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PREFACE

Complexities surrounding the globalization and the interconnectedness of nations are creating challenges for nation-states as well as other newly formed political structures. Innovative social, political, and economic structures are being formed and existing structures are being re-formed to adapt to the forces of globalization. With all these changes (and thus innovations), scholars and practitioners are trying to understand how they fit within these complexities and what the future will be like if we do not respond effectively.

Through this conference we brought experts from around the world to share their research and experiences in business and economics studies. Our conference sparked some exceptional conversations around the very meaning of culture and cultural competencies.

Here, we present some of our scholarly discussions that took place during our conference in a more detailed manner, which the sessions during the conference would not allow. We hope that these scholarly conversations continue and we all inform each other, work towards uniting the already globalize world so that we can celebrate this unity.
We would like to thank all of our sponsors for their contributions to ICBES 2016 Washington D.C.
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University: Emory University

Title: On Designs of Rotating Savings and Credit Associations

Key Words: Random ROSCAs, Fixed ROSCAs, Premium Bidding ROSCAs, Discount Bidding ROSCAs, Belief-independent Dominance, Belief-Robust

Abstract: This paper investigates the performance of rotating savings and credit associations (ROSCAs) in accelerating investments and promoting welfare for small-business entrepreneurs, and thus complements the consumption model of Besley, Coate, and Loury (1993). In a model of privately observed investment returns, random ROSCAs improve upon autarky, but premium bidding ROSCAs can further establish efficiency, a first result of this kind. Relaxing the assumption of homogeneous agents calculating Bayesian-Nash equilibria, we show that a subjective expected utility maximizer prefers premium bidding ROSCAs to random ROSCAs independently of her belief about others strategies. This novel belief-robust ordering of mechanisms is the main contribution of this paper. We also briefly discuss fixed ROSCAs and discount bidding ROSCAs. As economic development differentiates economic opportunities, we expect more ROSCAs to embrace auction designs, and propose accelerating this process by development interventions.
Author/Authors: Sarma Binti Aralas

University: Universiti Malaysia Sabah

Title: Financial Performance and Corporate Environmental Practices in Malaysia

Key Words: Environmental management system, return on sales, return on investment

Abstract: This paper presents descriptive findings on survey data in a study to examine the relationship between the financial performance and environmental achievements of public listed companies in Malaysia. Data on a sample of 30 firms in pollution-intensive industries are used to describe the links between environmental management systems and firm financial performances indicated by measures of return on sales and return on investment. A cross tabulation of environmental indicators and performance indicators shows that regardless of the level of return on investment and return on sales, an overwhelming majority of firms undertake environmental practices and management systems. The statistics provide insights into the behaviour of firms where environmental management practices linked to financial performance may indicate strong compliance to government environmental regulations and international environmental standards. We find that regardless of the level of financial performance, the majority of firms in the study consistently implement environmental practices and management systems.
Author/Authors: Jan R. Kim

University: Hankuk University of Foreign Studies

Title: Movements in the Korean Housing Market: A State-space Decomposition

Key Words: price-rent ratio, present value model, unobserved components, Korean housing market

Abstract: This paper employs a state-space model to model the dynamics of the price-rent ratio in Korea. Using the Campbell-Shiller present value model, we decompose the movements in the price-rent ratio into those of the three housing market fundamentals, i.e., the expected rent growth, risk-free interest rate, and excess returns from housing investment. We find that the variations in the price-rent ratio are mostly explained by the expected housing premium, whereas the real interest rate and expected rent growth account for only small fractions of the variation in the price-rent ratio.
Author/Authors: Mian Sajid Nazir - Sadaf Nazir

University: COMSATS Institute of Information Technology & University of the Punjab

Title: Role of Institutional Owners in Devising Firms’ Risk-Taking

Key Words: Institutional Owners Firm’s Risk Taking Institutional Shareholdings Active Owners Passive Owners

Abstract: Role of institution owners is becoming vital and important regarding making firm decision. They are in position to monitor the internal management of the company and to regulate capital market. This paper is an endeavor to find out the effect of institutional owners on firm’s risk taking. A Sample consists of 58 Pakistani non-financial firms listed on Karachi Stock Exchange for 2004 to 2011 period. Our results are consistent with this premise and reveals that institutional ownership can influence firms risk taking decisions. Degree of influence depends on type of institutional ownership, passive owners play negative role in risk taking while active owners play a positive role in risk taking. Size of institutional ownership does not matter in risk taking.
Author/Authors: Elif Colakoglu - Gokce Gok

University: Ataturk University

Title: The Politics of Humanitarian Aid and Civil Protection Policies for Refugees in the Erzurum City of Turkey

Key Words: Urban Refugees, Erzurum, Protection Policies.

Abstract: The City of Erzurum has a long history as a refugee city. It is a transition and destination city because of both geographical, and political, economic and cultural characteristics. However, it is obvious that the continuous increase in the number of refugees recently pose serious challenges for both citizens and urban administrators with the arrival of Syrians, as well as Afghans and Iranians. Also, the fact of it is getting more impossible for refugees return their home in the near future is becoming increasingly evident. Under these circumstances urban administrators and stakeholders take urgent measures to get refugees stay in the city and their adaptation to society within their resources. This study aims to both analyze their current situation, and to take measures addressing the problems caused by refugees in the city from the perspective of public administration.
**Author/Authors:** Umair Razzaq

**University:** University of Central Punjab

**Title:** Management and Accounting Practices in Decision Making

**Key Words:** Management Accounting Practices, Costing techniques, Manufacturing Concerns, Pakistan

**Abstract:** The rationale behind this research is to assess the significant influence of Management Accounting Practices in decision making of the manufacturing concerns in Pakistan. A survey of 104 manufacturing concerns has been conducted through personally administered questionnaires. Simple random sampling is utilized for compilation of data. Analysis of data has been done through SPSS. Results of the study demonstrate that among traditional practices cash flow statement analysis, budgetary control, variance analysis, standard costing, ratio analysis, Cost-Volume-Profit analysis, fund flow analysis, variable costing and differential costing while among advanced techniques responsibility accounting, segment reporting and Total Quality Management are frequently being used by manufacturing organizations. Secondly, the study has recognized seven factors through rotated component matrix that can explain significant variations in the implementation of management accounting practices. Thirdly, by using multiple regression analysis, it is found that significant variation in decision making of manufacturing organizations is accounted for by the selected costing techniques. The results also reveal that the managers are moderately satisfied with their current Management Accounting Practices. Further, controlling cost, allocating cost to multiple products, determination of price and increasing domestic and global competition are the deemed to be the reasons which increase the perceived importance of costing techniques. Finally the findings indicate that lack of awareness by top management of management accounting practices, more emphasis on financial information, high cost of using the management accounting practices and lack of needed information are the barriers in the efficient implementation of the costing techniques.
Author/Authors: Swati Sharma

University: Evercore Consultants

Title: Democracy and Development - The Indian Experiment

Key Words: Democracy, development, growth, policy, India, ideology, corruption

Abstract: The paper seeks to evaluate the success of the democratic model in India which has a certain set of features different from most countries. As a nation with high degrees of variations in its population in regard to religious, cultural, social and economic differences, a lot of faith had been put in the idea of democracy to ensure just treatment to all the citizens by the forefathers of the country. The paper would look at the success and failure in achieving developmental goals of the country as attributed to the presence of democracy as a positive or negative force, as the case may be. Measures of development used include poverty, education and social parameters to equality and standards of living. A review of the policies proposed by the various governments and their suitability to the goals to be achieved by the country and if electoral success trumps welfare is the basis of the study. Evidence suggests populist policies with myopic view have dominated a large part of the policy scenario. Rampant corruption from top to bottom suggests lack of the basic desire to follow the socialistic agendas of the constitution. However, certain policies have contributed to the welfare but not enough. Thus, the conclusion is though democracy is the best suited model for the country’s development, given its homogeneity, there is a need for better representatives.
Author/Authors: Seda Kayapali Yildirm

University: Igdır University

Title: Effects of Organizational Cynicism on Cyberloafing in Organizations

Key Words: Cyberloafing, Organizational Cynicism, Cyberloafing Behavior

Abstract: The concept of cyberloafing is a new concept that has been subject to research in recent years. Cyberloafing is a concept that often leads to negative consequences in terms of organizations. These negativities are the decrease of the productivity of the employee, the increase of the costs, the decrease of the organizational productivity. The purpose of this research is to determine the effect of organizational cynicism, which is another organizational concept that can influence the cyberloafing. The research designed for this purpose was carried out on 104 employees of a call center operating in the banking sector in Turkey province. The 13-item scale for measuring organizational cynicism was developed by Dean et al., in 1998. The 20-item scale for measuring cyberloafing behaviors was taken from the work that Blanchard and Henle developed in 2008. According to research findings; there was a significant positive and at a level of % 99 relationship between the cynicism levels of the employees and the cyberloafing behaviors. In other words, employees living in organizational cynics will show cyberloafing behaviors which are harmful to their organizations because they do not have positive feelings towards their organizations. Thus, the cynicism of the employee will lead him to cyberloafing behavior.
Author/Authors: Charity Gbmaisa Irimiya

University: National Diploma

Title: Recycling of Solid Waste and the ‘Yan Bola’ Underground Economy: A Survey of Environmental Entrepreneurs in Central Nigeria


Abstract: In a society where environmental concerns over inadequate disposal of hazardous liquid and solid wastes and recycling are officially treated with somewhat nonchalance, the activities of human scavengers of metal, rubber, paper/paperboard yard and wood waste products, variously referred to in one of Nigeria’s major local languages (“Hausa”) as ‘Yan Bola’ or ‘Yan Gwangwani’ or ‘Yan Tinka’ squarely fit into the definition of ‘environmental entrepreneurs’ in Nigeria. Though their existence and activities are largely ignored by national statistics and indeed past policy interventions, the contribution to income generation, employment, tax revenue, skill/technology transfer and value added of this rather underground economy seems overwhelming. With cross-sectional data from four States in Central Nigeria, this study uses quantitative method to examine the contribution of the underground economy to income generation, employment and value added. The findings of the study merely go to confirm the increasingly important role the ‘‘Yan Bola’ business is playing in the local economy of the area, how their activities contribute in saving the environment from damage and pollution and how the Nigerian government and the international community can turn this venture into a macro business in a country with the biggest population in Africa
Author/Authors: Manahil Fayyaz

University: Lahore College for Women University

Title: Analyzing the Impacts of Brand Positioning Variables on Consumer Purchase Intention across Different Product Categories

Key Words: Contemporary issues in business, Marketing Research, Managing brand equity, Brand consideration, Brand purchase intention in emerging economies

Abstract: This study discovers how brand positioning variables: prestigious, high image and credible brands influence purchase intention and empirically examines how the coalesce framework of prestige, brand image and brand credibility materialize across multiple product categories. The proposed model of eight latent constructs is tested with structural equation modeling analysis: brand prestige, brand image, brand credibility, perceived value for money, perceived quality, information costs saved, perceived risk, and brand purchase intention. The results indicate that all three brand signaling variables (brand prestige, brand image and brand credibility) positively influence brand purchase intention through perceived value for money, perceived quality, information costs saved, and perceived risk under different product categories representing the high and low involvement product categories. Several implications for advertising messages and brand positioning strategies are discussed.
Author/Authors: Dawit Yadeta Gerbi

University: Chongqing University of Posts and Telecommunications

Title: Role of Management Information System in Business Organizations

Key Words: MIS, IS, IT, Organization

Abstract: The role of Management Information Systems is described in regarding of its capability for decision making. It is a computer system that provides management and other personnel within an organization with up-to-date information regarding the organization's performance; for example, current inventory and sales. It usually is linked to a computer network, which is created by joining different computers together in order to share data and resources. Management Information System (MIS) is basically concerned with processing information which is then communicated to the various Departments in an organization appropriate decision-making. With the growth of data and information processing is related directly to the growth of the organizations which comprise society in general. So, it became important for the organization to manage or process its information in better ways. MIS helps the organization to access its critical information. MIS provides information which is needed to manage organizations efficiently and effectively. Management information systems are distinct from other information systems because they are used to analyze operational activities in the organization. Academically Organizations still need different types of various organizational levels, functions, and business processes. This needs opportunities and challenges. In this paper the role Management Information system in Business Organizations will be given more elaboration
Author/Authors: Amin Anvari Rostami - Farideh Bakhshitakanlou - Ali Asghar Anvary Rostamy

University: Amirkabir University of Technology - Tarbiat Modares University


Key Words: Modeling, System Dynamics, Financial Markets, Tehran Stock Exchange

Abstract: With in-depth look at the financial and economic situation of countries, one easily can find that firms in a given stock exchange can’t trade in an insulated space and packs. This means that the market is in contact with other domestic and international markets. This research is to formulate relationship between Tehran Stock Exchange (TSE) with financial market indices of countries that had the highest commercial communications with Iran during the period of study (2005-2011) using system dynamics. These financial markets are London, Tokyo, Shanghai and Paris financial markets. For this purpose, the return of stock market is extracted and the communications are estimated along with the price returns of copper and propane index using regression model. With achieved equations, the dynamic relation model of these markets was extracted using system dynamics. In this model, the NYSE index return has been used as a stimulant for the other stock exchanges. The results show that the returns of TSE can be forecasted by a combination of econometric methods and dynamic systems. The results show that a strong relationship exists between global financial markets with the TSE is no exception, so that the index of TSE in the present study affected positively or negatively by the rest of the world were valid. We also find that most of the TSE indicators increased significantly in the final years. In other words, the relationship between the TSE with other stock markets is strong.
**Author/Authors:** Edwin Tan

**University:** University of Business and Technology

**Title:** Effective Appraisal and its Effect on Employee Performance

**Key Words:** Effective appraisal Employee performance workforce

**Abstract:** The effective appraisal and its effect on employee performance attempts to identify the nature of complexity of appraisal and the organization’s need to understand the importance of its effectiveness to the well-being of the organization and the employee themselves. The continuous development in the industrial and business sectors in Saudi Arabia has created an increasing demand for skillful workforce willing to improve and increase their performance. The government launched a number of policy and procedure which called on the business organization to increase Saudi working force (Saudization) in these organizations. All these factors signal an increasing surge in the overall demand for well-trained Saudis who could perform their job professionally. With increasing government pressures, changes can be expected in the nature of kingdom’s demand for the working force and improving skills and enhancing the chances for job opportunity that will bring an extension of the business organization’s expectation of their Saudi employees. This situation without effective appraisal in the organization will not be able to know whether to retain, develop or let the employee get out of the system and it’s emphasizes that performance is a skill needed in order to secure job continuities. This study will point out the significance and importance of decision makers in the business setting to direct more attention to adapting and conducting a fair performance appraisal.
Author/Authors: Saied Farham Nia - Alireza Ghaffari Hadighehb

University: University College of Nabi Akram (UCNA) - Azarbaijan Shahid Madani University

Title: Cooperation in Uncertain Dual Distribution Channel

Key Words: revenue sharing contract, two way revenue sharing contract, uncertainty theory, dual distribution channel, Game theory, mechanism design.

Abstract: The rapid development of e-commerce all over the world and the adoption of dual channels consisting of e-tailer and retailer in supply chains, compelled managers and decision makers to implement pricing strategies in order to increase the channel member cooperation and entire supply chains profitability. Channel conflict is a strategic issue which business owners or managers have to handle it by using appropriate mechanism and contracts to make an incentive for channel members stop it. Making a difference in price and provided service level can be one of them for dual distribution system, which is our review in this article. Indeterminacy is around all the phenomena of the world and also surrounded our decisions. In high-tech and innovative products markets such as new electronic devices, parameters like costs, market size and many other information’s about decision parameters are unknown for decision makers.in this situation, Scientifically and practically the only choice is to use the experienced expertise belief by using the Uncertainty theory which is introduced and developed by Liu based on normality, duality, Subadditivity and product Axioms to modeling personal belief degree. Uncertainty theory not only theoretically is self-consistent but also is the best among other theories for modeling belief degree on practical problem. In this study, we use revenue sharing contract and two way revenue sharing contract to handle conflicts of interest in uncertain dual distribution channel. In order to examine the efficiency of these mechanism, we compare them with prevalent “price only contract”. Our results show that both mechanisms not only coordinate the dual–channel but also ensure that both channel members achieve a win–win situation.
Author/Authors: Benjamin Ehikioya

University: Rlg Communications

Title: Small and Medium Enterprises, Microfinance Institutions and Economic Growth in Sub-Saharan Africa: Evidence from Nigeria

Key Words: Microfinance, Poverty Alleviation, GDP, Economic Growth, Small and Medium Enterprises (SMEs)

Abstract: There has been significant debate across the world on the need for stakeholders to renew efforts on activities that would enhance economic growth and poverty alleviation, particularly in developing countries. Against this backdrop, this paper examines the impact of microfinance and Small and Medium Enterprises (SMEs) on economic growth in Sub-Saharan Africa, evidence from Nigeria. The sample size for this study consists of 550 microfinance banks and SMEs randomly selected in Nigeria for the period 2001 to 2012. The study employed the descriptive statistics and panel data regression model to investigate the possible links amongst the variables identified. The results of the investigation revealed the activities of microfinance to have grown remarkably since 2001 and this is partly due to the challenges faced by SMEs with the conventional financial institutions and government renewed efforts in the development of policies and programmes that stimulates microfinance to support the informal sector. The study revealed microfinance and SMEs to enhance economic growth measured as Gross Domestic Product in Nigeria. The activities of microfinance banks was revealed to have positive impact on the growth of SMEs in Nigeria. The findings indicate that investment in SMEs has a significant positive impact on economic growth in Nigeria. Furthermore, there is evidence to support a positive but not significant relationship between microfinance services such as advisory services and growth of SMEs in Nigeria. Given the findings above, it is important for stakeholders to evolve policies and programmes that will help to integrate microfinance and SMEs into a common group such that their activities can be jointly harmonized and monitored in order to ensure access to credit facilities and attention to the objectives of economic growth and development. It is suggested that Microfinance Banks should review their financing conditions, particularly the loaned amount and repayment period for their SMEs customers. This, microfinance banks can achieve through recapitalization and mergers and acquisitions in order to improve on the capital base that would enable them to take on bigger lending responsibilities to SMEs. Government needs to find a way to encourage financial institutions to lend more to SMEs by providing guarantees, interest rate subsidies and other incentives. Government in collaboration with the private sector must make concerted efforts for infrastructural development and capacity building that would encourage and promote activities that would enhance investment in SMEs. Finally, the government is advised to create the enabling environment capable of supporting the delivery of microfinance and SMEs business goals.
Author/Authors: Elif Oznur Acar - Burak Gunalp - Seyit Mumin Cilasun

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Title: The Effects of Labor Market Reforms on the Labor Market Dynamics in Turkey

Key Words: Labor market reforms, Markov transition analysis, Turkish labor market

Abstract: The global economic crisis of 2008 had great repercussions on labor markets around the world. In order to mitigate the adverse effects of the crisis on employment, Turkey introduced a number of measures in the last quarter of 2008 and during the first half of 2009, such as a general reduction of social security contributions, targeted reductions for hiring youth and women, an increase in unemployment insurance payments and a more active use of the short-time working compensation program. Using the Income and Living Conditions Survey panel data for 2006-2010, this study aims at examining the role of labor market reforms in shaping the labor market performance in Turkey. To this end, we compute the Markov transition probabilities of individuals moving across three different labor market states: employment, unemployment and not in labor force. The results of the study reveal that the policy measures, in general, helped in alleviating the adverse effects of the crisis on the Turkish labor markets. The measures specifically targeting youth and women were effective in promoting the employment of these disadvantaged groups, the beneficial effects being more pronounced for women. However, the results show that after the coverage of these measures was broadened to include all workers, the advantage of young and female workers disappeared. Finally, the transition probabilities calculated for different education groups reveal that the probability of remaining in employment increases significantly with education.
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Title: Entrepreneurship Education: A Friend or Foe of Entrepreneurial Intent?

Key Words: Entrepreneurship, Entrepreneurship Education, Learning Efficacy, Learning Satisfaction, Entrepreneurial Intent, Emerging Economy

Abstract: This study aims to better understand whether a two-week (70 hours) entrepreneurship course given by academics, participants’ satisfaction towards the course, and their learning efficacy can improve entrepreneurial intentions of participants with various kind of backgrounds. In order to achieve these purposes, this study employs a pre-test and post-test experimental design for a single group of 234 individuals. The results point that entrepreneurial intent are highly correlated with and affected by the satisfaction from the course and individuals’ learning efficacy. However, pre-entrepreneurial intent and post-entrepreneurial intent did not differ, which imply the entrepreneurial intent has not been improved during the course.
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Title: Linking Empowering Leadership to Work Efforts and Creativity: Mediating Role of Self-Leadership

Key Words: Empowering leadership, Self-leadership, Work efforts, Creativity

Abstract: This research endeavor focuses on the role of empowering leadership and its influence on followers’ work efforts and creativity. It also investigates the mediating role of self-leadership in the mentioned relationship. The structural equation modeling of the data of 279 questionnaires reveals that empowering style of leadership increases followers work efforts and creativity, while self-leadership partially mediates the relation. Limitations and implications of the study are also given.
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Title: Divided We Fall: A Case Study of ERP Implementation Failure in a Middle Eastern Country

Key Words: ERP System, Informational Database, CSFs

Abstract: ERP system implementation allows organisations to integrate different departments working in silos, while allowing them to have real-time business visibility, and access to a centralised informational database. ERP implementation is fraught with complex challenges, and requires substantial managerial resources and effort, but at the same time, there is no guarantee that implement will be successful. Studies on ERP implementation are mostly limited to developed countries. However, there is growing recognition of the need for ERP implementation in developing countries. Lack of implementation knowledge and experience, and the overall fear of possible implementation failure, make many organisations in developing countries reluctant to adopt ERP systems. In order to enhance our understanding of the factors that contribute to implementation failure, this study focuses on a failed ERP implementation in a Middle Eastern country with particular emphasis on the critical success factors (CSFs), which could contribute towards implementation failure. Adopting a cases study research methodology to analyse the implementation process, our results identify CSFs including country and organisational culture, lack of change management strategies, system choice, customisation and internal politics, contributing towards failed implementations. The CSFs identified in this study appears to be correlated, and change in one CSF will have an impact on other CSFs. These findings can be beneficial to organisations in developing countries planning ERP system implementing. Drawing upon the findings, we can relate how organisations can better utilise and prioritise CSFs to avoid a failed implementation.
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**University:** Management and Science University

**Title:** Customer Relationship Management: Proposed Framework from an ICT Organization Perspective

**Key Words:** Customer Relationship Management, CRM Framework, Customer Satisfaction.

**Abstract:** This paper is concerned with the vital role of customer relationship management (CRM) and its importance within ICT organizations. The primary focus is to establish an improvement on the customer satisfaction and retention throughout the proposed framework. The proposed framework was designed based on critical analysis of three models Forrester CRM Model, CRM Conceptual Model, and Customer Relationship Service Quality (CRSQ) Framework. The framework contributes with depth insights on how the CRM processes have been prioritized and carried out in the organization. Therefore, the study shows possibility of an organization provides better understanding so they could maintain a long-term effective and productive relationship with their customers. Consequently, all the basic components of the proposed framework are prioritized accordingly which the organization will reap the rewards in customer satisfaction, loyalty and long run profitability. We developed a framework to examine in particular the effect of IT infrastructure flexibility on the CRM which an organization can sense, respond, and predict the customer’s preferences and behaviors.
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**Title:** Economic Effect of Improved Efficiency of Water Fetching and Firewood Collection Activities in Ethiopia

**Key Words:** Water fetching, firewood collection, Computable General Equilibrium Model, Labour reallocation, productivity, Social Accounting Matrix

**Abstract:** Water fetching and firewood collection activities are among the most daily routine task of households in Ethiopia. The majority of Ethiopian households are unable to access drinking water in their neighborhood or close to their premise. Due to limited access to water infrastructure and household energy saving technology (e.g. improved stove), household travel a long distance and spend enormous amount of time per day for collecting water and firewood. Furthermore, water fetcher and firewood collectors are simultaneously agricultural laborers in Ethiopia. In other words, household collect drinking water and firewood by reducing labor time available for market related activities such as agriculture, this would affect production and productivity in these sector. Better access to water facility and household energy saving technology increases the effectiveness of collecting water and firewood. This can release labor to be reallocated partly to market related activities (e.g. agriculture) or partly to leisure which has economic wide implications. An improve efficiency of water fetching and firewood collection activities can be potentially attained via public expenditure on water infrastructure and household energy saving technology. This study addresses the economic wide effect of facilitated productivity of water fetching and firewood collection activity. The study uses the 2004/2005 SAM of Ethiopia which is adjusted for the purpose of our study. The SAM has a detailed representation of water fetching, firewood collection and leisure activities and commodities. Since water fetching and firewood collections are performed by household as well as leisure is also consumed by households, a distinct water fetching, firewood collection and leisure activities are created corresponding to each household group in the SAM. Furthermore, distinct commodity accounts are also established for water fetching, firewood collection and leisure. Since male and female members of the household allocate diverse amount of time for water fetching and firewood collection, labor account in the SAM is disaggregated by gender (female and male). In order to incorporate water fetching, firewood collection and leisure as an activity as well as commodity in the structure of social accounting matrix, it is necessary to obtain transaction values for these accounts. The transaction values for these accounts are computed based on the value of labor time allocated to these activities. Furthermore, all macro-economic indicators (such as GDP, absorptions, exchange rate, export supply, import demand, etc) are positively affected as a result of the increased TFP of water fetching and firewood collection activities.
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Title: Social Impact Assessment of Inclusive Businesses in Georgia

Key Words: Social Entrepreneurship, Social Impact Assessment

Abstract: The objective of the research is to conduct social impact assessment of inclusive businesses in Georgia applying the methodology experienced and piloted in the world. Social entrepreneurship is a widely discussed topic in the last year around the globe, in particular the conversation deals with term itself and successful models/examples of social enterprises. However, there is no common approach and definition of the word “social enterprise”/“social entrepreneurship”. Even though inclusive businesses are now being established in Georgia, no research has been conducted, that would measure social and economic value creation of these enterprises and define how “social” social enterprises are. The researched is focused on companies operating in Georgia, which implement social activities and create social value. Research Questions: -Does the social activity of an enterprise depend on its type (whether it is international or local), size (large scale vs medium scale vs small scale) or industry (service, production and etc)? -What is the difference between Corporate Social Responsibility and social mission of social enterprises? -Which needs based on Maslows hierarchy of needs are met with social value created by businesses? (physiological, safety, love/belonging, esteem, self-actualization, respect, self-expression) -How should we measure social impact or what does Social Return on Financial Investment equal to? - Which tools and methodologies should be applied to assess social impact of inclusive businesses operating in Georgia? Expected Outcomes: - Piloted methodology(ies) of social impact assessment, which will enable all organizations/researchers to measure social value applying unified tool and respectively, compare the findings with each other. - Having piloted social impact assessment methodologies of inclusive businesses in Georgia, it is planned to conduct the similar study in other entities of the South Caucasus region (Armenia and Azerbaijan). -Nowadays in Georgia mostly non-governmental organizations are interested in measurement of social value creation, however, they only use simple basic indicators and social value is not monetized, therefore no Social Return on Investment is calculated. One of the expected outcome of the project is enhanced cooperation with such centers and developed research projects, based on which articles will be published in peer-review and high impact factored journals. -Web site “Entrepreneurship Knowledge Hub”, which will allocate all available literature, surveys around the research topic on Georgian and English languages. This will enable stakeholders to access needed information in one space, which on the other hand, will ensure sustainability and creativity/innovation of the project results itself. Later, it is intended to launch the Russian version of the web site as well, which will be the very first unique tri-lingual online platform around social entrepreneurship issues in the South Caucasus region. Moreover, these will also be used as educational base for students in the region.
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Title: Marketing of Public Water Utility Services: A Segmentation Analysis

Key Words: water marketing, market segmentation, target markets, behavioural characteristics, demographic characteristics, customers’ satisfaction, service quality, customer perception.

Abstract: Market segmentation provides a valuable approach for identifying target markets. The study attempts to identify specific target markets of a water utility provider in a developing country. The study took place in Calabar. The cross-sectional research design was used for the study. Data was collected from a systematic sample of 1000 city residents using a well-structured written questionnaire. Hierarchical cluster analysis divided the respondents into four homogeneous groups that were christened: (1) indifferent (2) loyalist (3) idealists and (4) moderates. The study investigated if the water utility customers differ in their perception of the services provider and if there is any significant difference in customers’ perceptions of service delivery on the basis of demographic characteristics and behavioural characteristics. The study revealed that all the perceptual items show significant difference between the four clusters (p=0.05); in demographic characteristics - place residency, marital status and occupational status of customers differ with the clusters (p=0.05); in behavioural characteristic - usage level, duration of usage and number of persons consuming water from a meter point show significant difference between the four clusters (p=0.05). It was therefore recommended that since the water customers differ in their level of perception, the water utility services provider should target homogenous groups that have positive perception towards the firms. This is because of the likelihood of having high consumer responsiveness resulting from targeting marketing.
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Title: The Welfare Effect of Switching from a Floating Exchange Rate Regime to a Monetary Union with Non-Atomistic Wage Setters

Key Words: Central bank conservatism, centralized wage setting, open-economy macro, monetary regime

Abstract: How does a switch from national monetary policies (NMP) to a monetary union (MU) affect welfare? I address this question in a two-country general equilibrium model with large wage setters. The analysis shows that the unions’ perception of the terms of trade movement is substantially different under either monetary regime. In a MU each union anticipates its wage claim not causing any terms-of-trade movements, while under NMP it leads to an improvement in the terms of trade. In contrast with recent studies, the formation of a MU is hence welfare improving by eliminating the incentive to strategically use the terms of trade. Finally, the paper extends Lippi’s (2003) findings about the real effects of a conservative central bank (CB) and centralized wage setting into a flexible exchange rate regime with two independent CBs.
The Plutocratic Takeover of the U.S. Congress
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The reigning paradigm on the origins of American government present the Founding Fathers with extreme reverence as the creators of the most brilliant and enduring blueprint for democracy. Others point to the hypocrisy of extremely wealthy, slave-owning aristocrats who designed a government that would preserve their wealth and elite position in society, while creating a system of government that provided for limited democracy to a limited group of white, male landowners.¹ What is less in dispute are the two interrelated central themes that drove their design of a representative democracy or Republic - the fear that a large group of citizens could oppress a smaller minority of citizens; and the need to preserve and protect private property and wealth.

After four long months of debate during the Constitutional Convention, the Founding Fathers finally settled on the rules and provisions that would come to define how we are governed – enshrined in the United States Constitution. For the key players who sweated it out during that hot Philadelphia summer of 1787, the battle to decide how exactly the American system of government would work was far from over. The final step involved having 9 of the 13 original states ratify the new governing document. In one of our Nation’s first public relations campaigns to sway the opinion of elected representatives as well as the public, James Madison joined Alexander Hamilton and John Jay to write The Federalist Papers. Published primarily in New York newspapers, the 85 essays and articles broadened the scope of the debate about the many issues hashed out during the Convention including ideas about representation, the Bill of Rights and checks and balances as well as the power of the three branches of

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government. By far, Madison’s most popular and controversial essay as well as the one most cited by historians and political scientists over the past two hundred years, is Federalist #10. In it, he expresses his concern that factions or groups of citizens will act to destroy the newly created liberties and rights, especially the right private property now enshrined in the Constitution.

While clearly there was great wealth in early America, much of it possessed by the Founding Fathers themselves, economically, the country was quite underdeveloped (fully developed capitalism and industrialization would not occur for another century). Interestingly, Americans may actually have been more equal during colonial times than we are today. Although Madison indicated that the factions could come in the form of a minority of citizens oppressing a majority, he was most concerned with the opposite – a majority of citizens who would oppress a minority. Far before Madison’s hopes for a participatory democracy collided with the oppressive and antidemocratic power of the plutocracy at the beginning and the end of the Twentieth Century, producing levels of economic inequality that he couldn’t even imagine, he was able to predict one of the primary conflicts would be “the unequal distribution of property.” Even more than Madison, Founders such as Alexander Hamilton and John Adams worried quite a bit about the masses of poorer citizens using their new found democratic powers to take away the wealth of the super wealthy minority. What they got terribly wrong, however, was that it would be a minority of citizens with the most wealth and property who would oppress the majority with less wealth. More importantly, Madison also placed quite a bit of faith in this body of elected men who would represent average citizens of all income levels and pass laws on their behalf. He thought that creating a “Republic” with a large government comprised of lots of elected representatives, “whose wisdom may best discern the true interest of their country, and whose patriotism and love of justice will be least likely to sacrifice it to temporary or partial considerations,” would prevent such economic oppression from occurring, as “it
would be more difficult for unworthy candidates to practice with success the vicious art⁶…and representatives would be chosen)…who possess the most attractive merit.”

Wouldn’t Madison be surprised today? He would hardly recognize the new version of American Plutocracy, where an extremely small group of corporations and wealthy individuals use their enormous financial advantage to economically oppress the majority of middle and lower class citizens through a systematic capture of all levels of government, especially the U.S. Congress. Madison and the other Founding Fathers could not imagine the degree to which this minority, through their access to huge sums of money, have changed the very nature of this first branch of government. Madison’s hope for representatives with “enlightened views and virtuous sentiments,” belied by the current reality of a Congress where a substantial number of representatives are dependent on the plutocrats’ money to enter and stay in Congress, and where this dependency combined with the plutocrats’ massive lobbying effort often persuades them to create policies that primarily benefit their wealthy benefactors at the expense of the majority.

Decades of research indicate that the primary factors which predict the type of policies that members of Congress (hereinafter abbreviated as MCs) produce are - campaign contributions; the opinions of constituents; lobbying by various interests; what the members themselves think is good policy; and the influence of the party to which they belong. Throughout this paper, we will see the enormous role that the plutocracy has in each of these factors. The money funneled into Congress by the Plutocrats through campaign contributions and lobbying has played a major role in determining: how the public votes for Congressional representatives; who gets elected; how members represent their districts; the procedural rules governing policy making, the degree to which Congress performs its executive oversight function and most importantly the type of economic policies that Congress produces or fails to produce. Since the ascent of the plutocracy, beginning in the late Seventies and continuing to the present day, this has meant both the passage of legislation that has benefited the plutocracy
at the expense of everyone else as well as the failure to pass legislation that would harm the plutocrats. These include tax breaks for corporations and the wealthy; reduced business regulations; the weakening unions and worker’s rights; bankruptcy reform; class action reform and failing to adequately increase the minimum wage.

The Plutocracy’s Purchase of Congress

The Plutocracy uses a four stage process of financial investment and reward in order to influence members of Congress, its procedures, and ultimately its policy outputs. The first is to provide a large, but limited amount of money directly to the candidate during their election. The second is to spend an unlimited amount of money on behalf of the candidate, through a variety of vehicles, in order to ensure that they are ultimately elected to office. The third is to activate the extremely well paid army of lobbyists to educate, persuade, or threaten members of Congress in order that they produce policies that benefit the plutocracy. Finally, in what is known as the revolving door, when the member loses a subsequent reelection or chooses to retire from Congress, the Plutocracy provides them a lucrative job working as a consultant or lobbyist.

During the 2014 Congressional midterm elections, 443 ran for the chance to serve in Congress. Over $3.7 billion was spent on these 443 campaigns. Through a variety of financial avenues, including direct contributions to the candidates, funneling money through parties, Political Action Committees and other groups, as well as separate spending on behalf of the candidate, the plutocracy financed nearly 60% of the bill. As indicated in the figure below, financial, Insurance and Real Estate industries are among the largest source of plutocratic money, while 36% of the funding comes from a variety of business interests who seek to influence Congressional policy. Labor’s paltry 6% is hardly enough to make much of dent in the plutocracy’s contribution advantage.
There are two main reasons why the plutocracy’s money plays such a large role in both the institution and the behavior of Congress. The first, more obvious explanation is similar to explanation given by Willie Sutton when asked why he robs banks (He replied “that’s where the money is”) – the plutocrats simply have more than everyone else. And as illustrated in the chart below, this wealth gap has been growing exponentially over the past few decades and continues unabated. The second explanation is a bit more complicated, but basically it is because over the past few decades, through their influence in Congress and the Judiciary, they have successfully created a campaign finance system that allows them to pour nearly unlimited amounts of their wealth into the American political system. The billions of dollars available and utilized by the plutocracy, allows them to exercise their influence through, what Bachrach and Baratz have described as the first and second faces of power. The first face of power involves A participating and influencing the decision making process that involves B. The second face of power is exercised when “A devotes his energies to creating or reinforcing social and political values and institutional practices that limit the scope of the political process to public consideration of only those issues which are comparatively innocuous to A. To the extent that A succeeds in doing this, B is prevented, for all practical purposes, from bringing to the fore any issues that might in their resolution be seriously detrimental to A’s set of preferences.”

![Source of Funding for Congressional Elections](chart.png)

Source: Center for Public Integrity.
The key goals for the Plutocracy is to influence the outcome of Congressional elections and to gain access to the candidates once they are serving in office. This way, they can help ensure that Congress will be reluctant to enact policies that benefit the 99% when those politics harm the plutocracy’s interests. There is a large body of research that indicates that the plutocracy’s motivations pan out quite well as it has been shown that money does in fact play a large and decisive role in electoral outcomes. Other studies also show that campaign money significantly helps the plutocrats gain access to MCs and their staff, and to play a key role in shaping the outcome of Congressional policy.

Figure 2

Due to vast sums of money at their disposal, the Plutocrats have been able to transform Congress into a vehicle that is, more often than not, supportive of their financial interests. Due to their large contributions throughout the Congressional campaign the Plutocrats are able to influence the outcome of the election, as their candidates of choice are often the ones who are victorious and who are therefore able to serve in Congress. For the Plutocrats, they are looking to invest in candidates from both parties who are willing to: (1) pass legislation that benefits the Plutocrats’ financial interests; (2) kill or simply not bring up legislation that is harmful to their interests; and (3) ensure that institutional rules governing the elections and policy making in Congress, continue to allow their money and lobbying efforts to thrive. After decades of pouring money into the campaigns of both Republicans and Democrats, they have in effect created a Congress, that does indeed, “limits the scope” of its decision making to issues that
will not cause any significant financial harm to the plutocracy. While there is certainly some
degree of variation depending upon the relative partisan makeup of both chambers,
representatives of both Congressional parties have been persuaded, over the past few decades,
to not bring issues “to the fore that are detrimental to the interests” of the plutocracy. Once they
are serving in Congress, the plutocrats descend on Capitol Hill through their vast lobbying
apparatus, to ensure that their financial beneficiaries are aware of what they want in return for
their financial help during the campaign. Here, through the access they have purchased through
campaign contributions, the plutocracy’s lobbyists are able to play a key role in shaping policy
as they exert their influence through the first face of power.

Delivering the Money

Many of the men and women who enter Congress achieved their standing in the top 10% of America’s wealthy elite due to previous white collar careers, mostly as business owners and executives as well as lawyers. It is for this reason that many of them are able to partly self-finance an expensive Congressional campaign. As these costs for admission to Congress continue to soar, however, most have to rely on the generosity of the truly rich members of the Plutocracy – corporations and the 1%.

As seen on Chart##, the amount of money contributed to candidates running to serve in Congress has exploded over the past few decades. Between 50 and 60% of campaign funds are contributed by individuals. One of the favorite arguments by those who defend the current campaign finance system is that all Americans are free to contribute as much as they want to this money race to influence the makeup and policies of Congress. In reality, however, rising levels of extreme economic inequality mean that very few can afford to do so. In most Congressional campaigns, only a small percentage of total funds contributed to the candidate come from individuals donating small amounts (under $200). The bulk of these contributions,
are from a very small percentage of the population – the plutocracy, who are easily able to afford individual contributions in the thousands, hundreds of thousands or millions of dollars\textsuperscript{14}.

The easiest and most direct way for individual plutocrats to contribute money to candidates is to give up to $2500 directly to the candidate. They can contribute this amount to as many candidates as they wish, as long as these direct contributions don’t exceed $46,200. Most often, these donors contribute to the campaigns of between 2 and 5 candidates during each election cycle\textsuperscript{15}. As the typical House and Senate candidate spends in excess of $1.5 million and $10 million during a campaign, respectively, $2500 to each candidate doesn’t seem like much. Fortunately for the Plutocrats, their ability to fund Congress doesn’t stop there. Under the current contribution limits set by the Federal Elections Commission (FEC), they can contribute a lot more money to the national party, the state party and to Political Action Committees (PACs). These entities will, in turn, provide that money to various candidates supported by the Plutocrats. They are able to give up to $30,000 to national parties, $10,000 to state parties and $5,000 to PACs. Under these official contribution limits, each Plutocrat is allowed an overall total of $117,000 in individual contributions\textsuperscript{16}. In order to get around these limits, individual plutocrats can also simply pool their money together in a strategy called “bundling.” Various pro-business groups and corporations will bundle together the smaller contributions from individual plutocrats and present one large contribution to the candidate of their choice. During the 2012 election the top bundlers included pro-business and conservative groups like Club for Growth and the Chamber of Commerce. This is one aspect of campaign finance where liberal groups have a considerable presence, as the group EMILY’s list, which funnels money to candidates that support woman’s issues, was also a top bundler. Even more money is provided directly to the candidate by forming a PAC. PACs are allowed to give up to $5,000 per candidate and can give this amount to as many candidates as they like, with no overall limits.
Direct versus Indirect Influence: Does it Matter?

The modest (from a plutocrats point of view) caps placed on these sorts of investment vehicles, exist due to the Supreme Court’s concern that such direct contributions from the plutocrats to the candidates may indeed lead to favors being granted to them, in the form of beneficial legislation or the quashing of harmful legislation. To fully grasp this relationship that money has on Congress, think about a scenario where a plutocrat, investing the maximum $117,000 in hard money contributions to Congress, approaches a Congressional member whom he contributed money to during the campaign. “Look Representative X, I know you had to spend over $1 million to win your campaign, but just to remind you, some of that money came from me. I gave you $2500 directly, and I also gave $5,000 to a PAC and another $30,000 to the Party, who in turn funneled a good part of that money directly back to your campaign. So I think you owe me. There’s a bill coming up for a vote next week. If it passes, it would really hurt me financially. I would like you to ‘No’ on this bill.” Representative X agrees to the plutocrats demands and indeed votes ‘No.’ This direct quid pro quo of plutocratic money and Congressional action is a prime example of the 1st Face of Power. Recall that is when A gets B to do something that B would not ordinarily do. In this case, the member may not have voted no on Bill X, had they not been urged to by the Plutocrat, under the threat of losing financial support when the member faces reelection. This this sort of direct quid pro quo is indeed illegal under federal law, though, based on a number of anecdotes by former MCs, it is likely to still occur behind closed doors. For instance, former Senator Wyche Fowler (D-Georgia) describes the process as follows - “What happens is (I) usually get a list of 30 lobbyists (and start) calling them, asking them to be on my committee to raise me $5,000 or $10,000 by a specified date. And then when they call and say, “Wyche, I’d like to talk to you about the agricultural bill or banking bill coming up next week,” you say to yourself, “Well absolutely.” How can you not? You’ve asked them, and now they want to come and see you. Then you listen to them.” Another
former MC - Representative Kostmayer (D-PA) noted, “You get invited to a dinner somewhere and someone gives you some money. And then you get a call a month later and he wants to see you. Are you going to say no?....You’re not going to say no. So it does buy access.”

Despite the data showing the tremendous financial advantage that the plutocrat’s money has over all other possible sources of campaign and lobbying funding, and despite many admissions by former members of Congress as well as lobbyists that these quid pro quo activities or some variation of them, do occur on a fairly regular basis, research conducted by political scientists, have remained somewhat inconclusive. Among the dozens of studies, there is often disagreement as to the proper statistical techniques when it comes to analyzing Congressional voting and contribution data. Moreover, the studies themselves often narrowly focus on one stage of the extremely complex policy process – that of roll call voting; and measure it against only one type of wealth transfer form plutocrats to Congress – PAC contributions. The first meta-analysis to attempt to sort out this debate, looked at 36 studies, dating mostly from over 25 years ago, and concluded that “PAC contributions show relatively few effects on voting behavior.” Another meta-analysis looking at the same 36 studies, by employing a different statistical measure, found the opposite result, indicating that a link does indeed exist. Unfortunately, a good deal of time is wasted by political scientists who get caught up in the methodological debate of causation between contributions and roll call votes, a debate that is largely irrelevant when considering the myriad ways that plutocrats influence Congress. Dozens of studies go back and forth, pondering whether it is the case that contributions cause a member of Congress to vote a particular way or whether those contributions are given to the member of Congress because of the way they voted in the past. This is simply not that important, as the billions contributed by the plutocrats, can ensure that influence occurs regardless of the direction of causation. For instance, the Plutocracy’s money at the campaign stage is able to shape the type of pro-business candidate, who often ends up
serving in Congress in the first place. And just in case that the member needs additional reminders how to vote or who to grant favored access to\textsuperscript{22}, contributions continue to roll in throughout their Congressional career with a promise of even more financial rewards when they leave Congress through the revolving door. What evidence does manage to emerge from the academic noise is that contributions do change the mind of Congressional members to vote more in line with the interests of the Plutocrats when the issues involved are specialized, technical or narrow\textsuperscript{23}, and when the visibility of the issue is low\textsuperscript{24}.

Although there are clear limitations in looking narrowly at roll call voting, it does provide us with the notion that if even a small degree of causation is found between contributions from plutocrats and polices that benefit them, this may be merely the tip of the iceberg. There is likely far more stronger links in the many other processes that make up Congressional lawmaking, where the official record of the lawmakers decision is never revealed. (for example - committee votes, markup, vote trading).

\textbf{Still…More Money – Spending on Behalf of the Congressional Candidate}

One of the more meaningless distinctions created by the Supreme Court is the amount of money that the plutocrats contribute directly to the candidate can be regulated, but when it comes to spending money on behalf of the candidate to ensure their victory, the plutocratic can spend as much money as they like. The distinction becomes meaningless because either way, the vast sums of money ensures that a majority of pro-plutocratic candidates will be elected and that once in office, the candidate-turned-Congressional member is fully aware of how they got to Congress and is eager to do what it takes to please their campaign benefactors.

While Congress, as the law making branch, is charged with passing laws that regulate the financing of campaigns, it has been the Supreme Court and their interpretation of these laws that has helped widen the floodgates for the flow of the plutocracy’s money into the campaign
finance system. Over the past four decades, the plutocracy and their (mostly) Republican allies have defeated thousands of attempts to stem the flow of money, occasionally, mild reforms have been passed by Congress; only to be crushed, in recent years, by the judicial power of one of the most pro-plutocratic Supreme Courts in nearly a century. Until about five years ago, for instance, there were in fact, mild limits on the amount of money that wealthy corporations and labor unions could pour into a campaign on behalf of a candidate. They could use their money for outside spending (not in coordination with the candidate’s campaign), as long as their campaign advertisements did not expressly call for the defeat or election of a particular candidate and as long as it wasn’t within 60 days of the election. Even these minor limits on money was too much for the Supreme Court to stomach. So in Citizens United vs. FEC (2010), they declared these limits unconstitutional under the First Amendment. This provided the means for the plutocracy to spend as much money as they like on whatever campaign advertising they chose. As a result, outside spending by corporate pro-business groups as well as more liberal labor and environmental groups, have increased tremendously in the most recent Congressional elections, reaching $1.3 billion in the 2012 elections and nearly $820 million in the 2014 Congressional midterms.

Beginning in 2010, the plutocrats were able to form Super PACs that allowed them to collect unlimited sums of money from wealthy corporations and individuals and spend that money to campaign for or against political candidates. During the 2014 Congressional midterm elections, these groups spent over $346 million dollars to influence the election process as well as future Congressional policy making. As with ordinary PACs, the plutocrats must disclose the source of their money, when using this particular type of money delivery vehicle. They do however, have at their disposal, a variety of other vehicles that allow them to keep hidden the source or sources of their money used to finance Congressional elections and lobbying efforts. In many cases, the Plutocrats may not want the public to know the degree to which their
financial power is being exerted on the American political scene. After all, the public has been increasingly troubled by the unfair advantage that the plutocracy has on the American political system; though fortunately for the plutocrats, elected officials do not seem all that concerned. Moreover, as their wealth continues to grow exponentially, relative to the rest of the 90%, they have sought to funnel even more money, hidden from public view, into Congress. They achieve this further through the use of “Politically active nonprofits” – known as 501(c)(4)s and 501(c)(6)s. Often referred to as “dark money,” these have become yet another vehicle for the plutocracy to purchase Congress. In fact, one can argue that the plutocracy’s wealth has begun its complete takeover over of the way Congressional election are funded, due to the fact that in 2014, as many as 28 Congressional races saw outside spending surpass spending by the candidate themselves.

**Beyond Campaign Dollars: Lobbying by the Plutocracy**

The Plutocracy’s powerful stamp on the institution and procedures that make up Congress go beyond their financial influence during the campaign process, as their financing of Washington’s vast lobbying network, plays an even a greater role in the way in which they have dominated America’s first branch of government so that policies emerge that benefit their interests. In fact, from 1998 to 2012, corporations spent nearly 13 times more on lobbying than they spent on PAC contributions. The plutocracy hires lobbyists to meet with MCs and their staff in order to present information about an issue or a bill in the hopes of influencing the MC toward their clients’ perspective. This could mean persuading a MC to introduce or sponsor a beneficial bill, add an amendment to an existing bill, change the specific language of a bill and vote a certain way in favor or against a bill. While persuading Congress to act affirmatively in passing beneficial legislation is a common strategy, it is far easier and more effective for the plutocracy to stop legislation. Simply put - the number one goal for corporate lobbyists is to stop Congress from passing any legislation that would be harmful to corporate profits.
The fact that the same plutocrats who dominate the financing of Congressional campaigns are also the dominant financiers of the lobbyist army, lends credence to what we already know regarding their motivations to shape Congressional policy. Since the late 1990s, the plutocracy has steadily increased the amount of money it is willing to spend on lobbying Congress.

