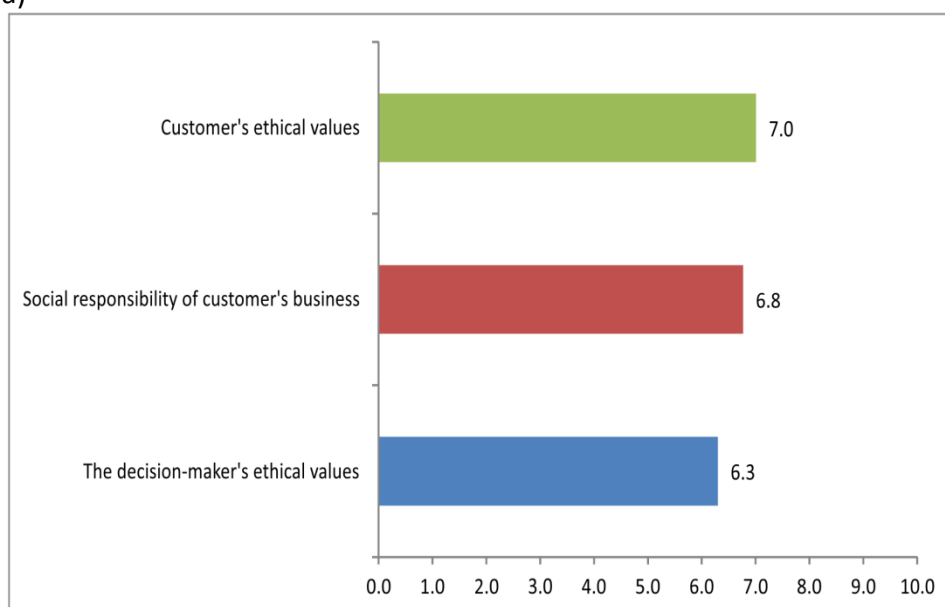
The results therefore show that ethical values play an important role in credit. In particular, the lenders attach great importance to the ethical values of the client, to the social responsibility of the client's activities. Figure 8 shows to what extent the decisions of respondents in Campania to authorize loans were influenced by ethical considerations. In the interviewees' perception, the influence of the applicant's ethical values on the decision taken



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(7.0) is much greater than that of their own values. Corporate social responsibility of the client is also very important (6.8). (Piccolo, 2017).

**Figure 8:** Relevance of ethical factors in the credit authorisation process (mean scores) (Campania)



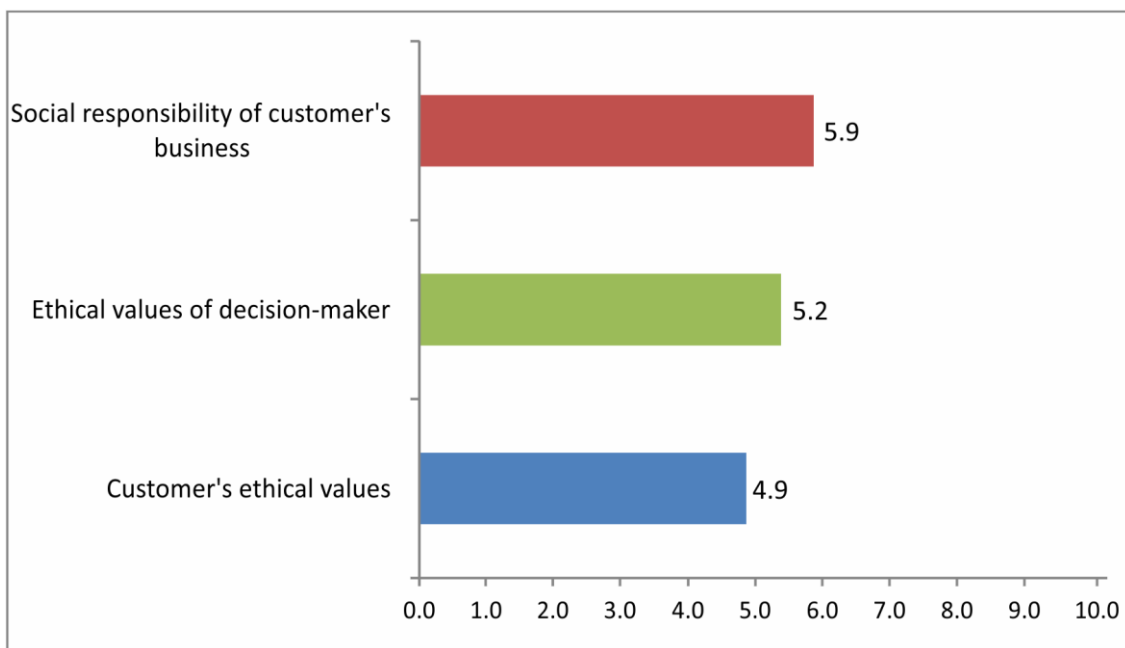
**Source:** Piccolo R.(2017). A Behavioural Finance Approach to Credit Allocation: An Empirical Survey of the Banking Sector in Campania, page 91