As indicated on Figure 3, over $3 billion was spent on lobbying in 2014, and once again the plutocracy is by far, the dominant source of funds for the thousands of lobbyists that descend on Congress to ensure that the policies produced are in the plutocracy’s best interest. Breaking it down further, the amount of money spent by the plutocracy’s lobbyists - the red slice, indicates that the financial industry spends the most, while an additional 72%, comes from a variety of other business interests. 11% is from other more ideologically minded interests, while the main countervailing interests to the plutocracy – labor, spends very little on lobbying.
All of this money pays the salaries of about 10,000 “official” lobbyists, who are required to register with the clerk of the House and the secretary of the Senate under the terms of the Lobbyists Disclosure Act (LDA), passed by Congress in 1995. Most of them work in large lobby firms surrounding Pennsylvania Avenue and K Street, running northwest, a few blocks from where Congress is located at the U.S. Capitol. It cannot be understated how this lobbying army, that flanks the building where Congress legislates (along with the other two branches – the White House and the U.S. Supreme Court building), is the key to understanding how the corporate power within the plutocracy has taken over much of Congress. Lobbyists influence policy outcomes in Congress employing a variety of methods. The most prevalent include:

1. Contacting Congressional staffers directly to present your point of view
2. Monitoring development closely
3. Identifying allies in Congress who might serve as “champions” for your cause
4. Contacting members of Congress directly to present your point of view
5. Entering into coalitions with other organizations
6. Consulting with other organizations to plan legislative strategy
7. Helping to draft legislation
In one of the most comprehensive and exhaustive studies on corporate lobbying in Congress, Lee Drutman, focusing on the how and why of corporate lobbying, describes the typical large corporation today as - 

“employ(ing) upwards of 100 lobbyists, lobbying on upwards of 100 bills and reaching out to two dozen different agencies. It has many different reasons for being active and is capable of utilizing the full toolkit of modern lobbying tactics. It is an impressive operation, the likes of which have rarely before been seen in American political history.”

After interviewing hundreds of lobbyists, one of Drutman’s most important findings is discovering how the plutocracy’s lobbyists get inside the heads of the MCs and their staff, so that when it is time for the MC to engage in policy making, many MCs have in the forefront of their mind, the interests of the plutocracy. The plutocracy accomplishes this by not only funding their lobbying army but also by funding a large network of think tanks and policy centers throughout Washington allowing them to frame the parameters of the policy debate especially when it comes to the economy. The persistent meetings, presentations and conversations that lobbyists have with MCs and their staff help fill a knowledge gap with regard to the growing complexity of policy solutions. Of course, that knowledge will often be biased to favor the interests of the plutocracy who pays the lobbyists’ salary. At the end of the day, a substantial number of members end up believing that what the plutocracy desires, is in fact good public policy.

Admittedly, even Drutman’s exhaustive research, revealing the incredible power that corporate lobbyists have on policy outcomes, merely skims the surface, since, in recent years, corporations wanting even more power and influence have engaged in “shadow lobbying.” As is often their strategy, the plutocracy employs hundreds of lawyers and other policy experts to find the gaps in current laws that attempt to limit their influence. For instance, corporations
need only to hire lobbyists who simply do not call themselves “lobbyists,” and instead use more general terms that are not covered under the LDA – including “head of government relations,” or “head of public affairs. They still do the same exact things that lobbyists do, they just do not have to reveal to anyone that they are engaged in what lobbying expert Professor James Thurber of American University, refers to as “influence peddling.” In other words, it is likely that the corporate lobbying presence in Congress is about three times greater than what has been reported.

Representation

Similar to other institutions of government which serve the interests of the Plutocracy, Congress itself can be considered part and parcel of the plutocracy. While the Senate has been known as the “millionaires club” for some time now, beginning in 2012, the average net worth of members of the House of Representatives topped $1 million or 13 times greater than the average Americans’ net worth. Once again, the naïve hopes of the Founders that Congress would be “in miniature an exact portrait of the people at large…(and that it) should think, feel, reason and act like them,” is completely devoid of our current reality where most MCs can be defined by their membership in the plutocracy and thus by their distance from the problems and issues that confront 90% of the population. When it comes to representation, the great majority of MCs who are already part of the plutocracy combined with the constant flow of campaign and lobbying dollars from even wealthier plutocrats, has distorted any notion of Congress as body that broadly represents the average American citizen.
Figure 5

![Average Net worth of House Members](image)

Often times we hear people complain about the unfairness of a particular law or policy, perhaps followed by the proclamation that “we need to do something about this…we need to go out there and change the law!” Anyone who has paid attention in their high school social studies class will quickly respond that ordinary people cannot directly change the law because we do not have a “direct democracy” but rather a “representative democracy.” As we shall see, the former is in fact true, but the latter may not be. Direct democracies, where the people themselves govern (pass laws and policies) are rare and often thought of as impractical in anything other than a small setting. Although one could argue that ballot initiatives and referenda that have been adopted by some states are a form of direct democracy, even these processes have been heavily influenced by the plutocracy’s wealth and power. Unfortunately, over the past four decades, when we look closely at what is supposed to be the branch that is the most representative of the general public, it appears quite distant from what most people think of as a “representative democracy.”

Like so many aspects of our government hoped for by the Founders, and idealized by unrealistic notions of American exceptionalism, most of the current scholarship on representation follows a familiar pattern of breaking apart the concept into little pieces and scanning the crumbs through rose-colored glasses to hopefully find some semblance of a
Members of Congress, for instance, are believed to represent the public either as either a delegate or a trustee. In the delegate model, the member represents their constituents more closely and is supposed to vote in line with their views. For most people, that definition probably seems right on target. After all, what more can there be to representation than representing the views of your constituents who voted you into office? Thanks to one of the founders of the conservatism, Edmund Burke, many contend that representatives can somehow represent constituents without actually paying attention to what they have to say. Burke was a British lawmaker and while serving in Parliament in 1783, he chose to vote in favor of free trade with Ireland, despite the fact that his constituents in the major trading city of Bristol, overwhelmingly opposed this. Burke stated that it was his duty and the duty of all representatives in a democracy, to vote as they see fit with an eye toward what is good for the entire country, even if it is contrary to what their constituents want. This tortured notion of how elected officials should represent the public became known as the ‘trustee’ model of representation, providing a model for how today’s Congress can fail to represent the interests of the 90%, and still be considered by some to be the linchpin of America’s representative democracy.

**Allocative Representation**

Thinking about Congressional behavior, you may have come across the phrase, “bringing home the pork.” This refers to “pork-barrel” projects, better known as earmarks, where MCs insert language into a bill or committee report that specifies an amount of federal money that is to be spent in the MCs district. These are often hidden from public view as MCs seek to bury them deep within the language of long and complex spending bills. At first glance, this process seems like it would have the potential to allow MCs to truly represent and “help out” the people in their district by delivering financial benefits that are needed (for example, funding for playgrounds, roads, tourist attractions). And once again, wanting to believe that
representative democracy is something that still exists in America, some present this process as yet another way that MCs do in fact, represent the public – terming it “allocative representation.” While there are occasions where a MC directs an earmark toward a project in their district that genuinely benefits a significant portion of their constituency, it is frequently the case that earmarks present plutocrats from both inside and outside of Congress with another opportunity to use the Congressional process to significantly add to their growing wealth and power. Especially for vulnerable MCs who might lose in an upcoming election, it is thought by many that earmarks present a convenient way that they can, in effect, bribe voters to vote for them by taking credit for neighborhood improvements in the district.31

Like so many procedures set up by the plutocratic Congress, earmarks fail to ensure that the process is fair to the average American and that projects are funded that are truly in the best interests of a majority of the constituents. As with election outcomes, ordinary Americans simply do not possess the wealth to invest in campaign contributions and lobbying efforts that are often necessary to gain direct benefits from earmarks; but as illustrated in the table below, clearly many corporate plutocrats who are among the top recipients of earmarks do.

<table>
<thead>
<tr>
<th>2010 Earmarks32</th>
<th>Earmarks</th>
<th>PACS</th>
<th>Lobbying</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAE Systems</td>
<td>$39,640,000</td>
<td>$850,000</td>
<td>$5,360,000</td>
</tr>
<tr>
<td>Northrop Grumman</td>
<td>$34,660,000</td>
<td>$1,270,650</td>
<td>$15,180,000</td>
</tr>
<tr>
<td>Boeing Co</td>
<td>$29,900,000</td>
<td>$2,357,500</td>
<td>$16,850,000</td>
</tr>
<tr>
<td>Alliant Techsystems</td>
<td>$29,200,000</td>
<td>$293,587</td>
<td>$2,020,000</td>
</tr>
<tr>
<td>General Atomics</td>
<td>$26,940,000</td>
<td>$401,360</td>
<td>$2,720,000</td>
</tr>
<tr>
<td>Raytheon Co</td>
<td>$23,840,000</td>
<td>$1,950,000</td>
<td>$7,350,000</td>
</tr>
<tr>
<td>Lockheed Martin</td>
<td>$17,900,000</td>
<td>$2,252,750</td>
<td>$13,733,782</td>
</tr>
<tr>
<td>ManTech International</td>
<td>$16,800,000</td>
<td>$145,400</td>
<td>$120,000</td>
</tr>
<tr>
<td>L-3 Communications</td>
<td>$15,840,000</td>
<td>$451,300</td>
<td>$5,493,000</td>
</tr>
<tr>
<td>Honeywell International</td>
<td>$14,000,000</td>
<td>$3,806,700</td>
<td>$7,092,000</td>
</tr>
<tr>
<td>National Rural Water Assn</td>
<td>$13,000,000</td>
<td>$113,000</td>
<td>$679,916</td>
</tr>
<tr>
<td>SAIC Inc</td>
<td>$12,500,000</td>
<td>$734,500</td>
<td>$3,810,000</td>
</tr>
</tbody>
</table>

The large majority of defense industries on the list are important, as recent research has shown that there is in fact a strong link between campaign contributions from the plutocracy
and Congressional earmarks. Examining PAC contributions from defense industry plutocrats to members in the 111th Congress, political scientists Michael Rocca and Stacy Gordon (2013) find that there is a spiraling cycle of influence and rewards, as corporate PACs contribute to MCs campaigns and MCs reward them with earmarks in order to attract more contributions in future reelection bids. As they conclude, “this relationship between contributions and earmarks suggests that representation is skewed toward those with resources.” (251). Most MCs see earmarks as a form of job security, as it allows them to funnel money to both potential plutocratic campaign contributors as well as key projects in their district which could attract more votes in upcoming elections. The potential to use this tool as a means of gaining and maintaining power was embraced to new heights by Newt Gingrich, the Republican leader who became Speaker of the House in 1992, when he led the GOP to victory as they became the majority party for the first time in nearly forty years. Republican House Majority Leader Tom Delay, massively increased the use of earmarks as a way to punish or reward Republican MCs depending on whether they voted in the best interests of the party and of the plutocracy. Since the new Republican majority seized on the financial and electoral opportunities provided by earmarks to further cement the power of the plutocracy, Democrats have climbed on board as well, propelling the use of earmarks throughout the 1990s and 2000s. They reached an all-time high in 2010, with 11,320 earmarks worth $32 billion.

As the practice of earmarks basically allowed MCs to use a portion of the federal budget like an ATM, it was only a matter of time before it rose to the level of egregious overuse and outright corruption. And in the 00s, this is precisely what occurred. Congressman Randy Duke Cunningham (R-CA) for instance, was convicted and sentenced to seven years in prison for directing hundreds of millions of dollars in earmarks to defense contractors in exchange for lucrative real estate deals, a yacht and other financial perks. In addition to using earmarks to attract more campaign contributions, MCs have also used them for more direct financial gain.
In 2006, for instance, House Speaker Hastert (R-IL) reaped a $2 million profit on a land sale that happened to be nearby a highway project that he helped finance through earmarks. By far, the biggest scandal of the aughts involved super lobbyist Jack Abramoff. Beginning in the mid-1990s, Abramoff would lavish upon Republican MCs access to private jets, expensive meals at his restaurant, overseas golf junkets and the best seats at Washington Redskins games. In exchange, he would get a number of MCs to include earmarks that would financially benefit his wealthy clients. This direct exchange of financial benefits and Congressional action on things like earmarks is, in fact, illegal. Occasionally, when these practices become so commonplace and out in the open in Washington, an investigation may be triggered. Abramoff, Congressman Bob Ney (R), and dozens of others involved with the Abramoff lobbying machine, including Republican Congressional staff, as well as staff from the Bush Whitehouse, were charged and convicted of various crimes. Abramoff, Ney and others even served short times in prison.

What followed from these scandals is a good example of what can happened when ordinary citizens organizing in groups “expand the conflict” so that their fellow citizens, the media and most importantly MCs, finally come around to realizing that changes are needed to blunt the power of the plutocracy, if only a little bit at a time. Two Public Interest Groups - Taxpayers for Common Sense and Citizens Against Government Waste worked for decades to publicize the unfairness, waste and corruption that came from allowing MCs to use earmarks as their personal ATM. Their actions as well as the excesses of the scandals, forced Congress to reform the use earmarks beginning in 2011. While the reforms certainly reduced the use of high profile use of earmarks, Congressional plutocrats have done what they often do – moved the practice behind closed doors, so that the public has much less access to information that would reveal the source and recipients of MCs who direct funds to certain projects. In 2012, for instance, the Washington Post, investigating the financial disclosure records of the 112th
Congress found that 33 MCs had directed over $300 million in earmarks and other spending provisions to various public projects that happened to be where the MCs own property. Another 16 members directed funding to companies, colleges and community groups where their spouses, children and parents worked as salaried employees, lobbyists or board members.

Whether MCs use earmarks to reward contributing plutocrats or whether they use them to gain personal financial benefits for themselves or for family members, it is hard to think of “allocative representation” as bolstering the case for America as a representative democracy.

Descriptive Representation

Returning to Adams’ hope of a legislative body that looks thinks and feels like the public it represents, when it comes to economic class, Congress has been stuck in a time warp quite similar to the earliest Congresses in 18th Century America. As indicated earlier, the vast majority of today’s Congress comes from upper class professions dominated by the plutocracy. This is important, as the notion of descriptive representation contends that when elected representatives share personal characteristics and backgrounds with those who elected them, stronger and more dynamic representation should occur. While a good deal of progress has been made over the past few decades, with the increase of women and people of color serving in Congress, the lack of working class people who get elected to Congress causes political scientist Nicholas Carnes to deem it America’s “White –Collar Government.”

Looking at the occupational backgrounds held by MCs before they were elected to Congress, we can see from the chart how women and racial minorities made significant gains beginning in the 1960s, while blue collar workers never made up more than 2% of all MCs.

The fact is that for the 61% of Americans who work in “blue-collar” jobs, Congress has never come close to looking like them. The vast majority of people serving in Congress come from backgrounds that place them firmly within the plutocracy. Looking at 783 MCs who
served between 1999 and 2008, Carnes finds that a mere 13 of them (4 Republicans and 9 Democrats) had pre-Congressional careers that involved some degree of blue collar work, while the majority came from the business sector, the legal sector and from other elected offices (usually state legislator). The most recent Congress is no more representative of the working class as business and law are by far, the dominant occupational backgrounds for the members of the 113th Congress. Perhaps some people think that this does not matter very much. After all why should it matter that people from a working class background almost never have “one of their own” representing them in Congress? In order to fully understand why this does matter, we need to move beyond “descriptive representation” and toward a higher order of representation - referred to as substantive representation. If there is no link between MCs economic backgrounds and how they vote on the substantive economic policies that impact the public (see the list of policies in Appendix), then the lack of working class backgrounds in Congress shouldn’t matter. It turns out, however, that their economic backgrounds do matter. Just as ordinary citizens from different economic backgrounds behave differently and have differing views on economic policies, so too do MCs. The key here is that MCs have the power to act on these differences in a way that affects everyone else – through the process of making laws. For instance, when they vote in favor of legislation that benefits the wealthy at the expense of everyone else (such as regressive tax laws), they significantly impact the tremendous growth in income inequality that has occurred over the past few decades. As Carnes finds, “the shortage of people from the working class in American legislatures skews the policy-making process toward outcomes that are more in line with the upper class’s economic interests.” Moreover, the White Collar government also operates through the 2nd Face of Power, as Carnes finds that among the handful of working class MCs in Congress who do try to represent their working class constituents, most of the time their voices are simply drowned out and their ideas for passing policies that benefit this majority sector of America are suppressed by various
Congressional procedures and roadblocks put in place by the Congressional leaders who lead the white collar government.

**Substantive Representation**

As mentioned above, the most important form of representation concerns the connection between the policies that are most desired by most of the people and whether or not Congress actually passes these sorts of policies. When it comes to the economic policies, this connection is extremely weak. Although most of us have had a sneaking suspicion that, for many years, Congress has been more responsive to the interests of the plutocracy, most political scientists have, until quite recently, been unable to substantiate these claims through empirical research. As with many other areas of the American politics that are under the spell of pluralism, most researchers have gone to great lengths to find a connection that simply has not been there for some time. Beginning in the 1960s, Warren Miller and Donald Stokes (1963) looked at something called policy congruence, which is when through public opinion surveys and Congressional roll call voting, researchers measure how closely MCs votes reflect the public opinion of their district. Setting the stage for the pluralistic paradigm that would grip the discipline for decades, they found that this sort of representation was a mixed bag, as policy congruence existed on some issues but not on others. For the next few decades, research continued to confirm some variation of these findings, reflecting and reinforcing the idea that at least on some issues, Congress reflects the interests of most people; which for most seemed to be good enough for Congress to be considered a key facet of America’s representative democracy. Stunningly, it has only been very recently that political scientists have found a nearly complete lack of policy responsiveness when it comes to Congress’ representation of the 90%.
Two researchers have led the way – Martin Gilens and Larry Bartels. In his landmark study, Unequal Democracy, Larry Bartels found that throughout the 1980s and 1990s, U.S. Senators virtually ignored the opinions of the lowest one third of the income distribution, and voted in favor of legislation that reflected the interests of more affluent voters. Measuring senators’ policy responsiveness to three income groups, he concludes that, especially on economic issues, such as votes to increase the minimum wage, the opinions of the plutocracy matter most. Among Republican Senators, the gap between high income constituents and everybody else is incredibly large. While Senators pay at least some attention to the middle income Americans, the most astounding finding is that Senators from both parties completely ignore the opinions of Americans from the lowest income group – nearly one third of the entire population.

It is not only the Senate where substantive representation doesn’t appear to exist, but in the House of Representatives as well – a body which was believed to have such a close connection to the public that it was often referred to as “the people’s House.” Looking at the period throughout the 1980s and 1990s, Gilens looked compared hundreds of surveys measuring public opinion with actual policy changes that occurred during that period as a result of Congressional action including policies passed by both the Senate and the House. His findings are stark, as he writes that “The American government does respond to the public’s preferences, but that responsiveness is strongly tilted toward the most affluent citizens. Indeed, under most circumstances, the preferences of the vast majority of Americans appear to have essentially no impact on which policies the government does or does not adopt.” He finds that Congress does respond to a minority of Americans – the plutocracy. Occasionally, the views of the 90% and the policies passed by Congress are somewhat in sync. Apparently, during election time, MCs suddenly realize that they would like to keep their jobs, and therefore move policies in a direction that reflects the wishes of all Americans including middle and lower classes\(^43\).
They know that most of the time, where there is not an upcoming election, most Americans, particularly middle and lower income voters, are simply not paying much attention to what goes on in Washington. For the plutocrats in Congress, it almost seems quite logical for them to only pay attention to the desires of their fellow plutocratic citizens, as they are the ones who will fund their reelection campaigns and they alone seem to be concerned as to whether or not they are being substantively represented. While for everyone else, beneficial policy changes that occur only around election time seems to be enough to convince at least some portion of the 90% to be satisfied with the current level of representation.
References

1 Beard, Charles. 1912. *An Economic Interpretation of the Constitution of the United States.*
3 In his later writings, Madison appears to have a change of heart as he realizes that minority factions are more of threat to democracy. See Dahl, Robert. 2005. “Madison: Republican or Democrat?” *Perspectives on Politics.* Vol. 3, No. 3 (Sep., 2005), pp. 439-448
4 Federalist Papers #10
5 Ibid
6 Madison’s use of this term refers to his extreme distaste for political campaigning by Congressional candidates running for office – yet another instance where the Founders could not imagine how central these “viscous arts” would become in modern American politics.
7 Although we define the plutocracy rather broadly to include corporations, wealthy individuals (the top 10% and especially the 1% subset of that population) and Winter’s (2011) “Income Defense Professionals”, much of the focus here is on the corporate sector of the plutocracy, as they are the ones who are by far the most active in campaign finance and lobbying Congress.
8 The remaining 34% is unlikely to have any direct impact on the relative fortunes of the plutocracy. The green slice indicating 16% is made up “of a diverse crowd of organizations that are primarily partisan or focus on a single-issue area such as abortion, the environment, gun rights or foreign policy. Many of these groups -- the National Rifle Association, EMILY’s List -- are well known and capable of launching high-profile media campaigns to mobilize their members. Campaign contributions from this sector have exponentially increased during the past two decades -- by a factor of more than 30. During the 1990 election cycle, contributions from individuals and political action committees associated with single-issue groups totaled $27.6 million. By the 2008 election cycle, the total was $304.8 million. One reason for this dramatic increase is the proliferation of leadership PACs -- political action committees associated with a politician that contributes to other like-minded candidates. ” The red slice, indicating 6% is comprised of a variety of law and lobbying firms, some of whom represent Democratic and liberal issues, while some represent Republican ones. Finally, the “Other” category includes a variety of unknown and nonideological sources.
10 Ibid
12 In the 2012 election, self-contributions and loans made up about 12% of all funding sources for challenger and open seat candidates running for election in the House and about 28% for similar Senatorial candidates. (Campaign Finance Institute, Table 3-8, Campaign Funding Sources” House and Senate Major Party General Election, 1984-2012).
13 Table 3-8 Campaign Funding Sources: House and Senate Major Party General Election Candidates, 1984-2012
14 In fact, in the 2014 elections, a mere .23% of the U.S. population were responsible for 67% of total contributions to candidates (each contributions was over $200).
$2500, the maximum amount that an individual can contribute to a single candidate is about .35% of the annual average salary of a plutocrat in the top 1%. In Buckley v. Valeo, the Court indicated that the primary purpose of created FECA was to prevent this type of bribe or quid pro quo (Latin for “something for something”).


Ibid. Based on Drutman's interviews with 31 companies covering 53 issues. He lists 21 tactics and asked lobbyists to rate them on a scale of 1 to 7. Included here are the top 7 rated tactics.

Drutman, 96

Fang, Lee. 2014. Where Have All the Lobbyists Gone? The Nation. February 19.

One can consider many MCs as part of the plutocracy at four levels. First, as indicated here, many of those entering Congress come from backgrounds of financial privilege. Second once in office, they work to legislate in the interests of the plutocracy. Third, while in office, they are actually able to use their campaign funds for various luxuries including expensive dinners and first class travel (See Sherman, Jake and Anna Palmer. Scarves, BMWs, Admirals Clubs: Congress' petty cash problem. It's not just Aaron Schock. Politico.5/1/15 http://www.politico.com/story/2015/05/Congress-campaign-finance-ethics-slush-fund-117541.html#ixzz3YttQQxL0. Finally, many MCs have a lucrative lobbying job waiting for them when they leave Congress, where they can often earn many times what they earned as a MC.


Research indicates that earmarks have a small impact on the electoral fortunes of vulnerable incumbents, though most of the public seem to be completely unaware of their Representative’s role in acquiring funding for various pork projects in their district. (Robert M. Stein and Kenneth N. Bickers. 1994. Congressional Elections and the Pork Barrel. The Journal of Politics, Vol. 56, No. 2 (May, 1994), pp. 377-399

The Center for Public Integrity


It should be noted that the largest category indicates “public service/politics.” The great majority of MCs identifying with this category are likely to have served in their state legislatures (where there is also a significant White collar bias in occupational background) before being elected to Congress.

Carnes 2012.


Specifically Gilens looks at the presidential elections which occurs every four years and includes the election of the president as well as many members of Congress.

Effects of Empowerment on Innovation in Organizations*

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ABSTRACT

Organizational environment that will support the innovation is needed for the realization of organizational innovation and for ensuring sustainability. Therefore, innovation is directly associated with the empowerment of the employee who will perform the innovation. Hence, the purpose of this study is to determine the effect of employee empowerment on organizational innovation. This research designed in line with this purpose was carried out on 419 employees of businesses operating in tourism hotel management sector in the city of Erzurum.

According to the findings of the research, employee empowerment positively affects process innovation, market innovation, strategy innovation and product innovation.

Keywords: Product Innovation, Market Innovation, Process Innovation, Strategy Innovation, Empowerment

* This study was derived from the doctoral dissertation published in Ataturk University, Institute of Social Sciences.

Introduction

The importance of human resource for organization increased with globalization, when global customers and global workers became the matter of discussion. Organizations now are aware of productivity and more importantly the advantage of sustainable competition provided by human resources. For this reason the human resources department exists, to provide job descriptions for morale and motivation and to position the right people in the right jobs,
monitor performance indicators, and to prepare training and development programs for employees. The concept of employee empowerment emerged as a result of the importance of human resources for organizations. In fact, when the literature is examined, although the application of employee empowerment existed before the Industrial Revolution, it can be said that it became more clear with globalization. The concept of employee empowerment can be defined as the identification of elements that reduce superiority in organizations and the process of helping organizational members to gain self confidence by eliminating these elements (Conger & Kanungo, 1988; 478). The fact that today’s organizations go beyond the modern structure of organization increases the importance of intellectual investment that workers have. Because of the preference for more educated, more knowledgable workers, the importance of human resources that can search, find and process knowledge has increased. Basically, employee empowerment application aims to create workers that have these characteristics. However, for employee empowerment applications to be successful, a work environment should be provided to workers where there is innovation, open communication and trust, where they are allowed to participate in decision making, they are given certain responsibilities and performance evaluations are performed objectively. When all these conditions exist, employee productivity, management efficiency, and as a result of these, the organization’s overall productivity will increase and it will be able to respond to the demands of its environment faster.

In the ever changing and developing world, organizations should keep up with this change and development and they should even be the initiators because the first step to gain sustainable competitive advantage is to respond to the environment quickly and correctly. That’s why organizations should make innovations and put it on the market at the right time as a response to change. Being able to innovate, now, became a necessity for organizations. Organizations provide many benefits with their innovative activities. These benefits include economic and social benefits, effectiveness, productivity, and having a competitive advantage.
Organizations can perform innovative activities in many fields including products, marketing, process, strategy etc. The important thing is to make innovation continuous. Innovation should be considered, advanced and managed as a process in alignment with defined goals. Important issues to be careful about in continuity of innovation include, the innovation to be aligned with needs, the possibility of innovative ideas to be performed and supplying resources, choosing the right innovation strategy and creating an environment that encourages workers to innovate.

Because innovation is critically important for organizations, researchers did detailed research on this subject, and many researchers, in their own fields, tried to reveal what affects innovation. However, research shows that innovation is not only manifested technically through engineering or research and development activities and even when these departments produce potentially innovative ideas, they are not commercialized.

The study done by Price (2007, 2007;320) shows that many organizations can do innovations by increasing their research and development efforts. Although this is a very common idea in terms of organizations, Wunker and Pohle (Wunker & pohle, 2007;25) showed in their study that Apple, one of the most innovative companies in the market, has a budget of research and development that is below average. O’Regan et al. (O’Regan et al., 2006; 251) showed that innovation is beyond an expenditure and stated that the main ways to handle challenges of innovation are strategy, leadership and culture. In other words, research and development costs and efforts for innovation are not sufficient alone. In addition to these activities, an organizational culture that supports innovation and creativity is needed. Employee empowerment plays an important part with aspects of training, being a part of decision making, and in creating such a culture. Training, responsibility, being able to take risks, being involved in decision making, being able to organize as a team and sharing necessary information with employees are within the subject of employee empowerment. In fact, supporting a cultural structure that is appropriate for innovation, with employee empowerment, will increase the
success of innovational activities. Therefore, this study aims to show the positive effects of employee empowerment on innovation.

Views and findings in literature emphasize the positive effect of employee empowerment on innovation. For instance, Keeny and Reedy (2007) showed in their research that employee empowerment has positive effects on all innovation types (Breda and Eileen, 2006). Panuwatwanich et al. (2008) identified that employee empowerment has positive effects on innovation outcomes in studies conducted in engineering and architecture organizations.

Wan et al. (2000) stated in a study they conducted in Singapore, that decentralization that ensures employee empowerment positively affects all types of innovation. Employee empowerment accelerates the innovation process and encourages employees to innovate (Akgemci, 2007). In a study conducted in top 500 companies in Turkey published by Istanbul Chamber of Industry by Cavus and Akgemci (2008), a significant relation is shown between employee empowerment and innovativeness, and employee empowerment can explain 47.8% of innovativeness relatively.

Ogut et al. (2007) conducted a study in 74 five-star hotels in the city of Antalya to examine the relationships between employee empowerment and innovation. The study showed that an empowered culture becomes a flexible and participatory network, and allows organizations to embrace innovation faster.

Research Method

The population of this study consists of 10 hotels located within the ministration region of Erzurum Provincial Directorate of Culture and Tourism as of September 2014, that are namely star-hotels and have tourism operation license. The city of Erzurum is one of the well-developed cities of the Eastern Anatolia Region that has historical structures and directs the region’s commerce. Also, having tourism centers with the world’s leading ski-runs and having hosted the 25th World University Winter Games 2011 (Universiade), Erzurum attracted tourists. For
these reasons, city lodging and vacation lodging developed and still continue to develop. Hotels in Erzurum try to match the world standards in terms of physical facilities as well as providing innovations to attract more tourists to the region. Therefore, this study addressing employee empowerment and innovation is conducted on hotels that serve in a city of Turkey that is open to innovation. Data were collected from hotel employees. The total number of employees is 548 in the aforementioned 10 hotels. The sample size selected from this population within 95% confidence limits with 5% error margin prediction is determined as 419. When determining the sampling size, one of the random sampling techniques, the stratified sampling method is used. The reason for selecting this method is that the representation of the sample is strengthened with each hotel participating in the study at the rate of its own number of employees.

The scale which consists of 5 items to measure the level of employee empowerment is taken from Cacioppo’s study (2006). The reason for using this scale in this study conducted on hotel employees is that Cacioppo (2006) used this scale in Burswood Resort Hotel. Therefore, the statements in the scale are suitable to measure employee empowerment in the tourism sector.

The scale consisting of 24 items in order to measure innovation is taken from the study conducted by Vila and Kuster adapted from Henard and Szymanski’s study. This scale addresses organizational innovation in four dimensions within itself. These dimensions are: product innovation, strategy innovation, process innovation and market innovation. There are 4 statements for product innovation, 3 statements for strategic innovation, 10 statements for process innovation, and 3 statements for market innovation in the scale.

**Conclusion**

This study examined the effect of employee empowerment on innovation level. Explanatory factor analysis was applied to variables in the model, and the coefficients of correlation, mean and standard deviation values and coefficients of internal consistency were calculated. SPSS 21 packet program was used in the analysis.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Employee Empowerment</td>
<td>3.80</td>
<td>4.598</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Process Innovation</td>
<td>3.91</td>
<td>8.036</td>
<td>.713**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Market Innovation</td>
<td>3.97</td>
<td>2.659</td>
<td>.578**</td>
<td>.564**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Product Innovation</td>
<td>2.90</td>
<td>2.822</td>
<td>.535**</td>
<td>.599**</td>
<td>.436**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Strategy Innovation</td>
<td>5.19</td>
<td>3.462</td>
<td>.614**</td>
<td>.630**</td>
<td>.524**</td>
<td>.472**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6 Total Innovation</td>
<td>3.91</td>
<td>14.261</td>
<td>.765**</td>
<td>.940**</td>
<td>.718**</td>
<td>.731**</td>
<td>.789**</td>
<td>1</td>
</tr>
</tbody>
</table>

As the correlation table shows, there is a strong relationship between employee empowerment and all kinds of innovation. Additionally, regression analysis showed that employee empowerment positively affects market innovation, product innovation, strategy innovation, and process innovation.

Results of this study provide clues about training organization’s employees or potential employees, giving more authority to employees and helping employees to increase their organization’s innovation by developing new ideas. All organizations seeking to innovate, academic and commercial establishments offering management education can benefit from these results. Also, these results can be used in shaping public policies in innovation and designing educational programs.

Employee empowerment is identified as an important element that affects innovation. Such that, it plays a role where it decreases the negative effect of hierarchy culture that negatively affects innovation. Starting from this point, organizations should turn into decentralized structures where employees can take part in decision making. Also, employees should be trained continuously to prevent mistakes during decision making. A team-work based environment should be created for employees to be able to share risks, and innovations should be rewarded. Academic establishments and consultants should provide training to and
encourage organizations on how to incorporate employee empowerment into their organizational cultures. Considering the fact that innovation and innovation based production will accelerate development, governments need to create employee empowerment trainings for organizations and should provide incentives to organizations that implement this practice.

Academic establishments and organizations that try to reveal innovation through perspectives of different disciplines act with the awareness that innovation is not possible only with engineering activities should provide internship opportunities for their students and employees in global organizations where they will have a chance to learn employee empowerment. Within this context, working for a few months especially in organizations in developed countries would benefit managers, employees and future potential employees greatly. Governments should make international agreements to make these transitions easier, while also providing some financial support.
References


Strategic Thought and Learning Orientation*

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ABSTRACT
The main objective of this manuscript is to explain the relationship between strategic thought and learning orientation. In this context, the main components of strategic thought are determined; elements of strategic thinking process and the components of learning orientation are explained. In this study, the data were gathered by survey technique (face to face) from 260 business managers who are registered to KOBİNET in Ankara province. The effect of strategic thought on learning orientation is theoretically explained. The research hypothesis and the proposed model of the thesis are tested by structural equation model. Findings confirm the validity of the model, thus strategic thought affects learning orientation.

Key words: Strategic thought, learning orientation

* This study was derived from the doctoral dissertation published in Ataturk University, Institute of Social Sciences which is prepared by M.Kursat Timuroglu, Strategic Thought, Learning Orientation and Innovation

I. Introduction
While businesses and employees continue their activities, they face with environmental changes, as a result of this they face with many complexities. Thinking; in order to understand the current situation. Thinking is an active and purposive progress that represents a mental
process in order to understand the current situation. Strategic thinking ability interprets and explains the environmental clues so that prevents such complexities. The most important output of strategic thinking is strategic thought. When developing the strategy, there is a need for the analysis phase of the planning process and strategic thinking. When analyzing the environment on the one hand, on the other hand, it is thought about business transactions that may occur as a result of this analysis. In this way, strategic thought is distinguished from the plan development and execution processes. According to Mintzberg, Ahlstrand and Lampel, who pioneered the development process on a new approach, strategic thought enables to understand the course of activity formats within the business strategy (Goldman, 2008: 217-239). In general, strategic thinking means; thinking about the way a business or organization, or structure can be expressed in the form of it. Since the strategic plan is one the highest level of management or senior executives’ activity, strategic thought is vital for businesses.

Learning is one of the most important skill for global business that enables them to reach their corporate and collective targets. Nowadays, the ability to have a faster learning and change from its competitors is the basis of sustainable competition. As a result, today’s organizations have begun to act learning oriented inevitably to remain in the market and to succeed in the competition. With learning, new knowledge, skills and behaviors that are being won; and this allows both business and personal life’s more efficient to work. Learning orientation is a set of organizational values which defined as the ability to creation, dissemination and use of knowledge. Learning orientation effects on which information needs to be collected and how it will be interpreted, evaluated and shared (Calantone, 2002: 515-524). Learning-oriented organizations are in a constant quest for how people and organizations can learn together. Global competition and rapid technological developments have become an extremely important issue in terms of learning for businesses to reshape and manage their futures.

II. Strategic Thought

In the management literature, the concept of strategy has gained importance towards the end of the 20th century. In 1938, Chester Barnard has made a scientific study of individual manager's
role in the organization strategy (Jerkins, 2007: 1). His work, in terms of handling organization as a whole, is still impacts on the literature. In 1945, Herbert A. Simon, Philip Selznick in 1957 and Michel Crozier in 1963 explained that they discovered strategy as main tool for managers who is keeping the balance of organizations (Hafsi ve Thomas, 2005: 507-519).

When reviewing the strategy literature, strategic thought can be seen both narrow and broadly defined. Prompted to make a narrow-scoped definition; productive, creative and united thought process has been highlighted. Major issues such as the mission and vision of the company, are the focus of the strategist. A comprehensive definition of strategic thought tries to combine the rational and analytical processes with productive, creative and unified processes. From this perspective, strategic thought is a particular method, which is combining rational and productive thought process and solving strategic problems in the individual and corporate levels (O’Shannassy, 2003: 55). Strategic thought is learning oriented instead of focusing on actions, targeting efficiency instead of effectiveness and targeting long-term rather than mid-term and conceptual (theoretical) thoughts; these dimensions separated strategic thought from operational thought (Goldman, 2005: 22). Strategic thought comprise the past, present and the future (Liedtka, 1998: 120-129). The aim is by subtracting from the past lessons provide information’s about the future for industries and organization that directly affect by dynamic, turbulent and uncertain environmental conditions.

Bonn defines strategic thought as creative and diverse set of rational thought processes and solving strategic problems by combining convergent approach. At this point the focus should concentrate on how strategic transactions occur within the context of the organizations strategic environment, which is in high competition, complex, uncertain. According to Bonn, strategic thought consist of “systems thinking, creativity and vision” (Bonn, 2005: 336-354).

**Systems Thinking:** The organization in term of strategic thought is not considered as competing for resources and a fragmented structure as part of people who are independent from
each other but seen as a holistic system that relates to whole (Kaufman, 1992: 69). This idea requires individuals get away from their daily operational issues, to understand how different problems and topics relates to each other, to see how they affect each other and to have the ability to understand how a solution belongs to a particular issue can affect the other particular issues.

**Creativity:** Strategy is about developing new solutions to create a competitive advantage. Strategic-minded people try to find new approaches and methods for making things better; so they must be creative. It is very important to imagine alternative ways and see if there is an alternative way to complete things and also to develop unique strategies and action plans.

**Vision:** Vision provides a focus for all activities in the organization and gives a sense of direction. A shared vision encourages loyalty instead of obedience and lead to a common understanding that permeate the entire organization. Vision, stimulates the imagination and expertise of the people and allow them to use it to the best of their ability.

### III. Learning Orientation

In the field of pedagogics, learning is defined as the process of gaining knowledge and experience (Knowles, 1998: 124). In the field of behavioral psychology, learning defined as a concept which is establishes a link between environmental changes and behavior that causes change behavior through reinforcement. In cognitive psychology learning, knowledge acquisition is one of the important subjects in terms of the role of mental processes (Schwartz & Reisberg, 1991: 2-20). The organization science defines learning as a process that error detection and correction occurs (Argyris, 1977: 115-125). In the field of organizational behavior learning defined as a permanent change in behavior as a result of experiences (Rollinson & Broadfield, 2002: 172).
Learning orientation refers creation and usage of knowledge in all activities of the company to ensure competitive advantage. This knowledge is consist of customer needs, changes in market and competitor activities (Zehir & Eren, 2007: 170). Learning orientation is defined as a set of organizational value that covers knowledge creation, dissemination and the ability to use this knowledge. These dimensions effect on what kind of knowledge should be collected and how that knowledge should be reviewed and shared (Calantone, 2002: 516). Learning orientation effects organization’s attitude towards learning thus reduces the impact of diversity between employees so that causes the increase of cooperation (Mehta, 2006: 1095).

IV. Application

A. Developing Hypotheses

In the late 1990s, the importance of strategic thought as well as strategic management has been recognized by the global business community, which is characterized by intense competition battle. The studies during this period led to the emergence of the dimensions of strategic thought.

Jeanne M. Liedtka published an article in 1998, "Strategic Thinking: Can it be taught?", based on Mintzberg; system views, intentions orientation, thinking on time, hypothesis orientation and opportunism is stated as basic elements of strategic thinking. The aforementioned study of strategic thinking is defined as a special form of thinking and taken up from an individual perspective.

Ellen F. Goldman have moved a step further Liedtka’s (1998) opinions and in her “Strategic Thinking At the Top (2007)” and “The Power of Work Experiences: Characteristics Critical to Developing Expertise in Strategic Thinking (2008)” articles. She argued that strategic thinking consist of four components: Conceptualism, system orientation, directing and opportunity orientation.
John Pisapia et al. (2005) in their "Developing the Leader's Strategic Mindset: Establishing the Measures" study while dealing with strategic thought they both focused on the functioning of the mental process and the necessary elements for leaders who needs to have the ability of strategic thinking are systems thought, reframing and reflecting.

Bonn has published his second article in 2005 named “Improving strategic thinking: a multilevel approach” in regards to strategic thought. In this article, strategic thought have been examined at different levels (individual, group and organization). He explained the term of strategic thought with his analysis on individual, group and organizational levels. While analyzing the strategic thought on organizational level, he focused on high-level managers and examined the organizational structure, reward and remuneration systems. By focusing on how strategic thought occurs in the context of complex, uncertain and high competition environment, Bonn argued that strategic thought consists of these elements; "systems thinking, creativity and vision" (Bonn, 2005: 336-354). Bonn’s organizational approach on strategic thought is different from Leidtka, Goldman and Pisapia’s opinions since they took an individual approach on strategic thought. Based on this opinion the following hypothesis was developed.

$H_1$: Strategic thought is comprised of three sub-dimensions.

$H_{1-1}$: Systems thinking is a sub-dimension of strategic thought

$H_{1-2}$: Creativity is a sub-dimension of strategic thought.

$H_{1-3}$: Vision is a sub-dimension of strategic thought.

The impact of strategic thought on learning orientation is one of the main hypothesis of our study. When the literature is examined, it is noteworthy that the researches on strategic thought and learning have been happening since 1980’s. Ted Michael Kahn prepared a doctoral thesis in 1981 on how to use the strategic thought and he explained how it can be used in simple and complex tasks. At this point Kahn mentioned that some tasks require strategic thinking ability
thus the individuals who handle these tasks have problem solving skills and having these skills impact on learning positively (Kahn, 1981: 1-23).

In his doctoral thesis, named "The Strategic Knowledge Indicator", Stacie LL Morgan (1998), emphasizes on strategic knowledge structure and dimensions and he indicates that strategic thought is a developed tool that creates questions about the future. According to Morgan, strategic thought creates value by keeping the company together; in this regard, creations of value defines as learning the demands and needs of customers and produce the required products and services. He highlighted that the business which are dominated by strategic thought are able to use information systems to understand the environmental uncertainty, open-minded to determine which organizational skills are needed to ensure future competitive advantage, also emphasized that adopting a proactive approach on learning (Morgan, 1998: 31-45).

When the literature is examined whether the dimensions of strategic thought have an impact on learning orientation, especially the studies argue that systems thinking have an impact on learning orientation are affect attention. The studies suggest that systems thinking is associated with learning orientation are refer to Peter Senge’s "The Fifth Discipline" study. Systems thinking is the cornerstone of Peter Senge's approach. Systems thinking is a discipline which mixes the other learning disciplines with each other for a consistent theory and combines them as a whole. Therefore, Senge has stated systems thinking as “the fifth discipline” (Senge, 2006: 20). Systems thinking impact on learning orientation by providing the ability of how holistic thinking patterns and interrelationships effect each other within the business (Pisapia, 2005: 41-68). Carol Lynne Brooks Simoneau’s (2007) doctoral study, (Simoneau, 2007: 29) with Rosane Pagano ve Alberto Paucar-Caceres’s (2008) “Elicitation Methods of Organisational Knowledge: From the Individual to the Collective Through an Integrative
Approach” article have mentioned that systems thinking have impact on both individual and organizational learning levels (Pagano & Caceres, 2008: 323-337).

According to management literature, one of the dimensions of strategic thought, vision refers to the place where you want to achieve in the future (Wheelen & Hunger, 2010: 65). In his "The Fifth Discipline" work, Senge wanted to express the power of seeing far with the word vision. However, this seeing, a vision of the process is not seen by the eye, but the power of the mind, experience, and intuition to see through. Vision gives a sense of business direction and provides a focus for all activities in the enterprise. A shared vision encourage loyalty instead of obedience and leads to a common understanding that permeates the entire company. Additionally vision stimulates the imagination of people and provides a focus that allows them to use their ability and expertise in the best way. Senge has stated that shared vision has a vital importance for learning organizations since vision provides the focus and energy for learning (Senge, 2006: 227).

According to the literature, the impact of creativity dimension on learning orientation has been researched more than systems thinking and vision. Mott (1972) has suggested that competitive businesses are also creative businesses. In his opinion, organizational creativity is a planned replacement of current methods on nature, quality and price arrangement’s which will result in customer satisfaction. Basadur et al. (2002) has stated that creativity can be developed, managed and improved by businesses thereby with the increase of organizational creativity new products and services will be developed, the overall effectiveness will be improved, job satisfaction and customer satisfaction will be ensured and finally more strategic thought will be occurred at all levels of the business (Mostafa & El-Masry, 2008: 83). The studies of Ames and Archer (1988) with Sujan, Weitz, and Kumar (1994) has stated that creativity has an impact on learning orientation (Suh et all. 2010: 217). Based on this opinion the following hypothesis was developed.
**H2:** Strategic thought affects learning orientation.

The research on learning orientation has shown that the subject is consist of three main parts: Commitment to learning, open-mindedness and shared vision (Sinkula, 2006: 687). Commitment to learning, is related to the strategic long-term trend (Calantone, 2002: 516). The businesses where learning commitment is high, managers are expecting from employees to monitor and track information’s from outside within their work hours. If development of knowledge is not supported, employers will not be motivated for learning activities. Open-mindedness is expressed as the evaluation of routine activities and the desire of accepting new ideas. For companies to cope with changing technology and turbulent market conditions open-mindedness is required (Nguyen, 2006: 687). A shared vision highlights a shared image of the future and commitment to that picture (Sadler-Smith, 2006: 224). Shared vision is the answer of “What do we want to create?” question. If people share a vision, they are bound to each other with a common longing. Personal visions get their power from a person who deeply concern about that vision. Shared visions get their power from their collective mind that concern about the vision all together. A Shared vision has a vital importance for learning organizations since vision provides the focus and energy for learning (Senge, 2006: 227). Based on these opinions the following hypothesis was developed.

**H3:** Learning orientation consists of three sub-dimensions.

- **H3-1:** Commitment to learning is a sub-dimension of learning orientation.
- **H3-2:** Open-mindedness is a sub-dimension of learning orientation
- **H3-3:** Shared vision is a sub-dimension of learning orientation.

Based on the given information, the test model of research design is shown below. There are three main components of research design: Strategic thought, learning orientation and innovation.
A. Sample Selection:

The main data of this study has gathered from 2788 business which are registered to “Small and Medium Enterprises Information Network” (SMEIN) which is established under Small and Medium Enterprises Development Organization (SMEDO) located in Ankara.

The aforementioned research data universe is selected from 95% confidence limit with a 5% of predicted error margin and selected sample size is 338. However the possibility of some business managers’ may not answer or make answer errors taken into account and 350 businesses have been identified by applying a random sampling method which give an equal chance to all elements within to get in the sample.

B. Scale development and data collection

The questionnaire used in the study consists of 36 items. The first 6 items measuring the businesses demographic characteristics and the other 30 items are aimed to evaluate strategic thought, learning orientation and innovation. 30 items designed with 5-point Likert scale (1- absolutely agree … 5 - absolutely disagree).

Strategic thought in businesses (systems thinking, creativity and vision) are evaluated with 18 items (7th through 24th). Systems thinking was evaluated by 7 adopted items which
were developed by John Ralph Pisapia, Daniel Reyes-Guerra and Eleni Coukos-Semmel. Creativity was evaluated with 4 items which were developed by Trudy C. DiLiello and Jeffery D. Houghton. Vision was evaluated with 7 items which were developed by Ken Lahti and David Chorpenning.

In order to evaluate the learning orientation of businesses a scale has been used which was developed by Baker and Sinkula. The total of 12 items were adjusted to evaluate the three dimensions of learning orientation; commitment to learning (4 items), shared vision (4 items), and open-mindedness (4 items).

In the study, face-to-face survey method was used to collect the data. Interviewers have reached 350 executives between October 2009 - January 2010 and 260 of them have agreed to answer the questionnaire. The survey return rate was 74 %. However, since many unanswered questions found in seven survey forms, they are not included in the analyzing process. Therefore, 253 questionnaires were subjected to statistical analysis. Data were analyzed by using SPSS 15.0 and LISREL 8.7 statistical software packages.

Reliability that is showing the consistency and durability of the scale reveals the degree to remain independent of error of the measurements made on this scale. The reliability of a measurement could be calculated in various ways but internal consistency method is the most common one. Within this study Cronbach alpha measure was used to calculate the reliability and the result was found over 0.70. In this case, the reliability of used measurement tools are an acceptable level.

After determining that the reliability of the scale used, in order to reveal how the related variables are actually able to measured, convergent and discriminate validity analyzes were conducted. While the survey questions were answered, there were no issues detected in regards to survey items contents. In this research, explanatory factor analysis was used to test the validity analysis. As a result, it was found that the strategic thought and learning orientation
involves three factors separately. These results are consistent with other conceptual knowledge in the literature and empirical study’s findings which also support the validity of the scales that are used.

C .Findings

a. Demographic Findings

Table 1: Information’s About Participant Businesses

<table>
<thead>
<tr>
<th>Subject of business</th>
<th>F</th>
<th>%</th>
<th>Business duration</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction and building materials.</td>
<td>48</td>
<td>19</td>
<td>1-10 years</td>
<td>121</td>
<td>47,8</td>
</tr>
<tr>
<td>Food</td>
<td>3</td>
<td>1,2</td>
<td>11-20 years</td>
<td>74</td>
<td>29,2</td>
</tr>
<tr>
<td>Textiles, garments, fabrics</td>
<td>33</td>
<td>13</td>
<td>21-30 years</td>
<td>34</td>
<td>13,4</td>
</tr>
<tr>
<td>Automotive</td>
<td>8</td>
<td>3,2</td>
<td>31-40 years</td>
<td>13</td>
<td>5,1</td>
</tr>
<tr>
<td>Chemical plastic</td>
<td>13</td>
<td>5,1</td>
<td>More than 41 years</td>
<td>11</td>
<td>4,3</td>
</tr>
<tr>
<td>Electricity and electronics</td>
<td>29</td>
<td>11,5</td>
<td>Number of employees</td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td>Shipping, freight and transport</td>
<td>6</td>
<td>2,4</td>
<td>1-49</td>
<td>216</td>
<td>85,3</td>
</tr>
<tr>
<td>Wood products, furniture</td>
<td>57</td>
<td>22,5</td>
<td>50-99</td>
<td>22</td>
<td>8,7</td>
</tr>
<tr>
<td>Durable goods</td>
<td>17</td>
<td>6,7</td>
<td>100-149</td>
<td>6</td>
<td>2,4</td>
</tr>
<tr>
<td>Machine</td>
<td>3</td>
<td>1,2</td>
<td>250-199</td>
<td>3</td>
<td>1,2</td>
</tr>
<tr>
<td>Other</td>
<td>36</td>
<td>14,2</td>
<td>More than 200</td>
<td>6</td>
<td>2,4</td>
</tr>
<tr>
<td>Annual turnover</td>
<td>F</td>
<td>%</td>
<td>Market structure</td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td>50.000 TL and below</td>
<td>27</td>
<td>10,7</td>
<td>Domestic only</td>
<td>166</td>
<td>65,6</td>
</tr>
<tr>
<td>50.000-250.000 TL</td>
<td>50</td>
<td>19,8</td>
<td>Overseas only</td>
<td>7</td>
<td>2,8</td>
</tr>
<tr>
<td>250.000-500.000 TL</td>
<td>93</td>
<td>36,7</td>
<td>Domestic and overseas</td>
<td>80</td>
<td>31,6</td>
</tr>
<tr>
<td>500.000-1.000.000 TL</td>
<td>49</td>
<td>19,4</td>
<td>Written strategic plan</td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td>1.000.000-5.000.000 TL</td>
<td>24</td>
<td>9,5</td>
<td>available</td>
<td>94</td>
<td>37,2</td>
</tr>
<tr>
<td>5.000.000 TL and above</td>
<td>10</td>
<td>4</td>
<td>unavailable</td>
<td>159</td>
<td>62,8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>253</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
When referring to the table, the majority of surveyed businesses’ main activities are wood products and furniture (22.5%) and the construction and building materials (19 %). The majority of businesses have been operating for 1-10 years (47.8 %). Based upon the table, the majority of the businesses operate only domestically and their annual turnover was between 250,000 – 500,000 TL (36,7 %). Additionally, the majority of the enterprises’ have 1 – 49 employees working (85,3 %) and another majority of the enterprises (62.8 %) do not have a written strategic plan.

b. Factor Analysis of the Strategic Thought and Learning Orientation Scale

Table 2: Factors of Strategic Thought Scale

<table>
<thead>
<tr>
<th>Variables</th>
<th>Factor loadings</th>
<th>Variance Percentage</th>
<th>Eigen values</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1: Systems Thinking</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S2- Our employees can understand how change happens due to environmental factors.</td>
<td>0,859</td>
<td>49,969</td>
<td>8,994</td>
<td>0,793</td>
</tr>
<tr>
<td>S1- Our employees can realize connections and relations between different information’s.</td>
<td>0,844</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S5- The employees who located in the use of an important resource in our business, develop a policy or procedure regarding the use of these resources.</td>
<td>0,749</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S6- Our employees are aware that every job they do affect the company's operations.</td>
<td>0,737</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S7- Our company provides workers to improve their abilities to solve problems if they encounter with.</td>
<td>0,506</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S4-In our business, it is known how different units are able affect the general work-flow</td>
<td>0,481</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S3-While defining any problem in our business, various</td>
<td>0,461</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
factors are considered which could be affecting it (eg, hierarchies, goals, specific roles and formal relations)

<table>
<thead>
<tr>
<th>Factor 2: Creativity</th>
<th>10,328</th>
<th>1,859</th>
<th>0,794</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4- In our company, employees use their creative talents while doing their jobs.</td>
<td>0,793</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C3- Our employees are free to decide how to do their job.</td>
<td>0,746</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2- Our employees are asked to provide ideas for development and innovation in the workplace.</td>
<td>0,698</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C1- Our employees have the opportunity to use their creative talents and abilities at work.</td>
<td>0,644</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor 3: Vision</th>
<th>7,581</th>
<th>1,365</th>
<th>0,939</th>
</tr>
</thead>
<tbody>
<tr>
<td>V3- Our company's vision, provides efficiency to use of business resources.</td>
<td>0,853</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V2- The vision of our business help employees' to better use of their time’s.</td>
<td>0,825</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V1- Our business vision helps employees to do their jobs better.</td>
<td>0,821</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V4- Business employees actively participate in the development of the vision</td>
<td>0,808</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V5- Our company's vision positively effect on the company's productivity.</td>
<td>0,808</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V7- Our employees takes its inspiration from the vision of the business.</td>
<td>0,788</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V6- Our company employees are working to realize the company’s vision.</td>
<td>0,757</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the factor analysis in regards to strategic thought scale are shown in Table 2.

The strategic thought scale are included 18 items that are included in the explanatory factor analysis; there were three factors were obtained that the eigenvalues were greater than 1 and
the items within this factor are consistent with the factors in the literature. The items, which have 0.40 and above factor loading are taken into consideration. These factors explain the 67.878% of total variance. (The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy: 89.5%. Bartlett sphericity test: 2800.772 p <0.000) In addition, alpha coefficients of the used strategic thought scale was determined as 0.914.

**Table 3: Factors of Learning Orientation Scale**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Factor loadings</th>
<th>Variance</th>
<th>Eigen values</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1: Commitment to Learning</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CL4- our business sees learning is as a key element that provides organizational continuity.</td>
<td>0.832</td>
<td></td>
<td>0.894</td>
<td></td>
</tr>
<tr>
<td>CL3-Our company sees employee learning is as an investment, not a cost.</td>
<td>0.831</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CL1- Our learning ability is seen as the key to competitive advantage.</td>
<td>0.830</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CL2-The core value of our business involves learning as a key to progress</td>
<td>0.781</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 2: Shared Vision</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SV3-In our business every employee is responsible for company purposes.</td>
<td>0.865</td>
<td>12.602</td>
<td>1.512</td>
<td>0.724</td>
</tr>
<tr>
<td>SV4- In our business, the employees themselves, are seen as partners in shaping the company.</td>
<td>0.839</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SV2- Vision of the business at all levels, functions and departments are in a complete agreement process.</td>
<td>0.659</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SV1- There is unity of purpose in our business.</td>
<td>0.616</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 3: Open-mindedness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10.311</td>
<td>1.237</td>
<td>0.864</td>
</tr>
<tr>
<td>OM3- Original ideas appear valuable for our business.</td>
<td>0.878</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OM2-Our business has given the high value of open mindedness.</td>
<td>0.853</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OM4- Our employees have encouraged to think comprehensive and innovative.</td>
<td>0.735</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OM1- We do not hesitate to do criticism on shared assumptions about the markets.</td>
<td>0.576</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the factor analysis in regards to strategic thought scale are shown in Table 3. The learning orientation scale are included 12 items that are included in the explanatory factor analysis; there were three factors were obtained that the eigenvalues were greater than 1 and the items within this factor are consistent with the factors in the literature. The items, which have 0.40 and above factor loading are taken into consideration. These factors explain the 67.831 % of total variance (The KMO measure of sampling adequacy: 88 %. Bartlett sphericity test: 1547,264 p <0.000). In addition, alpha coefficients of the used scale was determined as 0.864.

c. Confirmatory Factor Analysis of the Scale of Learning Orientation and the Scale of Strategic Thought (DFA)

In the study, businesses confirmatory factor analysis was conducted to test the suitability of the selected sample sizes that make up the scale used to determine whether the businesses have strategic thought. Strategic thought scale has three dimensions: Systems thinking, creativity and vision. The variables of systems thinking are coded as S1, S2, S3, S4, S5, S6, S7; the variables of creativity are coded as C1, C2, C3, C4; and the variables of vision are coded as V1, V2, V3, V4, V5, V6, V7. The dimensions of the scale are subjected to confirmatory factor analysis separately.
According to the results of the confirmatory factor analysis, from 7 variables, which belongs to the model of systems thinking, AGFI (0.70), NFI (0.77), GFI (0.85), Chi-square / df (7.5) are not an acceptable level for model compatibility. Therefore, the suggested statistical modifications are made and 3 variables (S1, S3, S6) have to be eliminated.

According to the results of the confirmatory factor analysis, from 4 variables, which belongs to the model of creativity, AGFI (0.52), NFI (0.84), GFI (0.90), Chi-square / df (18,12) are not an acceptable level for model compatibility. Therefore, the suggested statistical modifications are made and only one variable (C2) has to be eliminated. The obtained NFI, CFI, GFI and AGFI values after modification are at perfect level.

According to the results of the confirmatory factor analysis, from 7 variables, which belongs to the model of vision, AGFI (0.70), NFI (0.77), GFI (0.85), Chi-square / df (7.5) are not an acceptable level for model compatibility. Therefore, the suggested statistical modifications are made and two variables (V2 and V6) have to be eliminated.

**Table 4.** Consistency Values of Strategic Thought Scale

<table>
<thead>
<tr>
<th>Indexes</th>
<th>Values</th>
<th>Acceptable consistency values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STRATEGIC THOUGHT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi-square (X²)</td>
<td>62.49</td>
<td></td>
</tr>
<tr>
<td>Degree of freedom (df)</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>(X²)/df</td>
<td>1.22</td>
<td>3-5</td>
</tr>
<tr>
<td>p-value</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.03</td>
<td>0.05 ≤ RMSEA ≤ 0.08</td>
</tr>
<tr>
<td>NFI</td>
<td>0.95</td>
<td>0.90 ≤ NFI ≤ 0.95</td>
</tr>
<tr>
<td>CFI</td>
<td>0.99</td>
<td>0.95 ≤ CFI ≤ 0.97</td>
</tr>
<tr>
<td>GFI</td>
<td>0.94</td>
<td>0.90 ≤ GFI ≤ 0.95</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.91</td>
<td>0.85 ≤ AGFI ≤ 0.90</td>
</tr>
<tr>
<td>Number of variables</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>
According to the results Chi-square / SD ratio is 1.22 and within the acceptable limits. Adjusted goodness of fit index (AGFI) value is 0.91 and acceptable for model compatibility. Comparative fit index (CFI) value is 0.99 and at a good level of acceptance. The obtained values of strategic thought confirmatory factor analysis are shown in Table 5.

Table 5. Standard Coefficients of Strategic Thought Scale, t, R2 Values and Error Variances

<table>
<thead>
<tr>
<th>Implicit Variable: Systems Thinking (Alpha=0.78)</th>
<th>Observed Variables</th>
<th>T values</th>
<th>Standard coefficients</th>
<th>Error Variances</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2- Our employees can understand how change happens due to environmental factors.</td>
<td>8,11</td>
<td>0,43</td>
<td>0,77</td>
<td>0,19</td>
<td></td>
</tr>
<tr>
<td>S4-In our business, it is known how different units are able affect the general work-flow</td>
<td>6,32</td>
<td>0,44</td>
<td>0,31</td>
<td>0,38</td>
<td></td>
</tr>
<tr>
<td>S5- The employees who located in the use of an important resource in our business, develop a policy or procedure regarding the use of these resources.</td>
<td>7,43</td>
<td>0,53</td>
<td>0,74</td>
<td>0,28</td>
<td></td>
</tr>
<tr>
<td>S7- Our company provides workers to improve their abilities to solve problems if they encounter with.</td>
<td>7,76</td>
<td>0,41</td>
<td>0,52</td>
<td>0,24</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Implicit Variable: Creativity (Alpha=0.72)</th>
<th>Observed Variables</th>
<th>T values</th>
<th>Standard coefficients</th>
<th>Error Variances</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1- Our employees have the opportunity to use their creative talents and abilities at work.</td>
<td>8,11</td>
<td>0,32</td>
<td>0,36</td>
<td>0,22</td>
<td></td>
</tr>
<tr>
<td>C3- Our employees are free to decide how to do their job.</td>
<td>4,56</td>
<td>0,86</td>
<td>0,63</td>
<td>0,54</td>
<td></td>
</tr>
<tr>
<td>C4- In our company, employees use their creative talents while doing their jobs.</td>
<td>6,59</td>
<td>0,60</td>
<td>0,57</td>
<td>0,38</td>
<td></td>
</tr>
</tbody>
</table>

Implicit Variable: Vision (Alpha=0.90)
Observed Variables

<table>
<thead>
<tr>
<th>Observed Variables</th>
<th>8.05</th>
<th>0.41</th>
<th>0.10</th>
<th>0.61</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V1</strong>- Our business vision helps employees to do</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>their jobs better.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>V3</strong>- Our company's vision, provides efficiency to use</td>
<td>7.05</td>
<td>0.44</td>
<td>0.07</td>
<td>0.74</td>
</tr>
<tr>
<td>of business resources.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>V4</strong>- Business employees actively participate in the</td>
<td>5.25</td>
<td>0.51</td>
<td>0.05</td>
<td>0.84</td>
</tr>
<tr>
<td>development of the vision</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>V5</strong>- Our company's vision positively effect on the</td>
<td>7.94</td>
<td>0.41</td>
<td>0.10</td>
<td>0.63</td>
</tr>
<tr>
<td>company's productivity.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>V7</strong>- Our employees takes its inspiration from the</td>
<td>8.25</td>
<td>0.49</td>
<td>0.18</td>
<td>0.57</td>
</tr>
<tr>
<td>vision of the business.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The secondary confirmatory factor analysis’ obtained consistency index values are taken into consideration and it is observed that the strategic thought scale is coherent with selected examples. According to the results, it was confirmed that the strategic thought scale consists of three dimensions. Therefore, the researches "**H1**: Strategic thinking is comprised of three dimensions." hypothesis was accept. The dimensions of strategic thought are systems thinking and vision. Hence "**H1-1**: Systems thinking is a sub-dimensions of strategic thought. "**H1-2**: Creativity is a sub-dimension of strategic thought." And "**H1-3**: Vision is a sub-dimensions of strategic thought." hypotheses have been accepted.
In the study, businesses confirmatory factor analysis was conducted to test the suitability of the selected sample sizes that make up the scale used to determine whether the businesses are learning oriented. Learning orientation scale has three dimensions: Commitment to learning, shared vision and open-mindedness. The variables of commitment to learning are coded as CL1, CL2, CL3, CL4; the variables of shared vision are coded as SV1, SV2, SV3, SV4; and the variables of open-mindedness are coded as OM1, OM2, OM3, OM4. The dimensions of the scale are subjected to confirmatory factor analysis separately.

According to the results of the confirmatory factor analysis, from 4 variables, which belongs to the model of commitment to learning, AGFI (0.52), NFI (0.84), CFI (0.84), Chi-square / df (18,12) are not an acceptable level for model compatibility. Therefore, the suggested statistical modifications are made and only one variable (CL2) has to be eliminated. The obtained NFI, CFI, GFI and AGFI values after modification are at perfect level.

According to the results of the confirmatory factor analysis, from 4 variables, which belongs to the model of shared vision, AGFI (0.52), NFI (0.84), CFI (0.84), Chi-square / df (18,12) are not an acceptable level for model compatibility. Therefore, the suggested statistical

![Figure 2: Strategic Thought Scale Path Diagram](image-url)
modifications are made and only one variable (SV4) has to be eliminated. The obtained NFI, CFI, GFI and AGFI values after modification are at perfect level.

According to the results of the confirmatory factor analysis, from 4 variables, which belongs to the model of open-mindedness, AGFI (0.52), NFI (0.84), CFI (0.84), Chi-square / df (18,12) are not an acceptable level for model compatibility. Therefore, the suggested statistical modifications are made and only one variable (OM4) has to be eliminated. The obtained NFI, CFI, GFI and AGFI values after modification are at perfect level.

In testing of the scale, previously obtained variables of learning commitment, shared vision, open-mindedness that belongs to confirmatory factor analysis are used. In the first stage of the analysis, the standard (SV3) variable coefficient is greater than 0.98 for this reason it is excluded from the analysis. As a result of this modification, chi-square and consistency index results which were obtained before and after the modification, are shown at Table 6.

**Table 6. Consistency Values of Learning Orientation Scale**

<table>
<thead>
<tr>
<th><strong>Indexes</strong></th>
<th>Values before modification</th>
<th>Values after modification</th>
<th>Acceptable consistency values</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEARNING ORIENTATION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi-square (X²)</td>
<td>51.27</td>
<td>27.14</td>
<td></td>
</tr>
<tr>
<td>Degree of freedom (df)</td>
<td>24</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>(X²)/df</td>
<td>2.13</td>
<td>1.59</td>
<td>3.5</td>
</tr>
<tr>
<td>p-value</td>
<td>0.00</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.08</td>
<td>0.05</td>
<td>0.05 ≤ RMSEA ≤ 0.08</td>
</tr>
<tr>
<td>NFI</td>
<td>0.92</td>
<td>0.94</td>
<td>0.90 ≤ NFI ≤ 0.95</td>
</tr>
<tr>
<td>CFI</td>
<td>0.95</td>
<td>0.97</td>
<td>0.95 ≤ CFI ≤ 0.97</td>
</tr>
<tr>
<td>GFI</td>
<td>0.94</td>
<td>0.96</td>
<td>0.90 ≤ GFI ≤ 0.95</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.88</td>
<td>0.92</td>
<td>0.85 ≤ AGFI ≤ 0.90</td>
</tr>
<tr>
<td>Number of variables</td>
<td>9</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
According to modification results, Chi-square / SD ratio is 1.59 and within the acceptable limits. Adjusted goodness of fit Index (AGFI) value is 0.96 and acceptable for model compatibility. Comparative fit index (CFI) value is 0.97 and at a good level of acceptance. According to these values, acceptability of the variables in learning orientation scale are in a good level.

Table 7. Standard Coefficients of Learning Orientation Scale, t, R2 Values and Error Variances

<table>
<thead>
<tr>
<th>Implicit Variable: Commitment to Learning (Alpha=0.794)</th>
<th>Observed Variables</th>
<th>T values</th>
<th>Standard coefficients</th>
<th>Error Variances</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL1- Our learning ability is seen as the key to competitive advantage.</td>
<td>6.62</td>
<td>0.50</td>
<td>0.21</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td>CL3- Our company sees employee learning is as an investment, not a cost.</td>
<td>6.16</td>
<td>0.41</td>
<td>0.12</td>
<td>0.58</td>
<td></td>
</tr>
<tr>
<td>CL4- Our business sees learning as a key element that provides organizational continuity.</td>
<td>6.08</td>
<td>0.49</td>
<td>0.17</td>
<td>0.59</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Implicit Variable: Shared Vision (Alpha=0.751)</th>
<th>Observed Variables</th>
<th>T values</th>
<th>Standard coefficients</th>
<th>Error Variances</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>SV1- There is unity of purpose in our business.</td>
<td>2.66</td>
<td>0.48</td>
<td>0.11</td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>SV2- Vision of the business at all levels, functions and departments are in a complete agreement process.</td>
<td>6.28</td>
<td>0.47</td>
<td>0.33</td>
<td>0.40</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Implicit Variable: Open-mindedness (Alpha=0.90)</th>
<th>Observed Variables</th>
<th>T values</th>
<th>Standard coefficients</th>
<th>Error Variances</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>OM1- We do not hesitate to do criticism on shared assumptions about the markets.</td>
<td>8.75</td>
<td>0.26</td>
<td>0.19</td>
<td>0.26</td>
<td></td>
</tr>
<tr>
<td>OM2- Our business has given the high value of open mindedness.</td>
<td>2.72</td>
<td>0.56</td>
<td>0.02</td>
<td>0.94</td>
<td></td>
</tr>
<tr>
<td>OM3- Original ideas appear valuable for our business.</td>
<td>5.99</td>
<td>0.40</td>
<td>0.12</td>
<td>0.58</td>
<td></td>
</tr>
</tbody>
</table>
The secondary confirmatory factor analysis’ obtained consistency index values are taken into consideration and it is observed that the strategic thought scale is coherent with selected examples. According to the results, it was confirmed that the learning orientation scale consists of three dimensions. Therefore, the researches "H3: Learning orientation consist of three sub-dimensions" hypothesis was accept. The dimensions of learning orientation are commitment to learning, open-mindedness and shared vision. Hence "H3-1: Commitment to learning is a sub-dimension of learning orientation”. “H3-2: Open-mindedness is a sub-dimension of learning orientation” and "H3-3: Shared vision is a sub-dimension of learning orientation” hypotheses have been accepted.

![Learning Orientation Scale Path Diagram](image)

Figure 3: Learning Orientation Scale Path Diagram

d. **Path Analysis of Research Model**

After the Research model’s measurement models are subjected to confirmatory factor analysis, the remained variables are used to conduct a Path (Road) analysis to determine the relations between strategic thought, learning orientation and innovative variables. In the first stage of the path analysis the results indicated that consistency index values are being within acceptable limits. Consistency values are shown in Table 8.
Table 8. Consistency Index Values of Research Model

<table>
<thead>
<tr>
<th>Indexes</th>
<th>Values before modification</th>
<th>Values after modification</th>
<th>Acceptable consistency values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square (X²)</td>
<td>679,23</td>
<td>206,91</td>
<td></td>
</tr>
<tr>
<td>Degree of freedom (df)</td>
<td>273</td>
<td>133</td>
<td></td>
</tr>
<tr>
<td>(X²)/df</td>
<td>2,48</td>
<td>1,55</td>
<td>3-5</td>
</tr>
<tr>
<td>p-value</td>
<td>0,00</td>
<td>0,00</td>
<td></td>
</tr>
<tr>
<td>RMSEA</td>
<td>0,09</td>
<td>0,05</td>
<td>0,05≤RMSEA≤0,08</td>
</tr>
<tr>
<td>NFI</td>
<td>0,68</td>
<td>0,90</td>
<td>0,90≤NFI≤0,95</td>
</tr>
<tr>
<td>CFI</td>
<td>0,78</td>
<td>0,93</td>
<td>0,95≤CFI≤0,97</td>
</tr>
<tr>
<td>GFI</td>
<td>0,76</td>
<td>0,88</td>
<td>0,90≤GFI≤0,95</td>
</tr>
<tr>
<td>AGFI</td>
<td>0,71</td>
<td>0,85</td>
<td>0,85≤AGFI≤0,90</td>
</tr>
<tr>
<td>Number of variables</td>
<td>25</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table 8, according to the results obtained in the first stage of the analysis, from the values of the research model consistency AGFI (0,71), NFI (0,68), CFI (0,78), GFI(0,76) are not at the acceptable level consistency. Therefore, the suggested modifications based on the results of the analysis were made and statistically inappropriate variables were removed from the analysis. These variables are: Systems thinking dimensions of strategic thought scale S5 and S7; C3 that belongs to the dimension of creativity; Commitment to learning dimensions of learning orientation scale CL1; and OM2, OM3 that belongs to open-mindedness. When obtained consistency values of modification results are considered, the Chi-square/sd 1,55 and at a good level of consistency. RMSEA value is 0.05, and it is within the statistically recommended limits. Comparative fit index (CFI) is an acceptable level of 0.93. Adjusted
goodness of fit index (AGFI) has a value of 0.85 and acceptable. Research model variables remaining after modifications are shown in Table 9.

Table 9. Remaining Variables of Research Model after Path Analysis

<table>
<thead>
<tr>
<th></th>
<th>t values</th>
<th>Standard coefficients</th>
<th>Error variances</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STRATEGIC THOUGHT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S2- Our employees can understand how change happens due to environmental factors.</td>
<td>9,14</td>
<td>0,26</td>
<td>0,89</td>
<td>0,17</td>
</tr>
<tr>
<td>S4- In our business, it is known how different units are able affect the general work-flow</td>
<td>9,10</td>
<td>0,24</td>
<td>0,44</td>
<td>0,12</td>
</tr>
<tr>
<td>C1- Our employees have the opportunity to use their creative talents and abilities at work.</td>
<td>9,13</td>
<td>0,20</td>
<td>0,42</td>
<td>0,18</td>
</tr>
<tr>
<td>C4- In our company, employees use their creative talents while doing their jobs.</td>
<td>9,14</td>
<td>0,25</td>
<td>0,87</td>
<td>0,26</td>
</tr>
<tr>
<td>V1- Our business vision helps employees to do their jobs better.</td>
<td>8,13</td>
<td>0,40</td>
<td>0,10</td>
<td>0,61</td>
</tr>
<tr>
<td>V3- Our company's vision, provides efficiency to use of business resources.</td>
<td>7,36</td>
<td>0,44</td>
<td>0,07</td>
<td>0,73</td>
</tr>
<tr>
<td>V4- Business employees actively participate in the development of the vision</td>
<td>5,40</td>
<td>0,51</td>
<td>0,05</td>
<td>0,85</td>
</tr>
<tr>
<td>V5- Our company's vision positively effect on the company's productivity.</td>
<td>8,05</td>
<td>0,41</td>
<td>0,10</td>
<td>0,63</td>
</tr>
<tr>
<td>V7- Our employees takes its inspiration from the vision of the business.</td>
<td>8,25</td>
<td>0,49</td>
<td>0,17</td>
<td>0,58</td>
</tr>
<tr>
<td><strong>LEARNING ORIENTATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CL3- Our company sees employee learning is as an investment, not a cost.</td>
<td>7,19</td>
<td>0,37</td>
<td>0,15</td>
<td>0,48</td>
</tr>
<tr>
<td>CL4- Our business sees learning is as a key element that provides organizational continuity.</td>
<td>7,31</td>
<td>0,44</td>
<td>0,22</td>
<td>0,46</td>
</tr>
<tr>
<td>SV1- There is unity of purpose in our business.</td>
<td>7,67</td>
<td>0,38</td>
<td>0,20</td>
<td>0,41</td>
</tr>
<tr>
<td>SV2- Vision of the business at all levels, functions and departments are in a complete agreement process.</td>
<td>8,36</td>
<td>0,39</td>
<td>0,40</td>
<td>0,28</td>
</tr>
<tr>
<td>OM1- We do not hesitate to do criticism on shared assumptions about the markets.</td>
<td>8,91</td>
<td>0,18</td>
<td>0,23</td>
<td>0,12</td>
</tr>
</tbody>
</table>
After the path analysis, the relationships between key variables of the model are shown in Table 10.

**Table 10. Relations between Strategic Thought, Learning Orientation and Innovation**

<table>
<thead>
<tr>
<th>Variables</th>
<th>T values</th>
<th>Standard coefficients</th>
<th>Error variances</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Thought → Learning Orientation</td>
<td>3.95</td>
<td>0.74</td>
<td>0.46</td>
<td>0.54</td>
</tr>
</tbody>
</table>

Based on the Table 10, the R² value (which indicates the size of effect of strategic thought on learning orientation) between strategic thought and learning orientation values is 0.54 and error variance is 0.46. Likewise, the standard coefficient is 0.74 and the t value is 3.95. When looking at the values, the standard coefficient value between strategic thought and learning orientation is critically smaller than 0.98 between. In addition, t value is greater than 2 therefore significant. The R² value is relatively high. According to these results, strategic thought has an impact on learning orientation. For that reason, the hypothesis that belongs to research "H₂: Strategic thought affects learning orientation," was accepted.

![Figure 4: Path Diagram of The Research Model](image_url)
V. Conclusion

The model created to determine the relationship between strategic thought and learning orientation was tested by path analysis. Before path analysis was conducted, sub-dimensions that constitute the scale have been tested with confirmatory factor analysis, and then scales have been tested with a secondary confirmatory factor analysis as a whole.

First, systems thinking, creativity and vision dimensions of strategic thought were tested by confirmatory factor analysis. Then a secondary confirmatory factor analysis subjected using the remaining variables of the strategic thought scale dimensions. As a result of the analysis, the obtained fit indexes of selected examples have shown that there is a consistency between the strategic thought scale and selected examples.

Second, learning orientation scale dimensions commitment learning, shared vision and open-mindedness were tested by confirmatory factor analysis. Then a secondary confirmatory factor analysis subjected using the remaining variables of the learning orientation scale. As a result of the analysis, the obtained fit indexes of selected examples have shown that there is a consistency between the learning orientation scale and selected examples.

After measurement models being subjected to a confirmatory factor analysis separately, the research model’s remaining variables on the scales were tested using path analysis. As a result of the analysis, the values obtained when we examined the model were determined to be significant. So, strategic thought effects on businesses’ learning orientation.

Business managers should encourage employees to observe inside the company and as well as the non-business environment. Here, the aim for the employees to understand the impact of environmental factors on change. Besides, employees of different departments need to understand how they affect the way business is done. For this, the rotation should be encouraged throughout the business. Rotation means, assigning employees another task within the business for a temporary period in order teach them how to handle different works. Also in this way the
employees of different departments are able obtain more information about business and they can be ensure the importance of different departments.

Business managers should give employees the opportunity to be able to use their creative talent, and skills at work. Thus, employees can use all their creative skills while performing their jobs. In order business managers to support creativity, they should encourage employees to think outside the box. By giving authority, responsibility and support, managers help employees to develop their creative skills.

A participatory corporate culture is needed within a business for individuals with different ideas and perspectives to express these thoughts in a relaxed way; ensuring the contribution of all employees in the solution of problems; in order to ensure the changes and innovations on market. The presence of managers who has strategic thought perspective; who are able to be reactive or proactive when needed; who can think analytical and conceptual; who can demonstrate leadership skills will enhance the ability of strategic thinking. Also where empathy and open communication have dominated the business, it will increase the level of strategic thinking.

As a result, such applications will raise the level of strategic thought by strengthening its commitment to learning: Improve the effectiveness of knowledge management in enterprises, to encourage employees to be innovative and creative, efforts towards becoming a learning organization, promotion and reward system, improvement based on learning and performance, monitoring employee performance and providing feedback when necessary. Today's business environment makes it essential to be learning oriented instead of having a lot of knowledge. Because change happens fast and the information on hand can be invalid or worthless. Therefore, businesses should hire employees who are learning oriented and should provide this feature to existing employees.
References


Kahn, T. M. (1981). *An Analysis of Strategic Thinking Using a Computer-Based Game*, Yayınlanmamış Doktora Tezi, University of California, Berkeley, USA.


Simoneau, C. L. B., (2007). *Communities of Learning and Cultures of Thinking: The Facilitator’s Role In The Online Professional Development Environment*, Yayınlanmamış Doktora Tezi, Kansas State University, Manhattan, USA.


Abstract: Investments are material support of the socio-economic development of the country. They underlie refill, diversification and qualitative growth of all factors of production. Increasing fixed or capital increase technical and economic efficiency of equipment, labour productivity, the additional jobs, diversify the economy cannot be achieved without financial resources consumption without investment.

A decisive role in economic growth and development they have foreign investment. It is recognized and treated the beneficial effect of training and their multiplication. Foreign investment will complete the necessary internal resources to develop competitive factors of production. This can be insured but only in a proper investment climate, policies and reforms based on transparent, consistent and competitive in attracting foreign capital. Tell the benefits and investment opportunities, their recovery will be given a real chance of recovery in investment activity.

The aim of this study FDI developments in the European Union, in the current economic context, their forms of manifestation, and the essential features of foreign investment, making a comparative analysis of the dynamics and the contribution of foreign capital to developing countries, and particularly countries neighbours in Central and South Eastern Europe. Studied the interdependence between the investment and the economic situation of countries, making statistical and economic analysis of the development of foreign investment in the context of economic reforms. Are brought to light the beneficial aspects of foreign investments on the receiving economies and ways to engage them in the national economy.

Keywords: European Union, foreign direct investment, economic
Introduction

The aim of this study FDI developments in the European Union, in the current economic context, their forms of manifestation, and the essential features of foreign investment, making a comparative analysis of the dynamics and the contribution of foreign capital to developing countries, and particularly countries neighbours in Central and South Eastern Europe. Studied the interdependence between the investment and the economic situation of countries, making statistical and economic analysis of the development of foreign investment in the context of economic reforms. Are brought to light the beneficial aspects of foreign investments on the receiving economies and ways to engage them in the national economy.

Strategies for attracting foreign direct investment

Strategies aimed at attracting foreign direct investment by definition consist of offering investors a stable environment in which to be able to operate in a cost-effective manner without being subject to undue risk. To understand the difficulties faced by an investor in its investment project implementation must know the main stages of the investment process.

Develop an investment plan costs classic form involves the stages consisting of: (Bonciu, 2003)

a. estimating costs and start developing the project investment;
b. estimating the actual costs of investment;
c. costing stage of contracting with providers;
d. actual costing production / service you want to achieve;
e. Analysis of the differences between the costs and income effort possible to get.

Assessment of the tabulation thereof requires efforts throughout the implementation of the investment, as well as the functioning of the future objective. Any investment strategy involves several variants, characterized by a multitude of technical aspects, economic, social etc.
Another aspect related to the cost of investment, it is the increase if an existing object after allocating funds, factual decision is delayed, the delay depending on the time that works can lead to an increase in funding originally allocated by the erosion occurring on the investment objective, its degradation. (Andersson, T., 1991)

There is a pattern that can be universally applied to any state requirements to ensure a favourable climate for foreign direct investment is different from one country to another. However, countries in the race to attract FDI should act three common directions above.

First, countries must ensure the improvement of the economic, social and policy on foreign direct investment through their legislative instrument that governments have at their fingertips. Finally, any direct investment materializes in legally, through a contract between the investor and the host state (through any interface thereof). Each party pursues its own interests, and foreign investors are still in a "disadvantage" acting on the ground "opponent" for a long period of time. Of course, the alien enters the local environment by negotiating the terms of the investment, but factors such as political instability and government of the host country (in a natural way while the developing countries are in a constant process of change that the well as the international environment) creates uncertainty alteration anyway baseline where the contract was concluded.

As a result, each state must achieve permanent objective radiography own legal system, to observe to what extent it can be oriented in the desired direction, so investors and the local authority to ensure compliance with national economic security. To do this, the host country must maintain a dialogue with existing investors or organizations representing their interests and ensure the promotion of a positive image among public investors local.

Second, countries should strive to improve economic determinants because they play the most important role in the location of foreign direct investment.
This means a permanent control of the host country, the positive sense of the balance of payments, budget deficit, inflation rate, at improving these indicators. At the same time, the micro should be governed by free market competition, open trade policies to be carefully considered non-tariff barriers imposed the tariff.

If, in quantitative terms, the endowment of a country with traditional inputs can be increased by simple measures of decision makers, however, countries can act to increase the quality of and, especially, the creation of neo-factors. Increased training of the population, its ability to adapt to new technologies and performance management systems are an effective option for increasing the quality factor - labour.

In addition, host countries must ensure the conditions necessary for the development potential of local private business organizations in order to create solid and a base of suppliers able to create and maintain working relationship with the standards required by the foreign investor.

The third course of action should be to integrate the countries of the local market in trading practices, regional and international economic and political. Over time, especially since the early years of globalization, it turned out that, in terms of foreign direct investment, international cooperation is essential to the success of attracting them. Key issues have become topics of investment of bilateral, regional and international investments or the avoidance of double taxation, stipulating the rights and obligations of the parties, the terms of repatriation of profits, how to resolve disputes etc. in order to create a favourable climate Investor legally binding.

It is essential that the development direction of national policy should primarily focus on maintaining the existing stock of foreign investments before engaging in the race to attract new investors. Investors already present are the best representatives of the host country in
relation to potential investors, provided that the first be happy with the treatment given to this country.

In the business world, they can easily promote local potential, benefiting from greater credibility among other investors.

In addition, investors holding present states have consistently a certain level of foreign capital in the economy, helping them to strengthen strategic positions in the medium and long term, macroeconomic easier to steer in the desired direction.

A solution may be finding the political skills that would encourage the use of local inputs in the form of granting facilities to foreign firms (taking into account that these requirements cannot be imposed on investors due to the WTO Agreement) and minimizing currency outflows.

The appropriate approach would be to promote a selective policy towards foreign direct investment, encouraging firms generate positive effects (e.g., growth, the number of jobs created, technology transfer and export earnings) through facilities designed to maximize the country's host.

Evolution of FDI

In the world of global inflows of foreign direct investment (FDI) have increased substantially in 2005, is the second consecutive year, according to the World Investment Report (UNCTAD). This was due to cross-border mergers and acquisitions, which reflected strategic choices of transnational corporations in view of increasing corporate profits and recovery of stock markets.(www.onuinfo.ro)

Representing the global flows of foreign direct investment inflows grew by 17% in 2011, which marked a period exceeding the pre-crisis average. In terms of volume, these flows reached in 2011 about 1,500 billion U.S. dollars, a level above the average of the period 2005-
2007 (which was 1472 billion U.S. dollars), but still below the reference from 2007 (1969 billion).

A positive element is that in 2011, global FDI flows rose for the second consecutive year, compared to the reality of 2008 and 2009, when it had experienced successive reductions. During the economic crisis especially in developed countries emphasized the economic truth that had eluded the last decades, namely the importance of a material base production to ensure the stability of an economy.

In Europe, this was indeed confirmed "with flying colors" of Germany, a country that has gone relatively easily over the crisis and is the undisputed leading position among European economies. What particularly German other Western European countries were that retained and even developed an industrial economy.

Countries that have relied heavily on the service sector, including banking and financial services were greater affected by the crisis. It highlights that FDI relatively moderate reductions, allowing a faster recovery compared to portfolio investment. However, the overall FDI was found that new investments (greenfield) were the most stable and the fastest growth rate, especially in developing countries and emerging economies.

This preeminence of new investments made in developing and emerging countries maintain a share of about 50% of the world total FDI flows (755 billion dollars). It can be said with certainty that foreign direct investment is a growth factor likely to contribute to the modernization and strengthening of sectoral structure and fields of the economy.

The year 2011 marked a growing global foreign investment flows, including in each of the three categories of countries (developed, developing and transition) but with different developments. It notes, in particular, South America and the Caribbean region with the highest growth in the world (35%), and the transition economies of Central Europe, the Balkans and the Commonwealth of Independent States - CIS.
Correlation Confidence Index hierarchy through direct foreign investment and the expected developments in the evolution of world crude leads us to the conclusion of the event simultaneous global economy virtuous and a vicious circle.

Virtuous is considering emerging countries which have double the annual growth rates that are also on the leading position in terms of confidence and investment intentions of the makers of large transnational corporations.

These states will continue to attract new foreign investors with favorable effects on economic growth. The vicious circle is manifest many developed countries, although the situation varies from country to country. The situation is critical, especially for a large number of states in the euro area. But we can not generalize because the eurozone is Germany (which came with a strengthened economy during the crisis), and Greece (country facing serious economic and financial problems). Low interest of foreign investors in the economy creates some undesirable assumption of continuing stagnation or the slight increase. In light of these realities of development in a globalized world economy, forecasts reserved on returning global FDI flows at similar or higher levels peak in 2007.

Study AT Kearney mentions that although about 55% of major investors - questioned investment budgets already at levels comparable to those prior to 2008, however, 20% of them provide a return to pre-crisis levels only from the years 2014 to 2015.

Moreover, big investors worldwide (over 60%) believe that crisis conditions, the conditions of doing business globally experienced substantial and lasting changes.

Perception big investors worldwide on potential events that may affect foreign investments by investment targeted areas is obviously differentiated depending on the status of different economies: developed countries, developing countries or emerging respectively. To the extent that in developed countries there is concern that a tax increase (due to the governments of many developed countries need to find new sources of income) will affect
investors in developing countries concern is mainly the possibility of introducing new regulations on labor market, which would, however, increase the cost of this factor of production.

**Comparison between FDI system in Romania and different countries of European Union**

In the past ten years, the attention of analysts has been directed towards the European integration process of Romania, a detailed assessment of the reasons for the delays in State adoption and implementation of the Community acquis.

One of the main reasons is the lack of quality foreign direct investment during the 1990s. Their concentration within the 2002-2012 supported to an extent lower the integration process, compared to the situation of the Czech Republic and Hungary, where foreign investment has been one of the main engines that led to the restructuring of the economy, and supported the adoption of a modern law, in parallel with the improvement of the business environment and changing mindsets.

**FDI regime in the Czech Republic**

Since the early '90s, the Czech Republic had a strategic objective to attract a large amount of foreign investment, as one way to reduce the gap of economic development in EU countries. (Gábor & Stankovsky, 2004.) This strategy has been extremely fruitful, as witnessed by the fact that after 15 years, the Czech Republic ranks first among EC countries, in terms of economic development and standard of living.

The activity of attracting and promoting foreign investment was supported by the Czech government in 1993 through the establishment of an agency Czech Invest, under the Ministry of Industry and Trade, in order to provide: data and information about the economy, tax incentives consultancy that can be granted to foreign investors and the conditions to be fulfilled to obtain their information providers support programs etc.
Consequently, the Czech state has adopted policy under a fierce worldwide competition for foreign direct investment, foreign investment law changing substantially by introducing the following incentives: tax exemption for 10 years only to manufacturing activities for a total investment of over $25 million of which 40% must be represented by machinery, and other tangible us. Manufacturing industries are considered according to OECD classification and the investment must be made in full within 3 years and to strictly abide by national standards in terms of environmental protection. It may also consider investments in companies that already operate not only in the new company, provided that the objective for granting facilities to keep separate accounts.

The possibility of using accelerated depreciation for a specific list of equipment approved by government decision of 25% per year for equipment and 4% per year for buildings. The possibility of deferment of payment of VAT on imports of machinery and equipment by 90 days and the opportunity to get back duties paid under certain conditions but only for new machinery and equipment have been impaired in any other country. The possibility of granting interest-free loans for job creation for Czech citizens.

The loan amount depends on the area in which the investment is made and is the reference average level of unemployment in the country addressing only investments in special economic zones. The possibility of obtaining an interest-free loan to cover up to 50% of the cost of staff training and can be converted to a grant if the company employs a number of people in a certain region and a certain amount of time. The possibility of obtaining a location for the investment ready for a symbolic price. Basically, the municipality to which the land or asset will receive, in accordance with regional development policy to 60% of the costs of the fitting surface.

They introduced ceilings for total aid that can be given a new investment or expansion of an existing one based on its location in one of the eight geographic regions of the Czech
Republic. State aid intensity allowed varies between 20% and 50% for different regions of the
country until 2006 inclusive.

For the period 2007 - 2013 state the maximum aid intensity was reduced on average by
10%; Maximum state aid that can be given is calculated as a percentage of tangible and
intangible assets owned by the company net of grants received for the creation of new jobs and
the difference between the purchase price of the land and its market value. Tax exemption may
be granted for a period up to 10 years.

Grant period begins no later than three years from the grant stimulus package. Direct
state aid granted in the form of grants to create new jobs and for staff training.
To receive the stimulus package, the criteria must be met over a period of up to three years from
the date of conclusion of the contract with the government. Legislation presented is devoted
exclusively productive sector investments.

The Czech Republic offers separate incentives to invest in research and development,
technology parks etc.Is important to note that although the Czech Republic has record foreign
investment both in volume and in terms of quality, yet the government continues to provide
significant financial and fiscal incentives which demonstrate that attractive business
environment for FDI theory needs direct support to determine the location of large investors.
The quality of foreign investment attracted by the Czech Republic can be quantified and through
the number of firms with foreign capital participation. For example, in this country at the end
of 1997, the volume of investments attracted $ 8 billion contains only 47,000 companies with
foreign capital while, in Romania, the foreign capital attracted twice lower there than 55,000
companies with foreign participation.

The decision by Philips came amid intense evaluation activities included 66 locations
in several countries. The final decision was based on the fact that food from North Moravia
town has a good track record of failure electronics and available skilled labor force, having at
that time a high unemployment rate of about 15%, well above the average national 8.8%. To attract the strategic investor, the Czech government offered a tax incentive package that included mainly tax exemption for a period of 10 years, divided into two steps of 5 years. Also, imports of equipment and facilities made the investment account were exempt from customs duties and VAT and additionally for each new job created government granted a subsidy of about 6000 USD / employee. It produces flat screens last creations Philips and has over 1000 employees.

Also, imports of equipment and installations made on behalf of the investment were exempted from customs duties and VAT and, for each new job created Government provided a subsidy of about 6000 dollars per employee. The factory produces flat screens for the latest Philips creations and has over 1,000 employees.

The investment made by Flextronics in 1999 was located in the region of Brno as factory parts for electronics and telecommunications are currently employing CA. 3000 people. The incentives granted to have enmeshed and local authorities who have built the necessary infrastructure to accommodate the plant and issued the necessary permits construction that extends over an area of 60 hectares and whose production capacity is 8 million pieces annually. In January 2006, and has ceased operations for several days due to the bankruptcy of the parent company in the Netherlands.

Another factor that has boosted the attraction of this kind of investment was the presence of a large number of suppliers of large multinational firms. The production of Czech subsidiaries of companies like Matsushita of Japan and Flextronics in Singapore have reached the critical mass which prompted their suppliers in the countries of residence to follow with their own investment in the Czech Republic.

In March 2006, the Agency noted Japanese investment development achieved and announced over three billion dollars. Thanks to good cooperation with the Czech Government
Matsushita announced the construction of new mobile phones worth 82 million dollars that will create 500 jobs and will have a production capacity of 20 million phones Panasonic per year that is two times higher compared to the Japanese factory in the United Kingdom. According to data provided by the development agency investment firm Matsushita in the Czech Republic have attained in 2006. 343 million. USD.

The production capacity of the two main investment Skoda and Toyota/PSA will be in 2007. 800,000 units annually. For the past three consecutive years, the Czech Republic has been placed second in terms of the attractiveness of the business environment for the production of auto parts.

This exceptional structure of exports in conjunction with the balance of trade balance reflects the success of the restructuring of the Czech economy which would not have been possible without the massive influx of foreign capital. Similar to Hungary, in countries of FDI in the Czech Republic on the first places geographically adjacent countries-Germany, Austria, France, Netherlands (headquarters of many multinational companies who create investment vehicles in this country because of relaxed tax laws) as well as the US, Japan, Nordic countries, Switzerland, Canada, Italy etc.

Economic performance of the Czech Republic in particular in the field of FDI are reflected in the structure of the volume and structure of foreign trade. The Czech Republic, thanks to foreign investment has become the largest producer of personal computers in the EU actually supported and surplus trade balance on this group of products. The categories of goods that he supports Romania foreign trade as well as derivative products and textiles or furniture occupies the modest places in the Czech Republic, with about 3-3.5% of total exports and 2-3% of imports.
FDI regime in Hungary

Hungary has completed the privatization process since 1997, including the privatization of the banking sector. In these circumstances, in recent years, the Hungarian government has focused on attracting foreign investors targeted, especially in "Greenfield" and private enterprise. Hungary has established investment priorities, one of which is the introduction of advanced technologies and innovations in the production of goods with high added value. Investment in the transport sector, research and development, professional services and logistics have become the target of foreign investment promotion organizations.

To achieve this performance, Hungary has established a legal and institutional framework particularly attractive for foreign investors. The Ministry of Economic Affairs set up in 1993, the Agency for Investment Promotion and Trade (ITD Hungary) with eight regional centers in Hungary and 34 representative offices abroad and allocating an appropriate budget to support internal and external activities.

It should be stressed that foreign centers were set up from the beginning and not the process, taking into account primarily the capitals of developed and potentially interested in the opportunities of the Hungarian economy. ITDH activity focused on activities to promote foreign investment by providing information, legal and financial advising etc.. In the field of foreign investment, ITDH coordinated special programs in electronics and software, auto parts and tourism. Also, the Hungarian agency focused on promoting exports by organizing activities and network of commercial offices abroad.

In parallel with the measures of fiscal relaxation Hungary generous tax incentives for foreign investors as follows: tax exemption for a period of 10 years for investment in industry if: total investment value exceeding $ 40 million; sales volume registered an annual growth of 5% and the company has at least 500 employees; investment is made in an economically underdeveloped region and has a value exceeding 12 million USD sales volume is growing
annually by 5% and the company has over 100 employees. Thus in 2001, launched a program that mainly focuses on the integration of foreign companies in the Hungarian economy and strengthening relationships with local suppliers.

There are other types of well-defined programs designed to support the strategies adopted by the government. Stimulating investment is a priority for Hungary and, in this respect, the development of infrastructure of industrial parks enjoy great attention from the Ministry of Economy and the Ministry of Agriculture and Regional Development. Their support is in the form of grants. Hungary has provided uninterrupted these incentives for foreign investors.

In the early '90s, tax incentives investors were more generous, but with market saturation and the completion of accession negotiations, the government has reduced focusing the promotion of FDI by their integration into the local economy.

The structure of FDI, manufacturing branch is best represented the automotive industry. The same area is found first in terms of foreign trade, which directly relates the specific increase in exports and foreign investment.

From this point of view, the Czech Republic and Poland are below the EU15 average of 15% and 6%. Hungary with Czech Success is a shining example of recovery and economic recovery in foreign investment. First FDI brings with it the "know-how" crucial and superior management techniques verified by long practice, appropriate behavior in business, entrepreneurship and productivity and technical knowledge along with the contribution of modern technology. Meanwhile, FDI can play a catalytic role in the ability of local research and development that can find through foreign investment capital needed. But maybe I should have said first access that have acquired Hungarian firms to markets of developed countries through the distribution channels of the firms investing. Because, despite trade deficit recorded
exports to Hungary increased fivefold in the past 15 years and its structure has improved considerably.

**FDI regime in Germany**

The main weakness of Germany's high tax rate (individuals and corporations). Even if the financial crisis hit the country and especially exports, Germany remains one of the most attractive countries in Europe in terms of investment. Foreign direct investment: recent trends and macroeconomic effects in the early 1990s, the German economy has sharply increased international capital. While stocks and German FDI outflows rose sharply (6 times), increased inputs de ISD also considerably during this period (4 times). Through empirical studies concluded that FDI by German firms not will have a negative effect on the long-term investments in Germany. In macroeconomic terms, the increase in employment in foreign affiliates does not mean a loss of jobs in Germany.

It seems that increased foreign presence made the German economy more competitive overall. Finally, it is obvious that the high level of German FDI in the new EU Member States has led to changes in trade relations with the old EU member states. FDI stocks in Germany are essentially concentrated in Europe and North America. Just under half of global stocks are invested only in the 14 old EU countries, with another 30% in the United States. The ten countries that joined the EU in 2004 is now as much as 6%; the early 1990s, before the markets of Central and Eastern Europe to open the fall of the Iron Curtain were virtually devoid of content for German FDI destinations.

By contrast, emerging Asia has so far been an important target of FDI activities of German firms. In recent years, however, some countries in the region have become the preferred locations for new investments from Germany. For example, investment in China rose tenfold between 1994 and 2004. At 381.2 billion euros, currently amounts to just over 1% of the total stock of FDI in Germany.
Between 1990 - 2009, Germany received foreign direct investment (FDI) of 700 billion dollars. In 2009, foreign direct investment in Germany was $ 36 billion. However, Germany has generated FDI for other states in the amount of 62.6 billion dollars in 2008-2009.