Figure 9, instead, shows the influence of ethical aspects on the credit approval process in a study conducted in Scotland. The target population of the Scottish sample of banks is made up of managers and staff members of credit institutions operating in Scotland, in particular officials assigned to the various stages of the credit opening and authorization process. The structured questionnaire was submitted to 80 managers and officials in direct interviews. The respondents were employees of the 12 Scottish banks. The data were processed as well as in Campania. The variables that respondents rated as most relevant are, in descending order, the social responsibility of the applicant company (5.9) and the ethical values of the bank officer called upon to make a decision (5.2). The ethical values of the client were considered less relevant.



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**Figure 9:** Relevance of ethical factors in the credit authorisation process (mean scores) (Scotland)



Source: Piccolo R., Doctoral Thesis, (2015)

The role and impact of CSR in today's world is not only less pervasive than previously recognized, but also more multifaceted than previously conceived (Sen et al., 2006).

**4. CONCLUSION**

Corporate social responsibility is establishing the performance of companies as “citizens” (corporate citizenship), able to behave in a way that is socially acceptable, helping reaching the goals of the local and national communities. There is no any of the bigger or more important companies that has not designed its own strategy of the corporate social responsibility. Promoting CSR programs, companies are increasing awareness and the understanding of social causes. But, as Kotler and Lee conclude, CSR could be understood as “discretionary business practices and investments to support causes” (Kotler and Lee, 2005). From the research one can learn that investment in CSR programs helps Italian companies in entering the financial sources, while the Serbian case shows that these programs are fastening the contact to international projects and funds.