Foreign investment in the primary sector (less foreign investment in the primary sector (less than 1%, plays a minor role. In the service sector, major investment value (46%) were made in the financial and insurance sector, reflecting the strength several German banks and insurance companies (which belong to the most important players in global financial markets). success in Germany in the export of cars, machinery and equipment led to strong foreign investment in the trade and repair of motor vehicles and personal and consumer goods, they represent 17% of the stock of German FDI outflows in the services sector in late 2007.

Foreign investments of German companies are mainly concentrated in developed countries, which are also the main target regions for German exports and provides factor inputs that German multinationals need for production (especially a highly qualified labor force). During 2008 and 2009, German FDI in neighboring European countries continued to be strong. Since FDI outflows from developing countries increased in line with the increase in total outward FDI, outward FDI in Russia and Ukraine have increased considerably in the last decade. German Stock outputs in both countries increased 17-fold since 2000 to reach about 30 billion dollars in 2007.

**FDI regime in France**

In 2009, direct investment flows are net equity resulting output euro 63 billion in 2008. Nevertheless, in a long-term perspective, the net output remained at high levels in 2008 and 2009, being exceeded only in 1999 and in 2000, years during which evaluation of listed companies has resulted in a record number of cross-border mergers and acquisitions in France and abroad.
Among the various components of direct investment, real estate investments after they fell sharply in 2008 were maintained at 4.3 billion in 2009, contributing to the strength of the French market in an international environment deficit. To the estimated data, profits reinvested would have a positive balance of 2.1 billion in 2009 in while 2008 had a negative balance. Capital investments, except real estate, being small scale is already in previous years, the share fell 29% to 7.7 billion compared with 2008. Finally, other operations reported a net balance negative-18.3 billion, which is growing in relation to 2008.

At the beginning of the period, identifying the country of residence of the ultimate investor may reveal, in essence, the presence of French companies and, to a lesser extent, weight gain among a group of American investors in France. In the last years, is found also German and British groups made a seemingly significant proportion of their investments in France through third countries (notably the Netherlands, Luxembourg, and Belgium).

**FDI regime in Romania**

The competitive nature of the world economy facilitates the placement of capital to emerging markets investment authorities of the receivers can not take direct action to counter, because of international conventions and agreements they have signed.

The need for foreign investment is particularly true for developing countries, where countries in the privatize, such as Romania. Among the factors that mark the need for foreign investment, remember: Countries in the process of privatization do not have sufficient capital to support private sector restructuring and recovery.

Currently, Romania's economic policy on FDI is based on three essential elements identified in the following categories: equal treatment for Romanian and foreign investors access to markets throughout the economy minimal government intervention in economic activities. Same insufficient budget and lack of political visibility have placed the agency in the
shadows turning it into a passive and bureaucratic organization issues certificates to those investors who seek a visa to reside permanently in Romania.

Romanian and foreign used "advantage" continuous depreciation of the national currency and poor wages (in this category could be included even those considered large financial services and telecommunications software) by exporting labor and too little added value. Faltering economic policies promoted by all governments since 1989 have encouraged this approach often considering it as just the way Slowing economies exit from the impasse over ten decades of the last century.

Discounts FDI inflows to Romania, during 2009 - 2011 were so large that practically it returned in 2011 to the input of the years 2001 to 2002. It can be appreciated that the rapid recovery in the short term difficult conditions of the international economic situation uncertain, the impact on the EU's main economic partner of Romania. Improvement of the business environment, the effects of the introduction of the flat tax and the positive attitude of the foreign partners of Romania led to the attraction of foreign direct investment volume amounting to 8.7 billion euros in 2005-2006.

The value of the 2006 record of 9,082 billion euros, in 74.24% increase compared to the previous year (Eur 5,213 million), includes the amount of € 2.2 billion euros, representing the takeover by Erste Bank to 36.7% of the shares of BCR. Thus, the year 2006 is the absolute record in terms of foreign direct investment attracted by Romania. In November 2006, the cumulative amount of foreign direct investment attracted by Romania has exceeded the threshold of 30 billion EUR, with a stock of FDI of 30,967 billion.

According to early calculations, foreign investments in Romania rises in 2006 to 9.1 billion euros, with officials estimating a level of 10 billion for next year, almost double the 5.2 billion euros recorded in 2005. The result of the world economic downturn has been felt mostly in developed countries where FDI inflows shrank in 2003 compared to the year 2000 with just
67 percent. Initiate specific measures aimed at attracting foreign investment and the establishment of agencies to promote them in conjunction with the macroeconomic stabilization program, will lead to an improvement in the attractiveness of these countries for foreign investors.

**Conclusion**

In conclusion, we are witnessing nowadays to an intensification in the major flows of direct investment liberalization policies regarding foreign investment and the initiation of multilateral regulations and measures to attract FDI flows, the intensification of transnational mergers and acquisitions.

The long-term prospects of FDI remain promising. A number of analyzes on the investment plans suggest that major transnational companies will continue their international expansion. The most popular destinations will include major markets of developed countries, as well as a number of key destinations in developing countries (including China, Brazil, Mexico and South Africa) and countries in transition in Central and Eastern Europe. The more investors will come, so there will be a greater growth in the host country. And the affection of a favorable macroeconomic conjuncture increasingly more investors will be interested in starting a business in such country.

Relaxation of fiscal help to attract foreign investors, as observed with the investment firm Solectron.

Foreign investors are very attentive to the peculiarities of the law of the country in which they wish to invest. In fact, the package of tax breaks offered by the target country is an important criterion for selection of the site for future foreign investment is an engine of economic development for the Central-South-eastern Europe. These countries have a high capacity to absorb foreign investment capital, there are prerequisites for transforming these resources into additional economic value.
The level of foreign investment in GDP Western European countries is close to the average of 5%. In Southeast and Central European foreign investment in GDP generally reach higher levels, as shown in the table above. High levels recorded are a sign that their economies are growing, they are able to absorb important external sources, and are also able to offer a competitive economic environment attractive to investors. It is noted that for Romania, the percentage of foreign investment in GDP is lower than in neighboring countries the Czech Republic, Germany, France, and Hungary.

This indicates the potential still unexploited in terms of attracting foreign investment. By achieving the optimal level of foreign investment, legal and fiscal measures, monetary and other measures should be focused on stimulating investment, it represents an important lever for economic value creation and achieve a higher level of social welfare. As basic direction to be pursued to attract more investors to open newest business. Subsequently, qualitative factors they must take into account. This will become increasingly important as new investments and to ensure environmental and social protection.
References

Andersson, T., 1991, Multinational Investment in Developing Countries: A Study of Taxation and Nationalization, Routledge, Londra

Bonciu, F. Dinu (2003), Policies and instruments for attracting FDI, Albatros Publishing House, Bucharest

Gábor Hunya & Jan Stankovsky, Foreign Direct Investment in Central and Eastern Europe with Special Attention to, Austrian FDI Activities in this Region, by (wiw) and (WIFO), July 2004.

www.fdi.net/country/sub_index.cfm?countrynum=75
www.onuinfo.ro/mass_media/comunicate_de_presa/304/
Effects of Oil Prices Fluctuation on Stock Returns of the Industry Sector Firms: Borsa Istanbul Industry Index Application

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ABSTRACT

Petrol and its derivatives, are most important returns of industrial corporations. In developing economies preferring production and exportation based growth, the leading important cost defining prices is undoubtedly price of petrol and its derivatives. In this study, the relationship between weekly Brent petrol barrel price of 01.01.2010-01.01.2016 period and Borsa Istanbul Industry Index Returns was tested by using unit root, Johansen-Juselius Cointegration, Granger Causation test, VAR analysis and Wald test. As a result of analysis conducted, it was concluded that no long term relationship between fluctuations in Brent petrol barrel prices and BIST Industry index returns.

Key Words: Petrol prices, BIST Industry Index Returns, Cointegration

JEL Classification: C58, G32, F65

1. Introduction

Total energy use share of main energy sources petrol, natural gas and coal is 87% in 2013. Shares of petrol, coal and natural gas in total energy consumption is 33%, 30% and 24% respectively. Industrial sector has the largest share in energy consumption worldwide and it is proposed that industrial sector will continue to consume more than half of the worldwide energy consumption until 2035. Despite the fact that renewable energy and nuclear energy are the fastest growing energy sources of the world, it is expected for petrol, coal and natural gas to
continue providing about 81% of worldwide energy use until 2035 (BP Energy Outlook to 2035).

When these proposed projections are examined, price of petrol and its derivatives become more of an issue in the industrial sector which provides more than half of energy consumption. It can be said that changes to prices of petrol and its derivatives which are an important cost element for industrial corporations directly influence profitability of corporations and therefore stock returns of industrial corporations considerably. Especially in the developing countries like Turkey, which tries to ensure growth by production and exportation, fluctuations in petrol and fossil fuel prices has an important effect on industrial corporations and national economy. Turkey has imported 11 millions of raw petrol in the first 6 months of 2015. Turkey’s dependence to import ratio of petrol is 93% (TPAO; 2015). In the economy of Turkey, which is a petrol importer, the effect of petrol prices on the products manufactured by industrial corporations can be seen clearly.

The purpose of this study is to examine the effects of international raw petrol prices on the stock returns of industrial sector corporations publicly traded in Borsa Istanbul (BIST). In the second part of the study, the works in the literature on determining the effects of energy prices on the stock prices and returns are included. In the third part, information on data, methods and applications used in the study are given and findings are discussed. In the last part, main findings obtained in the study are summarized.

2. Literature Review

There are many studies examining the relationship between energy prices and stock returns. Studies are mainly oriented on measuring the effect on the petrol prices and stock prices. Various studies showing the effect of petrol prices to stock markets and their results are given in the Table 1.
Table 1. Studies Showing Effect of Petrol Prices on Stock Markets

<table>
<thead>
<tr>
<th>Author</th>
<th>Country</th>
<th>Methodology</th>
<th>Period</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sadorsky (1999)</td>
<td>America</td>
<td>VAR</td>
<td>January 1947 / April 1996</td>
<td>It was stated that changes in the petrol prices play an important role in explaining changes in the stock returns and they have a meaningful and positive relationship.</td>
</tr>
<tr>
<td>Faff and Brailsford (1999)</td>
<td>Australia</td>
<td>VAR</td>
<td>1983 / 1996</td>
<td>A meaningful and positive relationship has been revealed between petrol prices and product markets diversified by petrol and gas sector. Meanwhile, a meaningful and negative relationship between paper and packaging, transportation and banking sectors has been observed.</td>
</tr>
<tr>
<td>Sadorsky (2001)</td>
<td>Canada</td>
<td>VAR</td>
<td>April 1983 / April 1999</td>
<td>Increase in petrol prices is also increases stock prices of petrol and gas sectors.</td>
</tr>
<tr>
<td>El-Sharif et al. (2005)</td>
<td>England</td>
<td>Multiple factor analysis</td>
<td>1st January 1989 / 30th June 2001</td>
<td>They stated that the changes in petrol prices have increased the petrol and gas stock returns in England.</td>
</tr>
<tr>
<td>Basher and Sadorsky (2006)</td>
<td>Developing countries (21 countries)</td>
<td>Multiple factor analysis</td>
<td>31st December 1992 / 31st October 2015</td>
<td>They determined that petrol price risk is affecting stock price returns in these countries and the relationship is partially related to frequency of used data.</td>
</tr>
<tr>
<td>Anoruo and Mustafa (2007)</td>
<td>ABD</td>
<td>Cointegration and VECM</td>
<td>1993 / 2006</td>
<td>They have reached the findings about there is a long term relationship between stock market and petrol market and a one way causality from stock market returns to petrol market returns.</td>
</tr>
<tr>
<td>Henriques and Sadorsky (2008),</td>
<td>Canada</td>
<td>VAR</td>
<td>3rd January 2001 and 30th May 2007</td>
<td>In the stock prices of alternative energy enterprises, changes in technology stock prices are more effective rather than petrol prices.</td>
</tr>
<tr>
<td>Park and Ratti (2008)</td>
<td>America</td>
<td>VAR</td>
<td>January 1986 / December 2005</td>
<td>Shocks in petrol prices have an important effect on stock returns in the same month or for a duration of one month.</td>
</tr>
<tr>
<td>Soytas and Oran (2008)</td>
<td>Turkey</td>
<td></td>
<td>2nd May 2003 / 1st March 2007</td>
<td>Expected effects on petrol prices and currency exchange rates were not observed.</td>
</tr>
<tr>
<td>Chen (2009)</td>
<td>America</td>
<td>Time Series</td>
<td>January 1957 / May 2009</td>
<td>High petrol prices increase the chance to switch from bull market to bear market.</td>
</tr>
<tr>
<td>Güler et al. (2010)</td>
<td>Turkey</td>
<td>Cointegration and Granger causality</td>
<td>10th July 2010 / 10th August 2009</td>
<td>They determined that Brent petrol price is and important indicator in stock prices and electric index price.</td>
</tr>
<tr>
<td>Hacihasanoglu and Soytas (2011)</td>
<td>ABD</td>
<td>Cointegration and causality</td>
<td>10th May 2007 / 15th March 2011</td>
<td>They have determined that a Granger causality in positive direction from stock returns to petrol returns in the period of decreasing trend in petrol price, while in the period of increasing stock prices.</td>
</tr>
<tr>
<td>Researcher</td>
<td>Country</td>
<td>Methodology</td>
<td>Time Period</td>
<td>Findings</td>
</tr>
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</tr>
<tr>
<td>Le and Chang (2011)</td>
<td>Japan, Singapore, South Korea and Malaysia</td>
<td>Action and Reaction and Variance Decomposition</td>
<td>January 1986 / February 2011</td>
<td>They have examined the reaction of stock prices to volatility in petrol prices and determined that stock market gives positive reaction in Japan but negative in Malaysia, and the reaction was unclear in Singapore and South Korea.</td>
</tr>
<tr>
<td>Kapusuzoğlu (2011)</td>
<td>Turkey</td>
<td>Cointegration and Granger Causality</td>
<td>January 2000 / January 2010</td>
<td>Determined a long term relationship between Brent petrol prices and indexes used in the study, and a one way causality towards indexes in Brent petrol prices.</td>
</tr>
<tr>
<td>Adaramola (2012)</td>
<td>Nigeria</td>
<td>Johansen cointegration and Granger causality</td>
<td>January 1985 / April 2009</td>
<td>Determined that stock returns give positive reaction to petrol price shock in short term but negative reaction in long term and a one way causality from petrol price shock to stock returns.</td>
</tr>
<tr>
<td>Unlu and Topçu (2013)</td>
<td>Turkey</td>
<td>Cointegration and causality</td>
<td>January 1990 / February 2001 and March 2001 / December 2011</td>
<td>Determined that no cointegration and causality relationship between BIST 100 index and raw petrol prices in the first period, however a cointegration relationship is present between variables in the second period and a one way causality from raw petrol prices to stock market.</td>
</tr>
<tr>
<td>Asterio and Bashmakova (2013)</td>
<td>In 10 Middle and East European Countries</td>
<td>Multiple factor analysis</td>
<td>22nd October 1999 / 23rd August 2007</td>
<td>Determined that beta of petrol price is negative and statistically meaningful, therefore petrol price is an important factor in determining stock returns.</td>
</tr>
<tr>
<td>Öztürk et al. (2013)</td>
<td>Turkey</td>
<td>Cointegration</td>
<td>February 1997 / November 2009</td>
<td>As a result of break cointegration test, determined that a cointegration relationship between petrol prices and ISE manufacturing sector and chemistry petrol-plastic sector indexes.</td>
</tr>
</tbody>
</table>

### 3. Data and Econometric Method

To present the relationship of changes in petrol prices over BIST Industrial Index Returns, logarithmic conversions of weekly data for 01.01.2010-01.01.2016 period obtained from T.R.
Central Bank Electronic Data Distribution System (EVDS) and Energy Information Administration are used in the study.

Table 2. Defining statistics on used variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Number of Observations</th>
<th>Average</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Skewness</th>
<th>Jarque-Bera</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISTSAN</td>
<td>Borsa Istanbul Industrial Index Return</td>
<td>314</td>
<td>102,849.7</td>
<td>26,005.87</td>
<td>56,374.02</td>
<td>151,534.1</td>
<td>0.138677</td>
<td>17.95516</td>
</tr>
<tr>
<td>BRENT</td>
<td>Brent Petrol Prices</td>
<td>314</td>
<td>93.64812</td>
<td>23.32883</td>
<td>35.9</td>
<td>126.62</td>
<td>-0.83138</td>
<td>40.14384</td>
</tr>
</tbody>
</table>

For the purpose of examining this relationship, firstly the stationarity of the series is tested with the help of Augmented Dickey Fuller (ADF), Phillips-Perron (PP) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) tests, then to determine whether they are cointegrated or not, Johansen Cointegration Test is conducted.

4. Findings

To obtain meaningful results in terms of econometrics and solve the issue of spurious regression in time series analysis, stationarity tests of the series are conducted in the first stage. In this context, statistical values were calculated for models with constant and with constant-trend using ADF, PP and KPSS unit root tests in our study and the results are presented in Table 3 and Table 4.

Table 3. Results of Unit Root Test (Constant)

<table>
<thead>
<tr>
<th></th>
<th>ADF t statistic</th>
<th>Critical Values</th>
<th>PP t statistic</th>
<th>Critical Values</th>
<th>KPSS t statistic</th>
<th>Critical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISTSAN</td>
<td>-1.656689</td>
<td>-3.451146</td>
<td>-1.872608</td>
<td>-3.451078</td>
<td>1.940822</td>
<td>0.739</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.463</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.347</td>
</tr>
<tr>
<td>BRENT</td>
<td>0.457444</td>
<td>-3.451146</td>
<td>0.641095</td>
<td>-3.451078</td>
<td>0.787412</td>
<td>0.739</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.463</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.347</td>
</tr>
<tr>
<td>ΔBISTSAN</td>
<td>-15.69641</td>
<td>-3.451146</td>
<td>-15.69585</td>
<td>-3.451146</td>
<td>0.131856</td>
<td>0.739</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.463</td>
</tr>
</tbody>
</table>
For models with constant, ADF, PP and KPSS unit root tests show that BIST Industrial index return and petrol price series are not stationary in the level but all three become stationary in their first differences. Thus, t statistical values calculated for ADF and PP tests are smaller than MacKinnon critical values at the level as absolute values. This means $H_0$ hypothesis which considers series to include unit root could not be rejected. On the other hand, the results of KPSS test shows that not $H_0$ hypothesis which considers series are stationary but the alternative is correct.

**Table 4. Results of Unit Root Test (Constant and Trend)**

<table>
<thead>
<tr>
<th></th>
<th>ADF t statistic</th>
<th>ADF Critical Values</th>
<th>PP t statistic</th>
<th>PP Critical Values</th>
<th>KPSS t statistic</th>
<th>KPSS Critical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISTSAN</td>
<td>-3.136399</td>
<td>-3.987745</td>
<td>-3.275511</td>
<td>-3.987649</td>
<td>0.076976</td>
<td>0.216</td>
</tr>
<tr>
<td></td>
<td>-3.424294</td>
<td>-3.424247</td>
<td>-3.135181</td>
<td>-3.135153</td>
<td></td>
<td>0.146</td>
</tr>
<tr>
<td></td>
<td>-3.135181</td>
<td>-3.135153</td>
<td></td>
<td></td>
<td></td>
<td>0.119</td>
</tr>
<tr>
<td>BRENT</td>
<td>-0.538165</td>
<td>-3.987745</td>
<td>-0.394606</td>
<td>-3.987649</td>
<td>0.458240</td>
<td>0.216</td>
</tr>
<tr>
<td></td>
<td>-3.424294</td>
<td>-3.424247</td>
<td>-3.135181</td>
<td>-3.135153</td>
<td></td>
<td>0.146</td>
</tr>
<tr>
<td></td>
<td>-3.135181</td>
<td>-3.135153</td>
<td></td>
<td></td>
<td></td>
<td>0.119</td>
</tr>
<tr>
<td>∆BISTSAN</td>
<td>-15.70881</td>
<td>-3.987745</td>
<td>-15.70893</td>
<td>-3.987745</td>
<td>0.035726</td>
<td>0.216</td>
</tr>
<tr>
<td></td>
<td>-3.424294</td>
<td>-3.424249</td>
<td>-3.135181</td>
<td>-3.135181</td>
<td></td>
<td>0.146</td>
</tr>
<tr>
<td></td>
<td>-3.135181</td>
<td>-3.135181</td>
<td></td>
<td></td>
<td></td>
<td>0.119</td>
</tr>
<tr>
<td>∆ BRENT</td>
<td>-13.73883</td>
<td>-3.987745</td>
<td>-13.75534</td>
<td>-3.987745</td>
<td>0.045049</td>
<td>0.216</td>
</tr>
<tr>
<td></td>
<td>-3.424294</td>
<td>-3.424249</td>
<td>-3.135181</td>
<td>-3.135181</td>
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</tr>
<tr>
<td></td>
<td>-3.135181</td>
<td>-3.135181</td>
<td></td>
<td></td>
<td></td>
<td>0.119</td>
</tr>
</tbody>
</table>

ADF, PP and KPSS unit root tests calculated for Constant-Trend models verify the results obtained above. So, in the study, it is also considered for constant-trend models that series are stationary in their first differences.

Series being stationary at the same level shows that BIST Industrial index return has the possibility of acting together with petrol prices in the long term. To research the presence of mentioned relationship in the long term, Johansen Cointegration test is used. To perform this test, first the optimal delay length (2) determined according to Schwarz information criteria was
considered and VAR model was estimated, then presence of a structural problem was tested. In
the second stage, the cointegration test which the results are given in Table 5 was conducted.

**Table 5. Results of Cointegration Test**

<table>
<thead>
<tr>
<th>Sample: 01.01.2010-01.01.2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of observations included: 311</td>
</tr>
<tr>
<td>Trend estimation: Linear deterministic trend</td>
</tr>
<tr>
<td>Series: BISTSAN BRENT</td>
</tr>
<tr>
<td>Delay Range: 1 to 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Eigen value</th>
<th>Trace statistics</th>
<th>0.05 critical value</th>
<th>Prob.</th>
<th>Maximum eigen value statistics</th>
<th>0.05 critical value</th>
<th>Probability*</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>0.022195</td>
<td>11.90124</td>
<td>20.26184</td>
<td>0.4577</td>
<td>6.980305</td>
<td>15.89210</td>
<td>0.6719</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.015698</td>
<td>4.920940</td>
<td>9.164546</td>
<td>0.2922</td>
<td>4.920940</td>
<td>9.164546</td>
<td>0.2922</td>
</tr>
<tr>
<td>Normalized cointegration equality</td>
<td>BISTSAN=12.23343-0.159185BRENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MacKinnon-Haug-Michelis (1999) p-values**

Trace and Maximum Eigen Value statistics calculated according to Johansen cointegration test results does not verify that no cointegration vector between series at the 5 percent significance level, in other words, series act together in the long term. As a result of Johansen cointegration analysis, it was concluded that no long term relationship between BIST Industrial index returns and petrol prices. In the light of these results, for the fluctuations in BIST Industrial index returns and petrol prices, VAR analysis, Granger causality test and Wald tests were also conducted (Results are given as attachments). It was seen in the VAR analysis, Granger causality analysis and Wald tests that no relationship between the two variables is present and fluctuations in the petrol prices does not cause any changes in BIST Industrial index returns.

**Conclusion**

The effects of fluctuations in Brent petrol prices on BIST Industrial index returns were examined by using weekly data for 01.01.2010-01.01.2016 period and conducting Johansen-
Juselius cointegration test, VAR analysis, Granger causality test and Wald tests in this study. As a result of cointegration test, it was determined that no long term relationship is present between BIST Industrial index returns and Brent petrol prices. Then, Granger causality test, VAR analysis and Wald test was respectively conducted on the variables. The results of tests and analysis conducted also supported cointegration test result and it was concluded that no relationship is present between Brent petrol prices and BIST industrial index returns.

In the light of these results, it can be seen that although petrol and its derivatives are important returns for industrial goods, the main reason for not affecting BIST industrial index returns is demand on industrial goods being stronger. Besides, use of natural gas and coal as energy sources in industrial manufacturing in Turkey as much as petrol can be a reason for fluctuation in petrol prices not affecting BIST Industrial index returns.
References


Ham Petrol ve Doğalşgaz Raporu, TPAO, Mayıs 2015.


**VAR**

<p>| Vector Autoregression Estimates | | |
|--------------------------------|------------------|
| Date: 02/09/16 | Time: 12:53 |
| Sample (adjusted): 1/15/2010 1/01/2016 | |
| Included observations: 312 after adjustments | |
| Standard errors in ( ) &amp; t-statistics in [ ] | | |
| | LBRENT | LSIN |
| LBRENT(-1) | 1.256223 | -0.015719 |
| | (0.05632) | (0.04150) |
| | [ 22.3061] | [-0.37879] |
| LBRENT(-2) | -0.258391 | 0.014429 |
| | (0.05691) | (0.04193) |
| | [-4.54061] | [0.34411] |
| LBISTSAN(-1) | -0.084472 | 1.112862 |
| | (0.07810) | (0.05755) |</p>
<table>
<thead>
<tr>
<th></th>
<th>[1.08160]</th>
<th>[19.3388]</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBISTSAN(-2)</td>
<td>0.067897</td>
<td>-0.122170</td>
</tr>
<tr>
<td></td>
<td>(0.07788)</td>
<td>(0.05738)</td>
</tr>
<tr>
<td></td>
<td>[0.87182]</td>
<td>[-2.12900]</td>
</tr>
<tr>
<td>C</td>
<td>0.198844</td>
<td>0.115199</td>
</tr>
<tr>
<td></td>
<td>(0.10094)</td>
<td>(0.07438)</td>
</tr>
<tr>
<td></td>
<td>[1.96988]</td>
<td>[1.54884]</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.988661</td>
<td>0.991792</td>
</tr>
<tr>
<td>Adj. R-squared</td>
<td>0.988513</td>
<td>0.991685</td>
</tr>
<tr>
<td>Sum sq. resid</td>
<td>0.312826</td>
<td>0.169840</td>
</tr>
<tr>
<td>S.E. equation</td>
<td>0.031921</td>
<td>0.023521</td>
</tr>
<tr>
<td>F-statistic</td>
<td>6692.049</td>
<td>9273.558</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>634.4883</td>
<td>729.7720</td>
</tr>
<tr>
<td>Akaike AIC</td>
<td>-4.035182</td>
<td>-4.645975</td>
</tr>
<tr>
<td>Schwarz SC</td>
<td>-3.975198</td>
<td>-4.585991</td>
</tr>
<tr>
<td>Mean dependent</td>
<td>4.501490</td>
<td>11.51142</td>
</tr>
<tr>
<td>S.D. dependent</td>
<td>0.297843</td>
<td>0.257937</td>
</tr>
<tr>
<td>Determinant resid covariance (dof adj.)</td>
<td>5.41E-07</td>
<td></td>
</tr>
<tr>
<td>Determinant resid covariance</td>
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<tr>
<td>Log likelihood</td>
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<td></td>
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<tr>
<td>Akaike information criterion</td>
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<td></td>
</tr>
<tr>
<td>Schwarz criterion</td>
<td>-8.602101</td>
<td></td>
</tr>
</tbody>
</table>

\[
LBRENT = C(1) \cdot LBRENT(-1) + C(2) \cdot LBRENT(-2) + C(3) \cdot LBISTSAN(-1) + C(4) \cdot LBISTSAN(-2) + C(5)
\]

\[
LBISTSAN = C(6) \cdot LBRENT(-1) + C(7) \cdot LBRENT(-2) + C(8) \cdot LBISTSAN(-1) + C(9) \cdot LBISTSAN(-2) + C(10)
\]

System: UNTITLED
Estimation Method: Least Squares
Date: 02/09/16  Time: 13:06
Sample: 1/15/2010 1/01/2016
Included observations: 312
Total system (balanced) observations 624

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C(1)</td>
<td>1.256223</td>
<td>0.056318</td>
<td>22.30609</td>
</tr>
<tr>
<td>C(2)</td>
<td>-0.258391</td>
<td>0.056907</td>
<td>-4.540605</td>
</tr>
<tr>
<td>C(3)</td>
<td>-0.084472</td>
<td>0.078099</td>
<td>-1.081604</td>
</tr>
<tr>
<td>C(4)</td>
<td>0.067897</td>
<td>0.077879</td>
<td>0.871824</td>
</tr>
<tr>
<td>C(5)</td>
<td>0.198844</td>
<td>0.100942</td>
<td>1.969876</td>
</tr>
<tr>
<td>C(6)</td>
<td>-0.015719</td>
<td>0.041496</td>
<td>-0.378793</td>
</tr>
<tr>
<td>C(7)</td>
<td>0.014429</td>
<td>0.041931</td>
<td>0.344114</td>
</tr>
<tr>
<td>C(8)</td>
<td>1.112862</td>
<td>0.057546</td>
<td>19.33879</td>
</tr>
<tr>
<td>C(9)</td>
<td>-0.122170</td>
<td>0.057384</td>
<td>-2.129001</td>
</tr>
<tr>
<td>C(10)</td>
<td>0.115199</td>
<td>0.074377</td>
<td>1.548844</td>
</tr>
</tbody>
</table>

Determinant residual covariance 5.24E-07
Equation: \( LBRENT = C(1) \cdot LBRENT(-1) + C(2) \cdot LBRENT(-2) + C(3) \cdot LBISTSAN(-1) + C(4) \cdot LBISTSAN(-2) + C(5) \)

Observations: 312

<table>
<thead>
<tr>
<th>R-squared</th>
<th>0.988661</th>
<th>Mean dependent var</th>
<th>4.5014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted R-squared</td>
<td>0.988513</td>
<td>S.D. dependent var</td>
<td>0.2978</td>
</tr>
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<td>S.E. of regression</td>
<td>0.031921</td>
<td>Sum squared resid</td>
<td>0.3128</td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>1.974658</td>
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</table>

Equation: \( LSIN = C(6) \cdot LBRENT(-1) + C(7) \cdot LBRENT(-2) + C(8) \cdot LBISTSAN(-1) + C(9) \cdot LBISTSAN(-2) + C(10) \)

Observations: 312

<table>
<thead>
<tr>
<th>R-squared</th>
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<th>Mean dependent var</th>
<th>11.511</th>
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</thead>
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</tr>
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<tr>
<td>Durbin-Watson stat</td>
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</table>

**WALD TEST**

<table>
<thead>
<tr>
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<th>Value</th>
<th>df</th>
<th>Probability</th>
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<tbody>
<tr>
<td>Chi-square</td>
<td>0.217913</td>
<td>2</td>
<td>0.8968</td>
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</table>

Null Hypothesis Summary:

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<th>Value</th>
<th>Std. Err.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C(6)</td>
<td>-0.015719</td>
<td>0.041496</td>
</tr>
<tr>
<td>C(7)</td>
<td>0.014429</td>
<td>0.041931</td>
</tr>
</tbody>
</table>

Restrictions are linear in coefficients.

**GRANGER CAUSALITY**

VAR Granger Causality/Block Exogeneity Wald Tests

<table>
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<td></td>
</tr>
<tr>
<td>Included observations: 312</td>
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</tr>
</tbody>
</table>
### Dependent variable: LBRENT

<table>
<thead>
<tr>
<th>Excluded</th>
<th>Chi-sq</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBISTSAN</td>
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<td>2</td>
<td>0.0581</td>
</tr>
<tr>
<td>All</td>
<td>5.689611</td>
<td>2</td>
<td>0.0581</td>
</tr>
</tbody>
</table>

### Dependent variable: LBISTSAN

<table>
<thead>
<tr>
<th>Excluded</th>
<th>Chi-sq</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LBRENT</td>
<td>0.217913</td>
<td>2</td>
<td>0.8968</td>
</tr>
<tr>
<td>All</td>
<td>0.217913</td>
<td>2</td>
<td>0.8968</td>
</tr>
</tbody>
</table>
University Students Mobile Phone and Communication Device Preferences Changes between 2011-2015

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ABSTRACT

In recent years, some technological devices and facilitates have become an indispensable part of life, which admit cellular phones and internet as a form of communication. In the early days, cell phones were only used for voice communication, but now they maintain other features such as internet communication, game tool, video recorder, calculator, navigation tool, email tool, voice recorder, music player and appointment reminders. Similarly, internet was only accessible from homes and workplaces but now it is accessible from mobile devices and cell phones. Therefore, today cell phones called as smart phones. People who use these devices are willing to have cell phones with other reasons besides talking. Some people preferred a wireless internet access over cell phone camera within the cell phones, and some buy the cell phone along with features that are not useful for them due to obscure features of cell phones. In the other words they would make unnecessary spending. Therefore, people must need to know the purpose for which they actually want to purchase the device. Also cell phone users behave differently in election of cell phones and service provider for that device. Users consider some factors when choosing cell phone and service provider. When buying a cell phone issues such as price, brand, technological features comes to fore and when choosing a
service provider the suitability of the plans, wide coverage and data communication speed comes to the top. These behavioral patterns can change during the years. The knowledge of the factors affecting this change is very important in determining to be taken services and campaigns. To see how is this change among university students, here are two studies performed in 2011 and 2015. With this survey based study, how university students’ service provider and device elections have been changed revealed. According to the results obtained from this study showed generally cell phones used for any purposes other than talking. Also students select their service provider with economic reasons and they have brand loyalty is in the obtained results. In performed statistical analysis students’ certain demographic characteristics and elections are correlated has been seen.

**Keywords:** Cell phone, Service provider selection, Information technology, Smart phone, Internet

**INTRODUCTION**

Technology plays an important role in our daily lives. The situation applies to both developed and developing countries. The devices are used in every moment of life, at home, at offices, on trips and even on vacations. It is safe to say that beside making our lives easier, technological devices also create and addiction. The work that is easily done today couldn’t be completed without computers, electronic office devices and mobile phones. It is impossible to imagine an office without these devices. Tasks like sending e-mails and voice messages and supervision of meetings gravely depend on technological devices. With the development of the internet, communication capacity of electronic devices came to the foreground. The worldwide web significantly improved connectivity.

Being inexpensive and obtainable, technological devices provided opportunities for adults and young children likewise. We can see that in recent years portable devices are getting
more and more popular. Among these devices cell phones and tablets are the most common. At first, cell phones were used only to make calls but nowadays they are expected to perform a wide variety of functions. Cell phones nowadays are used widely to take photos, listen to music, play games, send e-mails, and even use as them GPS. Nowadays` smartphones are much more functional and fast than the PCs were ten years ago. As availability and prevalence increases, the addition of new functions to smartphones continues. Every new product has more functions than the previous one.

Besides the technical specifications of the cell phones, offers made by service providers affect the preference of phones as well. Users make their choices by evaluating the cell phone service providers, speed of communication, prices and the range of signal. This choice can change over time. Studying these changes is very important to find the factors that affect users’ behavior. In this study, changes regarding the choice of communication devices and cell phones for university students through 2011 to 2015 were investigated. From 2011 to 2015 different studies were made and students were asked questions that were grouped according to different scales and were turned into a survey.

USE OF CELL PHONES IN TURKEY AND IN THE WORLD

The use of cell phones has increased all over the world. The situation is same in both developed and developing countries. The spreading rates in developing countries are higher than in developed countries. Prevalence and use of smartphones is widely spread among the young people.

Use of Cell Phones in the World

The use of cell phones in the world is continuously increasing, but nowadays this increment in developed countries has slowed down, while it remains very high in developing
countries. The reason is that developed countries have had the cell phones for a longer time period.

Mobile Cellular Subscriptions in some countries per their population is shown in Table 1. [2]

**Cell Phone Use in Turkey**

The use of land line phone subscriptions are decreasing and the cellular phone subscriptions are increasing in Turkey, as it is in the whole world. In Turkey, most of the population has a facility to house a cell phone. Besides that, there is no significant difference depending on age and gender in regards to cell phone usage, but there is a nearly equal amount of usage rate, as in developed countries.

The Number of Land Line Phones and Mobile Telephone Subscribers in Turkey are shown in Table 2. [3]

**Table 1. Mobile Cellular Subscriptions (per 100 people) in The World**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>162.53</td>
<td>158.74</td>
<td>-2.33%</td>
<td>Korea, Dem. Rep.</td>
<td>9.72</td>
<td>11.19</td>
<td>15.10%</td>
</tr>
<tr>
<td>Australia</td>
<td>106.84</td>
<td>131.23</td>
<td>22.83%</td>
<td>Korea, Rep.</td>
<td>111</td>
<td>115.54</td>
<td>4.09%</td>
</tr>
<tr>
<td>Austria</td>
<td>156.23</td>
<td>151.91</td>
<td>-2.76%</td>
<td>Mexico</td>
<td>84.82</td>
<td>82.54</td>
<td>-2.68%</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>74.43</td>
<td>75.92</td>
<td>2.01%</td>
<td>Netherlands</td>
<td>116.16</td>
<td>116.42</td>
<td>0.23%</td>
</tr>
<tr>
<td>Burundi</td>
<td>24.96</td>
<td>30.46</td>
<td>22.03%</td>
<td>Pakistan</td>
<td>70.13</td>
<td>73.33</td>
<td>4.57%</td>
</tr>
</tbody>
</table>

---


3 TurkStat, Ministry of Transport, Maritime Affairs and Communications, Information and Communications Technologies Authority Number of fixed telephone, mobile telephone and internet subscribers


137
The reason for the percentage above 100 per 100 subscribers is that some people have more than one cellular mobile phone subscription. In underdeveloped and in developing countries the cellular subscription rate is significantly lower.

Table 2. Number of Land Line Phone and Cell Phone Subscribers in Turkey

<table>
<thead>
<tr>
<th>Years</th>
<th>Number of Land Line Phone subscribers</th>
<th>Number of Cell Phone subscribers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>16,201,466</td>
<td>61,769,635</td>
</tr>
<tr>
<td>2011</td>
<td>15,210,846</td>
<td>65,321,745</td>
</tr>
<tr>
<td>2012</td>
<td>13,859,672</td>
<td>67,680,547</td>
</tr>
<tr>
<td>2013</td>
<td>13,551,705</td>
<td>69,661,108</td>
</tr>
</tbody>
</table>
In Turkey the subscriptions of land line phones decreased for 26.32%, while cell phone subscriptions increased for 16.85%, between 2011 and 2015. The decrease rates of land line phone subscriptions accounts to almost zero, both in the developed countries and even in less developed African states. Studies that have been done in seven African countries show that the popularity of land line phones is close to zero compared to the previous years. [4]

THE USAGE OF IT IN TURKEY AND IN THE WORLD

Because of the technological development, decrease in prices and availability in the usage, IT is getting more popular in currently developing and less developed countries, as it is in developed countries as well.

The Usage of Computers and Tablets in the World

The number of computer ownership is increasing in the World, but the rate of increase is decreasing, as the time goes on. The increase of computer usage in developing countries is higher than in developed ones. The increase will rise quickly till the use of computers spreads to the rest of population in less developed countries.

Computer usage in the World by years is shown in Graphic 1. [5]

<table>
<thead>
<tr>
<th>Year</th>
<th>Land Line Subscriptions</th>
<th>Cell Phone Subscriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>12,528,865</td>
<td>71,888,416</td>
</tr>
<tr>
<td>2015(1)</td>
<td>11,937,673</td>
<td>72,174,826</td>
</tr>
</tbody>
</table>

(1) Data is by the end of June.

---

According to the 2012 data the countries that have more PC’s shown in the Table 3.  

**Table 3. Top Ten Countries with Highest Number of PC's**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>PCs In-Use (in Million)</th>
<th>Sharing % of World Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>U.S.A</td>
<td>310.6</td>
<td>19.4</td>
</tr>
<tr>
<td>2</td>
<td>China</td>
<td>195.1</td>
<td>12.1</td>
</tr>
<tr>
<td>3</td>
<td>Japan</td>
<td>98.1</td>
<td>6.12</td>
</tr>
<tr>
<td>4</td>
<td>Germany</td>
<td>71.5</td>
<td>4.47</td>
</tr>
<tr>
<td>5</td>
<td>India</td>
<td>57.0</td>
<td>3.56</td>
</tr>
<tr>
<td>6</td>
<td>U.K</td>
<td>54.5</td>
<td>3.41</td>
</tr>
<tr>
<td>7</td>
<td>Russia</td>
<td>53.5</td>
<td>3.34</td>
</tr>
<tr>
<td>8</td>
<td>France</td>
<td>53.5</td>
<td>3.34</td>
</tr>
<tr>
<td>9</td>
<td>Brazil</td>
<td>48.1</td>
<td>3.1</td>
</tr>
<tr>
<td>10</td>
<td>Italy</td>
<td>44.7</td>
<td>2.79</td>
</tr>
</tbody>
</table>

In recent years beside the computers, portable devices have begun to be used. Having almost the same function as computers, tablets are increasing in reduced rate as computers.

Number of worldwide tablet users shown in Table 4.  

**Table 4. Tablet Users Worldwide, by Country 2013-2016 (Million)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>America</td>
<td>132</td>
<td>147</td>
<td>156</td>
<td>162.7</td>
<td>India</td>
<td>23.2</td>
<td>32.3</td>
<td>40.4</td>
<td>47.1</td>
</tr>
<tr>
<td>Argentina</td>
<td>4.2</td>
<td>5.4</td>
<td>6.6</td>
<td>7.7</td>
<td>Indonesia</td>
<td>17.2</td>
<td>24.6</td>
<td>32.1</td>
<td>37.8</td>
</tr>
<tr>
<td>Australia</td>
<td>7.3</td>
<td>9.2</td>
<td>10.3</td>
<td>11.2</td>
<td>Italy</td>
<td>11.9</td>
<td>15.6</td>
<td>17.6</td>
<td>19.5</td>
</tr>
</tbody>
</table>

---

Turkey being a developing country is interested in Information technologies and devices. World Trends of development and changes are also followed in Turkey. Rate of Decrease of land line phones, transition to portable devices and ownership of cell phones is paralleling the worldwide rates.

The ownership of some ITs by years In Turkey is shown on Table 5. \[8\]

Table 5. Availability of Devices in Households in Turkey (%)
RESEARCH ON CHOICES OF UNIVERSITY STUDENTS OF CELL PHONES AND COMMUNICATION DEVICES

To determine the cell phone and communication devices among university students there have been done 2 separate researches in 2011 and 2015. The students were asked the same questions in both studies. The results were given in the same table and graphics for the purposes of easy comparison.

The Basis and Contents of the Research

The researches that have been done in 2011 and 2015 were conducted in one of the biggest Turkish universities - the Ataturk University, among the students of different faculties that give 4 or more years of education. Having more than 60 thousand students in 2011, there were 888 questionnaires conducted and in 2015 the number of questionnaires was 799. The qualitative approach is reflected in the numbers of questionnaires, representing the main student body. In order to fully represent the student body, this qualitative researched tried to represent the students in every faculty and every class.

Goal and Method

This study aimed to determine the reasons provided by students to use cell phones and to explore criterions they use when choosing their mobile cell phone carriers. Before applying the questionnaire results to the general data, there have been conducted a survey in a specific faculty separately, to determine the reliability of the questionnaire. The Cronbach Alpha coefficient was used for the reliability of the data, and for 2011 this value was 0.876, while for 2015 it was 0.782. This values show the reliability of questionnaire. The written questionnaire was used to learn students view. Questions included inquiries regarding the demographics, income rate,
choice of cell phone and the reasons for choosing the specific cell phone carrier. The obtained data was evaluated and analyzed by statistical package program.

**Findings**

The students participating in the survey were asked questions from different categories. By evaluating the answers to those questions it has been tried to determine the behavior on this subject.

**Preference of Cell Phone Carrier**

All students have mobile phones. There are three cell phone carriers in Turkey. The companies that students prefer and the change in 5 years are shown in Graphic 2.

![Graphic 2. Cell Phone Carriers Preference](image)

We can see that in 2011 the rest of participants of survey preferred Turkcell. Turkcell is also a company that had the biggest stock in 2011. It’s seen that in 2015 students were intensively changing to Avea. In 2015 all three companies have almost the same rate of portion.

The Market share of cell phone carriers in Turkey through 2011 and 2015 is shown in Table 6. [9]

---

Table 6. Cell Phone Carriers Market Share in Turkey

<table>
<thead>
<tr>
<th>Cell Phone Carriers</th>
<th>2011</th>
<th>2015</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkcell</td>
<td>52.87%</td>
<td>46.80%</td>
<td>-11.48%</td>
</tr>
<tr>
<td>Vodafone</td>
<td>27.59%</td>
<td>30.10%</td>
<td>9.10%</td>
</tr>
<tr>
<td>Avea</td>
<td>19.54%</td>
<td>23.20%</td>
<td>18.73%</td>
</tr>
</tbody>
</table>

In this table it’s shown how in 5 years the market share of Turkcell decreased 11.48% while Vodafone increased 9.1% and Avea nearly increased 19%. The results of the surveys are reflective of these rates.

Factors Affecting Choice of Cell Phone Carriers

Students were asked about factors that influence their choice of cell phone carrier. The answers of students are shown in Graphic 3.

Students in 2011 valued the talking charges highest, where following criteria affecting their choice was available promotions, quality of voice and speed, however in 2015 the number of students caring about voice and speed quality doubled, while they still cared about talking charges equally as in 2011.

Graphic 3. Factors Affecting Choice of Cell Phone Carriers
Factors Affecting Choice of Cell Phone Devices

Students were asked about factors they pay attention to, when buying a cell phone. In 2011 and 2015 the number of students caring about the price of the device was the same (around 21%). In both researches it has been noted that students mostly care about the advance technological features of devices. Another point that attracted attention was that in 2015, students cared less about fashion and ease of use than previous years. The data regarding this topic has been shown on Graphic 4.

![Graph 4: Factors Affecting Choice of Cell Phone Devices](image)

**Graphic 4. Factors Affecting Choice of Cell Phone Devices**

As it can be seen on Graphic 4, another point is that except technological features, other effecting factors are cared less about, contrary to the 2011 data.

Wi-Fi Capability of Cell Phones

The students participating in survey were asked if their phone has a feature of wireless broadcasting. The obtained results are shown in Graphic 5.
76% of student cell phones had Wi-Fi in 2015 while only 56% of phones had Wi-Fi in 2011. This shows that students use cell phones for different purposes besides talking. Because of that, it is safe to assume that students have smart phones.

**The Monthly Cell Phone Payments**

In order to showcase how much students paid for their cell phones, the numbers obtained from the questionnaire are shown in Graphic 6.

As it is shown in graphic, monthly cell phone payments for students increased in all levels.
The Way of Benefit from Mobile Phones

Nowadays cell phones are used for different functions besides talking. Because of that, the participants were asked about the purposes they use their cell phones for. Obtained answers are shown in Graphic 7.

Graphic 7. The Way to Benefit from Mobile Phone

In comparison to 2011, for the purposes of talking and internet access student cell phones were used more. Proportionally the highest increase was in using phone for e-mails and internet. Using mobile phone for texting had decreased by 33%, compared to 2011.

The Usage of Mobile Apps

To determine which apps are preferred by students for their cell phones, questions were incorporated to questionnaire regarding popular app choices. The usage of these apps was increasing from 2011 to 2015. The obtained data is shown in Graphic 8.
All the apps that were used in 2011 are still used in 2015. The highest increase was in GPS, photo/video and video calling apps.

Replacing the Carrier to Get the Information Message

Students were asked, whether they would change their cell phone carrier, if their carrier specifically sent informational messages.

Student ideas about changing their cell phone carriers in 2015 reflected almost the same rates as in 2011. The rest of asked students did not think about changing their cell phone carriers.
STATISTICAL ANALYSIS

Based on studies, there was an investigation about whether there is a statistical relationship between student demographics and their choices of cell phone and communication devices or not. Chi-Square test was used among variables for studied relationships.

Relationship between Gender and the Choice of Cell Phone Carrier

There was no any significant statistical relationship between gender and the choice of cell phone carrier found among students that participated in survey in 2011 and 2015. In other word, either a male or a female demographic can't be used to estimate the cell phone carrier.

Table 7. Gender * Cell Phone Carrier Preferences Cross-tabulation (2011)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Cell Phone Carrier Preferences</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Turkcell</td>
<td>Avea</td>
</tr>
<tr>
<td>Male</td>
<td>Count</td>
<td>198</td>
</tr>
<tr>
<td>Male</td>
<td>% within Gender</td>
<td>45.3%</td>
</tr>
<tr>
<td>Male</td>
<td>% within GSM Carrier Preferences</td>
<td>45.2%</td>
</tr>
<tr>
<td>Female</td>
<td>Count</td>
<td>240</td>
</tr>
<tr>
<td>Female</td>
<td>% within Gender</td>
<td>53.2%</td>
</tr>
<tr>
<td>Female</td>
<td>% within Cell Phone Carrier Preferences</td>
<td>54.8%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>438</td>
</tr>
<tr>
<td>Total</td>
<td>% within Gender</td>
<td>49.3%</td>
</tr>
<tr>
<td>Total</td>
<td>% within GSM Carrier Preferences</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

N: 888  Pearson Chi-Square: 5.587  degree of free: 2  p: 0.061205
### Table 8. Gender * Cell Phone Carrier Preferences Cross-tabulation (2015)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>GSM Carrier Preferences</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Turkcell</td>
<td>Avea</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>113</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>34.8%</td>
<td>33.8%</td>
</tr>
<tr>
<td></td>
<td>% within Cell Phone Carrier Preferences</td>
<td>44.0%</td>
<td>41.7%</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>144</td>
<td>154</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>31.6%</td>
<td>33.8%</td>
</tr>
<tr>
<td></td>
<td>% within Cell Phone Carrier Preferences</td>
<td>56.0%</td>
<td>58.3%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>257</td>
<td>264</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>32.9%</td>
<td>33.8%</td>
</tr>
<tr>
<td></td>
<td>% within Cell Phone Carrier Preferences</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

N: 780  Pearson Chi-Square: 1.116517  degree of free: 2  p: 0.572205

**Relationship between Gender and Factors Affecting Choice of a Cell Phone Device**

The correlation between gender of students and the factors that they pay attention to while buying a cell phone were thoroughly studied. In 2011 there was a significant statistical relation found, while in the study of 2015 there were no traces of significant correlation observed.
Table 9. Gender * Factors Affecting Choice of Cell Phone Device Cross-tabulation (2011)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>Price</th>
<th>Aesthetic</th>
<th>Fashion/Trends</th>
<th>Technologic Features</th>
<th>Brand</th>
<th>Ease of use</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>117</td>
<td>53</td>
<td>19</td>
<td>140</td>
<td>37</td>
<td>69</td>
<td>435</td>
<td></td>
</tr>
<tr>
<td>% within Gender</td>
<td>26.9%</td>
<td>12.2%</td>
<td>4.4%</td>
<td>32.2%</td>
<td>8.5%</td>
<td>15.9%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% within Factors Affecting Choice of Cell Phone Device</td>
<td>60.6%</td>
<td>52.0%</td>
<td>38.0%</td>
<td>44.9%</td>
<td>56.1%</td>
<td>43.1%</td>
<td>49.3%</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>76</td>
<td>49</td>
<td>31</td>
<td>172</td>
<td>29</td>
<td>91</td>
<td>448</td>
<td></td>
</tr>
<tr>
<td>% within Gender</td>
<td>17.0%</td>
<td>10.9%</td>
<td>6.9%</td>
<td>38.4%</td>
<td>6.5%</td>
<td>20.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% within Factors Affecting Choice of Cell Phone Device</td>
<td>39.4%</td>
<td>48.0%</td>
<td>62.0%</td>
<td>55.1%</td>
<td>43.9%</td>
<td>56.9%</td>
<td>50.7%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>193</td>
<td>102</td>
<td>50</td>
<td>312</td>
<td>66</td>
<td>160</td>
<td>883</td>
<td></td>
</tr>
<tr>
<td>% within Gender</td>
<td>21.9%</td>
<td>11.6%</td>
<td>5.7%</td>
<td>35.3%</td>
<td>7.5%</td>
<td>18.1%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% within Factors Affecting Choice of Cell Phone Device</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

N: 883  Pearson Chi-Square: 18.836145  degree of free: 5  p: 0.002062
Table 10. Gender * Factors Affecting Choice of Cell Phone Device Cross-tabulation (2015)

<table>
<thead>
<tr>
<th></th>
<th>Factors Affecting Choice of Cell Phone Device</th>
<th>Price</th>
<th>Aesthetic</th>
<th>Fashion /Trends</th>
<th>Technologic Features</th>
<th>Brand</th>
<th>Ease of use</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>Count</td>
<td>134</td>
<td>70</td>
<td>62</td>
<td>13</td>
<td>28</td>
<td>13</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>41.9%</td>
<td>21.9%</td>
<td>19.4%</td>
<td>4.1%</td>
<td>8.8%</td>
<td>4.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Factors Affecting Choice of Cell Phone Device</td>
<td>39.1%</td>
<td>49.0%</td>
<td>42.5%</td>
<td>31.0%</td>
<td>37.8%</td>
<td>59.1%</td>
<td>41.6%</td>
</tr>
<tr>
<td>Female</td>
<td>Count</td>
<td>209</td>
<td>73</td>
<td>84</td>
<td>29</td>
<td>46</td>
<td>9</td>
<td>450</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>46.4%</td>
<td>16.2%</td>
<td>18.7%</td>
<td>6.4%</td>
<td>10.2%</td>
<td>2.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Factors Affecting Choice of Cell Phone Device</td>
<td>60.9%</td>
<td>51.0%</td>
<td>57.5%</td>
<td>69.0%</td>
<td>62.2%</td>
<td>40.9%</td>
<td>58.4%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>343</td>
<td>143</td>
<td>146</td>
<td>42</td>
<td>74</td>
<td>22</td>
<td>770</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>44.5%</td>
<td>18.6%</td>
<td>19.0%</td>
<td>5.5%</td>
<td>9.6%</td>
<td>2.9%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Factors Affecting Choice of Cell Phone Device</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

N: 770  Pearson Chi-Square: 9.295210  degree of free: 5  p: 0.097853

Correlation between the Age and Cell Phone Carrier Preference

There was a significant correlation between cell phone carrier preferences and ages of students that participated in survey (p: 0.0), while in 2015 study there was no any correlation (p: 0.817).
Table 11. Age * Cell Phone Carriers Preferences Cross-tabulation (2011)

<table>
<thead>
<tr>
<th>Age</th>
<th>Count</th>
<th>Turkcell</th>
<th>Avea</th>
<th>Vodafone</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-18</td>
<td></td>
<td>16</td>
<td>3</td>
<td>10</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>55.2%</td>
<td>10.3%</td>
<td>34.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Cell Phone Carriers Preferences</td>
<td>3.7%</td>
<td>1.7%</td>
<td>3.7%</td>
<td>3.3%</td>
</tr>
<tr>
<td>9-21</td>
<td></td>
<td>227</td>
<td>56</td>
<td>105</td>
<td>388</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>58.5%</td>
<td>14.4%</td>
<td>27.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Cell Phone Carriers Preferences</td>
<td>51.8%</td>
<td>31.6%</td>
<td>38.5%</td>
<td>43.7%</td>
</tr>
<tr>
<td>2-24</td>
<td></td>
<td>166</td>
<td>94</td>
<td>127</td>
<td>387</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>42.9%</td>
<td>24.3%</td>
<td>32.8%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Cell Phone Carriers Preferences</td>
<td>37.9%</td>
<td>53.1%</td>
<td>46.5%</td>
<td>43.6%</td>
</tr>
<tr>
<td>5-27</td>
<td></td>
<td>25</td>
<td>22</td>
<td>24</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>--------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>8 +</td>
<td>35.2%</td>
<td>31.0%</td>
<td>33.8%</td>
<td>100.0%</td>
<td></td>
</tr>
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<td></td>
<td>% within Cell Phone Carriers Preferences</td>
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<td></td>
<td>5.7%</td>
<td>12.4%</td>
<td>8.8%</td>
<td>8.0%</td>
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<tr>
<td>Count</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>13</td>
<td></td>
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<tr>
<td>% within Age</td>
<td>30.8%</td>
<td>15.4%</td>
<td>53.8%</td>
<td>100.0%</td>
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<td></td>
<td>% within Cell Phone Carriers Preferences</td>
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<td></td>
<td>0.9%</td>
<td>1.1%</td>
<td>2.6%</td>
<td>1.5%</td>
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<tr>
<td>Count</td>
<td>438</td>
<td>177</td>
<td>273</td>
<td>888</td>
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</tr>
<tr>
<td>Total % within Age</td>
<td>49.3%</td>
<td>19.9%</td>
<td>30.7%</td>
<td>100.0%</td>
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<td></td>
<td>% within Cell Phone Carriers Preferences</td>
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<td>100.0%</td>
<td>100.0%</td>
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<td>100.0%</td>
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</tr>
</tbody>
</table>

N: 888   Pearson Chi-Square: 34.103970   degree of free: 8   p: 0.000039
Table 12. Age * Cell Phone Carriers Preferences Cross-tabulation (2015)

<table>
<thead>
<tr>
<th>Age</th>
<th>Count</th>
<th>Turkcell</th>
<th>Avea</th>
<th>Vodafone</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-18</td>
<td></td>
<td>13</td>
<td>16</td>
<td>11</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>32.5%</td>
<td>40.0%</td>
<td>27.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Cell Phone Carriers Preferences</td>
<td>5.0%</td>
<td>6.0%</td>
<td>4.3%</td>
<td>5.1%</td>
</tr>
<tr>
<td>9-21</td>
<td></td>
<td>162</td>
<td>150</td>
<td>161</td>
<td>473</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>34.2%</td>
<td>31.7%</td>
<td>34.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Cell Phone Carriers Preferences</td>
<td>62.8%</td>
<td>56.4%</td>
<td>62.4%</td>
<td>60.5%</td>
</tr>
<tr>
<td>2-24</td>
<td></td>
<td>65</td>
<td>80</td>
<td>67</td>
<td>212</td>
</tr>
<tr>
<td></td>
<td>% within Age</td>
<td>30.7%</td>
<td>37.7%</td>
<td>31.6%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Cell Phone Carriers Preferences</td>
<td>25.2%</td>
<td>30.1%</td>
<td>26.0%</td>
<td>27.1%</td>
</tr>
</tbody>
</table>
CONCLUSION

According to these studies, students are open to development in communication and they follow the development of technology. Reviewing both separate researches, it was observed that in 2015 76% of students had new technology and smartphones with Wi-Fi, while in 2011 only 56% of students had technology with that feature. Furthermore, it has been observed that in terms of statistical significance, 53% of students care about technological features while buying new cell phones and only 20% of students care about the price.
Students consider speaking fee when choosing cell phone carrier while in 2011, they consider communication speed and quality and more promotions in 2015. One of the results obtained is, monthly mobile phone bills for more than half of the students are paying in 2015 more than they paid in 2011.

The purposes of cell phone usage have been changed by years. While in 2011 the cell phone usage for e-mail was about to 2.7%, in 2015 this rate increased by 430% and reached 11.6%, usage of cell phone for internet increased by 363% and reached 61.2%. While in 2011 students were texting a lot, in 2015 they talk much more. In 2015 usage of cell phone for texting decreased by 33% compared to 2011, and the rate of usage for talking increased by 8%.

Application usage rate in cell phones among students in 2015 had not only paralleled 2011 rates, but also experienced an increase. Only the GPS smartphone feature increased by 241% in usage and reached 9.5%. Photo/video is also one of the features with increased use. The highest rate of usage among students has been observed in social network apps. Most of the students say that they wouldn’t leave their cell phone carrier for one simple reason of information messages.

As a result, students use their cell phones for many other purposes besides talking, which positively increased by years. Cell phones became multifunctional, and started being called smartphones, where students can use them as a gaming device, for entertainment and as a tool to follow social networks. Considering student loyalty to their cell phone carriers, making advantageous campaigns (promotions) for students will increase the customer satisfaction and will consolidate customer loyalty.
References

http://data.worldbank.org/indicator/IT.CEL.SETS.P2


Linking Crisis to Security in Foreign Policy

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By the end of the Cold War new challenges started to face the world but this time they are not hard power threats. Instead they are soft power threats or as some call them; they are ‘untraditional’ security challenges. These range from climate changes, to water security to drug trafficking, human trafficking, to migrants and refugees. The main argument of this piece is to try to prove that there is a link between crisis, security and foreign policy. The idea is that with every crisis that erupts it represents a security challenge to a state’s foreign policy, regardless to its regime type. This paper will mainly focus on ‘transit’ states which are either non-democratic states or in a state of transition. This is because to these countries, crisis represents a threat to the national security not just of the state but also to the ruling regime. Hence, when crisis happens the decision maker becomes not just the ministry of foreign affairs it becomes the mission of a president who forms a ‘crisis management group’ to deal with the current crisis the state faces. It is argued that in some cases the state/regime determines the importance of the crisis according to national security priorities. Although crises are seen as issues that should be dealt with on foreign policy matters yet they are dealt with as domestic security issues rather than foreign policy one. As in crises as Fen Osler quoted Kenneth Waltz, “in crises, responsibility for action moves upward precisely because important values are threatened, standard operating procedures are inadequate and necessary decisions exceed the authority and competence of junior often less experienced officials” (1984-1985). The crisis focused upon in this paper would be “neo-security” threat classified as “soft & untraditional” yet still with real peril to states. This shall be migrants’ crisis with special focus on the Syrian migrants and refugees since 2012 up until 2015.
Introduction

The spark of this migrant crisis came as a result of the mega event in recent Arab history called “Arab Spring” hitting the Arab region since December 2010 in Tunisia, Egypt, Yemen, Syria, Bahrain and Libya. This big event witnessed the uprising of people against their autocratic regimes. In very few cases the people were successful in ousting their leaders from power such as the cases of Tunisia, Egypt and Yemen. While states like Syria & Bahrain failed to do so leading in one of the cases; Syria to fall into a civil war lasting for more than four years. This had its own negative repercussion on huge waves of migrants to nearby states as to Jordan, Lebanon, Libya, Egypt and Turkey or further to Europe.

In 2015 Europe hit hard by flows of Syrian migrants. This tragedy of high death tolls of young people and children who drowned before reaching the shores of Europe drove many analyst and scholars to ask for the reason for them to leave neighboring countries and go to Europe via the Mediterranean Sea risking their lives. Europe view this flow of migrants and refugees in two ways. First, it was seen as a security crisis for them which made the EU increase the tight up measures for securing its borders. Second, it has been viewed as a humanitarian crisis that had to be resolved by big states inside of the EU. These two stands for the EU show the dilemma the EU faces when implementing its foreign policy. It is the dilemma of interests versus values. With the rising threats of terrorism, EU had to be protective for its borders which shows the impact of crisis and security in shaping EU’s foreign policy as “host” states to these migrants and refugees.

The hostile attitude of some European states against these migrants and refugees was vivid in the middle of the summer of 2015. Some analysts referred back to this hostile behavior as these states were small states who had domestic problems and couldn’t accept further
burdens. Others relate it to the fear of spread of radical Islam inside Europe. Thus, worsening the situation attracting a lot of world’s attention to this crisis.

The problem is not within Europe alone as ‘host’ or ‘final’ destination for migrants but also with “transit” states. It is these transit states which added up more to the acuteness of the migrant and refugee crisis. Both now the EU and transit states view migrants and refugees as threat to their own security. As a result the link between crisis, security and foreign policy has been drawn. The main focus will be on transit states as some have been categorized as non-democratic regimes and others as in transitional phase since the Arab Spring. An investigation for the reason for them becoming a repulsive force for migrants and refugees will be undertaken. The cases that will be tackled are Egypt, Jordan and Lebanon.

1- The case of Egypt:

This is a case that illustrates that migrants’ crisis represent a security threat to stability of the political system and regime in power which in turn had its impact on Egypt’s foreign policy. Since June 30th 2013 uprising against Muslim brother regime, Egypt’s stand from Syrian crisis has differed. And so did Egypt’s treatment to Syrian refugees. The Muslim Brother’s regime under Mohamed Morsi’s presidency (2012-2013) was very welcoming to Syrian refugees and Morsi said that Syrians will enjoy same benefits like Egyptians in terms of free medical insurance and free education in public schools for Syrian children. He even took it to the edge when he closed the Syrian embassy in Cairo. Under Morsi Egypt’s foreign policy was acceptable to US strikes against Bashar however currently this option is not encouraged by Egypt’s foreign ministry (Mourad: 2014). Throughout reading the literature regarding Egyptians’ attitude towards migrants and refugees; it showed the positive attitude of Egyptians towards them all regardless to their nationality; Ethiopians, Sundanese, Iraqis or Syrians. Egypt is well known for not having any “refugees’ camp”. Most of refugees are living in rental
apartments along with Egyptian neighbors. “The majority of Syrian refugees and migrants resided in Cairo metropolitan area, Syrian refugees scattered across a number of other governorates including Alexandria, Sinai, Damietta and Mansoura” (Ayoub & Khallaf: 2014).

Syrians were welcomed at their early arrivals by the Egyptians. However, this behavior changed to become more negative over time. Egyptians became ‘xenophobic’. Most of the literature written post 2011 justify this due to the fact of loss of security. Egyptians felt insecure in their own country and this was projected on their relationship with migrants and refugees. Moreover, Egyptians felt that there was a competition in the job market due to the Syrian migrants’ presence which would reduce Egyptian chances for finding jobs. It is worth mentioning that the unemployment rate in Egypt has reached 12.8% in 2015. As a result a lot of Syrian migrants started to either open up their own business especially in the food sector (such as selling ready-made food for working wives or opening up their own Döner Kebab restaurants) or to work in the informal sector. Furthermore, another reason for this hostile attitude towards migrants and refugees is due to, “ongoing rumors of ‘third party’ manipulations in domestic affairs while others refute this argument based on a lack of evidence” (Hafez: 2012, 6). That’s on societal level until 2012 but things even went down the hill by 2013 when it became on the political level. The Egyptian government projected the image of migrants, particularly the Syrian ones, as one of the sources of threat to the June 30th 2013 revolution, which overthrew the Islamic regime from power. The June 30th government relayed on the presence of some Syrians in Raba’a square, where protestors supporting the Muslim Brothers had a 45 days sit-in. As well as there were Syrians wide spread in Sinai allying themselves with ISIS threatening the stability of Egypt. This drove many Egyptians to become hostile to Syrians and the Egyptian government watched closely after these Syrians. Jared Malsin wrote in the Time that Arab rich countries were tough on Syrians since the breakout of the turmoil. Thus, this led Syrians to flee to countries like Egypt but soon the ‘honeymoon’ was over due to
security concerns. “In Egypt,… it has intensified the visa restrictions more post 2013, although Morsi’s government was more flexible with them due to their support for Muslim brothers in Syria” (Malsin: 2015). He continued by saying that the Egyptian government (political level) began to deport many Syrians others were fired from their jobs and some were detained by the police. On the societal level a lot of Syrians were subject to, “Harassments by landlords and asked to leave the houses.” This shows that on both levels; societal and political were anti-Syrian presence in Egypt, that's why they had to leave to Europe and Turkey. Syrians who fled Syria due to the high sense of oppression they suffered from under Assad’s regime as they were opposing him. Consequently, they could not handle any more restrictions coming from a new government in Egypt post 2013 and they decided to leave it. In conclusion, this is a clear case of linking soft crisis to security to foreign policy.

![UNHCR 2015 planning figures for Egypt](image)

*This table is from 2015 UNHCR Country Operations Profile-Egypt*
2- The case of Jordan:

In this country, migrants’ crisis has been viewed as a threat to the economy of Jordan. The migrants sudden flows has resulted in a lot of pressures put on Jordan’s poor resources. Jordan provides settlement for migrants and refugees in refugee camps unlike in Egypt. Thus, the humanitarian conditions for these camps has been worsening. When Syrians came with big numbers of flows, the Jordanian government failed to cope in providing them with enough required essential resources. This in turn had its impact on Jordanian government to limit acceptance of refugees and migrants from other nationalities as for example Palestinians seeking entry form Syria (Tobin: 2013). It is worth mentioning that Jordan has a wide population of Palestinians who consider Jordan as their second homes after the Israeli occupation for Palestine.

Jordan was one of the few countries in Arab world that witnessed small and short lived uprising during the Arab Spring. It was able to quickly contain these roaring masses due to the strength of their King; Abdullah the second. Jordan is not willing to go through more uproars due to refugees and migrants who seemed to be competing with nationals over employment. Jordanians felt, like Egyptians, that there is competition in job market between Syrians and Jordanians so another economic crisis. A problem the Jordanian government was disinclined to tolerate and added up to the reasons for change in its attitude towards Syrian migrants. It should be mentioned that the majority of Syrian migrants in Jordan are of poor and humble backgrounds and here the economic threat becomes clear on both levels government and citizens.

Furthermore, there is a fear of infiltration of Islamist extremists to be among the flows of migrants this was another reason the Jordanian government took uptight measures against migrants’ inflows. It is one of the lesson learned by Jordanian government from the ongoing
situation in Egypt. Thus, the Jordanian government decided to close its borders. To sum up the fear of rising radical Islamist and continuous economic problem in a poor resources country were reasons for this alternation of attitude towards migrants. This again illustrates the impact of crisis on security to foreign policy.

<table>
<thead>
<tr>
<th>UNHCR 2015 planning figures for Jordan[1]</th>
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<tr>
<td><strong>Type of population</strong></td>
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<td><strong>Refugees</strong></td>
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<td></td>
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<tr>
<td><strong>Asylum-seekers</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

1. PoC planning figures in this table are based on trends and registration data from early 2014. In light of the evolving situation in the Syrian Arab Republic and Iraq, updated projections will be presented in any forthcoming appeals for supplementary requirements in 2015 for the Syria and Iraq situations, including the 2015 Regional Refugee and Resilience Plan (3RP).
2. Refugee figure for Iraq is a Government estimate

*This table is from 2015 UNHCR Country Operations Profile-Jordan

3- The case of Lebanon:

The Syrian refugees in Lebanon were not settled in refugees’ camps as in Jordan in fact the Lebanese government went to the extreme by denying them the right to build tents for their shelter. This policy of no building for refugee camps and tents is a lesson learned the hard way from the Palestinian refugee camps built in southern Lebanon and was a reason for the Lebanese civil war. As a solution Syrians used to be hosted by some Lebanese families. Yet the Lebanese government did not welcome this act and some “political leaders started to use the escalating refugee crisis as a means of galvanizing the intra-communal fears in the country” said Ethan Corbin (Tobin: 2013). This shows that the migrants’ crisis is a security threat to the stability of the Lebanese society. The government has accused the Syrian refugees and migrants for causing
tensions in Lebanon as they are seen as a “security” threat along with a “socio-economic” threat in a country that is already suffering a lot of economic problems that the Lebanese government is poorly performing on it. The Lebanese government has been facing a lot of pressures internally due to their low performance. To give an example; in summer of 2015 the government faced one of the biggest strikes over garbage collection. It is seen that the government has failed to collect tones of rubbish to be left out in the streets. The sewage system also has been in a poor status. All this added up for people to go out in the streets calling for a new government. The impact of this crisis on security was immense and as a result Lebanese government started to tighten up restrictions on Syrian entrance to Lebanon as well as ask for international funds to support the improvement of these Syrian humanitarian situation.

![Table](image)

*This table is from 2015 UNHCR Country Operations Profile-Lebanon

**Conclusion**

There are a number of reasons for the deterioration of the migrants’ crisis in the transit states. A couple of interesting points raised by Khalid Koser such as that some of the transit states uprisings did not escalate into the level of a civil war as that happened in both Syria and
Libya. Second, Koser elaborated saying that Syria and Libya were at one point hosts for other migrants such as Iraqis in case of Syria and migrant workers as in Libya. This in turn has added up to the intensity of the crisis as both migrants and nationals have been fleeing both Syria and Libya to closest borders. Third reason, is the inability of governments in transition facing the turmoil to protect their citizens and the new migrants (2012). As Fargues and Fandrich said that, “migrants and particular those in irregular situations who have often no choice but to hide and live in limbo would become a population at risk when uprisings broke out” (2012). This has been very vivid in the aforementioned states. Therefore, it is due to the lack of security internally provided by transit governments in these transit states such as Egypt & Jordan which led to the sense of insecurity of both citizens and migrants. But migrants have chosen to seek their way to Europe. With the intensity of the war inside Syria and the many restrictions put on borders of neighboring countries these Syrian find no solution but to throw themselves into the water of the Mediterranean. “Refugees say that the scale of unrest in the Middle East including countries in which they initially sought sanctuary, leaves them with no option but to take their chances at sea” (Kingsley:2015).

To conclude, states like Egypt, Jordan and Lebanon are all transit states to those migrants. The political regimes in these states have decided upon how to handle the migrants’ crisis. All three states have taken very tight measures on migrants and refugees. Main point of argument is that these states are facing political instability either due to being in a transitional period and/or due to domestic instability. These states are trying to establish order and stability domestically (putting their houses back in order) than to accept migrants who would cause more difficulties. They also fear the economic burdens caused by these migrants as well as the spread of Islamization which again would cause instability to the old regime in power or the new one trying to establish itself. It is this sense of insecurity caused by these sudden Syrian migrants and refugees flows that has driven many of the “transit” states regimes to adopt different foreign
policies than the usual ones. It is this time of soft untraditional crisis which has an impact on foreign policy of states that happen to be non-democratic and/or going through a transitional phase as they represent security threats to these states. Hence, linking crisis to security to foreign policy.
References


Fargues, Philipe and Christian Fandrich. (2012). “Migration after the Arab Spring” MPC Research Report
http://www.migrationpolicycentre.eu/docs/MPC%202012%20EN%2009.pdf


The Status of Neighborhood Administration in Turkish Administrative Organization

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ABSTRACT

States establish their organizational structures based on their political structures. This formation includes gathering public services and activities and public authority in the center or sharing them with other public bodies and institutions. First one is called as centralization and second one is called as decentralization. Whatever the administrative structure of the state is, the application of one of these systems alone is not in question. Which unit gives which services to what extent? It mainly changes according to the political structure of the country.

As is known, the neighborhood administration also functions as a bridge between local community and local administrations nowadays and sometimes between central administration and the people. The people, who cannot reach local administrators and civilian authorities, can convey their problems through the neighborhood mukhtar mostly.

In this study, it is discussed whether this unit, which functions as a bridge between the people and central administration and local administrations, is a local administration or a rural extension of the central administration. After discussing the characteristics, advantages and disadvantages of centralization and decentralization, the development process of the neighborhood administration from Ottoman era until today is examined. In this context, its status in Turkish administrative organization is detected and suggestions towards restructuring are made.

Keywords: Centralization, Decentralization, Neighborhood, Neighborhood Administration.
1. GENERAL OVERVIEW 10

In the delivery of public services, all services can be gathered in the center or the delivery of these services can be shared among different public bodies and institutions. If the delivery of public services is gathered in the center, it is called as centralization; if the delivery of public services is shared among public bodies and institutions, it is called as decentralization. Whatever the administrative structure of the state is, the application of one of these systems alone is not in question. Which unit gives which services to what extent? It mainly changes according to the political structure of the country. In this context, it is possible to make similar evaluations for both Turkey and the Ottoman Empire.

There are no similarities between pre-Tanzimat state structure and organizations in the Ottoman Empire and post-Republic state structure and organizations. After The Ottoman Imperial Edict of Reorganization (Tanzimat Fermanı), despite important differences in legal and administrative systems, it can be said that there are more similarities in terms of structures and physiognomies of administrative structures (Onar, 1952: 572).

In the Article 123 of the 1982 Constitution, “The organization and functions of the administration are based on the principles of centralization and decentralization.” With this statement, it is declared that public services will be given in terms of the principles of both centralization and decentralization.

The neighborhood administration is one of the institutions, which plays an important role in the delivery of public services. However, when it is evaluated in terms of legislation and

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10 This study is mainly based on “Public Administration Course Notes” given in the Department of Political Science and Public Administration, Faculty of Economics and Administrative Sciences, Kafkas University; “The Role of the Neighborhood Administration in Solving Urban Problems and Its Restructure” presented in KAYFOR 13; and “Public Administration” book (Edited by Yüksel KOÇAK) published in 2013 by Merdiven Publications.
actual services given, it is very difficult to decide whether the neighborhood administration is a rural extension of the central administration or a local administration.

After briefly referring to centralization and decentralization below, the development process of the neighborhood administration from Ottoman era until today is examined, its status in Turkish administrative organization is evaluated and suggestions towards restructuring are made.

2. CENTRALIZATION

Centralization can be evaluated from two different perspectives as political and administrative. If the legislative, executive and judiciary systems are unitary - in other words if same laws are applied throughout the country in the same way – it can be called as centralization in terms of political perspective. This type of administration is called as unitary state like Turkey and France (Versan, 1986: 74).

When it comes to centralization in terms of administrative perspective, it means that not only legislative function but also executive function is executed from the center; in other words, the delivery of public services and public authority become centralized and they are gathered under a single body. If there is no centralization in terms of political perspective, there is no centralization in terms of administrative perspective. However, it is possible to have political centralization without administrative centralization. For example, there is political centralization in the United Kingdom but not administrative centralization (Versan 1986: 74).

2.1. Definition, Scope and Features

Centralization means that the delivery of public services and public authority are gathered under one single body (in the legal entity of state). Which system is applied in the state administration is closely related with the political structure of that state. If central administration is only applied in a state, it means that there is no other institution, which has public legal entity,
except for the state legal entity. In this situation, all public services are delivered by state legal entity (Gözübüyük, 2004: 36). However, the delivery of all public services by state legal entity does not comply with social reality. Whatever the system is, states more or less deliver some public services through institutions that they establish apart from their legal entities.

**The features of centralization can be listed as follows (Versan, 1986: 36):**

- Public authority is gathered under a single body.
- The appointment of public officers belongs to central administration.
- Public services can be delivered by central administration officers.
- Revenues and expenditures are related with central budget.
- The authority of decision-making belongs to the center.

It cannot be said that any administration system is completely advantageous or completely disadvantageous. In this context, there are both advantages and disadvantages of central administration.

### 2.2. The advantages of centralization

In countries adopting central administration system, the authorities of central administration strengthen and widen (Versan, 1986: 76).

The delivery of services by central administration leads to benefit from these services cheaper for the society. (Odyakmaz et al., 2006: 214). For this reason, it also means fewer taxes for tax-payers.

There is more impartiality in centralization. In this system, public officers are less affected from local developments. At the same time, it is easier to control public officers as they are not under the same hierarchy (Versan, 1986: 76).

Public services can be given in a standardized way in central administrations. In this context, same services can be given in same quality for all the people throughout the country (Odyakmaz et al., 2006: 214).
In the areas which private sector does not produce and give services due to less profitability, social balance is enabled when services are delivered by the central administration (Versan, 1986: 76).

### 2.3. The disadvantages of centralization

Centralization does not comply with the understanding of democracy. In democracies, the people have a voice on the issues related with them. However, in central administration system, people are more passive. Instead of participating to administration process, it is expected from central administration to deliver services.

Bureaucracy is important in central administration. This causes malfunctioning and delaying of services at the same time (Odyakmaz et al., 2006: 214).

In the appointment of officers responsible from public services, political concerns are important instead of qualifications.

Politicians can use public facilities for their own regions and public resources are not used efficiently and effectively (Odyakmaz et al., 2006: 214).

It is not possible to leave central administration system completely despite such kind of disadvantages. However, it is possible to take some precautions to reduce these disadvantages. After all, nowadays, in addition to central administration, decentralization is gaining importance gradually, which tries to enable a balance. (Versan, 1986: 77).

### 3. DECENTRALIZATION

#### 3.1. Definition and Scope

Local administrations (decentralization) are defined in the Article 127 of the Constitution as follows: “Local administrations are public corporate bodies established to meet the common local needs of the inhabitants of provinces, municipal districts and villages, whose
principles of constitution and decision-making organs elected by the electorate are determined by law”. In other words, local administrations can be defined as follows: “public corporate bodies which have duties and authorities stipulated by the laws, special revenue, budget and staff, whose decision-making organs are determined by local community in order to meet the common needs of the local community resident in a certain geography” (Tortop et al., 2006: 16).

In public administration dictionary, local administration is defined as follows: “public corporate bodies established to deliver services for the issues mostly related with the individuals in the local community living in a certain geographical area (city, village, province, etc.) as they are living together, whose decision-making organs are appointed after being elected by the local community, which has special revenues, budget and staff, which can establish its own organizational structure for the undertaken services and benefit from administrative autonomy in its relations with central administration” (Parlak, 2011: 853).

In legal dictionary, local administration is defined as follows: “public administration unit giving local public services and functioning under the control of local community; these are municipalities, special provincial administrations and villages” (Ejder, 2004: 579).

After evaluating these definitions, the emphasis on the geographical dimension of local administrations is taken attention. Secondly, these definitions show the autonomy of local administrations because they have their own budget, staff and public corporate body apart from the state and its decisions-making organs are appointed with elections. As stated in the definition of Parlak, this is administrative autonomy. In other words, it should be understood that this kind of autonomy has the ability to act within the limits determined by central administration.
3.2. Types of Local Administration

The entities of decentralization are generally classified as political and administrative decentralization entities.

3.2.1. Political Decentralization

Political decentralization is defined as follows: “an organization principle in a social or political structure stipulating the combination of the existences and identities of various units, which constitute this structure, without any loss” (Canatan, 2001: 16).

In this type of administration, the authorities are shared by some units established apart from the central administration. At the same time, these units have legislative, executive and judiciary powers (Yıldırım, 2003: 24). However, these units are not independent in terms of their authorities and powers. There are federal constitution and judiciary above their constitutions and judicial organs. There are also local administrations to deliver local services in the federal states which constitute the federation. However, these local administrations have no connection with the central state (federation). In federations, the states have the full authority to establish and close local administrations and to determine their services areas.

The organizational definition of federalism is multiple centralities. Like central administrations, the authority is given to the states directly by the people. Although states deliver many services with federal government in functional terms, federal government has no authority to intervene these services in structural terms. Moreover, states have the capacity to determine policies and to take decisions independent from the federal government (Eryılmaz, 2008: 78).

The federal state is an administration type applied in the countries which are non-homogenous in cultural terms, which have vast territories and socio-economic differences. However, it must be stated that the size of geographical area is not more effective than language,
religion and ethnic differences in the formation of federal structure. While the United States of America and Russian Federation are the examples of federal state which have big geographical areas, Switzerland is also an example of a federal state which has a small territory (Eryılmaz, 2008: 78). For this reason, it is not a correct approach that federal structure is only based on geographical structure. The above-mentioned examples of the USA and Russia, which have federal structures due to their geographical structures, have not a homogenous structure in terms of other elements.

3.2.2. Administrative Decentralization

The administrative decentralization is based on the understanding that public corporate bodies are established to deliver public services through the nearest units for the people who need these services. In this type of administration, local administrations have no legislative and judiciary power in contrary to the federal states. Municipalities have the duty of courts of first instance in the United Kingdom, which can be shown as an exceptional example (Vercan and Nadaroğlu, 2005: 16).

Local administrations fulfill their duties, given only by the central administration, with some local revenues which the central administration transfers directly or permits local administrations to collect. In this system, local administrations cannot establish rules (law-making). Law-making is only the duty of parliament in the countries which have central administration.

Administrative decentralization can be analyzed in two ways, as in terms of location and in terms of service (Güran, 1996: 59-64).

3.2.2.1. Decentralization in terms of Location (Geographical)

As it is defined above, decentralization in terms of location can be defined as public corporate bodies with its own budget and staff, which are established to meet the local and
common needs of people living in certain geography and whose decision-making organs are elected by the people. This definition shows that these units are autonomous entities. This is not a political autonomy. These units have only administrative autonomy.

The election of decision-making organs of decentralization entities in terms of location enables local community to participate in the administration and therefore decision-making process of local issues (Eryılmaz, 2008: 80). The participation of local community to the administration is a necessity for democracy. In practical terms, local politicians often enter into national politics both in Turkey and other countries in the world. From this perspective, it is possible to regard local administrations as a democracy school.

3.2.2.2. Decentralization in terms of Service (Functional)

In decentralization in terms of service, public corporate bodies, established apart from the state, deliver some services which are not found acceptable to be delivered in the central administration due to its nature (Şengül, 2010: 10). The decentralization entities in terms of service are generally established with the aim of giving a certain service throughout the country.

When analyzing in terms of the characteristics of local administrations, they have separate public corporate entities, budgets and staff apart from the state, just as decentralization entities in terms of location; however, there is no direct participation of people in the formation of decision-making organs. Moreover, compared with decentralization entities in terms of location, they have a different supervision understanding and structure, which can be regarded as strict and sometimes hierarchical.

Like central administrations, local administrations have also some advantages and disadvantages.

3.3. The advantages of local administrations

Local administrations are compatible with the democracy principle.
Local necessities are generally taken into attention in the delivery of public services.

Compared with central administration, there is less bureaucracy and paperwork (Gözler, XXX: 45).

3.4. The disadvantages of local administrations

The autonomy of local administrations against the central administration can endanger the integrity of the country (Gözler, XXX: 45).

Local administrations mostly have resource problems. In the delivery of services, they are mainly subject to the central administration in financial terms.

As the stakeholders in the decision-making process have different administration and service understandings, public services cannot be given in a standardized way in local administrations.

There are more partisan interventions, compared with the central administration.

4. THE NEIGHBORHOOD ADMINISTRATION

In the dictionary of Turkish Language Society (TDK), the neighborhood is defined as every part of a city, town or a big village (TDK, www.tdk.gov.tr). From a broad perspective, Alada states as follows: The neighborhood can be explained as various elements such as sincerity, neighbor relations, common historical past, local emotions, awareness, common social features, spatial and physical features, common business - activity areas, shared common interests, etc. At the same time, the neighborhood can especially be a subject of empirical studies as a social pattern which determines social organization and common behaviors. In new planning approaches to urban renewal programs and urbanism and in the design of public sphere increasing social and spatial feeling, it can be included as an important functional area (Alada, www.yayed.org).
Based on these definitions, besides showing a place of a city physically, the neighborhood is seen as a place which forms and shapes relations, common historical past, common feelings and thoughts, common business and activity areas and common interests of the people living in that physical place.

In today’s understanding of administration, when the trends of strengthening the locality based on local identity, sense of belonging and participation demands are taken into attention with problems of the settlements, it can be said that the neighborhood organization has an important potential for solving problems. Based on the definitions of Alada, in order to solve problems, the neighborhood can be seen “as a social heritage which is not completely lost and should be evaluated in terms of participating to the global by benefiting from the traditional, maintaining sustainability of past-future relation and forming a modern, humanitarian, conciliatory and democratic civil society basis in our social structure from today to tomorrow…” (Alada, 1989: VIII).

4.1. HISTORICAL OVERVIEW OF THE NEIGHBORHOOD ORGANIZATION

In order to understand the relation of the neighborhood administration with urban administration, its status, role and importance in administrative organizational structure, the status of this unit in Ottoman era should firstly be analyzed.

4.1.1. The Neighborhood in Ottoman Era

In Ottoman Era, it can be said that the neighborhood had more important position than today. The neighborhood was at the core of social structure in Ottoman Era. The neighborhood had a great importance for both individuals and the State. For individuals, the neighborhood was social identity tool and a social life area in which public relations were organized with the dimension of daily life. For the State, the neighborhood was an intermediary unit in which state-individual relations was established (Alada, 1989: 85).
In traditional Ottoman cities, the neighborhood was a closed community, composed of people from same language and religion. Ortaylı stated that in 18\(^{th}\) century and at the beginning of 19\(^{th}\) century, even in metropolitan regions, there was no disintegration in the neighborhoods except for religious differences and people coming from every class and region of the empire were living together within the framework of certain rules and etiquettes (Ortaylı, 2000:107).

In the Ottoman Empire, the neighborhood had many places like schools, madrasa (the educational institution), square and coffee houses which can be used by the people for many purposes. It was seen as a social structure which included warm and face-to-face relations and the principles of guarantee and neighborhood (Eryılmaz, 1992: 215; Göküş, Bayrakçı, Alptürker, 2013: 33). In other words, the neighborhoods in Ottoman Empire differentiated based on religious and ethnic groups, not social classes (Tekeli, 1980: 44).

In the Ottoman Empire, until the mid-19\(^{th}\) century (until the establishment of first mukhtar system), Muslim neighborhoods were administered by imams and Non-Muslim neighborhoods were administered by headmen (kocabaşı) and priests. The imam was the administrator of the neighborhood and he was appointed by the sultan’s certificate upon the suggestion of qadi (muslim judge). The imam was in the position of civil and municipal chief and he was also the representative of qadi in neighborhood level (Ortaylı, 2000: 107).

In neighborhood level, besides their religious duties, the imams had many duties such as recording birth, death, marriage events (Ortaylı, 2000:107); following population affairs like divorce, residence changes and keeping records and registries of marital status; giving permissions to bury funerals (until 1829); carrying out municipal police (local security) affairs, mainly moral police affairs; and solving possible problems among the neighborhood residents (Palabıyık, Atak, 2002; 333). Based on these duties, it can be said that the imams nearly served as magistrates.
In the Ottoman Empire, the imam was the head of community, called as neighborhood population. Everything in the neighborhood was within the knowledge of and subject to the permission of imam. If someone wanted to settle in the neighborhood, the guarantees of imam and one of the residents required. Thereby, all residents became the guarantor of each other and the imam was the guarantor of the neighborhood. This system of guarantor among residents and imam showed that the elements, which could create uncertainty – disorder in the system, were removed and public life was supported with self-control mechanisms (Alada, yayed.org, page 2).

The neighborhood mukhtars did not receive any salary from the state due to their above-mentioned duties. Among the revenues of mukhtars, there were charges and fees taken from some services, payments made in return for funeral services and allocations remained from people who built mosques. One of the most important institutions in the neighborhood was a special foundation responsible from collecting extraordinary tax, which was established to meet social necessities and give municipal services and administrated by an administrative committee elected among neighborhood administrators (Palabıyık, Atak, 2002: 333).

As a result of reforms towards public administration in the Ottoman Empire, the duties of imams changed because their administrative functions were decreased and municipal services and security services were excluded from their duties. With reforms in the 19th century, the mukhtar system was started to be established in neighborhoods and villages and imams’ positions decreased to secondary position compared with mukhtars (Ortaylı, 2000: 108).

While the financial, social, political and administrative duties undertaken on behalf of central and local administration by the neighborhood continued, it was required to make changes in its organizational structure. In Ottoman period, rapid changes towards public administration at that time affected the neighborhood administration and mukhtar organizations were established in Istanbul in 1829 and in Anatolia in 1833-1836. (Çadirci, 1970: 409-419).
Related with the establishment of mukhtar organization, Alada stated that “when first years of its establishment and its ongoing functions until today was taken into attention, in response to centralization efforts such as following mobilization, enabling control and having an information-registry system, an administrative initiative was required and this institution was established” (Alada, www.yayed.org). Related with this issue, Ortaylı stated that mukhtar organization was started to be established in Istanbul for the first time and this was not a coincidence. In order to enable the security of the city after the removal of Guild of Janissaries, collect taxes and maintain order in neighborhoods – in other words, in order to give financial – civil services, a new public officer was required and mukhtar organization was established (Ortaylı, 2000: 108). With the statement of Arıkboğa, mukhtar organization can be regarded as “a meaningful part of the formation of central state” (Arıkboğa, 1999: 107).

When the opinions about the establishment of mukhtar organization and the conditions of Ottoman Empire at that time are evaluated together, it is possible to regard the formation of mukhtar institution as an indicator of centralization efforts of Ottoman Empire in its administration. The Ottoman administration made notable and respectable persons in the neighborhood a part of its administration, instead of appointing an officer to the neighborhood from the center. In other words, it is understood that the empire tried to strengthen the central administration by using influences of these persons on the society.

In Ottoman Empire, the neighborhood was an inseparable part of the city, not a real administrative unit in contrary to village administrations. Therefore, the neighborhood mukhtar was in a temporary position. At that time, it was thought that the gap, originated from the service problems of the municipalities tried to be established in urban level, might have been filled with neighborhood mukhtars. As an evidence of it, the neighborhood mukhtar was abolished after the Ottoman administration thought that the formation of municipalities was completed (Arıkboğa, 1999: 107).
The reason for the formation of neighborhood mukhtar and mukhtar’s process of taking the office were different in Istanbul and Anatolia. In Istanbul, the formation of mukhtar institution aimed to fill the administration gap after the removal of Guild of Janissaries but in rural areas, it was an alternative to notables. About mukhtar’s process of taking the office, while the mukhtar was appointed in Istanbul, an election system was adopted in rural areas (Arikboğa, 1999: 109). The formation of mukhtar system, its organs and its status in the laws can be better understood from the table below.

**Table:** Chronological Information about the Neighborhood Mukhtar (Outlines)

<table>
<thead>
<tr>
<th>Periods</th>
<th>Explanation</th>
<th>Organs</th>
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| 1829-1864     | The formation / institutionalization process of Mukhtar
The mukhtar organization was established in Istanbul and rural areas in 1829 and 1833, respectively. In this period, mukhtar organizations were tried to be established with various edicts and regulations. | First Mukhtar
Second Mukhtar
Imam (Assistant) |
| 1864-1913     | Neighborhood Mukhtar: a local administration unit compared with villages
With 1864 and 1871 Regulations, the village mukhtar became a local administration unit in terms of its duties, authorities and organs. Neighborhoods were compared with villages. | Mukhtar
Community Council |
| 1913-1933     | The neighborhood mukhtar was legally abolished.
The neighborhood mukhtar lost its legitimacy with the law dated 1913 but its existence continued de facto with the permissions of governments. | ------ |
| 1933-1944     | The neighborhood mukhtar was definitely abolished.
The duties of mukhtars were given to municipalities, gendarmerie, police, residents, watchmen, etc. | ------ |
| 1944 and afterwards | The neighborhood mukhtar was re-established.
Mukhtar: An officer authorized with given public services related with central administration. | Neighborhood Mukhtar
Community Council |

The mukhtar organization in Ottoman Empire was established in neighborhoods known as Three Towns (Bilad’ı selase – Istanbul, Üsküdar and Eyüp) in 1829 for the first time. In the mukhtar organization established in Muslim neighborhoods, two mukhtars were elected as first (evvel) and second (sani) mukhtars. These mukhtars were carrying out relations between the public and the government, which had been carried out by imams previously. Out of Istanbul, first mukhtar organization was established in Kastamonu Province in 1883. The first and second mukhtars were elected among the persons who gained confidence and appreciation of the residents in every neighborhood. This model was spread to other cities, towns and villages. As it was mentioned above, mukhtars were authorized with carrying out the duties, carried out by imams previously, related with public administration. Thereby, mukhtars gained a more important position than imams (Eryılmaz, 2012: 236).

The conditions of voting for mukhtar and standing for mukhtar elections were as follows: In order to be elected as mukhtar and community council (Güneş, 2009: 118); being subject to Ottoman nationality, being related with the neighborhood, being at least 30 years old, paying tax of 100 cents directly to the State annually. The conditions for being a voter (Güneş, 2009: 118); being subject to Ottoman nationality, being related with the neighborhood, being at least 18 years old, paying tax of at least 50 cents directly to the State annually.

The conditions for paying tax of at least 50 cents to elect and paying tax of at least 100 cents to be elected in 1871 Regulation were Western basis and it was not compatible with the social structure of Ottoman Empire. Before this regulation, the neighborhood was regarded as a place of integration and solidarity. With this regulation, the residents faced with disintegration based on financial differences every year (elections were made annually). In other words, the
residents were exposed to discrimination based on their economic levels with this regulation in legal terms (Arıkboğa, 1999: 112).

One of the first legal regulations related with neighborhood administration in Ottoman Empire was The Regulation on Formation of Provinces (Teşkil’i Vilayet Nizamnamesi) dated 1864. This regulation included organizational structure of neighborhood, duties and authorities of mukhtar and community council and election process for the first time (Göküş, Bayrakçı, Alptürker, 2013: 34). In the Regulation on the Administration of Provinces (İdare’i Umumiye’i Vilayet Nizamnamesi) dated 1871, the duties of neighborhood administration were elaborated (Koçberber, 2005: 104).

With the Temporary Law on the Administration of Provinces (İdare’i Umumiye’i Vilayet Kanun’u Muvakkatı) dated 1913, the regulations related with neighborhood administration were abolished. However, there was no legal regulation prepared to determine which institutions would give services of legally abolished neighborhood administration. This legal gap was filled by this institution again (the neighborhood administration) without no legal basis (Koçberber, 2005: 104). In other words, the de facto existence of neighborhood administration continued with the permission of governments in that period. This situation continued until the legal regulation towards neighborhoods was adopted in the Republic Era.

4.1.2. The Neighborhood in Republic Era

After the proclamation of the Republic, the neighborhood administration was not accepted as an administrative unit in 1924 Constitution, The Law on Provincial Administration dated 1929 and The Law on Municipalities dated 1580. However, the de facto existence of the neighborhood administration continued in that period. In the Article 8 of the Law on Municipalities dated 1930, it was stated about the neighborhood administration as follows: “The formation, abolition, unification of neighborhoods and the amendment of its name and borders within municipal boundaries are executed with the decision of municipal council and
neighborhood administration committee and the approval of the governor.” This article covered only the formation, abolition, unification of neighborhoods and the amendment of its name and borders in geographical terms but not its organizational structure. It seems that the ongoing de facto situation was accepted with this definition in the law.

As it was stated by Arıkboğa, after the Republic administration prepared the Constitution (1924) and adopted legal regulations on provincial administration (1929) and municipal administration (1930), perhaps with the effect of being a “new” state or a “legalistic” perspective, with the optimism that everything would be carried out in an order without taking the historical background into attention, the mukhtar institution continued to exist without any legal basis. Since there was no administrative gap and no need for this institution, it was abolished in 1933 (Arıkboğa, 2000: 167).

Following the abolition of the neighborhood administration, the legal regulations were adopted to determine which duties of this unit would be carried out by whom. Among these duties (28 duties), 13 of them were given to municipalities, 8 of them were given to the people elected from the neighborhood by the municipalities, 3 of them were given to police, 3 of them were given to gendarmerie and the remaining duties were given to other public authorities, watchmen and even residents. With the establishment of local administration unions, some of these duties were given to them. It was stated that the results did not meet expectations and the re-establishment of neighborhood mukhtar organization became an administrative necessity (Arıkboğa, 1999: 115-116). As a result of this situation, with the statement of Arıkboğa, the mukhtar unit became “an irreplaceable institution”, not “a gap-filling institution” (Arıkboğa, 1999: 115-116).

As it was mentioned above, the gap of this unit could not be filled in 9 years after the abolition of neighborhood administration and the neighborhood administration was re-organized with a legal regulation in 1944. It was confirmed in the justification note of the law
draft prepared by the Council of Ministers in March 1943 that “the abolition of mukhtar institution created an administrative gap and the re-formation of this institution became an obligation in order to fill this gap after this nine-year experience…” 11

The legal basis of neighborhood administration today can be given as follows: The Law numbered 5393 on Municipalities, The Law numbered 4541 on the Formation of Neighborhood Mukhtar and Community Councils in Cities and Towns, The Law numbered 2108 on the Allocations and Social Security of Mukhtars, and The Law numbered 2972 on Local Administrations and the Election of Village and Neighborhood Mukhtars and Community Councils. There are also some other laws, regulations and directives about neighborhood administration.

5. ABOUT THE STATUS OF NEIGHBORHOOD ADMINISTRATION

The administrative organization structure of Turkey was established by the state. Local administrations are also the structures established by central administration. Although the organization structures are based on the understanding of central administration, the central administration is also aware of the fact that it is impossible to deliver all services. For this reason, some services are occasionally given by some units established apart from the central administration. On one hand, this situation brings the discussions on “locality” into question; on the other hand, it causes some traditional structures to continue their existence in this process (Arıkboğa, 1999: 103). In this context, the neighborhood administration occasionally continued to exist because of necessity even without any legal basis.

If a general evaluation is made about whether the neighborhood administration is a local administration or rural extension of the center; local administration refers to institutions with their own public legal entities apart from the legal entity of state (Koçak, 2013: 19). This means

that the neighborhood administration have not its own legal entity. Therefore, it is not possible for the neighborhood administration to be defendant or plaintiff in the courts (except for the decisions of price determination commission in the determination of real estate tax) (Güneş, 2009: 122).

From functional perspective, the neighborhood administration is an institution which helps central administration in the delivery of central administration services and submits the requests and complaints of neighborhood residents to the relevant institutions (Karakılçık, 2013: 215). However, the organs of neighborhood administration – mukhtar and community council – takes the office with elections, these elections are made with local elections and the period of five years just like in municipality and village administrations. When these features are taken into attention, the neighborhood administration seems like a local administration organization.

When the fields of activities of neighborhood administration are examined, it can be said that the neighborhood administration is at the point where local administrations and central administration intersects. Although it looks like a local administration, the neighborhood administration is a rural extension of the center, obliged to deliver some services that belong to central administration legally. On the other hand, in the sub-paragraph 3/d of the Law on Municipalities numbered 5393, the neighborhood is defined as an administrative unit in which the needs and priorities are similar and residents have neighborhood relations with each other. In this law, legal entity is not attributed to the neighborhood.