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<b>Program Schedule</b>	
<b>4 September 2019</b>	
19:30 - 20:30	<i>Airport transfers, Dinner in the Hotel Restaurant (Only for Blue and Green Package ID Holders)</i>
<b>5 September 2019</b>	
09:00 - 09:30	Registration and Opening Ceremony
<b>Session I – Business Management</b>	
09:30 - 09:45	ADAPTIVE CHANGE MANAGEMENT IN THE “SELF-MURDER CORNER” OF OCHS MATRIX - Z. VERÉB (Hungary)
09:45 - 10:00	LINKS BETWEEN THE ASSESSMENT OF CROSS-BORDER MERGER AND ACQUISITION MOTIVATION ATTRIBUTES AND PERCEPTION OF THE PRE-MERGER-AND-ACQUISITION PROCESS FACTORS - M. FRANKOVSKY, J. HECKOVA, Z. BIRKNEROVA, L. ZBIHLEJOVA, A. CHAPCAKOVA (Slovakia)
10:00 - 10:15	DATA ENVELOPMENT ANALYSIS – A NEW APPROACH IN EVALUATION OF PENSION FUNDS' PERFORMANCE - D. NOVAKOVIĆ (Croatia)
10:15 - 10:30	RESOURCE ASSIGNMENT MODELLING: A CASE STUDY IN HEALTH SECTOR - E. ERKAN, U. BAC (Turkey)
10:30 - 10:45	ADOPTION OF UTILIZATION MAXIMIZATION OBJECTIVE FOR A JOB-SHOP SCHEDULING PROBLEM IN GROUP TECHNOLOGY PRODUCTION - U. BAC, E. ERKAN (Turkey)
10:45 - 11:00	DOES CORPORATE SOCIAL RESPONSIBILITY FACILITATE THE ACCESS TO FINANCIAL MARKETS? (EVIDENCES FROM ITALY AND SERBIA) – S. ZARIC, R. PICCOLO, V. BABIC (Serbia)
11:00 - 11:15	<i>Coffee Break</i>
<b>Session II – International Finance &amp; Investment, Trade</b>	
11:15 - 11:30	CREDIT DEFAULT SWAPS: THE CASE OF TURKEY - A. N. CAN, M. ACAR (Turkey)
11:30 - 11:45	THE EFFECT OF WOMEN BOARD MEMBERS ON FIRM PERFORMANCE: THE CASE OF TURKEY - G. ŞEKEROĞLU, M. ACAR (Turkey)
11:45 - 12:00	FINANCIAL GLOBALIZATION AND SYNDICATED LOANS - A. KARAKAŞ, M. ACAR (Turkey)
12:00 - 12:15	IMPLEMENTATION OF PUBLIC INFORMATION MODEL THROUGH VISUAL AND AUDITORY INSTRUMENTS: GENERAL DIRECTORATE OF CONSUMER PROTECTION AND MARKET SURVEILLANCE CASE - N. CANÖZ, Ü. Ö. ÇERÇİ (Turkey)
12:15 - 12:30	IS THERE A MOVE FROM CORPORATE SOCIAL RESPONSIBILITY TO CORPORATE SOCIAL INNOVATION? : A THEORETICAL EVALUATION IN THE CONTEXT OF NEXT GENERATION PR - K. CANÖZ, Ü. Ö. ÇERÇİ (Turkey)
12:30 - 12:45	SOCIAL RESPONSIBILITY PRACTICES OF HEALTHCARE ORGANIZATIONS - K. CANÖZ, N. CANÖZ (Turkey)
12:45 - 13:15	<i>Lunch (Only for Blue, Green and Orange Package ID Holders)</i>
<b>Session III - Finance &amp; Investment</b>	
13:15 - 13:30	ANALYSIS OF THE RELATIONSHIP BETWEEN TURKEY AND FOREIGN TRADE PARTNERS' STOCK MARKET INDICES - F. GÜZEL, O. UÇAN, M. ACAR (Turkey)
13:30 - 13:45	EVALUATION OF INSTITUTIONALIZATION LEVELS IN LOGISTICS ENTERPRISES AND LOGISTICS DEPARTMENTS WITH THE PERSPECTIVES OF INTERNS - M. ATASEVER (Turkey)
13:45 - 14:00	THE IMPACT OF TRADE ON GROWTH: EVIDENCE FOR BRICS COUNTRIES - A. ÖZPOLAT (Turkey)
14:00 - 14:15	A FIELD STUDY ON THE PSYCHOLOGICAL AND THE SOCIAL NEEDS OF THE CONSUMERS WHIN PURCHASING SHOPPING GOODS AND SPECIALTY ITEMS - N. F. ERSOYARCA, N. ÇALIK (Turkey)
14:15 - 14:30	CONSUMER ATTITUDES AND BEHAVIOR TOWARDS THE WELL-BEING OF THE SOCIETY IN TERMS OF ENVIRONMENTAL PROTECTION - A FIELD STUDY FROM ANKARA, TURKEY - M. G. TURAN (Turkey)
14:30 - 14:45	RELATIONSHIP BETWEEN HUMAN CAPITAL AND ECONOMIC GROWTH: A PANEL QUANTILE REGRESSION APPROACH FOR SELECTED OECD COUNTRIES (2005-2015) – M. ZORTUK, K. ÇELİK (Turkey)