Although the neighborhood administration is an extension of the center, it is understood that the neighborhood administration is implicitly accepted as a local administration in academic resources. In other words, when current academic studies are examined, it is seen that the neighborhood administration is included mainly in the resources analyzing local administrations. The examples are as follows: In the book of Siddik Sami Onar titled as “İdare
Hukukunun Umumi Esasları (General Principles of Administration Law)” the neighborhood is included under the topics of municipality and commune (Onar, 1952: 624, 719). In the book of Giritli, Bilgen and Akgüner titled as “İdare Hukuku (Administration Law)” (Giritli, Bilgen, Akgüner, 2008: 219-486), in the book of Metin Günday titled as “İdare Hukuku (Administration Law)” (Günday, 2004: 353-514) and in the books of Odyakmaz titled as “Anayasa Hukuku (Constitutional Law)” and “İdare Hukuku (Administration Law)” (Odyakmaz, 2006: 479), there is no neighborhood administration in administrative organization schema. In the book of Gözler and Kaplan titled as “İdare Hukuku (Administration Law)”, the neighborhood administration is included in the chapter of local administrations (Gözler, Kaplan, 2011: 124). Ortaylı also included the neighborhood administration under the title of “Küçük Yerleşmelerde Yerel Yönetim Düzeni (Local Administration Order in Small Settlements)” in his study (Ortaylı, 2000: 106). Eryılmaz, (Eryılmaz, 2008: 176), Parlak and Sobacı, (Parlak, Sobacı, 2005: 167), analyzed the neighborhood administration under the title of local administrations in their studies. All these examples can be evaluated as evidence that the neighborhood administration is seen as a local administration in the academic circle.

As it is explained above, it is nearly impossible to use a clear-cut definition about the status of the neighborhood administration in the administrative organization. Because the neighborhood is the first lower level for both central administration and local administrations. On one hand, the neighborhood administration is carrying out activities on behalf of the central administration; on the other hand, without a legal entity, it has a comprehensive and systematic function to meet the local and common needs of daily life in terms of its social relations, just like a local administration (Alada, 1989: 75).

It is stated in an evaluation of the neighborhood administration that this unit is not a local administration in legal terms and it can be seen as a representative of local administrations in cities and towns (Koçberber, 2005: 105). The Legal Consultancy Office of the Ministry of
Interior stated in his official letter numbered 81-111/235 that (Koçberber, 2005: 105-106); “…it is not possible to describe the neighborhood mukhtar as a local administration unit as it has no legal entity and it does not hold necessary qualifications determined for local administrations”. The ministry emphasized that the neighborhood administration is not a local administration.

When it is examined with its actual and legal dimensions, it can be said that the neighborhood administration seems and functions as a central administration and local administration together, which gives the neighborhood mukhtar a unique status. Some difficulties in today’s urban life and the insufficiencies in public administration cause to lay extra burden of additional duties on the neighborhood administration. While addressing the requests of different public institutions, the neighborhood administration provides patronage and assistant for people who are not familiar with urban life and it also plays an important role in the solution of many neighborhood problems (Arıkboğa, 2000: 167).

Nowadays, the neighborhood administration has undergone a compulsory change with the social differentiation in the cities. Following the years of the establishment of mukhtar institution, slums were established around the cities with the beginning of migrations and these slums are independent from public leadership and control. Although the settlers of these slums are living within the city boundaries, they create a social structure which does not share the same socio-cultural values with the people defining themselves as urbanite. The approach of public institutions towards these settlers in slums become different and their requests are slowly taken into attention compared with others. Briefly, in these settlements, while mukhtar institution fulfills its legal duties, it is also interested in the requests of the neighborhood residents (Arıkboğa, 2000: 171).

In this respect, the neighborhood administration de facto goes beyond the scope of its establishment functions and increases its relative weight in the system in three perspectives
(Arıkboğa, 2000: 171): Firstly, the gaps of various public institutions are filled by the mukhtar institution. The neighborhood residents convey many problems and requests to the mukhtar. The mukhtar is forced to deliver these services or to submit these requests and claims to the relevant institutions.

The second one is related with the neighborhood residents. Mukhtar provides patronage and assistant to the residents, who cannot adapt themselves to the urban life in socio-economic, cultural and educational terms, and it enables and facilitates the relations of them with public institutions.

The third one is the role of mukhtar in the solution of the problems of the neighborhood residents. The neighborhood administration plays an important role in the solution of land conflicts among the neighborhood residents and problems among relatives, residents and even husband and wife.

6. THE OPINIONS AND SUGGESTIONS TOWARDS THE RE-STRUCTURING OF THE NEIGHBORHOOD ADMINISTRATION

With their current structures, the neighborhood administrations are far from meeting the necessities of the neighborhood. The neighborhood administrations have great importance in Turkish administrative structure and it is inevitable to re-structure these units in our country, due to rapid urbanization process and population increase (Doğan, 2015: 138). Although there is a consensus on the re-structuring of the neighborhood administration, there are different suggestions on how to re-structure and how to establish relations with other institutions. Whatever the suggestions are, after adopting the re-structuring idea, a re-structuring process towards the neighborhood administration can be started in line with the opinions and suggestions of academicians and the people.
One of the suggestions towards re-structuring the neighborhood administration is to increase the functions of mukhtars and to include Neighborhood Mukhtars in the Municipal Councils. When the neighborhood mukhtars become the members of city council, they can successfully convey the problems of the residents to the local administration authorities. In other words, it is nearly impossible for a resident to meet with a member of municipal council and even with the mayor and to convey his/her requests to them. On one hand, it is impossible for the mayor to spare his/her for every resident; on the other hand, the resident should convince many people, spend much more time and have special abilities to reach the mayor.

From the perspective of neighborhood mukhtar, every people can reach and convey their requests to neighborhood mukhtar today. The mukhtar can submit reasonable requests to the municipal council or the relevant unit of the municipality. Mukhtars already functions as a bridge between the municipality and the residents and the residents try to solve their problems, many of which is out of the duties of mukhtars, with the neighborhood mukhtar. When the neighborhood mukhtar has a function in the municipality (the municipal council should be formed by the neighborhood mukhtars), mukhtars will officially fulfill their duties, many of which is already fulfilled with the pressure and request of the residents.

Local administrations are under the complete control of tradesmen and self-employed people today. It is a fact accepted by everybody that in a council mainly composed of minibus drivers, gas station owners or restaurant owners, it is impossible to take a decision unfavorable for them. On the other hand, members of the municipal council have no legal benefits from the municipality except for the attendance fee taken in return for the days when they participate to the meeting. The members of municipal council can sometimes follow-up business in the municipality. However, the neighborhood mukhtars receive a salary from the state. When the municipal council is composed of neighborhood mukhtars, they will also get attendance fee when they participate to the meeting in addition to their salaries. They will not spend extra time
for additional works to earn their living and they may spend all their time to fulfill their duties given to them in the municipality.

The other suggestion towards re-structuring the neighborhood administration in order to increase its efficiency is to transform the neighborhood mukhtars into neighborhood branches of the municipalities and to establish direct connection with municipalities. The other suggestion is to make them the nearest local administration unit for the residents by giving directly legal entity to neighborhood administration and to equip them with necessary duty and authorities (Karakılıçık, 2013: 217-218).

With the law numbered 6360, the neighborhood administrations in Turkey increased, the villages within the boundaries of metropolitan municipalities were transformed into neighborhoods and the problems of neighborhood administrations increased much more. This current ambiguity should be removed by making neighborhood administrations as the branches of municipalities or by giving them legal entity (Karakılıçık, 2013:218) or by making mukhtars directly the members of municipal councils or by creating a legal basis for the relations of mukhtars with municipalities.

CONCLUSION

When the public services are presented and public authority is gathered in the center, it is called centralization. When all these services are shared among public institutions apart from the central administration, it is called decentralization. Whatever the system is, it is impossible to gather all public services and public authority completely in the center or to transfer them completely to the local. Based on mainly their political structures, the countries share the delivery of public services and public authority between central administration and local administrations.
In federal states, the legislative, executive and judiciary authorities are shared between the central administration and states. In unitary states, the legislative and judiciary authorities are completely belong to the central administration but the executive authority is shared between central administration and local administrations.

Turkey is an example of unitary state. The legislative and judicial authorities are completely belong to the central administration. The executive authority is shared among different public institutions established apart from the state within the limits determined by the legislative authority. The neighborhood administration is one of these institutions.

When the fields of activities of neighborhood administration are examined, it can be said that the neighborhood administration is at the point where local administrations and central administration intersects. Although it looks like a local administration, the neighborhood administration is a rural extension of the center, obliged to deliver some services that belong to central administration legally. However, the organs of neighborhood administration – mukhtatar and community council – takes the office with elections, these elections are made with local elections and the period of five years just like in municipality and village administrations. When these features are taken into attention, the neighborhood administration seems like a local administration organization.

From academic perspective, academicians, who are generally studying on local administrations, are also studying on the neighborhood administration. This situation causes the evaluation of neighborhood administration as a local administration in academic terms. The neighborhood administration is already a legal extension of the center but de facto seems as a local administration by standing on a point which local administration and central administration intersects.

From historical perspective, Turkey has not a Western type local administration understanding. By inspiring from the example of France, local administration was formed in
line with the requests of minorities and Western countries, not the requests of the people. Although it is based on France example, it can be said that the main aim of the establishment of local administrations in our country to increase the power of central administration. Local administrations continued to be seen as an extension of central administration both in Ottoman Era and the Republic Era.

As the dominant understanding is to strengthen the local one today, the neighborhood administration can undertake a key role in the solution of structural solutions in the cities. At the same time, the neighborhood administration is our traditional institution and it has a great potential to form a modern, humanitarian, conciliatory and democratic civil society basis in our social structure.

The neighborhood administration fulfills important duties at the point where local administrations and central administration intersects. When today’s cities are analyzed, the cities become more crowded due to the effects of immigration and population increase, individual relations gradually become more complex and people living in same cities, same neighborhoods and even in same streets and apartments become alienated to each other.

In this respect, it is an obligation to re-structure the neighborhood administrations. By re-structuring them, the neighborhood administrations should have a voice in local administrations. This re-structuring process should include many changes as follows: to give legal entity to the neighborhood administration, to transform neighborhood administration into a branch of municipalities, to enable the representation of neighborhood mukhtars in municipal councils and to enable the participation of mukhtars in the decision-making processes of local administrations. Thereby, the bridge function of neighborhood administration between the people and the central administration will be official and the neighborhood administration will play a key role in the solution of many possible problems in cities.
References


Koçberber, Seyit, “Yeni Belediye Yasası ile Mahalle Yönetimi”, *Sayıstay Dergisi*, Sayı 56, s.103-114.


Onar, Siddık Sami (1952), *İdare Hukukunun Umumi Esasları*, Marifet Basımevi, İstanbul.


Relationship between Total Factor Productivity and Concentration: An Application on TRA 1 Sub-Regional

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ABSTRACT

Indicators of concentration and productivity are important indicators that are used to identify organization performance and explain the structure of industry for the companies operating in the manufacturing industry. It is, therefore, important to measure concentration and total factor productivity indicators in manufacturing industry. The purpose of this study is to identify the total factor productivity and concentration levels of companies operating in the TRA1 sub-region manufacturing industry for the 2010-2014 period. As a result, a positive relationship between concentration and total factor productivity was determined.

Keywords: Total Factor Productivity, Concentration, TRA1 Sub-Region

1. Introduction

Several different methods are considered when productivity indicators are grouped. They can be classified as physical and financial productivity based on the expression of input and output; total factor productivity and partial productivity based on the total or partial inclusion of input factors to accounts, average and marginal productivity based on total input/output or evaluating input/output as change, and micro- and macro-productivity based on the level of approach (Dastan, 2012:45). Stochastic production limit analysis and data envelopment analysis are commonly used in measuring the changes in total factor productivity. Both approaches start from the assumption that some organizations do not use their resources effectively. In other words, some organizations run their production operations below the
production limit defined by the “best use” technology.

Stochastic limit approach which is a parametrical method of these approaches, uses econometric methods. Data envelopment analysis, which is a non-parametric approach, includes linear (mathematical) programming methods. However, both methods use Malmquist productivity index in terms of measuring the change in total factor productivity (Deliktas, 2002: 248-249).

Malmquist total factor productivity index is used to measure the change in total factor productivity of a company in between two time periods such as s and t. The index can be defined as the ratio of input and output distant function measures to each other (Coelli et al., 2005: 289).


Concentration can generally be defined as the control of an important portion of a market by a few organizations and it also indicates the level of openness of a market structure to competition.

Concentration shows the degree of limitations of a certain product or services by a few big companies. The fact that the number of companies operating in the industry is very few and/or their sizes are quite different, indicates that it is a less competitive market. Concentration can be measured as a function of all or some companies operating in the market (Su, 2003:17).
The concentration ratio of an industry is used as an indicator of relative sizes of companies as a whole. Different indicators are used to measure the concentration ratio. These indicators include concentration ratio, Herfindahl-Hirschman Index, Hannah and Kay Index, Hai-Tideman index, Lorenz curve and Gini coefficient, net profitability index, Lerner index, Logarithm variances of company sizes, relative mean deviation, nos breakpoint, Pietra ratio.

It is possible to research, measure and evaluate how much an economy or a certain industry is controlled by how many companies through concentration. As the concentration ratio increases, competition weakens. It is easier for a company to dominate the market in an industry where the concentration level is high.

The purpose of this study is to measure the concentration level of sub-industries of manufacturing industry companies operating in the TRA1 sub-region (Erzurum, Erzincan, Bayburt), according to the Nomenclature of Units for Territorial Statistics, with total factor productivity and to reveal the relationship between total factor productivity and concentration.

2. Methodology

2.1. Malmquist Total Factor Productivity Index

Data envelopment analysis (DEA) is one of the commonly used methods to predict distance functions necessary to calculate the Malmquist total factor productivity index. DEA is a non-parametric method that benefits from mathematical linear programming problem. DEA is a method that aims to create linear partial surface or the best production level which includes extreme data observed without bringing any limitation related to production technology, instead of a regression surface that would fit the data center best (Arnade, 1994:8).

Malmquist index is defined by using distance functions. Distance functions can be created by using both input and output based. Input based production function defines production technology by considering the minimum proportional narrowing of the input vector when output vector is data. Output distance function considers the maximum proportional increase of output vector when input vector is data (Coelli and Rao, 2003:5).

Fare et al. (1989) calculated the geometric mean of indexes mentioned in the literature and obtained a Malmquist index. This index is shown below (Grosskopf, 1993:177).

\[
M_0(x^{i_{1]}, y^{i_{1}}, x', y') = \frac{D_0(x^{i_{1}}, y^{i_{1}})}{D_0(x', y')} \left[ \frac{D_0(x^{i_{1}}, y^{i_{1}})}{D_0(x^{i_{1}}, y^{i_{1}})} \frac{D_0(x', y')}{D_0(x', y')} \right]^{1/2}
\]
M_0 index being bigger than 1 shows that total factor productivity increased from t period to t+1 period while this value being smaller than 1 shows that the total factor productivity decreased from t period to t+1 period (Coelli, 1996:28).

By 2010-2014 period, input based CCR model was used to compare total factor productivity of companies operating in the TRA1 sub-region and the model was resolved under fixed income assumption according to the scale. The reason for the input-based model preference is that the variables that may directly impact companies are input variables.

2.2. Concentration Ratio

N-company concentration ratio is the oldest and the most commonly used concentration criterion. Concentration ratio under the assumption where i number of companies’ market share is P_i, is defined as below (Curry and George, 1983:207).

\[ CR_N = \sum_{i=1}^{N} P_i \]

The N value is traditionally taken as four, eight or twenty. The concentration ratio does not consider all the companies operating in the industry nor does it give much information on the relationships between the companies and the rest of the companies in the industry and relative size distribution among big companies. At the same time, the concentration ratio does not indicate whether the biggest companies are always the same companies. Therefore, this index can not explain the change in size in the industry. Additionally, as the process of calculating the ratio is subjective, the concentration ratio is described as an arbitrary criterion. In studies to eliminate this subjectivity four companies correspond to a 50% concentration in the concentration ratio, eight companies correspond to a 70% concentration ratio. That’s why 50-55% of concentration level for four company analyses and 70% of concentration level for
eight company analyses are accepted as the starting points for concentration (Tekeli et al., 1980:22).

2.3. Herfindahl-Hirschman Index

Another criterion used in measuring concentration is Herfindahl-Hirschman index. Herfindahl-Hirschman index developed by Hirschman in 1945 and revised by Herfindahl is defined as the sum of the squares of companies’ shares in the industry. Herfindahl-Hirschman index is defined as an indicator of the competition between companies in industry and company sizes. Herfindahl-Hirschman index can be formulized as below (Pepall et al., 2005:49).

\[ HH = \sum_{i=1}^{N} P_i^2 \]

Markets with a Herfindahl-Hirschman index smaller than 1000 have full competition while markets with an index of between 1000 and 1800 have monopolistic competition and markets with an index of bigger than 1800 have a non-competitive market structure (Parkin, 2005: 207).

Studies in the literature and company cost sheets were used in this study to determine the input and output variables to be used in Malmquist total factor productivity index calculation. Production amount was used as the output variable in the study while workpower and capital were used as input variables.

Employment, sales, fixed values, added value are generally used as units of measure in concentration calculation used in measuring market structure. The sales variable was used as the concentration unit in this study and the concentration ratio \( CR_4, CR_8 \) was analysed with Herfindahl-Hirschman index.
A total of 317 companies with 15 in the city of Bayburt, 104 in the city of Erzincan and 198 in the city of Erzurum, were surveyed in order to measure total factor productivity and concentration. These 317 companies operate in manufacturing industry 4-coded 48 sub-branchment according to the International Standard Industrial Classification of All Economic Activities (ISIC) Rev.3.

3. Findings

In this section, first the total factor productivity was analysed with Malmquist total factor productivity index and then, concentration ratio was calculated with CR4, CR8, and Herfindahl-Hirschman indexes.

3.1. Malmquist Total Factor Productivity Index

Malmquist total factor productivity indexes of sub-branchements for 2010-2014 are presented in Table 1.

Table 1. Changes in All Firms’ Total Factor Productivity and Its Components by Period (Malmquist Index Summary of Annual Means)

| Per.  | TEC  | TC   | PTEC | SEC  | TFPC | TEC  | TC   | PTEC | SEC  | TFPC |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 10-11 | 0.899| 0.987| 1.002| 0.897| 0.887| 0.933| 1.112| 0.986| 0.946| 1.037|
| 11-12 | 0.972| 0.971| 1.055| 0.921| 0.943| 0.955| 1.110| 1.000| 0.955| 1.060|
| 12-13 | 0.913| 0.986| 0.995| 0.918| 0.910| 0.932| 1.100| 1.000| 0.932| 1.025|
| 13-14 | 0.923| 1.011| 0.998| 0.925| 0.933| 0.921| 1.155| 1.000| 0.921| 1.064|
| 10-14 | 0.926| 0.991| 1.012| 0.915| 0.918| 0.935| 1.119| 0.996| 0.938| 1.046|
| 24 Manufacture of chemicals and chemical products | 25 Manufacture of rubber and plastics products |
| 10-11 | 1.003| 1.005| 0.998| 1.005| 1.008| 0.978| 1.101| 0.986| 0.992| 1.077|
| 11-12 | 1.379| 1.138| 1.025| 1.345| 1.569| 0.999| 1.209| 0.999| 1.000| 1.208|
| 12-13 | 1.255| 1.111| 1.015| 1.236| 1.394| 0.987| 1.062| 0.998| 0.989| 1.048|
| 13-14 | 1.001| 1.121| 1.003| 0.998| 1.122| 0.997| 1.104| 1.000| 0.997| 1.101|
| 10-14 | 1.148| 1.218| 1.009| 1.023| 1.254| 0.990| 1.118| 0.996| 0.994| 1.107|
| 26 Manufacture of other non-metallic mineral products | 27 Manufacture of basic metals |
| 10-11 | 1.010| 1.372| 0.998| 1.012| 1.386| 1.153| 1.118| 1.006| 1.146| 1.289|
| 11-12 | 1.000| 1.342| 1.000| 1.000| 1.342| 1.112| 1.206| 1.002| 1.110| 1.341|
| 12-13 | 1.063| 1.365| 1.058| 1.005| 1.451| 1.018| 1.098| 1.000| 1.018| 1.118|
| 13-14 | 1.105| 1.345| 1.102| 1.003| 1.487| 1.121| 1.216| 0.996| 1.125| 1.363|
Table 1 shows that the highest total factor productivity increase happened with a mean of 41.5% in the non-metallic product manufacturing industry with code 26 between 2010 and 2014 considering all the sub-branches. The reason for this increase can be a positive technical effectiveness with a mean of 4.4% per year and a positive technology change with a 42.7% ratio. The reasons for an average ratio of 4.4% positive technical effectiveness change per year are the positive pure effectiveness change with a mean ratio of 0.6% per year and the positive scale effectiveness change with a mean ratio of 0.5%. Also, the lowest total factor productivity development occurred in the nutrition products and beverage production industry with the code 15. It is possible to say that the reason for this decrease with a mean ratio of 8.2% is the negative technical effectiveness change of a ratio of 7.4% per year and a negative technology change with a mean ratio of 0.9%. The reasons for the negative technical effectiveness change with a mean ratio of 7.4% per year are the positive pure effectiveness change per year with a mean ratio of 1.2% and negative scale effectiveness change per year with a mean ratio of 8.5%. As the number of companies in the sub-branches with the codes 22, 28, and 29 were not sufficient, total factor productivity analysis for related industries could not be performed.
3.2. CR₄, CR₈ and Herfindahl-Hirschman Concentration Indexes

Table 2. CR₄, CR₈ and Herfindahl-Hirschman Index

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Table 2 shows that low ratio concentration occurred in food and beverage manufacturing industry with the code 15; medium ratio concentration occurred in wood and cork products (except furniture) and manufacturing goods by knitting industry with the code 20. Additionally, high ratio of concentration occurred in printing and publishing, reproduction of recorded media such as records, cassettes manufacturing business with the code 22; high ratio of concentration occurred in chemicals and product manufacturing business with the code 24; medium ratio of concentration occurred in plastic and rubber product manufacturing business with the code 25; very high ratio of concentration in non-metalic other mineral product manufacturing business with the code 26; high ratio of concentration in basic metal industry manufacturing with the code 27; very high ratio of concentration in fabricated metal industry (except machinery and...
equipment) with the code 28; very high ratio of concentration in machinery and equipment manufacturing industry that is not classified elsewhere with the code 29, and medium ratio of concentration in furniture with the code 36 and other products that are not classified elsewhere.

Table 3 shows the concentration ratios calculated with CR₄, CR₈ and Herfindahl-Hirschman index for all industries in TRA1 sub-region (Erzurum, Erzincan, and Bayburt) for the 2010-2014 period.

**Table 3. Concentration Indexes, 2010-2014**

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<td>0.95</td>
<td>0.21</td>
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<td>24</td>
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<td>25</td>
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<tr>
<td>36</td>
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<td>0.56</td>
<td>0.08</td>
</tr>
</tbody>
</table>

According to table 3, food and beverage manufacturing business with code 15 has full competition market structure; wood and cork product manufacturing with code 20, plastic and rubber product manufacturing with code 25, furniture manufacturing with code 36 and other products that are not classified elsewhere have monopolistic competition in the market; printing and publishing, reproduction of recorded media such as records, cassettes with code 22, chemicals and product manufacturing with code 24, and basic metal industry with code 27 have oligopolic market structure; non-metalic other mineral product manufacturing with code 26 and machinery and equipment that is not classified elsewhere with code 29 have monopolic market structure.
4. Conclusion

Total factor productivity and concentration indicators are very important in the manufacturing industry. It would not be wrong to say that one of the indicators of industrialisation in the manufacturing industry is productivity. Therefore, the productivity should be measured. Also, the increase in total factor productivity leads to positive results such as redistribution of resources more efficiently, technological development, more efficient management and increase of knowledge. Concentration, which is an important factor that determines the market structure, has an importance in understanding the applied work done. Through concentration, information on the number of companies operating in an industry and their control power can be gathered.

The data set for this study that aims to measure total factor productivity and concentration ratios of sub-sectors of manufacturing industry companies operating in the TRA1 subregion during 2010 and 2014 period, consists of 15 companies in Bayburt, 104 in Erzincan, and 198 in Erzurum with a total of 317 companies.

The total factor productivity in the study was determined with Malmquist total factor productivity index. When the sectors are put in order in the related time period, non-metallic product manufacturing business with code 26 comes first and it is followed by basic metal industry with code 27, chemicals and product manufacturing with code 24, plastic and rubber product manufacturing with code 25, wood and cork products manufacturing with code 20, furniture and other products that are not classified elsewhere with code 36 and food and beverage manufacturing with code 15, respectively.

Additionally, industrial concentration was obtained by CR₄, CR₈ and Herfindahl-Hirschman index. When the sectors with highest concentration ratios are lined up, machinery and equipment that is not classified elsewhere with code 29 comes first. It is followed by
fabricated metal product industry with code 28, non-metallic product manufacturing with code 26, chemicals and product manufacturing with code 24, basic metal industry with code 27, printing and publishing with code 22, wood and cork product manufacturing with code 20, plastic and rubber product manufacturing with code 25, furniture and other products that are not classified elsewhere with code 36 and food and beverage manufacturing with code 15, respectively.

According to these results, it was observed that concentration and productivity change collaterally. As a result, it was determined that the productivity is high in sectors where concentration is high, and productivity is low where concentration is low.

**Industry Codes**

15 Manufacture of food products and beverages

20 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials

22 Publishing, printing and reproduction of recorded media

24 Manufacture of chemicals and chemical products

25 Manufacture of rubber and plastics products

26 Manufacture of other non-metallic mineral products

27 Manufacture of basic metals

28 Manufacture of fabricated metal products, except machinery and equipment

29 Manufacture of machinery and equipment n.e.c.

36 Manufacture of furniture; manufacturing n.e.c.
References


Identification and Review of Robust Optimization Models and Solving with Genetic Algorithms for the Discrete Time-Cost-Quality Trade off Problem under Uncertainty

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ABSTRACT

Time, cost and quality are three crucial factors in evaluating project success. The difference between the results of forecast about these factors creates uncertainty in project. Uncertainty in the planning of construction projects is the cause of delays in timely completion of a project and thus will increase operating costs. In other hand, increased costs to compress project time can reduce the overall quality of the project. Completing the project while the time, cost and quality are optimized is known, time-cost quality trade off (TCQTP). In this study, to consider the uncertainty, robust optimization method is used. A robust optimization is a modeling method for producing a plan that is less sensitive to uncertainty. In this research, for improving the previous models, a new approach to enter quality parameters at time-cost trade off problem are studied. Genetic algorithm is used to solve the model. Finally, to verify the performance of the model, the results of the new model are compared with the results of previous studies.

Keywords: Uncertainty, Robust Optimization, TCQTP, Genetic Algorithm.

Introduction

One of the most important aspects of planning project and control of construction project is trade-off between projects goals. In the mid-fifties of the twentieth century, CPM methods
were presented. Then, PERT and GERT methods for solving weakness of CPM method (refusal Changing time activities) were used. Trade-off between time and cost as other method to find the optimal solutions for allocating resources to activities was presented. Many researchers have worked to improve the method. The total project quality is affected by project crashing. Thus, it is necessary to include the quality factor in the time-cost trade-off problem, leading to the time-cost quality trade-off problem. For discrete case, this problem is represented by discrete time cost quality trade-off problem (DTCQTP) (Shahsavari Pour, 2012).

Babu and Suresh (1996) were the first who suggested that the quality of a completed project may be affected by project crashing. They assumed that quality of a project is a function of the quality of its activities, and also assumed that cost and quality of each activity varies linearly with activity completion time. For simplicity they adopt the continuous scale from zero to one to specify quality attained by each activity. The overall project quality is a function of quality levels attained by the individual activities. In that paper, they developed optimization models involving the project time-cost-quality trade-off which would assist in expediting a project. They developed three mathematical models, and in each of them one of these three objectives was optimized by assigning desired levels on the other two (Ghodsi, 2009). For the first time, Rayes et al (2005), reviewed the discrete time, cost and quality trade-off. Pollack, Johnson and Liberatore (2006), reviewed the same problem and offered a model based on analytic hierarchy process (AHP) for measuring the overall quality of alternatives. Afshar et al. (2007) developed a new Meta heuristic based on multi-colony ant algorithm to solve this problem. They considered the quality of a project as the weighted sum of quality levels of its activities. A multi-objective particle swarm (MOPS) for determining the best alternatives of a project's activities was studied in Rahimi and Iranmanesh (2008). A similar concept for ideal point in multi-objective optimization problems (Dynamic Ideal Point) was introduced and used in the initialization phase, as well as in the main part of the solution algorithm. In Iranmanesh
et al. (2008) a meta-heuristic was developed based on a version of genetic algorithm specially adapted to solve multi-objective problems namely fast PGA to find the Pareto optimal front of the problem. Eshtehardian et al. (2007) stated that uncertainties should be considered for quality parameter. They used fuzzy logic theory to consider the uncertainty in the model and to find the Pareto solutions. Genetic algorithms have been helped. Iranmanesh, Skandari, & Allahverdiloo (2008) used multi objective function to find a optimal solution point.

According to dynamic and competitive environment today, Uncertainty effective factors of project are inevitable. Therefore it is vital to develop effective robust scheduling algorithms. To minimize the effect of unexpected events on project performance, five fundamental scheduling approaches have been used: stochastic scheduling, fuzzy scheduling, sensitivity analysis, reactive scheduling, and robust (proactive) scheduling (Herroelen & Leus, 2003). In stochastic project scheduling, the activity durations are modeled as random variables and probability distributions are used. Fuzzy project scheduling uses fuzzy membership functions to model activity durations. The effects of parameter changes are investigated in sensitivity analysis. In reactive scheduling, the schedule is modified when a disruption occurs, whereas in robust scheduling anticipation of variability is incorporated into the schedule and schedules that are insensitive to disruptions are generated. (Hazir, Erel, & Gunalay, 2011)

One of the most effective and available methods deal with uncertainty in optimization issues is robust optimization. Robust optimization is a modeling approach to generate a plan that performs well even in the worst-case scenarios. Robust optimization model for first time was presented by Soyster (1972). He formulated a convex mathematical programming problem in which the usual definition of the feasible region is replaced by a significantly different strategy. Instead of specifying the feasible region by a set of convex inequalities, the feasible region is defined via set containment. The Solution of Soysters model was too conservative; to ensure to reach the robust solution, optimality was skipped. As a result, with changes in the
uncertain parameters of the uncertainty sets, the obtained solution remains feasible and optimal with hundred percent probabilities. Then Ben-Tal and Nemirovski (2000) assume that data are uncertain in a set of elliptical, so they presented an algorithm for solving convex curve optimization problem under uncertainty of the data. The robust formula of this method is quadratic cone. Their model needed to complex calculations and would not provide any guarantee for the feasibility of problem.

A more realistic approach would be modeling the uncertainty only over a subset of the scenarios space. One recent application of this restriction idea is the robust discrete optimization approach proposed by Bertsimas and Sim (2003). They assume that only a subset of the uncertain parameters is allowed to deviate from their estimates; in other words, only $g$ of activity cost parameters (out of a total of $n$) involve random behavior. If $\gamma = 0$, the influence of the cost deviations is ignored and the problem with nominal cost values is obtained. In contrast, if $\gamma = n$, maximal cost deviations are considered and the problem becomes a min-max optimization problem. Therefore, $\gamma$ can be regarded as a parameter that reflects the pessimism level of the decision maker. High values of this parameter indicate a risk-averse decision making behavior. This restricted uncertainty approach has recently been applied to define robust optimal policies of an integrated production planning problem (Wei, 2010)

### Robust Formulation of Discrete Optimization Problems

Let $c; l; u$ be $n$-vectors, let $A$ be a $m \times n$ matrix, and $b$ be an $m$-vector. We consider the following nominal mixed integer programming (MIP) on a set of $n$ variables, the first $k$ of which is integral: (Bertsimas & Sim, 2002)

\[
\begin{align*}
\text{Max} & \quad c'x \\
\text{St:} & \quad Ax \leq b \\
& \quad l \leq x \leq u \\
& \quad x_i \in \mathbb{Z}, \quad i = 1, 2, \ldots, k
\end{align*}
\]
We assume without loss of generality that data uncertainty affects only the elements of the matrix $A$ and $c$, but not the vector $b$, since in this case we can introduce a new variable $x_{n+1}$ and write $Ax - bx_{n+1} \leq 0$, $l \leq x \leq u$, $1 \leq x_{n+1} \leq 1$ thus augmenting $A$ to include $b$.

In typical applications, we have reasonable estimates for the mean value of the coefficients $a_{ij}$ and its range $\hat{a}_{ij}$. We feel that it is unlikely that we know the exact distribution of these coefficients. Similarly, we have estimates for the cost coefficients $c_j$ and an estimate of its range $d_j$. Specifically, the model of data uncertainty we consider is as follows:

a) (Uncertainty for matrix $A$): Let $N = \{1, 2, \ldots, n\}$. Each entry $a_{ij} : j \in N$ is modeled as independent, symmetric and bounded random variable (but with unknown distribution) $\tilde{a}_{ij} : j \in N$ that takes values in $[a_{ij} - \hat{a}_{ij}, a_{ij} + \hat{a}_{ij}]$.

b) (Uncertainty for cost vector $c$): Each entry $c_j : j \in N$ takes values in $[c_j, c_j + d_j]$, where $d_j$ represents the deviation from the nominal cost coefficient, $c_j$.

**Robust MIP Formulation**

For robustness purposes, for every $i$, we introduce a number $\Gamma_i , i=0,1,\ldots,m$ that takes values in the interval $[0,|J_j|]$, where $J_j = \{j : a_{ij}^{\hat{}} \geq 0\}$. $\Gamma_0$ is assumed to be integer, while $\Gamma_i , i=0,1,\ldots,m$ are not necessarily integers.

The role of the parameter $\Gamma_i$ in the constraints is to adjust the robustness of the proposed method against the level of conservatism of the solution. Consider the $i$th constraint of the nominal problem $a_i^t x \leq b_i$. Let $J_i$ be the set of coefficients $a_{ij} , j \in J_i$ that are subject to parameter uncertainty, i.e., $\tilde{a}_{ij} : j \in J_i$ independently takes values according to a symmetric distribution with mean equal to the nominal value $a_{ij}$ in the interval $[a_{ij} - \hat{a}_{ij}, a_{ij} + \hat{a}_{ij}]$.

Speaking intuitively, it is unlikely that all of the $a_{ij} , j \in J_i$ will change. Our goal is to be
protected against all cases in which up to $\lfloor \Gamma_i \rfloor$ of these coefficients are allowed to change, and one coefficient $a_{it}$ changes by at most $(\Gamma_i - \lfloor \Gamma_i \rfloor)a^*_{it}$. In other words, we stipulate that nature will be restricted in its behavior, in that only a subset of the coefficients will change in order to adversely elect the solution. We will then guarantee that if nature behaves like this then the robust solution will be feasible deterministically. We will also show that, essentially because the distributions we allow are symmetric, even if more than $\lfloor \Gamma_i \rfloor$ change, then the robust solution will be feasible with very high probability. Hence, we call $\Gamma_i$ the protection level for the $i_{th}$ constraint. The parameter $\Gamma_0$ controls the level of robustness in the objective. We are interested in finding an optimal solution that optimizes against all scenarios under which a number $\Gamma_0$ of the cost coefficients can vary in such a way as to maximally influence the objective. Let $J_0 = \{j: d_j \geq 0\}$ If $\Gamma_0 = 0$ we completely ignore the influence of the cost deviations, while if $\Gamma_0 = |J_0|$ we are considering all possible cost deviations, which is indeed most conservative. In general a higher value of $\gamma 0$ increases the level of robustness at the expense of higher nominal cost.

Specifically, the proposed robust counterpart of Problem (1) is as follows:

$$\min c'x + \max \left\{ \{ s_0 | s_0 \subseteq J_0 , s_0 \leq \Gamma_0 \} \right\} \sum_{j \in s_0} d_j |x_j|$$

Subject to

$$\sum_{j} a_{ij} x_j + \max \left\{ \{ s_i \cup \{ t_i \} | s_i \subseteq J_j , s_i \leq \lfloor \Gamma_i \rfloor , t_i \in J_j \backslash s_i \} \right\} \sum_{j \in s_i} d_j |x_j| + (\Gamma_i - \lfloor \Gamma_i \rfloor) a^*_{ij} |x_{t_i}|$$

$l \leq x \leq u , x_i \in z , \forall i = 1, ..., k$

**Problem definition**

In this paper, we want to show a new approach for discrete time-cost quality trade-off problem (DTCQTP) under Uncertainty. This model will have one objective and uncertainty will be considered just for objective. In this conditions that there are three main parameters
(time, cost, quality) in the problem, three different kind of model will be made. Each time one of this parameter will be optimized by objective function. Two other parameters will present as a constraint. We call this new models (DTCQTP-dq) , (DTCQTP-db) , (DTCQTP-bq) that the first one is a model with cost as a parameter in objective function and deadline and Minimum acceptable total quality as two other parameters in constraints , the second one is a model with time as a parameter in objective function and budget ceiling and Minimum acceptable total quality as two other parameters in constraints , the second one is a model with time as a parameter in objective function and budget ceiling and Minimum acceptable total quality as two other parameters in constraints , the third one is a model with quality as a parameter in objective function and budget ceiling and deadline as two other parameters in constraints .

Problem modeling

For modeling, we have to extend the classical DTCQTP model with regard to the conditions of the problem. Objective function has two parts, the first part \( \sum_{j=1}^{n} \sum_{m \in M_j} c_{jm} x_{jm} \) calculate the total cost for the activity that can be executed. The second part will found the maximum deviation of the cost \( \max_{s \in N, |s| \leq Y} \sum_{j \in s \in M_j} \sum_{s \in M_j} d_{jm} x_{jm} \).

Parameters and notations

\[ J = 1, 2, \ldots, N+1 \quad j = \text{Index of activities} \]
\[ m = 1, 2, \ldots, m_i \quad m = \text{Index of modes per each activity} \]

- \( m_i \) = The number of modes per \( i_{th} \) activity
- \( c_{jm} \) = Cost per \( i_{th} \) Activity in \( k_{th} \) mode
- \( d_{jm} \) = Deviation of the cost
- \( p_{jm} \) = Time per \( i_{th} \) Activity in \( k_{th} \) mode
- \( e_{jm} \) = Deviation of the time
- \( q_{jm} \) = Quality per \( i_{th} \) Activity in \( k_{th} \) mode
\( l_{jm} \) = Deviation of the quality \\
\( s_i \) = Start time of \( i_{th} \) activity \\
\( s_{N+1} \) = Project During \\
x\( _{jm} \) is a binary parameter \( \rightarrow x_{jm} = 1 \) If activity (i) is executed in mode k \\
\( \rightarrow x_{jm} = 0 \) Otherwise \\
Q = Minimum acceptable total quality \\
\( \delta \) = Deadline \\
B = Budget ceiling \\

**Formulization for (DTCQTP-dq), model 1** 

\[
\begin{align*}
\text{Min} & \sum_{j=1}^{n} \sum_{m \in M_j} c_{jm} x_{jm} + \max_{s \in \mathbb{N},|s| \leq \gamma} \sum_{j \in s} \sum_{m \in M_j} d_{jm} x_{jm} \\
\text{Subject to:} & \\
\sum_{m \in M_j} x_{jm} = 1, j = 1,2,\ldots,n & \quad (1, 1) \\
s_j - s_i \sum_{m \in M_j} p_{jm} x_{jm} \geq 0, \forall (i,j) \in A & \quad (1, 2) \\
s_{n+1} \leq \delta & \quad (1, 3) \\
(\sum_{j=1}^{n} \sum_{m \in M_j} q_{jm} x_{jm}) \geq Q & \quad (1, 4) \\
s_j \geq 0, \forall j \in \mathbb{N} & \quad (1, 5) \\
x_{jm} \in \{0,1\}, \forall m \in M_j, j = 1,2,\ldots,n & \quad (1, 6) \\
d_{jm} = \max\{c_{jm},c_{jm} - c_{jm}\} & \quad (1, 7)
\end{align*}
\]

(1, 1) says that per each activity just one can be executed. (1, 2) says that, an activity should begin when the previous one is completed. (1, 3) is for determining a deadline to project. (1, 4) determines a minimum acceptable total quality. (1, 5) represents that start time is bigger
than zero. $x_{jm}$ is a binary parameter, it is represented by (1, 6), (1, 7) determine $d_{jm}$ as a parameter that is about deviation of the cost.

We assume that at most $0 \leq \gamma \leq n$ (pessimism level) activities have cost values at their upper bounds and the remaining $n - \gamma$ coefficients are set to the nominal value $c_{jm}$. Nominal values are the most likely cost values assigned to each activity by the project manager. Nominal value of an activity lies between the upper and the lower bounds of the activity cost. We also define the maximum deviation of an activity cost as $d_{jm}$, i.e., $d_{jm} = \max\{\overline{c_{jm}} - c_{jm}, c_{jm} - \underline{c_{jm}}\}$. Therefore, $d_{jm}$ is the maximum (cost) error that the management could commit (for activity j) during the planning stage.

Formulation for (DTCQTP-dq), model 2

$$M\min \sum_{j=1}^{n} \sum_{m \in M_j} t_{jm} x_{jm} + \max_{s \in N, |s| \leq \gamma} \sum_{m \in M_j} e_{jm} x_{jm}$$

Subject to:

1. $\sum_{m \in M_j} x_{jm}, j = 1, 2, ..., n \quad (2, 1)$
2. $c_j - c_i \sum_{m \in M_j} p_{jm} x_{jm} \geq 0 \quad , \quad \forall (i, j) \in A \quad (2, 2)$
3. $(\sum_{j=1}^{n} \sum_{m \in M_j} q_{jm} x_{jm}) \geq Q \quad (2, 3)$
4. $\sum_{i=1}^{n} \sum_{k=1}^{m_i} c_{jm} x_{jm} \leq b \quad (2, 4)$
5. $c_j \geq 0 \quad , \quad \forall j \in N \quad (2, 5)$
6. $x_{jm} \in \{0, 1\}, \quad \forall m \in M_j, \quad j = 1, 2, ..., n \quad (2, 6)$
7. $e_{jm} = \max\{\overline{t_{jm}} - t_{jm}, t_{jm} - \underline{t_{jm}}\} \quad (2, 7)$
In this model, there is a new constraint (2, 4) that says: total cost of project should not be more than budget (b)

Formulation for (DTCQTP-dq), model 3

\[
\begin{align*}
\text{Min} & \sum_{j=1}^{n} \sum_{m \in M_j} w_{jm} q_{jm} x_{jm} + \max_{s \in N, |s| \leq y} \sum_{j \in s \in M_j} l_{jm} x_{jm} \\
\text{Subject to:} & \\
\sum_{m \in M_j} x_{jm} , j = 1, 2, ..., n & \quad (1, 1) \\
c_j - c_i \sum_{m \in M_j} p_{jm} x_{jm} \geq 0 , \quad \forall (i, j) \in A & \quad (1, 2) \\
c_{n+1} \leq \delta & \quad (1, 3) \\
\sum_{i=1}^{n} \sum_{k=1}^{m_i} c_{jm} x_{jm} \leq b & \quad (1, 7) \\
c_j \geq 0 , \forall j \in N & \quad (1, 4) \\
x_{jm} \in \{0, 1\} , \forall m \in M_j , j = 1, 2, ..., n & \quad (1, 5) \\
e_{jm} = \max\{ q_{jm} - q_{jm} , q_{jm} - q_{jm} \} & \\
\end{align*}
\]

The solution algorithm

The formulation given in model 1, 2, 3 is hard to solve by conventional optimization techniques. Then, we have to use heuristic search. Simulating the natural evolutionary process of human beings results in stochastic optimization techniques, of which the most applicable is genetic algorithm. Solving this kind of modeling problem by traditional techniques will lead to a local optimum solution. In other words, the global optimum cannot be obtained. If meta-heuristic approach such as genetic algorithm (GA) is used, we will get the closest solution to the global optimum. (Shabani, Torabipour, & Farzipour, 2011)

The usual form of GA was described by Goldberg (1989). Generally, conventional algorithms for optimization have a point-to-point approach and maybe they fall in local optima. However, GA performs a multiple directional search by maintaining a population of solutions. Each solution is called a chromosome. The chromosomes which improved in consecutive
iterations are called generations. During each generation, the chromosomes are evaluated using some measures of fitness. To create the next generation, new chromosomes, called offspring, are formed by either crossover or mutation operator. In addition, the chromosomes that have higher fitness are kept for the next generation. After several generations, the algorithm converges to the best chromosome which hopefully represents the optimum or suboptimal solution to the problem.

**Initial conditions**

The required initial conditions to start solving a model with GA are as follows:

(a) Population size: It is the number of chromosomes that is kept in each generation, but its value changes in consecutive iterations to improve objective function; we denoted it by pop size or \( N \).

(b) Crossover rate: It is defined as the ratio of the number of offspring produced by crossover operator and denoted by \( PC \).

(c) Mutation rate: It controls the number of chromosomes to undergo mutation operation and denoted by \( PM \).

In the GA method, each individual in the population is called a chromosome, and any chromosome contains some genes. In this model, we present a chromosome by a matrix that has one row and \( n \) columns. Each column shows the mode that is belonging to an activity. Figure 1 presents one chromosome for the problem at hand.

**Evaluation**

Each chromosome in the GA method was evaluated with some measures, and we have to assign a fitness value for it. In this model, it signifies the value of the objective function. For a constrained optimization problem, the main issue is to control the feasibility of chromosomes. In order to control infeasible solutions, we have to employ penalty policy presented by Gen
(1997). Because this problem is a minimization one, penalty is defined as a positive value. The more infeasible chromosomes, the more are the penalties. Hence, when a chromosome is feasible, its penalty is zero. In this case, the fitness function for a chromosome is the sum of its objective function and its penalty.

**Initial population**

To perform GA, at first, we have to define the first generation for the GA method randomly with regard to population size.

**Crossover**

Crossover is the main genetic operator. It operates on two chromosomes at a time and generates offspring by combining the features of both chromosomes (Gen, 1997). Many crossover techniques exist for organisms which use different data structures to store themselves. The techniques that we used in this study is One-point crossover. A single crossover point on both parents' organism strings is selected. All data beyond that point in either organism string is swapped between the two parent organisms. The resulting organisms are the children:

**Chromosome selection**

After producing the offsprings with the crossover and mutation operators and measuring their fitness value, we have to make the next generation based on the chromosomes which have the highest fitness. Then, we select $N$ chromosomes among the parents and offsprings with the best fitness value. In this problem, we select the chromosomes that result in less cost. (Hafshejani & al, 2012)

**Stopping criteria**
There are three Stopping criteria: 1. If moderate competence is more than a specified threshold. 2. No significant change in generations deserves 3. Repeat the specified number of operations.

**Results and discussions**

In order to demonstrate the application of the proposed genetic algorithm, we present a numerical example in this section. The values of all parameters are given in Table 1. The project has been used in the study conducted by Feng et al (2000) Daisy et al (2004) Eshtehardian et al (2008). MATLAB 2011 is used to Apply, genetic algorithm for this model.

Uncertainty in the first model is on the cost parameters, so table 2 is for giving extra information about uncertainty cost. Table 3 and 4 are for time of uncertainty and quality of uncertainty. These two tables will be used for model 2 and model 3.

**Table 1: Data for the example**

<table>
<thead>
<tr>
<th>Type of activity</th>
<th>Number of activity</th>
<th>Prerequisite</th>
<th>Alternative</th>
<th>Time (day)</th>
<th>Cost (1000dollar)</th>
<th>Quality</th>
<th>impact on the overall quality(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equip workshop</td>
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<td>-</td>
<td>1</td>
<td>14 20 24</td>
<td>23 18 12</td>
<td>98 89</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
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<td>3</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excavation</td>
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<td>1</td>
<td>15 18 20 30</td>
<td>3 2.4 1.8 1.5 1</td>
<td>99 95</td>
<td>6</td>
</tr>
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<td>4.5 4 3.2</td>
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Reviewing the first model

Necessary Inputs to solve the first model are as following: Initial population = 1000, = 0, 3, 5, 7, δ = 65, 75, 85, and 90% is the minimum acceptable of total quality. The results of this model are compared with the other model that is presented by Hazir et al (2011). In Hazir’s model, there is no quality parameter and we can find the effect of this parameter on the model by this comparing. This part is shown by table 5. There are figures 4, 5, 6 for more information.

Table 5: Compare between model 1 and Hazir’s model
Reviewing the second model

Necessary Inputs to solve the second model are as following: Initial population = 1000, $\gamma = 0.3$ and $B = 110, 120, 130$ and $90\%$ is the minimum acceptable total quality. The results of this model are in table 6.

Reviewing the third model

To study the third model we can compare the result of this model with the model that Eshtehardian et al (2008) offered in table 7.

They studied time-cost quality trade-off problem in fuzzy environment. There is $\alpha$ parameter that shows risk appetite of manager for the project $\alpha = [0, 1]$. As $\alpha$ increase from 0 to 1, risk appetite of manager will increase. We compare these two models in $\alpha = 1$ and $\gamma = 0$, because they are similar.
### Table 6: Results of model

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<td>Chromosome</td>
<td>Total quality</td>
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Table 7: Comparing the result of model 2 and model3
Conclusions

Generally all three models have three main parameters (time-cost-quality), one of them has been used as a parameter that objective function Plans to optimize. Two other will come in model as constraints; therefore, the model uses these constraints as Resources and Take maximum use of constraints to optimize the objective. For example, if quality is an objective function and time and cost are two constraints, these parameters are applied for model as resources (deadline and budget). Hence, If model take more budget, model can Produce more quality, or if model does not have enough time, the model will not be able to Produce high quality.

According to figure 3, the first model after almost seven generation is optimized so the rate of model to reach solution is good enough. After review the cost-quality diagram (figure 4) we can see that sometimes there is no need to use more cost for producing more quality. In the other hand, use pessimism level in model make model more realistic.

In multi objective functions, all parameters will be optimized simultaneously but it is possible that the values of parameters are not same. In these models according to that which parameter is more valuable or which parameter is uncertain, we can choose the objective functions. Some other times we have a problem with constrained resources. In such circumstances, applying these models can be more useful.
References


Figure 1: Chromosome presentation.

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  1  2  3  4  5
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Figure 2: AON Net.

Figure 3: Convergence diagram fitness-generation.
Figure 4: Cost-quality diagram.

Figure 5: Pessimism level.

Figure 6: Budget-deadline diagram.
Figure 7: Time-quality diagram.

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The Changes in the Individual Pension System in Turkey after the State Subsidy

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ABSTRACT

Individual Pension System, in which the investors participate to raise welfare levels of their retirement, is implemented also in Turkey since 2001. Individual Pension Mutual Funds has come to the fore as an important investment tool for individual investors that will make a small amount of but regular investment from their budget. In this study, first it was informed about the concept of social security and individual pension and then it was revealed the changes in the number of participants and amount of funds after the adoption of the implementation of the tax cuts stimulate to the State subsidy in the Individual Pension System in Turkey.

Keywords: Individual Pension System, Government Funding, Pension Investment Fund

1. INTRODUCTION

The Individual Pension System (IPS) is new complementary social security system based on volunteering and individual contributions, which came into force by the "Individual Retirement Savings and Investment System Law" in 2001. The Individual Pension System did not come up as an alternative to the existing social security system in Turkey but emerged as complementary and has been implemented since 7 October 2003. IPS, by turning the savings devoted to retirement into investment, aims to provide additional income after the retirement of individuals, long-term funds to the economy in order to increase the levels of prosperity and to foster economic development and increase employment opportunities by providing long term resources to the economy.
IPS, in which the employees are encouraged by income tax discount, has in fact gained a new dimension after 1 January 2013 as the tax incentive is removed and direct cash support is provided. It is intended that the number of the participants in the system and the total contribution amount will be directly effected by the new application in which 25% of the participant’s contribution is provided as an additional payment (state subsidy) to each individual retirement participant. The aim of this study is to find out what sort of changes took place in terms of the number of the participants of the retirement investment fund and the total amount of the fund after the new application was enforced in 1 January 2013 when the individual retirement system was changed by introducing the 25% direct state subsidy into the system instead of tax saving.

2. INDIVIDUAL PENSION SYSTEM: TURKEY APPLICATION AND THE EXAMPLES IN WORLD

When viewed from a historical perspective on the meaning and importance of social security, the people in the future may face economic and request protection against social risks and motive seems to always been in human life. Nevertheless, in the modern sense of social security services as in the process of emerging, the need for religious reasons, moral necessity of hedging transactions, the community's through aid to high income level people are known to fulfill certain extent. However, this assistance system, as being lack predetermined and not necessarily and to the people in terms of making voluntary, remained incomplete for risks they may face in life. At this point, regular, unlike other types of cooperation, determined before and mandatory participation has emerged stipulating social solidarity system. Social solidarity is the set of tools that keeps people's living standards faced with risks such as old-age, disability, illness, birth, death unemployment and allowing the redistribution of income to improve (Euzeby; 2004: 109).

In this respect, the overall theme of the social security concept judging defined as "complete lack of people working ability or subsequent loss of the event itself, and dependents that of the feed to the
income level of the supply of the minimum subsistence level and close some might encounter during the life cycle of major provision of security against some risks". It should be noted that the definition of working people, the level of current income, assumes that the minimum subsistence level and satisfying (Tostensen; 2004: 5).

Social security policies, though limited operations in various periods in all that, has continued in Turkey, especially after the establishment of social security institutions in the 1950s was transformed into a systematic form of social security (Acar and Kitapçı; 2008: 86). There is a multi-legged structure is used in the social security systems. The first leg of this system, established under the state guarantee, and social security system to provide pension security, in the second leg established of the public or private sector initiative constitutes run pension funds and plans. This is on the inadequacy of the social security system revealed a new structure forms the third leg of a multi-pronged structure. This structure is based on the voluntary private pension funds established by private sector (Yüceer; 2010: 5). In this private pension funds, a portion of the income of individuals in the active working period in accordance with their wishes, the person credited to a special account opened pension. These contributions are invested in the pension fund and evaluate these savings during retirement optionally partly, paid in pension or in bulk (http://www.allianzemeklilik.com.tr/bireysel_emeklilik). Starting in the 1990s, social security experienced in system funding issues in general as uncontrolled spending on social security funds, unregistered employment and poor fund as a result of political interference, combined with management stemmed from occurring false social security policies. The resulting deficit of the social security system has been tried to be covered by transfers from the budget (Acar and Kitapçı; 2008: 87). In the 2000s, both showed a drop in domestic savings and the current account deficit increased. To increase the savings rate has been raised in the current account measures to increase private pension savings rates as well as tertiary pension system is of significant importance to the closure of open (Özel and Yalçın; 2013: 28).
The private pension system is a type of state-supported insurance that provides the person to plan his retirement, retirement security to those with the aim of securing their future by providing a second retirement facilities, which is open to anyone between 18-75 years of age and managed by the private sector (Güvel and Güvel; 2010: 166). More broadly, pension savings and investment system is a private pension system that would allow second retirement income with individual retirement to an increase in welfare, infrastructure investments, and long-term investment of resources by creating systems to new business and employment opportunities are to be, to increase the scope of social security and to reduce the government's burden of social security, financial sector in the growth of long-term funds so that the financial sector to a more healthy way, the fight against inflation and steady growth to make a positive contribution, fluctuations in the market with institutional investment strategies and the reduction of speculation the deepening of capital markets (http://www.egm.org.tr/?sid=70).

While Multi-pronged systems in the world, in some countries complementary to social security and in some countries plays an alternative role. While voluntary of participation in some countries, in the system is mandatory in some countries. In some countries can be covered by the liability and in some countries can be undertaken by a group of employers or employers' organization unions. As a result of this system, ensuring social welfare and sustainable in the sense that individuals should have been increased as well as the importance of social states (Cignafinans; 2014).

The problem of public pension systems in European countries such as Italy, Spain and Sweden, while in the long term, according to the characteristics of each country's labor market still has been added complementary systems to public pension system (Agudo and Garcia; 2010: 303). In other words; reform of the pension system of the European Union, maintaining the primary public pension systems have relied upon the second and third leg under the standing extended additional privatization of pension schemes (İTO; 2007: 83). Public pension systems in general while providing a minimum guarantee, occupational pension schemes such as Denmark and the Netherlands has played a significant role to complement public pensions. Occupational pension schemes based requirements when applying
as complementary in many European countries, while the ratio of these plans include the community in France, Denmark and the Netherlands are at the forefront (Demirpehlevan; 2010: 48).

In many countries such as Estonia, Latvia, Sweden, Bulgaria, Poland, Slovakia a member of the supplementary pension system for new people working in the public pension system has been mandatory (Croitoru, 2012: 119-120). Unlike the developed European countries many Latin American and Eastern European countries have chosen to switch to fully or partially compulsory private pension system. In this transition in the next to get higher returns from pension funds, unregistered employees to record, to increase national saving and capital markets contributing to the economy of the developing countries in sub-objectives is concerned (Altiparmakov; 2012: 100).

As it defined by International Labour Organization (ILO); " Measures have taken by the state against economic and social risks", the concept of social security, it is literally the first time has passed the law in United States of America (USA) in 1935. In US, state and private sectors are involved with financing the retirement and individual pension system is based on professional voluntary and state pension system is compulsory. US private occupational pension system is organized for the first time in 1974. On behalf of the employees of the employer contribution to private occupational pension scheme it is not compulsory. In calculating the amount of the deposit base as income tax deductions for their individual retirement accounts are structured, there are no tax advantages to the returns obtained from investments (Altaş; 2010: 8-18).

The system in England has advanced considerably after 2004. Founded after the relevant occupational pension crisis of 2004, the commission has taken some decisions. These were; To be more in the state system and tax giving importance to promoting, encouraging employers, the development of financial education, change their employer's pension scheme can, under control of the contract, increasing the state pension age, long-term no-pension plans, encouragement to increase their retirement savings, given the defined benefit plans despite the transition to occupational pension
schemes and contribute to discussions on plans to reduce the shift towards private pensions, retirement is that it is useful to maintain professional (Waddingha; 2005: 304-308).

Public pension payments in Germany, constitute 80% of the total pension contributions and private pensions and other retirement income has much less share compared with countries like the UK and US (Demirpehlevan; 2010: 48). Because social insurance in Germany is quite advanced. Social insurance contains about 90% of the total population. The one's that not covered by social insurance in Germany thanks to private pension companies are secured by different measures (Uyar; 2011: 95).

The amount of pension funds in OECD countries in 2013 amounted to 24.7 trillion dollars. With 13.9 trillion dollars US has the 56.3% of the total amount of pension funds. The United States followed by in UK with 10.8%, Australia with 5.9%, the Netherlands with and Japan with 5.4% . Turkey has a 0.14% market share in the pension fund by the amount of 35 543 billion dollars (OECD; 2014: 31). This shows the rates that Turkey has the potential to increase the amount of pension funds and there is opportunity to increase the savings rate as a result. But the savings should be noted that other factors affecting the level (Günay and Güneş; 2015:258).

In Turkey, the individual pension system, which was established as a complement to the current public pension system, based on voluntary participation and defined contribution basis, the third column is entirely the backlog is monitored in individual accounts is a private pension system. The main purpose of the system is directing savings of people they do throughout the active work life to a long-term investment in pension funds and to ensure continued the level of prosperity at a time when they have well in retirement. At the same time, increasing domestic savings, increasing employment and creating long-term funds into the economy to contribute to the economic development of the relevant Act are among the objectives of the system of justification (Yazıcı; 2015: 77).

One of the most important factors of economic growth, capital accumulation is possible through the realization of national savings. One of the important problems in Turkey is the lack of national savings. Raising the level of national savings has a great importance for the realization of economic
growth. The lack of savings prevented by evaluating increased savings in productive investments, it will be removed one of the obstacles to economic growth and a steady increase in prosperity will be ensured (İTO; 2007: 220). Removing the forefront of the Individual Pension System program, which would increase the total volume of savings in the country is necessary to ensure that (İzgi; 2008: 94; Singh; 1998: 72). With individual pension system, while investors are saving for retirement, by providing long-term funds into the economy by directing the savings to investment, production and employment will be able to ensure the improvement and contribute to economic development (Demir and Yavuz; 2004: 290; Şahin and others; 2010: 123). In addition, increasing the volume of savings while helping to keep inflation under control, more local currency denominated funds as well as keeping in Turkey will contribute to strengthening confidence in the national currency (MB; 2011: 55).

Primary target groups in the system are relatively higher propensity to save society's middle and upper income groups. In this context, IPS established by the Law enacted in 2001, with the company after the retirement of licensing and funding agencies from 27 October 2003 to complete transactions entered into actual practice. The objectives of the system throughout the grounds of the Law are summarized as follows:

- Provide the necessary funds for long-term infrastructure investments and thereby to increase employment,
- To increase the possibility of long-term debt of the public,
- Reduce short-term speculative pressures in the market,
- To increase the tendency of national saving,
- To encourage the formalization by saving for retirement of the flow into the financial system,
- To contribute the deeping of capital market,
- To create a structure that will deliver products safe and advantageous for individuals, that they could control the investment account and within reach. (http://www.egm.org.tr)

To reach the objectives set in the grounds of the law in a shorter time and to ensure the rapid growth of the system as seen in other countries, it was necessary to support the system with some tax
incentives. For this purpose, before the Law No. 4632 entering into force, to regulate tax incentives, it issued Law No. 4697 on the Amendment of Some Tax Act and entered into force on 07.10.2001.

According to Law No. 4697, person, wife and children to participants who pay contributions on behalf of the system, 10% of the fees obtained in a month and is paid annually to stage the annual amount of the minimum wage is possible drop these payments from income tax. Employers also pay contributions on behalf of employees of these payments, the social security premium base is possible to fall up to a certain percentage of the tax base. In addition, at the stage of the fund invested to investment income the exemption provided. However, at the stage of recovery of the backlog, the total accumulation, according to the time spent in the system at a decreasing rate withholding tax was envisaged.

At the Date of 06.29.2012 the revisions made to the Law No. 6327 published in the Official Newspaper, made extensive changes in the system and many improvements have been put into practice. Basically with these innovations, IPS is attaining a more effective incentive structure, systems to increase the corporate participation, both companies the cost is intended to be the better level of reduction and fund performance in terms of both participants. In this context, to be implemented from 2013 the incentive system radically changed and the system was introduced direct state subsidy. Accordingly, by removing the tax advantage of the application used to discount the way the tax base, the participants by the contributions paid to the private pension system, to be limited to an annual amount of gross minimum wage as a state contribution of 25% to be paid to individual accounts "State Subsidy System" has been introduced. In addition, at the situation of leaving of the system, rather than via the withholding tax return on total capital and only a matter of being taxable amount of the return is regulated (EGM; 2014: 17).

State subsidy should be paid according to "information communicated to the Pension Monitoring Center by companies" basis by taking of "Pension Monitoring Center" calculation and Undersecretariat of Treasury of payments of the budget, "the participants of the Pension Monitoring Center to be
transferred through companies in the related accounts” (Diliçık; 2012: 86). On the other hand, with Law No. 4632 it is entitled the amount of the contribution is determined depending on the duration of the state participating in the system. Consequently, based on the pension contract period; at least three years in the system remains to fifteen percent of the amount of state subsidy, accounts for at least six years in the system remaining to thirty-five percent of the amount the state subsidy account and at least ten years in the system remaining are entitled to sixty percent of the amount the state subsidy account.

The state subsidy to be made on the basis of the above mentioned applications will be implemented only for three years and left more for the system. Except leaving because of death or disability all of the state subsidy can only be acquired by retired from the system. While there is no limit depends on the duration of stay in the system of contributions paid in to be deducted from the tax base before Law No. 6327, the time limit for bringing the state subsidy is a step towards the aim of keeping the participants in the system for a long time (Gökmen; 2012: 146).

The main incentive for the IPS was in the form of a certain percentage of discount from the tax is paid by the participants and therefore the increase of net salary until State Subsidy application. However, only 35% of the participants benefit from the system, while 65% can not benefit in any way. With the new system brought in government funding a member of the IPS is whether a taxpayer or not they can benefit from state subsidy (İşseveroğlu ve Hatunoğlu; 2012: 170). New system makes it possible to achieve the higher a fund size for participants who can not to benefit from the tax reduction incentive in low tax brackets. The new system in relatively low-income groups can expand the participant base in favor of participants, whereas relatively participants in the high-income group is considered to be away from the system (Günay and Güneş; 2015: 252).

However, it is mentioned as an advantage for high-income groups in the new system. In the current system, the participants themselves and their dependents in total for the family to be responsible members of annual gross minimum wage of benefit a limited tax reductions, each of the family members in the new system can benefit independently from the limited government contribution to
annual gross minimum wage (Özel and Yalçın; 2013: 22). In F-former practice a person himself, when he entered the pension system on behalf of his wife and children, could benefit from the tax cuts and just as he was just a person that did not exceed the annual gross minimum wage. However, both he and his wife and children with new applications can benefit individually from the contribution of states. This can be considered as a factor that will encourage participation in the system (Günay ve Güneş; 2015: 252).

When we look at the leaving phase of the system; 15% withholding tax on the savings of the respondents paying less than ten years of contributions into the system; ten years or more, paying 10% withholding tax of the total contribution from the accumulation of the people not filling the system 56 years; ten years or more, while contributions from the system paying completing the 56 years (winning the right to a pension from the system) is the accumulation of the participants 25% of them are exempt from the tax remaining 75% like 5% withholding tax on part is made (Article 1 of Law No. 4697; Cabinet Decision No. 2002/5000 Article 4).

3. APPLICATION

In the application part of the study, it is aimed to determine whether the changes (state subsidy) made in 2013, in the Individual Pension System which's law enacted in 2001 and launched in 2003, caused a difference in the number of participants in the system and the amount of contributions to be transferred to the system by participants rather an increase or not in Turkey.

To accomplish the purpose of the study Individual Pension System, including from the year it was put into practice by reference to official data until the end of 2015, 25% direct changes after government funding applications made in the system prior to 2013 are considered. The number of participants is included in the pension system, the number of companies operating in the pension system and other variables such as the amount of contributions including system that are subject to evaluation.
Table 1. Number of IPS Companies in Turkey

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</table>

Source: Based on data from Pension Monitoring Center: [https://www.egm.org.tr](https://www.egm.org.tr)

Considering the number of companies operating in the field of IPS, from the year it was introduced and came into force until 2007, it is observed that 11 companies operated. We see that the implementation of the system have been introduced yet, and thus can be considered for a long time due to reasons such as the small number of participants, take place within the companies’ system. The number of regularly growing companies in the following years, from the end of the year 2012 and the beginning of 2013, was made the subject of legislative amendments that make up the end of the operation and increased by a further and it has reached up 19 companies. This increase emerged as a result of the application of the legislative changes like 25% state subsidy made to impact factor of contribution amount as included in the to the number of participants and the system is quite high.
Table 2. IPS Number of Participants

<table>
<thead>
<tr>
<th>YEAR</th>
<th>IPS NUMBER PARTICIPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.12.2003</td>
<td>15,245</td>
</tr>
<tr>
<td>31.12.2004</td>
<td>314,257</td>
</tr>
<tr>
<td>31.12.2005</td>
<td>672,696</td>
</tr>
<tr>
<td>31.12.2006</td>
<td>1,073,650</td>
</tr>
<tr>
<td>31.12.2007</td>
<td>1,457,704</td>
</tr>
<tr>
<td>31.12.2008</td>
<td>1,745,354</td>
</tr>
<tr>
<td>31.12.2009</td>
<td>1,987,940</td>
</tr>
<tr>
<td>31.12.2010</td>
<td>2,281,478</td>
</tr>
<tr>
<td>31.12.2011</td>
<td>2,641,843</td>
</tr>
<tr>
<td>31.12.2012</td>
<td>3,128,130</td>
</tr>
<tr>
<td>31.12.2013</td>
<td>4,153,055</td>
</tr>
<tr>
<td>31.12.2014</td>
<td>5,092,871</td>
</tr>
<tr>
<td>31.12.2015</td>
<td>6,044,152</td>
</tr>
</tbody>
</table>

Source: Based on data from Pension Monitoring Center: https://www.egm.org.tr

When Table 2 data are analyzed, it is seen that as the years a steady increase in the number of participants. At the end of the year 2012 3,128,130 individual pension system participants, the effect of the changes made in the application containing the state subsidy, has reached 4,153,055 people and has increased more than 1 million people. In the following years the increase has continued the same. This relatively high rate of return of 25% can be accepted in present conditions has led to the inclusion of the savings system. IPS number of partipicants which was 3,128,130, at the year of state subsidy application started, has reached 6,044,152 people, with close to a 100%, showing a rate of increase in 3 years which can be considered such a short time.
Table 3. IPS Contribution Amount (TL)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CONTRIBUTION AMOUNT (TL)</th>
</tr>
</thead>
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<td>31.12.2003</td>
<td>5.866.764</td>
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<tr>
<td>31.12.2004</td>
<td>288.325.706</td>
</tr>
<tr>
<td>31.12.2005</td>
<td>1.117.233.826</td>
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<tr>
<td>31.12.2006</td>
<td>2.592.508.977</td>
</tr>
<tr>
<td>31.12.2007</td>
<td>3.917.061.211</td>
</tr>
<tr>
<td>31.12.2008</td>
<td>5.467.695.761</td>
</tr>
<tr>
<td>31.12.2009</td>
<td>7.102.007.561</td>
</tr>
<tr>
<td>31.12.2014</td>
<td>28.346.503.495</td>
</tr>
<tr>
<td>31.12.2015</td>
<td>37.129.081.094</td>
</tr>
</tbody>
</table>

Source: Based on data from Pension Monitoring Center: [https://www.egm.org.tr](https://www.egm.org.tr)

As Table 1 and Table 2 in Table 3 data also show that state subsidy administration led to a serious contribution to mobility in the system. In parallel with the increase of the company implemented the system and the number of participants in the system, the amount of contributions that have been transferred to the system as a significant increase by the years. Began to implement the system on the rise since 2003 contribution amount, which is the start of the year, the highest increase in government funding applications has experienced after 2013. The amount transferred to the system as a contribution proportional to the number of participants in the last three years 16,177,757,755 TL to 37,129,081,094 TL by showing a more than 100% increase.
5. CONCLUSION

As a result, Individual Pension System (IPS), started to implement as a complement of the social security system in Turkey in 2003, has turned in the form of tax savings encouragement by 2013 into 25% of the directly state subsidy. To provide the necessary funds for long-term infrastructure investment and hence increase employment, improve the long-term borrowing ability of the public, to reduce short-term speculative pressures in the markets, to increase the national savings trend of saving for retirement to encourage the formalization of the flow into the financial system to contribute, to the deepening of capital markets, individuals safe, advantageous, the number of companies operating in the structural changes resulting system made to accomplish goals as to where they can control their investments and accounts to create a structure that will provide easy reach of products, have been significant changes in the number of participants and contribute paste amount. By making changes in IPS, there must more people be realize the targets, and the system further contribution amount should be transferred. From the implementation, state subsidy started year to today which in a short period of three years, the number of participants 3.12813 million at the beginning of 2013 to 100%, showing a rate of increase has reached close to 6,044,152 people. The contribution amount is transferred to the system in proportion to the number of participants in the three years between 2013-2015 years 16,177,757,755 TL to 37,129,081,094 TL in taking more than 100% increase. According to data from the years 2013-2015, we can see that the structural change has reached its goal and the number of participants and amount of the contribution directly affects more than 100% of the rate of increase. In this case, the method of switching to contribute 25% of state subsidy from tax incentives for Turkey seems a right decision and shows the need to continue to apply this method.
References

ACAR, İbrahim Atilla, KİTAPÇI İsmail, (2008), Sosyal Güvenliğin Demografik Boyutu: Türkiye’deki Emeklilik Sistemindeki Değişim, Maliye Dergisi, Ocak-Haziran No.154
ALTAŞ, Gökben (2010), Özel Emeklilik Sistemleri, Türkiye Sermaye Piyasası Aracı Kuruluşları Birliği Sermaye Piyasasında Gündem Dergisi, Ağustos No.96
CİGNAFİNANS (2014), Dünyada Bireysel Emeklilik.
CROITORU, Elena Lucia (2012) Analysis Of Pension Reforms in EU Member States, Annals of the University of Petroșani, Economics, 12(2)
DİLİÇIKIK Ata (2012) Bireysel Emeklik Sisteminde Yeni Düzenlemeler, Vergi Dünyası Dergisi, Ekim No. 374
GÖKMEN Selahattin, Bireysel Emeklilik Sisteminde Yeni Dönem Başlıyor, Vergi Sorunları Dergisi, Ağustos, No. 287
GÜVEL, Enver Alper, GÜVEL ÖNDAŞ, Afitap (Ağustos 2010) Sigortacılık, Seçkin Yayıncılık, Sayı 287 Ankara
GÜNAY Gülay, GÜNEŞ Hidayet (2015), Bireysel Emeklilik Sistemi ve Türkiye Değerlendirmesi, TSA, Year:19 No. 3


OECD, (2014). “Pension Markets in Focus”

ÖZEL, Özgür, YALÇIN Cihan, (2013) Yurtdışı Tasarruflar ve Bireysel Emeklilik Sistemi: Türkiye’deki Uygulamaya İlişkin Bir Değerlendirme, TCBM Çalışma Tebliğ, No:13/4


(http://www.egm.org.tr, Access Date: 20.01.2016)
Determining Factors Affecting Housing Prices in Turkey with Hedonic Pricing Model

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ABSTRACT

Houses are products that attract consumers’ attention with the features they have. This study, aiming to determine the factors affecting housing prices are based on cross-sectional data gathered from house sale advertisements on websites. In this study, effects of factors such as expansion, housing type, heating, building age, floor level, room number, interior and exterior features, neighborhood, transportation and view on housing prices were examined.

Keywords: Hedonic Pricing Model, Housing Prices, Turkey

1. Introduction

Hedonic price model aims to structure the price indexes of products that do not have a market fundamentally but have a market price. This model is also a value determination system. In other words, the value of a product is measured by some features that the product has. Products that are in demand in the market have many features. Generally these features can not be marketed openly when a product is considered as whole. When individuals purchase these products, they expect the maximum benefit for themselves. The level of this expectation depends on different features in the product, meaning that the value of features that the product has are obtained by the price analysis, called hedonic, of the heterogeneous product that has every feature in the market in different amounts. By using hedonic price model, it is possible to calculate the product demand and price with sufficient data on a product whose price can be observed. Many city planners and environmental economists use the hedonic price model to...
determine the price and demand of features such as proximity to an opera house or gym, air pollution, noise from the highway or mountain view (Cicek and Hatirli, 2015: 98).

G. C. Haas is stated to be the first to apply the hedonic price model. G. C. Haas revealed a simple hedonic price model for a ranch by using the variables: proximity to the city center and the size of the city in a study he did for a farmland pricing. Following Haas, the first person to use the word ‘hedonic’ in his study is A. T. Court, American automobile expert. He predicted a hedonic price model as a function of a product’s features (Colwell and Dilmore, 1999:620).

A. T. Court described the price of an automobile for the 1925-1935 period as a function of the automobile’s features and analysed the hedonic price index of the automobile that is a heterogeneous product. In the study, he determined that the average price of the automobile increased for the period mentioned but in reality, it decreased with the consideration of features such as weight, length, horse power, etc. (Court, 1939: 99-117).

However, nearly ten years prior to A. T. Court’s study, Waugh did a study on systematic analysis of the effect of quality on a product’s price and he is the first to conduct a study like this. Waugh defined quality by using several observable features and predicted quality as the implied price of each feature (Sheppard, 1997:1595-1596).

Later on, Lancaster and Rosen formed the theoretical foundations of hedonic price approach. In heterogeneous products, the demand of the product depends not on the product itself, but its features. Every feature is a benefit for consumers and the level of benefit that consumers get from each product depends on different features. When consumers decide to purchase or not to purchase a product, they compare the total benefit they will get with the cost. Therefore, the cost of a product equals to the sum of values of features of that product (Ayan and Erkin, 2014:194). Hedonic method uses multi-regression technique with a big dataset and
requires a structure depending on micro-economic analysis. Hedonic method is used for market values with benefits and impact qualities of products (Selim, 2008: 66).

In the model developed by Rosen, products \((Z)\) are considered as the sum of “n” number of characteristics they have. “i” includes “n” number of characteristics and shows the amount of each characteristic. Rosen suggested the general structure of the hedonic price function as shown below:

\[
P(Z) = Z(Z_1, Z_2, Z_3, \ldots, Z_n)\]  

\((1)\)

\(P(Z)\) is the observed market price of the product. \(Z (Z_1, Z_2, Z_3, \ldots, Z_n)\) is the vector of characteristics measured objectively. \(Z\) elements are measured objectively in terms of perception of all consumers (Rosen, 1974: 35-36). Rosen developed the hedonic model based on the product characteristics within the scope of Lancaster. From this price function, the effect of each characteristic on the price can be stated as below by partial differentiation of the equation number 1 (Baldemir et al., 2007:3):

\[
P_{Zi} = \frac{\partial P_i}{\partial Z_i}\]  

\((2)\)

The price is used as a dependent variable while product characteristics are used as independent variables in the hedonic method (Court, 1939: 109). In this study, a model was designed based on the hedonic hypothesis of Lancaster which is based on consumer behavior theory. Consumers aim to maximize the benefits of the house with its characteristics and qualities. The hedonic model developed examines the housing demand from this aspect.

Hedonic pricing model has a broad application field. In our country, housing prices, as seen in the real estate market are analysed with this model. For instance, Ucdoruk (2001) analysed the variables affecting housing prices by conducting surveys on 2718 realtors. Baldemir et al., (2007) studied the qualities that affect house sale prices by conducting surveys.

The purpose of this study is to analyse the factors affecting housing prices in Turkey with the hedonic price mode. Within this scope, the study consists of four sections. The second section presents the data set and the methodology used in the study. The third section presents the findings and interpretation of the findings. The fourth section discusses the results.

2. Methodology

The population of this study is houses on sale in our country and the purpose is to determine the characteristics affecting housing prices in Turkey. The total number of houses for sale during January, 2016 was determined to be 1,236,226 and the data is gathered from the house-sale websites (www.sahibinden.com, www.hurriyetemlak.com, www.milliyetemlak.com). The minimum sample size to represent the mentioned population is determined to be 664 with a 1% significance level and 5% error margin (www.surveysystem.com). Although the minimum sampling size is determined this way, due to the representation power being high and the data on websites being updated constantly, the data set used in this study consists of 1,200 house data randomly selected from related websites.

Considering the studies in the literature, we think that the independent variables that may affect housing prices (P) to create a hedonic model are; type of housing (K₁: Mezzanine,

Descriptive statistics of variables used in the model are presented in table 1.
According to table 1, average housing price is 154586,8 TL, average expansion is 113,2 m², average building age is 6,9 years, average number of rooms is 2,7, average of 5,6 stories and the floor that the apartment is on is average 3,2. Determination of functional structure is very important when setting the hedonic model. Generally linear, logarithmic and semi-logarithmic function structures are used in literature to describe the relationship between housing sale price and the features of the house. Three different model predictions are made according to each three function types in this study. Related hedonic models are predicted by
the Least Square Method. Eviews 6.1 program was used in the analysis. The models analysed in the study are shown below. In the models, \( X \) represents independent variables, \( D \) represents dummy variables with 1 and 0 values, and \( \varepsilon \) represents error term. Model number 3 represents the linear model, model number 4 represents semi-logarithmic model, and number 5 represents logarithmic model.

\[
P_i = \alpha_0 + \sum_{k=1}^n \alpha_k X_{ik} + \sum_{j=1}^m \beta_j D_{ij} + \varepsilon_i \quad (3)
\]

\[
\ln P_i = \alpha_0 + \sum_{k=1}^n \alpha_k X_{ik} + \sum_{j=1}^m \beta_j D_{ij} + \varepsilon_i \quad (4)
\]

\[
\ln P_i = \alpha_0 + \sum_{k=1}^n \alpha_k \ln X_{ik} + \sum_{j=1}^m \beta_j D_{ij} + \varepsilon_i \quad (5)
\]

### 3. Findings

In this study, three functional structures, that are linear, semi-logarithmic, and logarithmic, were analysed with the least square method in order to predict hedonic model and find the best model. Estimated models are presented in table 2.

Table 2 shows that all three model estimates are statistically significant as a whole at 1% significance level (Prob. (F-statistics)=0.000). According to the \( R^2 \) value, 59% of the price change in housing is explained with the independent variables used in the linear model, 68% with the independent variables used in the semi-logarithmic model and 66% with the independent variables used in the logarithmic model.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Linear Model</th>
<th>Semi Logarithmic Model</th>
<th>Logarithmic Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sabit</td>
<td>86282,982</td>
<td>11,882***</td>
<td>1,389**</td>
</tr>
<tr>
<td>G</td>
<td>11509,591*</td>
<td>0,125***</td>
<td>0,008</td>
</tr>
<tr>
<td>BY</td>
<td>-1394,914</td>
<td>-0,025</td>
<td>-0,025</td>
</tr>
<tr>
<td>OS</td>
<td>4486,374</td>
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</tr>
<tr>
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<td>18,934</td>
<td>0,002</td>
<td>0,028</td>
</tr>
<tr>
<td>BK</td>
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<td>0,054***</td>
<td>0,070**</td>
</tr>
<tr>
<td>K_1</td>
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<td>0,020</td>
</tr>
<tr>
<td>K_2</td>
<td>9924,762^</td>
<td>0,065***</td>
<td>0,082**</td>
</tr>
<tr>
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<td>$K_1$</td>
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<td>109,002***</td>
<td>22,540</td>
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<td>-2.185</td>
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<td>8.571</td>
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<tr>
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<td>-5.714**</td>
</tr>
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<td>8.314</td>
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<td>-19,774</td>
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<td>-0.006**</td>
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</tr>
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<td>I₃₃</td>
<td>343,037</td>
<td>650,182</td>
<td>0,016**</td>
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<td>524,611</td>
<td>-0,003</td>
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<td>1050,091</td>
<td>0,001</td>
</tr>
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<td>877,937</td>
<td>-0,011</td>
</tr>
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<td>-0,016</td>
</tr>
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F İstatistiği (Prob.) 145,779 (0,023) F İstatistiği (Prob.) 375,567 (0,000) F İstatistiği (Prob.) 156,486 (0,012)
***, ** and * denotes statistical significance at 1%, 5% and 10% level respectively.

\[ R^2, \] one of the criteria used in model preference, is used to measure the suitability of regression. Corrected \( R^2 \) is developed to prevent the increase in \( R^2 \) with the increase of descriptive variables. However, model function structures and predictors should be the same in model comparisons whether \( R^2 \) or corrected \( R^2 \) is used. According to another criterion for model preference, Akaike Information Criterion (AIC), the model that gives the lowest AIC value should be preferred (Ucal, 2006: 44-46). For this study, semi-logarithmic structure is considered to be the best model that gives the lowest AIC.

According to the semi-logarithmic model results presented in table 2, variables of fixed, expansion \( m^2 \) (G), the floor level (BK), \( K_2 \): Duplex, \( K_3 \): Garden floor, \( I_1 \): None, \( C_1 \): West, \( C_4 \): South, \( I_4 \): ADSL, \( I_5 \): American kitchen, \( I_5 \): Built-in oven, \( I_6 \): Balcony, \( I_7 \): Barbecue, \( I_8 \): Major appliances, \( I_{13} \): Picture entry-phone, \( I_{50} \): Air conditioning, \( I_{24} \): Kitchen, \( I_{25} \): Built-in kitchen, \( I_{29} \): Shutter, \( I_{31} \): Ceramic floor, \( I_{37} \): Fire place, \( I_{12} \): Sound insulation, \( D_{12} \): sports field, \( M_1 \): Shopping mall, \( M_7 \): Grocery market, \( M_8 \): Park, \( M_{10} \): Community clinic, \( M_{11} \): street market, \( M_{12} \): Gym, \( T_8 \): Metro and \( V_2 \): sea are statistically significant.

There are differences in interpretations based on the independent variable being quantitative or qualitative when regression models are semi-logarithmic. If the variable is quantitative, the interpretation is made by multiplying the coefficient by 100. If the variable is a dummy variable, first inverse logarithm of the coefficient is taken according to e base and 1 is deducted from the result. Then, the value calculated is multiplied by 100 and interpretation is made (Yayar and Karaca, 2014: 518). When inverse logarithm of fixed term is calculated,
median value of housing prices is obtained (Gujarati, 2002: 320).

According to this, the median price for a house without any feature is 144.639,54 TL. The price is increased by around 12.5% when the expansion increases 1 m$^2$, by 6.7% when it is duplex, 4% when the apartment is on the south façade, by 7.6% when there is ADSL, 66% when there is picture entry-phone, 1% when it has ceramic floor, 3% when it has a fireplace, 4.3% when there is sound insulation, 2% when there is open field close to the house, 1.3% when it is close to a shopping mall, 13.9% when it is close to a park, 1.2% when it is close to a community clinic, 1.8% when it is close to a street market, 2.6% when it is close to metro and 2.1% when it has a sea view.

The validity and reliability of predictions made with a regression analysis depends on obtaining some assumptions of the least square method (Greene, 2003:10). In this study done by using cross-sectional data, the regression models set were tested in terms of multiple linear link, auto-correlation and changing variance problems.

In order to determine if there is a changing variance problem in the three models set accordingly with automobile prices, Breusch-Pagan-Godfrey test was used. The results showed that there is changing variance in all three models but as the structure of this changing variance is unknown, the problem was predicted in the least square method with White’s robust standard error methods. In the regression results in table 2, their White corrected versions, in other words robust standard errors of coefficients in the model were calculated.

LM test was used to determine if auto-correlation is present. As Prob. chi-square >Prob. 0,05 in the LM autocorrelation results for all three models, there is no auto-correlation.

Variance Inflation Factors (VIF) test was used to test the multicollinearity problem. As a general rule, if the VIF values are below 5, it is accepted that there is no multi-linear link problem while when the values are below 10, it is accepted that there is no significant linearity
problem among variables (Asteriou, 2006: 95). The results of the relative test showed that there is no significant multi-linearity problem.

4. Conclusion

Hedonic pricing model provides the opportunity to analyse the effects of features that constitute the product or services for heterogeneous products or services on the price of products. Hedonic model is used in this study to determine the factors affecting housing prices in Turkey as of 2016. The data set of the study consists of 1200 data gathered in January. The relationship between the variables that are considered to impact housing prices and housing prices was analysed with hedonic model. In order to predict a model, three functional structures, linear, semi-logarithmic and logarithmic, were analysed with the least square method and the semi-logarithmic method was found to be the best model.

According to the results, the variables of expansion, the floor level, duplex, garden floor, west, south, ADSL, American kitchen, built-in oven, balcony, barbecue, major appliances, picture entryphone, air conditioning, kitchen, built-in kitchen, shutter, ceramic floor, water heater, fire place, sound insulation, sport field, shopping mall, grocery market, park, community clinic, street market, gym, metro and sea view, impact housing prices.

As a result, factors that may impact housing prices vary between countries and regions. Additionally, the results obtained in the study are limited to the data gathered during the examination period, the variables used and the method of analysis. Using different period, variables and method could lead to different results. Data obtained from this study are expected to inform future hedonic model analyses.
References


ÇETİNTAHRA, Gözde Ekşioğlu ve Ebru Çubukçu, “Çevre Estetiğinin Konut Fiyatlara Etkisi”, İTÜDERGİSLİ/a, 10(1), 2011, p. 3-12.


HAAS, G. C., “A Statistical Analysis of Farm Sales in Blue Earth County, Minnesota, as a Basis for Farm Land”, The University of Minnesota, 1922, (Master Dissertation).


WAUGH, F. V., Quality as a Determinant of Vegetable Prices, New York, Columbia University Press, 1929.

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Analyzing the Concept of Intelligence Etimologically

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ABSTRACT

Intelligence is both functional for the state security and social life. However, many communities misidentify the concept of “intelligence” and thus affect the integration of “intelligence services” with the communities negatively. For this reason, this study has identified the intelligence services and tried to explain the word of “intelligence” conceptually.

Keywords: Intelligence Etimologically, CIA, Mossad, MIT, FBI, Security.

INTRODUCTION

Intelligence has maintained the adventure of human existence since the dawn of humanity. Especially, in the historical process, people carried on the activities such as questing and ravening and it caused intelligence to affect human movements in the past.

In the past, intelligence and its activities had an important factor in social life and security, today intelligence activities of individuals have increased significantly. As insider dealing of customers before shopping is considered as an intelligence activity, it is the same for states to get information about other states for their own securities during war and peace times.

However, intelligence and organizations in some countries such as Turkey have been misperceived by the society. Generally in society, it has been attributed different names to the agents who are the members of intelligence. Some of the reasons are that intelligence and organizations have been misrepresented, and the results caused by the conceptual confusion.
Among these results, the society called intelligence services as deep state, mafia, and underground organizations, and also they named agents as informer. Two of the most important reasons of that situation are the conceptual confusion and the incorrect launch of the public. This study tries to explain what the intelligence is reviewing the literature including both national and international press.

1. INTELLIGENCE ETYMOLOGY

In English and French “intelligence” means “reason, mind”, its lexical meaning in Turkish is to receive information. Etymologically intelligence is derived from the Arabic word which means “newly received information” and the origin of the word is “news”. The words such as informing, informant, and unaware are derived from “news” (Ozkan. T., 2003: 24). Turkish Language Association announces the concept of intelligence as “gathering information, and receiving news”. The word of intelligence is the plural of the words “inquire”, “news” and “receiving news” in Arabic.

Basically, the concept of intelligence is divided into four;

a- Intelligence as an information
b- Intelligence as a process
c- Intelligence as an assignment
d- Intelligence as an organization (Karabulut. A., 2013: 64).

However, etymologically the clearest definition of intelligence is mentioned in the book under the title of “Intelligence Theory” by Prof. Dr. Ümit ÖZDAĞ. Özdağ defines intelligence as a process of interpretation just after gathering information and highlighting a contrast assessing the knowledge (Özdağ. Ü., 2011: 28).
In this regard, it is possible to summarize the meaning of intelligence as gathering information of a state to carry out a policy to provide security and gain advantage in the combat zone.

1.1. The Necessity and Importance of Intelligence

The master of war art Sun TZU explains the importance of intelligence as below: “The reason why an intelligent government and a wise commander achieve an extraordinary success defeating the opponents is their PRELIMINARY INFORMATION” (Tzu. S., 2008: 196). This explanation clearly emphasizes the importance of the intelligence. Napoleon also said: “a spy in the right place is worth thousands of men in the front” (Kuzu. A., 2007: 13). Today it dominates diplomacy and military power and also determines the direction of psychological war (Özdağ. Ü., 2011: 19).

1.1.1. Historical Events Showing the Importance of Intelligence

In the past, a Chinese princess got some silk worms concealing in her headdress, secretly left China and reached the border gates and gave the silk worms to someone from India and so the secret of silk was taken out of the country, thus could be a good example. Another example is that after the end of the Cold War the effect of financial intelligence increased as a result of gathering information from rival companies (Güldiken. N., 2006: 172).

Mongol Emperor Kublai Khan’s first expedition to conquer Japan in 1281 ended in failure, Kublai Khan’s armies were crushed by the Japanese because of the poor quality of their forces and in his second expedition Kublai Khan paid more attention to diplomacy and intelligence organization. Ambassadors reported to Kublai Khan that Japans are afraid of war since there is a duality in administration between Kyoto and Kamakura. It is asserted that these intelligence reports provoked Kublai Khan to prepare for the second expedition to Japan which ended in failure and Kublai Khan never sent an invading force to Japan again (Karabulut. A., 2013: 242).
1.2. Intelligence Cycle

It is important to gather information for intelligence and to reach this information to the required institution accurately is vital. That’s why it is possible to meet such kind of problems such as the accuracy of information and imparting secretly on time.

Intelligence requires analyzing information in a planned, systematic and dynamic way. It is vital to determine an analysis showing the weaknesses and strengths of intelligence. In this context, intelligence services determine cycles and act accordingly. For example, to FBI (Federal Bureau of Investigation) the cycle is as below (FBI Web Site., 30.11.2013);

**FBI Intelligence Cycle**

![FBI Intelligence Cycle Diagram](http://www.fbi.gov/about-us/intelligence/intelligence-cycle)


According to FBI requirements are developed based on critical information. The information’s reliability, validity, and relevance is evaluated and weighed. The information is logically integrated, put in context, and used to produce intelligence. CIA has also same
intelligence cycle. To CIA, intelligence cycle consists of five steps; planning and direction, collection, processing, analysis and production, and dissemination (CIA., 05.12.2013).

Turkish National Intelligence Organization’s intelligence cycle is as below;

Turkish National Intelligence Organization Intelligence Cycle

- **Determining the Intelligence Requirements and Orienting the Collection Activity**

- **Collecting Information**

- **Disseminating and Using Intelligence**

- **Processing Information**
  (Evaluation)


The first phase of the National Intelligence Organization’s intelligence cycle involves the stages of determining the appropriate collection of required information. The sources of the
intelligence production process are divided into two as “open” and “covert”. The evaluated reports are delivered to the relevant institutions on a timely basis.

To evaluate the information analytically Treverton indicates intelligence cycle as below;

**Treverton Intelligence Cycle**

![Treverton Intelligence Cycle Diagram]


The graphic illustrates the multiple components of the analysis cycle that are of concern today. The phases are as such: A; questions and issues, B; resource-tasking collection management, C; raw data distribution, D; processed data dissemination, E; analysis product dissemination. There is an analogy between gathering information and intelligence. Many of intelligence’s analytic successes in the Cold War were elaborate puzzles- how many missiles does the Soviet Union have? How accurate are they? Similarly, one of intelligence’s signal
failures was the elaborate puzzle of whether Saddam regime had chemical weapons in 2003 (Treverton. G. F.; Gabbard. C. B., 2008: 4).

Intelligence cycle is implemented through the principles. In terms of speed principle intelligence information must be delivered on time but it is really difficult. It is crucial to provide intelligence in time and also the source of intelligence is vital as well.

According to the principle of accuracy the possibilities of intelligence must be determined and explained in the reports. Uncertain intelligence is not useful for decision makers and it can affect possible decisions in a negative way.

1.3. Intelligence Terms

Agent network is a group that does secret business under a leader of an agent. Nickname is a name given to someone to hide his real name to contact with other people during the special temporary operations. Audio surveillance is spying upon someone in terms of intelligence (Eymür. M., 2005: 208). Mask is something that covers a spy as a fake id to protect or hide him abroad. IDA is intelligence database (Türk. H., 2011: 217). Backstop is a thing placed at the rear of something as a support. There are several other intelligence terms. Agent is someone whose job is to find out secret information about another country, and informant is the source of intelligence (Eymür. M., 2005: 208).

2. MOSSAD, CIA, NIO INTELLIGENCE SERVICES

Intelligence was crucial for the states especially just after the Cold War. As the threat was not clear, some intelligence services made secret operations to each other. Sometimes they tried to gather some information about latest technologies from other countries to adapt themselves to the modern era.
There are various intelligence fields, but generally it became one of the key factors for the wars and especially in diplomacy and security. In this part, this study introduces some regional popular intelligence services.

2.1. MOSSAD – Israeli Intelligence Service

MOSSAD means Institute for Intelligence and Special Operations and it is the short name of the national intelligence agency of Israel and it was established in 1947. It supports and protects Israeli people to continue their life easily for the future and that is the basic mission of MOSSAD. It is also operational and intelligence team of Israel abroad. The main missions of MOSSAD are to obtain nonconventional weapons and protect Israel from nuclear attacks. That’s why, it has high technological equipments (Pardon. T. D., 26.11.2014).

2.1.1. SHAI Intelligence Service Before MOSSAD

MOSSAD has twenty thousand active and fifteen thousand inactive agents that is approximately they have thirty five thousand members. However before MOSSAD in Israel, there was an intelligence organization called SHAI known as “murder network”. In Hebrew, SHAI means “information-intelligence” and they came to the conclusion in 1950 (Kuzu. A., 2007: 51).
2.1.2. MOSSAD Blue Star Team

There is an illegal skeleton crew in MOSSAD called Blue Star, which becomes a part of an activity only for special operations. Five of the members of the team who know Turkey very well were killed while trying to pass the border in Hatay. Some of the snipers were Turkish citizens and spoke Turkish fluently and their USB key was deciphered by Turkish security forces. It was confirmed that some crucial information including popular politicians addresses were downloaded on computers (Sabah., 17.08.2014).

2.2. CIA – American Central Intelligence Agency

President Harry S. Truman signed the National Security Act of 1947 establishing the CIA. The National Security Act charged the CIA with coordinating the nation’s intelligence activities and correlating, evaluating and disseminating intelligence affecting national security. This Act also formally defined the duties of the Director of Central Intelligence (DCI) to help the President and other policymakers make informed decisions about the country’s national security. In 2004, President Bush signed the Intelligence Reform and Terrorism Prevention Act which restructured the Intelligence Community by abolishing the position of DCI creating the position the Director of the Central Intelligence Agency (D/CIA). The Act also created the position of Director of National Intelligence (DNI), which oversees the Intelligence Community and the National Counterterrorism Center (NCTC). The Act of 2004 also created the position of DNI to coordinate and lead the entire Intelligence Community.
The Director of the Central Intelligence Agency serves as the head of the Central Intelligence Agency and reports to the Director of National Intelligence. The CIA director’s responsibilities include:

1- Collecting intelligence through human sources and by other appropriate means, except that he shall have no police, subpoena, or law enforcement powers or internal security functions.

2- Correlating and evaluating intelligence related to the national security and providing appropriate dissemination of such intelligence.

3- Providing overall direction for and coordination of the collection of national intelligence outside the United States through human sources by elements of the Intelligence Community authorized to undertake such collection in coordination with other departments, agencies, or elements of the United States Government which are authorized to undertake such collection, ensuring that the most effective use is made of resources and that appropriate account is taken of the risks to the United States and those involved in such collection.

4- Performing such other functions and duties related to intelligence affecting the national security as the President or the Director of National Intelligence may direct.

5- The function of the Central Intelligence Agency is to assist the Director of the Central Intelligence Agency in carrying out the responsibilities outlined above.

6- To accomplish its mission, the CIA engages in research, development, and deployment of high-leverage technology for intelligence purposes.

7- As a separate agency, CIA serves as an independent source of analysis on topics of concern and also works closely with the other organizations in the Intelligence Community to ensure that the intelligence consumer—whether Washington policymaker or battlefield commander—receives the best intelligence possible.
8- As changing global realities have reordered the national security agenda, CIA has met these challenges by:

9- Creating special, multidisciplinary centers to address such high-priority issues such as nonproliferation, counterterrorism, counterintelligence, international organized crime and narcotics trafficking, environment, and arms control intelligence.

10- Forging stronger partnerships between the several intelligence collection disciplines and all-source analysis.

11- Taking an active part in Intelligence Community analytical efforts and producing all-source analysis on the full range of topics that affect national security.

CIA contributes to the effectiveness of the overall Intelligence Community by managing services of common concern in imagery analysis and open-source collection and participates in partnerships with other intelligence agencies.

By emphasizing adaptability in its approach to intelligence collection, the CIA can tailor its support to key intelligence consumers and help them meet their needs as they face the issues of the post-Cold War World (CIA Web Site., 26.11.2014).

In CIA Operational team four thousand five hundred agent work and nine hundred of them are abroad and during Obama government CIA performed 192 drone strikes (Yılmaz. S., 2013: 148-149).

2.2.1. CIA Counterterrorism Centre

There were three hundred people working for Counterterrorism Centre (CTC) in 2001, but in 2011 nearly two thousand people were working for the centre, that is ten percent of the CIA staff serves in this centre. CTC serves as the primary organization in the United States integrating and analyzing all intelligence pertaining to counterterrorism (Yılmaz. S., 2013: 149-150).
2.3. NIO(MIT)- Turkish National Intelligence Organization

It is better to mention about the intelligence experience of Turkey before NIO since Turkey has a great background because of the Ottoman and Middle Asian culture.

2.3.1. General Assessment of Intelligence in Middle Asian Turks and Ottomans

Turks are well known having earliest traditional steppe culture such as nomadic life and hunting. Oldest Turks believed that prey animals could understand human language so they formed “secret hunter language”. It is possible to assert that old Turks provided intelligence through secret codes that is Turks always cared about intelligence. After adopting a sedentary life Turks called people dealing with espionage as Çaşıt (spy) (Karabulut. A., 2013: 242).