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Session IV - Applied Economics	
14:45 - 15:00	DEMAND FUNCTION FOR INDUSTRIAL ELECTRICITY: EVIDENCE FROM SOUTH KOREAN MANUFACTURING FIRMS - H. J. KIM, S. Y. LIM, S. H. YOO (South Korea)
15:00 - 15:15	PUBLIC PERSPECTIVE ON THE ENERGY TRANSITION POLICY IN SOUTH KOREA - J. H. KIM, G. E. KIM, S. H. YOO (South Korea)
15:15 - 15:30	TRADE OPENNESS AND ECONOMIC GROWTH: AN EMPIRICAL APPROACH TO G7 COUNTRIES - M. ZORTUK, D. BOZKAYA (Turkey)
15:30 - 15:45	FINANCIAL DEVELOPMENT AND INCOME INEQUALITY IN THE US SINCE 1870: EVIDENCE FROM TIME-VARYING COINTEGRATION - M. A. DESTEK (Turkey)
15:45 - 16:00	INVESTIGATING THE IMPACT OF FINANCIAL DEVELOPMENT ON ENERGY CONSUMPTION IN GCC COUNTRIES - M. A. DESTEK (Turkey)
16:00 - 16:15	THE ROLE OF TOURISM ON ENVIRONMENTAL DEGRADATION: EVIDENCE FROM TOP 10 MOST VISITED COUNTRIES - İ. H. OĞUZ (Turkey)
16:15 - 16:30	INVESTIGATING THE IMPACT OF GOVERNMENT SIZE ON ENVIRONMENTAL POLLUTION: EVIDENCE FROM TURKEY - İ. H. OĞUZ (Turkey)
16:30 - 16:45	Coffee Break
Session V - Social Sciences & Educational Economics	
16:45 - 17:00	REFLECTIONS ON WATER: GLOBALIZATION, TOURISM, AND THE SOCIAL CONSTRUCTION OF RESOURCE SUSTAINABILITY IN SOUTHWEST FLORIDA - M. DEWEES, J. SALAPSKA-GELLER (USA)
17:00 - 17:15	REALIZING RIGHT TO HEALTH IN THE GLOBAL INFORMATION SOCIETY - O. SOVOVA, Z. FIALA (Czech Republic)
17:15 - 17:30	LEGAL AND ECONOMIC ASPECTS OF DISCIPLINARY RESPONSIBILITY IN PUBLIC SERVICE REGULATIONS IN THE CZECH REPUBLIC - O. SOVOVA, Z. FIALA (Czech Republic)
17:30 - 17:45	INTERNATIONALIZATION PROCESS IN CENTRAL-EASTERN EUROPEAN COUNTRIES' HIGHER EDUCATIONAL INSTITUTIONS - A. R. FUZESI, B. PATAKI (Hungary)
17:45 - 18:00	AN EXAMINATION OF THE RELATIONSHIP BETWEEN MOTHERS' LEVEL OF SELF-EFFICACY AND CHILDREN'S SEVERITY OF PSYCHIATRIC SYMPTOMS AND PSYCHOSOCIAL DEVELOPMENT PROBLEMS - N. ARAL, F. GÜRİSOY, F. AYDOĞDU, B. AYSU (Turkey)
18:00 - 18:15	AN INVESTIGATION OF DOCTORS' VIEWS ABOUT THE FACTORS CAUSING CHILDREN'S DISEASE - N. ARAL, F. GÜRİSOY, B. AYSU (Turkey)
Poster Presentations	
09:30 - 18:15	OPTIMIZATION, PERFORMANCE AND QUALITY HEALTHCARE PUBLIC SYSTEM IN ROMANIA - L. (PETCU) BOSTANGIU, I. A. IULIAN, D. COSMIN (Romania)
09:30 - 18:15	STUDY ON THE IMPACTS OF INFORMATIZATION ON POLITICAL PARTICIPATION OF KOREAN BABY BOOMERS - H. CHOI, H. CHOI (South Korea)
6 September 2019	
19:30 - 22:00	Gala Dinner (Only for Blue, Green and Orange Package ID Holders) MEETING IN THE HOTEL LOBBY
7 September 2019	
Social Program (Budapest - Esztergom - Visegrad - Szentendre Tours) (Only for Blue and Orange Package ID Holders)	
08:30	Departure from the Hotel First part of the tour
13:00	Lunch Second part of the tour
19:00	Dinner
21:00	Back to the Hotel
8 September 2019	
Breakfast (Only for Blue and Green Package ID Holders)	
Departure to Airport	





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