The most comprehensive intelligence organization in Turkish history began by Ottomans. All soldiers in Ottoman Empire were either raiders or mounted troops who played crucial roles in the borders. Even during Sultan Selim era there were “Raiders’ codes” (Kömür. E., 2007: 7).

Until the early 20th century there was no official intelligence organization in the Ottoman Empire. Because of the disturbance in the Balkans it became significant to have such an organization for the Ottomans and the first intelligence organization was founded between 1913-1914 years under the name of Special Organization, “Ottoman Turkish: Teşkilat-ı Mahsusa”. It was allegedly used to suppress Arab separatism and Western imperialism under
Ottoman Empire. Many members of this organization had also played special roles in different wars for instance, several members of the organization participated in the resistance against Italians in Libya.

Enver Pasha assumed the primary role in the direction of the Special Organization and paid much attention to gather some important information from other countries, for example, he sent some staff to Bulgaria as if they were doctors or businessmen before the Ottomans made an agreement with Bulgaria (Stoddard. P. H., 2003: 10-11-58-59). The main goals of the Special Organization were as below; a-) To resist the spread of the activities of the separatist groups, b-) The Special Organization sent experienced agents abroad and engaged in guerilla warfare on several fronts throughout the war, c-) It organized guerilla attacks on Russian soil to weaken Russian military capabilities in the region and planned guerilla offensives to help the Ottoman army during the war and tried to arouse anti-Russian feelings among Muslims, d-) It also called for several military actions, e-) The Special Organization assumed a major role in spreading propaganda on the Ottoman holy war (Cihad) among Muslim populations in some countries such as India and Russia (Karabulut. A., 2013: 246-247-248).

In 1927 the National Security Service (Turkish: Milli Emniyet Hizmeti) of the Republic of Turkey was founded, it was the predecessor of the modern National Intelligence Organization. Atatürk once made a speech about the importance of such an organization; “*We have to found a modern intelligence organization like developed countries*” (Eymür. M., 2005: 31).

2.3.2. Foundation of NIO(MIT)

It became a necessity for Turkey to found a new intelligence organization because of the martial, economic, social and cultural changes after the 2nd World War. In this regard, the National Security Service was dismantled and replaced by the National Intelligence Organization (türk. H., 2011: 36).
In accordance with the Law Number: 2937, “THE LAW ON THE STATE INTELLIGENCE SERVICES AND THE NATIONAL INTELLIGENCE ORGANIZATION”, the duties of the Turkish National Intelligence Organization are as follows:

a- To procure national security intelligence on immediate and potential activities carried out in or outside the country targeting the territorial and national integrity, existence, independence, security, Constitutional order and all elements that constitute the national strength of Turkey, and to deliver this intelligence to the President, the Prime Minister, the Secretary General of the National Security Council and to the relevant institutions;

b- to meet the intelligence needs and requirements of the President, the Prime Minister, the Secretary General of the National Security Council and of the relevant Ministries in formulation and implementation of the plans regarding the national security policy of the State;

c- to make proposals to the National Security Council and the Prime Minister on directing the intelligence activities of public institutions;

d- to provide consultancy in technical issues regarding the intelligence and counter intelligence activities of public institutions and to provide assistance in the establishment of coordination between them e- to deliver the information and intelligence, the General Staff deems necessary for the Armed Forces, to the Headquarters of the General Staff;

The Turkish National Intelligence Organization can not be assigned with duties other than those listed above and can not be led to carry out activities other than intelligence regarding the national security of the State. The duties, powers and responsibilities of the Turkish National Intelligence Organization are determined by a regulation approved by the Prime Minister.
CONCLUSION

Information has become so crucial for the countries because of the mass threat and the aim to reach contemporary civilization. That’s why intelligence organizations have led the countries to be more effective in various fields such as economy and military security. But unfortunately in Turkey people misidentify the concept of “intelligence” because of the wrong perception of public. However, “intelligence” has become so popular even in the social life of individuals and their parents.

Intelligence activities take part in our daily life for example, parents install hidden cameras in their houses to follow their kids, some ladies look for a discount before they go shopping, and some parents ask for information about the schools before they register their kids.

Although intelligence services act professionally, their main goal is to protect their nations. That’s why being aware of social responsibility, intelligence services must integrate with public to keep up with the times. In conclusion, to determine a policy intelligence is a crucial factor for the states.
Rererences


17. FBI Web Sitesi. “Intelligence Cycle”,


Do Foreign Workers’ Positive Contributions to GDP Outweigh the Negative Effect of Their Outward Remittances on GDP? A Case Study of Saudi Arabia

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ABSTRACT

This paper examines the effects of foreign workers’ outward remittances on the economic activity of a country that hosts foreign labor by developing a new econometric technique to measure the effect of workers’ outward remittances on gross domestic product of the world’s largest oil producer, namely Saudi Arabia. Results indicate that outward remittances have negative and significant effects on all types of aggregate demand. The total effect of outward remittances on GDP is, then, negative. The study findings prove that the net effect of non-Saudi workers on GDP is positive for the Saudi GDP.

Keywords: Regression Estimation, International Migration, Remittances, Production and GDP, Government Policy and Regulations, Saudi Arabia.

I. Introduction

This paper addresses the impact of workers’ outward remittances on economic activity in the world’s largest oil producer, namely Saudi Arabia. The key analysis in this paper is based on secondary data obtained from national and international resources. This research is motivated by a concern among policymakers that outward remittances, or monies earned by foreign nationals and send to their home nation, absorb a large share of the country’s GDP. More specifically, the study estimates the impact of outward remittances on consumption, investment, government expenditure, exports, and imports.

The primary challenge of this study was to assess the effect of outward remittances on the economic activity with GDP as the most accurate proxy for economic activity. This
challenge arises from the difficulty of isolating the effect of outward remittances from the effects of other variables that impact economic activity in one way or another. The task before the author of this paper then was how to estimate the effect on GDP that results from outward remittances only.

Sections II and III state the objectives of the study and provide a review of the relevant literature. Section IV outlines Saudi Arabia’s government policies relative to the labor market. The effect of outward remittances on the current account side of the Saudi balance of payments is analyzed in Section V. The estimation method for the effect of outward remittances on economic activity and the net effect of non-Saudi workers’ outward remittances on Saudi GDP is the subject of Sections VI and VII. Section VIII concludes.

II. Importance and Objectives of the Study

In all debates about the effect of outward remittances on Saudi Arabia, the only measure that has been taken as evidence of the clear negative impact of outward remittances is the amount of these remittances themselves. Various reports have warned, now and then, of the severity of increasing outward remittances without showing robust quantitative measures for these effects on the Saudi economy.

Therefore, this paper first and foremost, introduces a new quantitative and econometrical measures by which to examine the impact of foreign labor outward remittances on the economic activity in Saudi Arabia. Three secondary objectives were (1) to study the development of outward workers’ remittances in KSA, (2) to discuss analytically the role of government policies in the foreign labor market; and (3) to show the effect of such remittances on the current account balance.

III. Review of the Literature
In studying remittance effects, the vast majority of previous studies focused on merely comparing GDP including remittances with GDP excluding remittances (Brown, 1997). Others have analyzed the effect of inward remittances on economic growth (Athamneh, 2004; Talafhah, 1998) yet these studies did not consider the net effect of remittances because of ignorance about the outward remittances effect. Productivity and the contribution of immigrants to the economy of hosting countries showed direct and indirect effects (Baker and Benjamin, 1994) without considering the effects of brain drain on the economy of the home country (Andersen and Herbertsson, 2003). As an attempt to overcome many of the above-stated research shortcomings, some relatively recent studies have tried to examine the net effect of remittances in a particular country (Al Akayleh, 2011).

When studying the effect of remittances (both inward and outward), most of published works have not considered the long-run effect of labor migration, particularly on the home country of those workers. After home countries invest considerable long-run money from the public budget to the development of human capital of their citizens, developed countries leave them after they skim off their best and brightest for which developing countries should be compensated (Agarwal and Horowitz, 2002; Barham and Boucher, 1998; Friedberg, 2000; Hemmi, 2005; Stiglitz, 2006).

Saudi Arabia is the world’s second remittance-sending country. The outward remittances from Saudi Arabia exceeded $35.9 billion US in 2014 (Saudi Arabian Monetary Agency [SAMA], 2015). Outward remittances in Saudi Arabia have been addressed by few studies and are considered a drain from private savings in Saudi Arabia (Taher, 2001). Factors that affect remittances also are a very important dimension in analyzing economic growth and the effects on the balance of payments (Brown, 1997), yet this dimension is beyond the scope of this paper.
The literature on the subject also includes several studies on governmental policies with respect to nationalization of jobs and wage inequality (Bratsberg, Ragan and Nasir, 2002) or regarding the remittances and family ties related factors (Duraisamy, 2000). The literature also has focused on analysis of the trend of migration and workers’ remittances across regions of various countries, such as migration from east to west, from north to south, from the Arab world to the West, and from low-income Arab countries to high-income Arab countries (Fargues 2004).

IV. Government Policies on Labor Market and Employment

The Saudi Arabian Central Department of Statistics and Information (CDSI, 2015) estimated that the population of Saudi Arabia in mid-2014 increased by 2.6% to 30.8 million (compared to 30 million in 2013) such that the Saudis constituted 67.3% of the total population; the total female population was 44%. Data from the Ministry of Civil Service (2015) showed that Saudi employees in the Saudi public sector were 94.2% of the total employment for this sector. Saudi employment of women increased in 2014 by 4.3% over 2013; employment of non-Saudi women decreased by 4.6% for the same period in the public sector.

The Saudi government continues its efforts to nationalize jobs in both the public and private sectors. The data note above showed significant advancement toward the objective of job nationalization in the public sector. The private sector also contributed to the job nationalization objective orchestrated by the Ministry of Labor using various programs, such as the Hafiz Program (to support job seekers), the Nitaqat Program (to stimulate private sector to nationalize posts), and the Taqat Program (to provide various employment channels to help the private sector employ qualified Saudis from various segments of the job-seeking market).

After more than two years of implementing these policies, the number of Saudi male and female workers in the private sector increased in 2014 compared to that in 2013. The increase in the number of Saudi male workers in 2014 compared to 2013 (6.4%) was greater than that of non-
Saudi male workers (3.1%), yet the increase in the number of Saudi women workers (3.6%) was lower than that of non-Saudi women workers (5.2%) in the private sector in 2014.

The success of these policies, however, depends upon the effectiveness of policy implementation. Although these policies were associated with employment of a large number of Saudi job seekers in the private sector, some of these programs may be counterproductive, particularly Nitaqat, because such programs may lead to financial losses if employed Saudis under these programs lack willingness to work productively or lack the skills required to perform certain jobs, which may put the country under the risk of hidden unemployment (Google Books, 2013).

The implications of governmental policies for unemployment in Saudi Arabia include a slight decline in the unemployment rate among Saudis from 12% in 2013 to 11.8% in 2014. The breakdown of this unemployment rate indicates that unemployment among Saudi women decreased from 34.8% in 2013 to 33.3% in 2014 and that unemployment among Saudi males decreased slightly from 6.3% in 2013 to 6.0% in 2014 (SAMA, 2015).

V. The Effect of Workers’ Outward Remittances on the Current Account

The Saudi current account balance (CA) exhibited a persistent surplus. The oil boom in 2002–2008 had a positive impact on all of the economy’s sectors, including a remarkable improvement in the CA balance, as shown in Figure 1.
The world economic and financial crisis of late 2007 that hit the U.S. economy and spread all over the world affected the CA balance in Saudi Arabia, which even so remained in surplus. The CA balance dropped from $132.3 billion US in 2008 to $21.0 billion US in 2009 (a drop of 530%), which is attributed mainly to the dramatic drop in the trade balance from $146.2 billion US in 2008 to a low of $40 billion US in 2009; meanwhile workers’ outward remittances increased from $20.9 billion US in 2008 to $25.7 billion US in 2009 (see Figure 1). From 2009 to 2012, the CA improved remarkably, exceeding the 2008 figures. The decrease in the world aggregate demand dropped the demand for oil.

This drop on demand for oil and the resulting decrease in trade surplus were associated with a remarkable increase in workers’ outward remittances and resulted in a serious deterioration of the Saudi CA balance in 2013 and 2014. Workers’ outward remittances have been persistently increasing over time.
VI. Workers’ Outward Remittances and Economic Activity

This section discusses the channels through which outward remittances may affect the gross domestic product (GDP). As stated previously, Saudi Arabia is the world’s second largest remittance-sending country. In 2013, the country sent remittances totaling $34.1 billion US, or 4.6% of the Saudi GDP. Clearly, workers’ outward remittances are a drain on the national income stream (or from private savings). Therefore, it is very important for policymakers and researchers to identify the main channels through which outward remittances affect income (or GDP). In other words, what is the impact of workers’ outward remittances on overall economic activity? This question can be answered by analyzing and examining the effect of outward remittances on each component of the GDP, as follows:

1. Consumption Demand

In theory, workers’ outward remittances may negatively affect economic activity because of the negative effect on the private consumption channel because of the drains of such remittances on the private savings in the hosting country (i.e., Saudi Arabia in this study). If foreign laborers’ consumption in Saudi Arabia is concentrated on imported goods and services, this situation may lead to an improvement in the Saudi trade balance; however, if consumption by non-Saudis is concentrated on domestically produced goods in Saudi Arabia, the effect will be a twofold negative effect in which the first negative effect is presented by the outward flows of income, which deteriorates the current account balance, and the second effect is the decline in consumption demand and hence lower GDP in Saudi Arabia from the multiplier effect.

Emigrants from a lower income country to a higher income one often settle with their families in the host country, and their consumption expenditure is then paid in the host country. In this case, emigrants clearly contribute to consumption expenditure in the host country. Therefore, all foreign workers working in Saudi Arabia contribute to consumption demand there.
2. Investment Demand

*Investment demand* is the second type of aggregate demand that is affected by outward remittances with a dual role. The first negative effect of outward remittances is the decline in financial resources required to finance investments as a result of the drains from private savings when outward remittances occur. Investment demand is also subject to a decrease as a consequence of increasing outward remittances because income outflow will reduce the consumption demand, as explained above, in the host country. Decreasing consumption levels prompt domestic investors in the host country to rethink their investment plans and to question “for whom should we produce?” In other words, the second negative role of outward remittances in investment is from the possible decrease in consumption that discourages investors to implement ambitious plans. However, this possibility of falling consumption as a result of increasing outward remittances depends on the foreign laborers’ marginal propensity to consume in the host country.

For Saudi Arabia, investment by foreigners is gradually allowed under certain regulations, which may reduce the foreign laborer’s marginal propensity to remit. In this case, these laborers will prefer to invest in the host country (i.e., Saudi Arabia) in the light of high consumption demand, which may encourage them to utilize the higher prices and the high marginal propensity to consume in Saudi Arabia.

3. Government Demand

It is expected, in theory, that there is a negative association between outward remittances and government expenditures; the greater the amount of money remitted out of the country, the lower the ability of the host country’s government to spend on the national economy and vice-versa. The magnitude of this negative effect of outward remittances on government demand, however, depends mainly on two factors: (1) the amount of public
salaries/wages paid by Saudi government to foreign workers, and (2) the non-Saudi laborers’ marginal propensity to remit money outside Saudi Arabia.

4. **Net Trade**

The well-known trade balance is defined as the value of domestic exports *minus* the value of imports over a certain period of time. If non-Saudi workers inside of the Saudi economy tend to consume Saudi-produced goods and services, then Saudi total production will increase, resulting in more exports/less imports, which, in turn, will improve the trade balance in Saudi Arabia. In such a case, higher remittances will deteriorate the Saudi trade balance and vice versa. If, however, non-Saudi laborers prefer to consume imported goods and services inside the Saudi economy, then the Saudi trade balance will deteriorate. In this case, larger remittances will improve the Saudi trade balance despite the negative effect of these remittances on the current transfers in the balance of payments of Saudi Arabia. Does the positive effect of remittances on trade balance outweigh their negative effect on the current transfers of the balance of payments? The answer is beyond the scope of this paper and left to other researchers to answer it.

**VII. Methodology**

To achieve the main objective of the study, we measured the effect of outward remittances on each type of aggregate demand types and then on aggregate demand (GDP) as a whole. The expected effect of outward remittances is then compared with the positive effect of foreign labor’s contribution to GDP.

For simplicity, suppose Y stands for GDP. The total remittance effect is then the sum of its effects on consumption demand (C), investment demand (I), government demand (G), export demand (X), and imports (M). Rewriting the effect statement with t standing for time period (or a year), we get the following familiar aggregate demand equation:
\[ Y_t = C_t + I_t + G_t + X_t - M_t \]  

(1)

The method used the following main steps:

STEP I: Collection of data for all variables stated in equation (1) and on all variables inserted into equations (2), (3), (4), (5), and (6) for the study period 1980–2014. The objective of this time period was that it includes various business cycles of the Saudi economy, such as the recession of 1982–1987, the recovery of 1988–1992, the sluggish period of 1993–1996, the expansionary period of 1997–2007, the world recession of 2007-2009, and the world contractionary period of 2010–2014. This study period also considers the institutional changes in Saudi Arabian economy, particularly pre-accession and post-accession for WTO membership.

Data were collected from reliable national resources such as the Saudi Central Department of Statistics and Information (CDSI), Saudi Arabian Monetary Agency (SAMA), Ministry of Labor, and the Ministry of Economy and Planning. In few cases, data were collected from United Nations Conference on Trade and Development (UNCTAD). The money values of all relevant variables were in US dollars.

STEP II: Examination of the effect of non-Saudi workers’ outward remittances on each component of GDP. That is, in this step, the study examined the impact of non-Saudi workers’ outward remittances (Rn) separately on C, I, G, X, and M. This step implies that for each of the above-mentioned GDP components, the outward remittances effect was estimated using a multiple regression model by adjusting for the initial level of each component and real oil prices, as long as the Saudi Arabian economy is an oil-driven economy. The inclusion of oil prices and initial levels of each dependent variable is essential to avoid the econometric problem.

---

12 Secondary data table for GDP and its components selected as a time series sample in this study are not shown in this script because space constraints but can be provided upon request.
of misspecification (Box et al., 2004; Granger, 1981; Gujarati, 1995). Thus, in this stage the following set of regression equations was estimated and the parameters were determined:

\[ C_t = \alpha_0 + \alpha_1 C_{t-1} + \alpha_2 R_{nt} + \alpha_3 O_{pt} + U_{1t} \]  
\[ I_t = \beta_0 + \beta_1 I_{t-1} + \beta_2 R_{nt} + \beta_3 O_{pt} + U_{2t} \]  
\[ G_t = \gamma_0 + \gamma_1 G_{t-1} + \gamma_2 R_{nt} + \gamma_3 O_{pt} + U_{3t} \]  
\[ X_t = \delta_0 + \delta_1 X_{t-1} + \delta_2 R_{nt} + \delta_3 O_{pt} + U_{4t} \]  
\[ M_t = \Omega_0 + \Omega_1 M_{t-1} + \Omega_2 R_{nt} + \Omega_3 O_{pt} + U_{5t} \]

where \( \alpha, \beta, \gamma, \delta, \) and \( \Omega \) are regression coefficients for private consumption, investment, government expenditures, exports, and imports, respectively. \( R_{nt} \) and \( O_{pt} \) are non-Saudi workers’ outward remittances and real oil prices over time. \( U_t \) stands for stochastic term.

Regression results of the above set of equations are shown in Appendix 1 and are discussed in next section.

STEP III: After obtaining the regression estimates for the statistics \( \alpha, \beta, \gamma, \delta, \) and \( \Omega \), the next step was to extract the values of GDP components that are explained only by the non-Saudi workers’ outward remittances. In other words, the effect of non-Saudi workers’ outward remittances on \( C, I, G, X, \) and \( M \) were estimated in money values, which was calculated using the following formulas:

\[ C^*_t = -1.05R_{nt} \]  
\[ I^*_t = -1.31R_{nt} \]  
\[ G^*_t = -0.65R_{nt} \]  
\[ X^*_t = -5.40R_{nt} \]  
\[ M^*_t = -1.39R_{nt} \]
The above equations measure, in money value, the decrease/increase in Saudi GDP components ($C^*, I^*, G^*, X^*, M^*$) only as a result of the effect of non-Saudi workers’ outward remittances. That is, applying the above set of equations (7), (8), (9), (10), and (11), we computed the predicted values of the GDP components that are only a result of outward remittances. Appendix 2 shows the predicted (estimated) decline/increase in each of the GDP components over the study period. These results are analyzed in the next section.

STEP IV: Summing up the expected decline in GDP components (as a result of outward remittances) to indicate the total decline in GDP as a result of non-Saudi workers’ outward remittances.

$GDP^*_{t} = \sum_{i=1}^{n}(N_{it}^*) = C^*_{it} + I^*_{it} + G^*_{it} + X^*_{it} - M^*_{it}$

where $N$ is the negative effect of outward remittances on GDP, $i = 1, 2, 3, 4, 5$, and $t$ stands for the time period (a year).

The result of equation (12) for the entire study period is shown in column (1) of Appendix 3 and is discussed in the next section.

STEP V: This step attempts to answer the question, Does the positive effect of non-Saudi workers’ contribution to GDP outweigh the negative effect of their outward remittances?

To answer this question, we compared the percentage contribution of non-Saudi labor to GDP to the percentage decline in GDP as a result of non-Saudi labor’s outward remittances.
The percentage contribution of non-Saudi labor to Saudi GDP is equal to the share of non-Saudi labor to total labor in Saudi Arabia times the Saudi GDP whole over GDP, that is,

\[
\left[\frac{L_f \times GDP}{L_t \times GDP}\right] \times 100 \tag{13}
\]

where, \(L_f\) is the number of foreign labor in Saudi Arabia and \(L_t\) stands for the total number of labor in Saudi Arabia.

It should be noted, however, that equation (13), which represents the percentage contribution of non-Saudi laborers in Saudi GDP, is built on the assumption that productivity of non-Saudis is equal to the productivity of Saudis inside Saudi Arabia.

The results of equation (13) are shown as in column (4) of Appendix 3.

The second part required to determine the net contribution of non-Saudi workers’ to Saudi GDP is the percentage decline in GDP as a result of non-Saudi labor’s outward remittances, that is,

\[
\text{percentage decline in GDP as a result of non-Saudi labor’s outward remittances} = \left[ \frac{GDP}{GDP} \right] \times 100 \tag{14}
\]

The results of equation (14) for the entire study period are shown in column (2) of Appendix 3.

Finally, the difference between the percentage contribution of non-Saudi workers to GDP and the percentage decline in GDP as a result of outward remittances shows whether the positive effect of their contribution to GDP (P) outweighs the negative effect of their outward remittances (N). If \(E\) stands for the net effect of foreign labor on GDP, it follows that

\[
E = P – N \tag{15}
\]
The result of equation (15) for the study sample are shown as in column (4) of Appendix 3.

VIII. Findings and Concluding Remarks

The study findings were the outputs of three methods, namely,

(1) Descriptive statistics to examine the effect of non-Saudi workers’ outward remittances on the Saudi current account balance (see Section IV);

(2) Regression analysis using ordinary least squares estimates to study the effect of these remittances on GDP components and GDP as a whole (see Sections VI and VII); and

(3) Comparative numerical study between the negative effect of foreign labor's emittances and the positive effect of foreign labor’s contribution to GDP (see Section VII).

Accordingly, the study includes mainly the following findings:

First: Although the current account in Saudi Arabia has been always in surplus, this surplus would have been increased by an average of 23.5% had foreign labor’s outward remittances had been zero.

Second: The regression results, as shown in Appendix 1, suggest the following:

i Non-Saudi workers’ outward remittances (Rn) have an almost one-to-one negative relationship with household consumption (C), based on consumption regression equation (2), in Saudi Arabia at a 1% significance level, which is consistent with macroeconomics theory. Equation (7) calculates the predicted decline values of household consumption (C^∗); the results are shown in Appendix 2, column 1.

ii Investment (I) is negatively affected by outward remittances. The coefficient of Rn is -1.31, as shown in Appendix 1, at a 5% statistical significance level, suggesting that if Rn
increases by 10%, investments in Saudi Arabia will decrease by 13%. This finding is true in the light of the well-known argument of the multiplier effect. The economic logic behind this finding is that income outflow from the labor-hosting country reduces consumption demand in the labor-hosting country. The fall in consumption demand discourages investors, income falls, and again investment decreases such that several rounds will occur and form the so-called multiplier effect in macroeconomics. Based on regression results shown in Appendix 1, equation (8) is applied, producing predicted declines in investments ($I'$) over the study period, as shown in Appendix 2, column 2.

iii The coefficient of $R_n$ in regression equation (4) for government demand -0.65 at a 5% significance level, as shown in Appendix 1. This result indicates that a one-dollar increase in non-Saudi workers’ outward remittances, ceteris paribus, will reduce government expenditure by 65 cents. The economic sense behind this finding is that when income outflow (in form of outward remittances) occurs, consumption and investment demands fall; production and income then fall, thus reducing government fees and charges, income tax, zakat, government expenditures on infrastructure. But, of course, Government expenditure and revenues depend on a set of other important factors which remarkably outweigh the negative effect of outward remittances on Government expenditures ($G$). Depending on regression results and by applying equation (9), the predicted declines in government expenditure ($G'$) are shown in column 3 of Appendix 2.

iv The findings also show a strong negative impact of outward remittances ($R_n$) on domestic exports ($X$) of the labor-hosting country (i.e., Saudi Arabia in this study). Appendix 1 shows that the $R_n$ coefficient is -5.40 at a 95% confidence level and that the regression results of equation (5) are robust and reliable. This finding is consistent with macroeconomic theory and the argument of multiplier effects. Obviously, when consumption, investment, and production all fall as a result of outward remittances, export
potential of the country will retreat. Based on the regression results of equation (5) and by applying equation (10), the predicted declines in values of exports as a result of outward remittances are shown as in Appendix 2, column 4.

The last component in GDP identity is total imports (M). By running the regression for equation (6), the coefficient of outward remittances ($R_n$) was found to be -1.39 at 5% statistical significance. This result also suggests a robust and reliable negative impact of outward remittances on import values. The negative effect of outward remittances on imports is twofold: (1) the first channel through which outward remittances affect imports is in investments. As previously explained, outward remittances reduce investment and production. In a developing country with limited production resources (such as Saudi Arabia), most capital and intermediate goods required for the production process are imported, and therefore, when production falls, imports of inputs also fall. (2) Outward remittances negatively affect imports because of their negative effect on consumption. When such consumption is mainly covered by imported final goods (as is the case for final consumption in Saudi Arabia, where more than 93% of final consumption is imported), then the higher the outward remittances, the lower the imported final consumption goods in Saudi Arabia will be and vice versa. Applying equation (11) to the study period, the predicted declines in values of imports as a result of increasing non-Saudi workers’ outward remittances are shown in column 5 of Appendix 2.

**Third:** The total effect of non-Saudi workers’ outward remittances on the Saudi GDP is simply the sum of the five effects on GDP components that have been determined and explained above. Applying equation (12), the total effect (decline) in GDP as a result of non-Saudi workers’ outward remittances for the entire study period is shown in Appendix 3, column 1. Obviously, the effect is negative. The justifications and economic interpretations for this decline
are explained above using the analysis of the effect of \( R_n \) on each component of the GDP components, namely, \( C^* \), \( I^* \), \( G^* \), \( X^* \) and \( M^* \).

**Fourth:** The study also attempted to answer the question, Does the positive effect of non-Saudi workers’ contribution to the Saudi GDP outweigh the negative effect of their outward remittances? The method used to answer this question was explained in step V. The result of equation (15) are shown in columns 2, 3, 4, and 5 of Appendix 3. Column 5 of Appendix 3 answers the above question. The answer is yes, except for 6 of the 33 years of the study period. These six years were 1990–1996 but excluding 1992. The negative net effect of non-Saudi workers’ contribution to Saudi GDP can be attributed to three factors:

1. It is well-known to all observers and concerned parties that this period started with the First Gulf War 1990/1991. This war created uncertainty about investment projects in Gulf region and hence lower growth rates;
2. The economic sluggishness of 1993–1995 in Saudi Arabia and negative growth rates in 1996; and
3. The above two factors were associated with relatively high outward remittances by non-Saudi workers because of uncertainty about the political and economic stability of the region and hence uncertainty about expatriates’ job stability.

**Fifth:** To avoid the econometric problems of missing variables or misspecification problems (Granger, 1981), the regression system used in the study analysis adjusts/controls for the initial levels of each variable inserted into regression equations and for real oil prices, as the Saudi Arabian economy is oil-driven. Therefore, the regression analysis estimates the effect of these adjusted-for variables. The regression results show that oil prices as well as initial levels of each GDP component have direct, positive, and statistically significant impacts on every corresponding GDP component.
References


Ministry of Civil Service (2015), Annual Report, Saudi Arabia


Appendix 1

Regression Results

The following table shows the effect of non-Saudi workers’ outward remittances on household consumption demand, investment demand, government expenditures and external demand.

<table>
<thead>
<tr>
<th>Dependent Variables:</th>
<th>Coefficients of Explanatory Variables:</th>
<th></th>
<th></th>
<th>DW statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Constant</td>
<td>Lagged levels of dependent variables</td>
<td>$R^2$</td>
<td>$O_{pe}$</td>
</tr>
<tr>
<td>$C_t$</td>
<td>-10,660.2</td>
<td>C_{t-1}: 0.87</td>
<td>-1.05</td>
<td>245.46</td>
</tr>
<tr>
<td></td>
<td>(-4.99)**</td>
<td>(11.72)**</td>
<td>(-3.10)**</td>
<td>(4.23)**</td>
</tr>
<tr>
<td>$I_t$</td>
<td>-18435.13</td>
<td>I_{t-1}: 0.82</td>
<td>-1.31</td>
<td>314.50</td>
</tr>
<tr>
<td></td>
<td>(-2.26)**</td>
<td>(6.22)**</td>
<td>(-2.2)**</td>
<td>(2.02)**</td>
</tr>
<tr>
<td>$G_t$</td>
<td>-8863.40</td>
<td>G_{t-1}: 0.92</td>
<td>-0.65</td>
<td>169.00</td>
</tr>
<tr>
<td></td>
<td>(-3.67)**</td>
<td>(9.53)**</td>
<td>(-2.18)**</td>
<td>(2.67)**</td>
</tr>
<tr>
<td>$X_t$</td>
<td>76951.1</td>
<td>X_{nt}: 0.45</td>
<td>-5.40</td>
<td>1500.1</td>
</tr>
<tr>
<td></td>
<td>(-3.17)**</td>
<td>(2.62)**</td>
<td>(-3.27)**</td>
<td>(3.21)**</td>
</tr>
<tr>
<td>$M_t$</td>
<td>19567.44</td>
<td>M_{t-1}: 0.78</td>
<td>-1.39</td>
<td>457.62</td>
</tr>
<tr>
<td></td>
<td>(-2.69)**</td>
<td>(6.42)**</td>
<td>(-2.32)**</td>
<td>(2.82)**</td>
</tr>
</tbody>
</table>

Source: Author’s estimations.

Note: * denotes that the coefficient is significant at 90% confidence level; ** reflects a 95% confidence level; *** indicates the coefficient is significant at 99% confidence level.
Appendix 2

Estimated Decline in GDP Components

The table below shows the estimated decline in GDP components as a result of non-Saudi workers’ outward remittances:

<table>
<thead>
<tr>
<th>Year</th>
<th>(1) C*</th>
<th>(2) I*</th>
<th>(3) G*</th>
<th>(4) X*</th>
<th>(5) M*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>-5626.2</td>
<td>-7022.1</td>
<td>-3487.0</td>
<td>-28885.1</td>
<td>-7417.8</td>
</tr>
<tr>
<td>1982</td>
<td>-5624.9</td>
<td>-7020.4</td>
<td>-3486.2</td>
<td>-28878.5</td>
<td>-7416.1</td>
</tr>
<tr>
<td>1983</td>
<td>-5508.5</td>
<td>-6875.2</td>
<td>-3414.0</td>
<td>-28281.0</td>
<td>-7262.7</td>
</tr>
<tr>
<td>1984</td>
<td>-5558.8</td>
<td>-6938.0</td>
<td>-3445.2</td>
<td>-28539.2</td>
<td>-7329.0</td>
</tr>
<tr>
<td>1985</td>
<td>-5468.9</td>
<td>-6825.7</td>
<td>-3389.5</td>
<td>-28077.6</td>
<td>-7210.4</td>
</tr>
<tr>
<td>1986</td>
<td>-5049.6</td>
<td>-6302.4</td>
<td>-3129.6</td>
<td>-25924.8</td>
<td>-6657.6</td>
</tr>
<tr>
<td>1987</td>
<td>-5184.3</td>
<td>-6470.5</td>
<td>-3213.1</td>
<td>-26616.1</td>
<td>-6835.1</td>
</tr>
<tr>
<td>1988</td>
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<td>-35113.7</td>
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<td>1989</td>
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<td>-11200.8</td>
<td>-5562.0</td>
<td>-46074.1</td>
<td>-11832.0</td>
</tr>
<tr>
<td>1990</td>
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<td>-14733.6</td>
<td>-7316.3</td>
<td>-60606.4</td>
<td>-15564.0</td>
</tr>
<tr>
<td>1991</td>
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<td>-18024.9</td>
<td>-8950.7</td>
<td>-74144.9</td>
<td>-19040.7</td>
</tr>
<tr>
<td>1992</td>
<td>-14074.9</td>
<td>-17566.9</td>
<td>-8723.2</td>
<td>-72261.1</td>
<td>-18557.0</td>
</tr>
<tr>
<td>1993</td>
<td>-16512.2</td>
<td>-20608.8</td>
<td>-10233.8</td>
<td>-84774.1</td>
<td>-21770.4</td>
</tr>
<tr>
<td>1994</td>
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<td>-25074.0</td>
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<tr>
<td>1995</td>
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<td>-21787.7</td>
<td>-10819.2</td>
<td>-89623.5</td>
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<tr>
<td>1996</td>
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<td>-83675.2</td>
<td>-21488.1</td>
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<tr>
<td>1997</td>
<td>-15795.1</td>
<td>-19713.9</td>
<td>-9789.4</td>
<td>-81092.8</td>
<td>-20825.0</td>
</tr>
<tr>
<td>1998</td>
<td>-15710.7</td>
<td>-19608.5</td>
<td>-9737.1</td>
<td>-80659.3</td>
<td>-20713.6</td>
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<td>1999</td>
<td>-14684.0</td>
<td>-18327.0</td>
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<td>-75387.9</td>
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<td>2000</td>
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<td>-20207.2</td>
<td>-10034.4</td>
<td>-83122.1</td>
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<td>2001</td>
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<td>-19852.2</td>
<td>-9858.1</td>
<td>-81661.7</td>
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</tr>
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<td>2002</td>
<td>-16678.0</td>
<td>-20815.8</td>
<td>-10336.5</td>
<td>-85625.3</td>
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<td>2003</td>
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<td>-19410.4</td>
<td>-9638.7</td>
<td>-79844.5</td>
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</tr>
<tr>
<td>2004</td>
<td>-14259.9</td>
<td>-17797.8</td>
<td>-8837.9</td>
<td>-73210.9</td>
<td>-18800.9</td>
</tr>
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</table>
### Appendix 3

**Contribution to GDP vs. Decline in GDP**

The table below shows results of calculations performed to determine whether non-Saudi labor contributions to GDP outweigh the decline in GDP as a result of non-Saudi outward workers’ remittances.

<table>
<thead>
<tr>
<th>Year</th>
<th>(1) GDP</th>
<th>(2) Percent Decline in GDP</th>
<th>(3) Non-Saudi's Contribution to GDP</th>
<th>(4) Foreign Labor’s Percentage Contribution to GDP</th>
<th>(5) Foreign Labor Net Effect on GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>-37602.5</td>
<td>-20.4</td>
<td>125050.2</td>
<td>67.9</td>
<td>47.5</td>
</tr>
<tr>
<td>1982</td>
<td>-37593.9</td>
<td>-24.5</td>
<td>140061.4</td>
<td>91.4</td>
<td>66.9</td>
</tr>
<tr>
<td>1983</td>
<td>-36816.1</td>
<td>-28.5</td>
<td>116462.6</td>
<td>90.2</td>
<td>61.7</td>
</tr>
<tr>
<td>1984</td>
<td>-37152.2</td>
<td>-31.1</td>
<td>98177.3</td>
<td>82.1</td>
<td>51.0</td>
</tr>
<tr>
<td>1985</td>
<td>-36551.3</td>
<td>-35.2</td>
<td>90919.8</td>
<td>87.5</td>
<td>52.3</td>
</tr>
<tr>
<td>1986</td>
<td>-33748.8</td>
<td>-38.8</td>
<td>78959.4</td>
<td>90.9</td>
<td>52.0</td>
</tr>
<tr>
<td>1987</td>
<td>-34648.8</td>
<td>-40.5</td>
<td>66033.1</td>
<td>77.2</td>
<td>36.7</td>
</tr>
<tr>
<td>1988</td>
<td>-45710.9</td>
<td>-51.9</td>
<td>65042.0</td>
<td>73.8</td>
<td>21.9</td>
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<td>-63.0</td>
<td>66985.2</td>
<td>70.3</td>
<td>7.4</td>
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<tr>
<td>1990</td>
<td>-78897.2</td>
<td>-67.7</td>
<td>72365.2</td>
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<tr>
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<tr>
<td>1992</td>
<td>-94069.2</td>
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<td>99682.2</td>
<td>73.2</td>
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</table>

Source: Researcher’s calculations based on equations (7), (8), (9), (10), and (11).
<table>
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<th>Value3</th>
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<td>103453.0</td>
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<td>71.7</td>
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<td>108123.5</td>
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<td>-0.5</td>
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<td>-72.0</td>
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<td>7.9</td>
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<td>122327.4</td>
<td>64.9</td>
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<td>-29.6</td>
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<td>41.3</td>
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<td>316133.0</td>
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<td>-43.0</td>
<td>395045.6</td>
<td>92.1</td>
<td>49.0</td>
</tr>
<tr>
<td>2010</td>
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<td>-35.8</td>
<td>326114.4</td>
<td>61.9</td>
<td>26.1</td>
</tr>
<tr>
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<td>-29.6</td>
<td>400376.7</td>
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<td>30.2</td>
</tr>
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<tr>
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<td>-32.6</td>
<td>557806.4</td>
<td>74.5</td>
<td>41.9</td>
</tr>
</tbody>
</table>

Source: Researcher’s calculations based on equations (12), (13), (14), and (15).
Preliminary Research for the Impact of Information System Usage in Family Companies on the Level of Institutionalization

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ABSTRACT

Companies that are not able to keep up with the fast-changing technology and environment are excluded from the system. The higher the level of institutionalization of a family company, the easier it is for the company to adapt to environmental factors and to grow. The success of institutionalized family companies relies on being able to learn from the environment, to store and to share the information it learns and to create a standardization with this information. This is why family companies that create their standardizations by using information systems can adapt quickly to environmental variables or they can start the exchange easily due to the information they have. The aim in this study is to determine the effect of information systems in institutionalization of family companies. According to the regression analysis, information systems describe majority of the level of institutionalization and they have a positive relationship. Also, as the number of generations transferred increase, it is shown that the level of institutionalization increases. However, there is no relationship found between the number of employees and the level of institutionalization.

Keywords: Family companies, Institutionalization, Information Systems
A. **Introduction**

Types of companies that are generally founded by the head of the family and where a family member gets involved in management levels later on are seen more frequently than other types of companies (Poutziouris, 2002). Therefore, this leads these companies to have important roles in economies of countries and to affect economies. For this reason, family companies were examined by many researchers and the efficiency of these companies is aimed to be increased. First, research conducted were developed leaning towards examining issues such as the ownership, management, control structure of companies and ways of transferring to other generations (Dunemann, 2004). However, when it was seen that management and first employees of family companies are family members during establishment and having non-family members as employees and managers as companies grow provided success and employment, all aspects of family companies were examined (Miller, 2003).

Potobsky defines family companies as companies in which family members occupy management positions (Potobsky, 1992). Bork addresses family members from a broader perspective and defines family companies as companies founded and managed by family members including members who are born, married to the family or who are in close relationships (Bork, 1995). According to some researchers, a company needs to have two characteristics in order to be considered as a family company. These characteristics are described as follows (Fletcher, 2002). First one is that 50% of the company’s shares need to belong to the family or having the management of family company groups founded by marriage bonds, meaning that a majority of shares are managed by one family. The second one is that the share ownership or management needs to be transferred between generations.

Family companies harbor superior and weak aspects due to their structures. Superior aspects include personal sacrifice, loyalty of employees, creditability, shareholder integrity, and a low level of bureaucracy. Weak aspects include, conflict of role and interest, financial
problems, nepotism, competition and gossip between family members, being closed to outside influences, centralist structure, and not being able to professionalize.

According to Selznick who developed the main source of “Corporate Organizations Model,” organizations that can create unique qualifications for itself in order to create a competitive difference, that develop skills and capacities constantly, and that can adapt to new conditions in terms of structure and processes as a result of interaction with other organizations are corporate (Selznick, 1996). March defines institutionalization as making organizational change to survive depending on the environment change and providing standardization parallel to this change (March, 1996). In other words, as a result of adaptation work to outside environment, a new functional system emerges. The application of new rules and procedures used by this new system is called institutionalization (Meyer, 1977).

Family companies need to adapt to change and learn from their environment constantly in order to survive in a fast-changing world. At this point, the higher the level of institutionalization of a company, the more flexible the reaction to change. Thus, family companies can rearrange the organizational structure and employee behaviors according to conditions (Lau, 2002).

The need for transferring the family management to professionals emerges as small family companies grow in time. This process naturally has some challenges. In these companies which grow and change shells, sharing management between family and professionals does not happen easily. Worldwide, 30% of growing family companies are transferred to second generation and only 10% are transferred to third generation. When local family companies that are weak compared to multi-national companies and global competition are added to this situation, the difficulty of the struggle to survive will be seen. It is not possible to survive these struggles with conservative and cautious behaviors (Akin, 2002). Therefore, it becomes an obligation to work with professionals rather than non-competent family members in key positions where skills and knowledge are required (Saglam, 2013). Of course, this does not
mean to leave institutionalization to professionals completely and get out. Having a family member at the top will prioritize ownership and efficiency concerns (Hale ve Özden, 2010). In fact, institutionalization steps in, establishing this balance. In institutionalization, the system does not work independent from individuals, but due to the created system even leaders who do not have great skills can run the company ideally. Highest level of efficiency can be reached by bringing together the spirit and ambition provided by the company owner and the vision and knowledge that professionals have under institutionalization structure. Institutionalization does not mean not sharing opinions or not being creative. On the contrary, it is to start the change by involvement within certain rules and bring the company to a level that it can compete.

Companies that are not able to keep up with the fast-changing technology and environment are excluded from the system. The higher the level of institutionalization of a family company, the easier to adapt to environmental factors and grow for the company. The success of institutionalized family companies relies on being able to learn from the environment, to store and to share the information it learns and to create a standardization with this information. This is why family companies that create their standardizations by using information systems can adapt quickly to environmental variables and they can even initiate exchange easily due to the information they have.

Although there are many studies related to determination of level of institutionalization of companies, there are very few studies in regards to the effect of information systems in measurement of institutionalization. Therefore, the aim of this study is to determine the effect of information systems on institutionalization of family companies.

B. Research Method

A researcher who determines the research method, the path that he is going to take to solve the problem and the techniques that he is going to use needs to determine a research model for data collection and providing data in accordance with the purpose of the study (Özdamar,
2003: 70-74; Karasar, 2005: 75). Research is examined in two different groups in terms of their purposes; descriptive and analytical (Özdamar 2003: 70-71). Descriptive research technique provides information such as distribution of research variables in total or in sample, and their frequencies, while analytical technique provides studies such as finding generalization and common ground related to total by examining hypothesis and research questions.

Karasar (2005) states that research can be examined in two groups as survey and experimental. Karasar also states that a situation can be observed by survey models while in experimental models, the researcher needs to produce what he wants to observe. Survey models are general surveys performed on a sample withdrawn from the universe to come to a general conclusion about the universe and they are models that research the existence and level of change with two or more variables (Karasar, 2005: 77-81). In this context, this study falls under descriptive research technique described by Ozdamar (2003) and in terms of model, it falls under single survey model group described by Karasar (2005).

Sample, Data Collection Methods and Data Process

The study was done in 136 family companies in the city of Erzurum. Regardless of the type of study, when primary resource needs to be used, there are three data collection methods. These methods are survey, observation and interview (Altunışık, Coşkun, Bayraktaroğlu ve Yıldırım, 2012:80-94) methods. Data related to field research of this study was gathered by survey method. General definition of survey is that it is a data collection method by collecting answers of the participant to the questions put in a certain order and structure (Altunisik et al., 2012:80-94). Survey of measuring institutionalization level was used in Suer’s study (2007) and reliability and validity were found significantly high. Also, Information Systems Success Model (IS Success Model), which is developed by Delone and McLean (2003) with the purpose of measuring success of use, was used as the base. With the use of this model, average values
on success of IS use were obtained. Surveys were conducted by using face-to-face technique. Obtained data were analyzed in computer environment. Normality test, difference and regression analyses were conducted in analysis.

Firstly, Kruskal Wallis test was done to examine the relationship between the number of employees and the level of institutionalization (Table 1).

### Table 1. The relationship between the number of employees and the level of institutionalization

<table>
<thead>
<tr>
<th>Number of Employees</th>
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<th>Mean Rank</th>
<th>Chi-Square</th>
<th>Sig</th>
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</thead>
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<td>65,39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-10</td>
<td>31</td>
<td>63,44</td>
<td></td>
<td></td>
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<tr>
<td>11-15</td>
<td>33</td>
<td>74,47</td>
<td>4,207</td>
<td>.379</td>
</tr>
<tr>
<td>16-20</td>
<td>21</td>
<td>77,12</td>
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<tr>
<td>20+</td>
<td>14</td>
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<td>Total</td>
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</tbody>
</table>

As the significance level between institutionalization and the number of employees is bigger than 0.05, it is seen that there is no significant difference statistically (p=.379).

On the other hand, relationship between institutionalization and the generation that runs the company in family companies (Table 2).

### Table 2. The relationship between the transferred generation and institutionalization

<table>
<thead>
<tr>
<th>Number of Generation</th>
<th>N</th>
<th>Mean Rank</th>
<th>Chi-Square</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>17</td>
<td>53,50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>61</td>
<td>63,80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>58</td>
<td>77,84</td>
<td>9,182</td>
<td>.010</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>136</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
According to table 2, it can be said that there is a statistically significant relationship between institutionalization and the generation number (p=0.010). Additionally, average values show that as the number of generation increases the level of institutionalization increases. We can say that this difference stems especially from third generation.

Regression analysis was done to examine the relationship between the use of information systems and the level of institutionalization. Regression analysis is the explanation process of relationships between one dependent variable and one or more independent variables with mathematical equation. Here, the independent variable is the use of information systems and the dependent variable is the institutionalization in family companies. So, the impact of increase or decrease of the success of information systems use on the level of institutionalization was examined. For the regression analysis, hypothesized conditions are as follows:
i) The relationship between independent variable and dependent variables is linear,
ii) For the value of information systems use for institutionalization value has a normal distribution.

To test these hypotheses, analysis results in Table 3 were used.

Table 3.

<table>
<thead>
<tr>
<th>Institutionalization</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.8306</td>
<td>.00281</td>
</tr>
<tr>
<td>95% Confidence</td>
<td>3.8254</td>
<td></td>
</tr>
<tr>
<td>Interval for Mean</td>
<td>3.8358</td>
<td></td>
</tr>
<tr>
<td>5% Trimmed Mean</td>
<td>3.8282</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>3.8148</td>
<td></td>
</tr>
<tr>
<td>Variance</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.03045</td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>3.81</td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>3.89</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>Interquartile Range</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td>.316</td>
<td>.208</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>.056</td>
<td>.413</td>
</tr>
</tbody>
</table>
The most important descriptive statistics in this table are kurtosis and skewness measures. When these values are between -3 and +3, it can be said that there is normal distribution (Kalaycı, 2010:6). Here, it is seen that there is normal distribution.

After verification of abovementioned hypothesis, regression analysis was done (Table 4-Table 5 - Table 6).

**Table 4. Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.648a</td>
<td>.419</td>
<td>.414</td>
<td>.02334</td>
</tr>
</tbody>
</table>

The R² value is given in table 4. The value that we found here is 0.419. According to this result, the 41% change in dependent variable is explained by the independent variable that we included in the model. In other words, 41% of the change in institutionalization can be explained by the information systems success average while other variables have effect on the other part.

**Table 5. ANOVA⁰**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.045</td>
<td>1</td>
<td>.045</td>
<td>83.079</td>
<td>.000b</td>
</tr>
<tr>
<td>1</td>
<td>.063</td>
<td>115</td>
<td>.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.108</td>
<td>116</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When the Anova table is examined, we can conclude that the model is statistically significant as a whole ((F=83.079, 1). So, there is a significant relationship between the success of using information systems and institutionalization.
Table 6. Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>3.775</td>
<td>.007</td>
<td></td>
<td>578.877</td>
</tr>
<tr>
<td>1 Institution</td>
<td>.020</td>
<td>.002</td>
<td>.648</td>
<td>9.115</td>
</tr>
</tbody>
</table>

Table 6 shows estimated values of coefficients in our model and related t-value. There is a positive (0.20) relationship between the success of use of information systems and institutionalization. In other words, a unit increase in success of information systems use will lead to a 0.20 unit increase in institutionalization. As the t-value related to this coefficient is found significant at all levels (p<0.001), the coefficient of institutionalization variable is statistically significant. In summary, the simple linear regression formula between the use of information systems and institutionalization is:

Institutionalization = 3.775 + 0.20 (Success of Using Information Systems)

C. Conclusion

One of the most important factors of interaction of companies with their environment is integration of information systems. Also, one of the expected outcomes from this integration is the standardization of work processes. The role of information systems during this process leading to institutionalization fundamentally has become the focus of research recently. Within the scope of this study, the impact of information systems on institutionalization level in family companies was examined.

During the study done on 136 family companies, data on the level of institutionalization and success of information systems use were collected. Firstly, the relationship between the number of employees of the level of institutionalization and the number of generation that has the company management was examined. The results show that there is no significant relationship between the number of employees and the level of institutionalization. This result
can be due to the number of employees that are mostly 1-20. On the other hand, it can be seen that as the number of generation that manages the company, the level of institutionalization increases. It is determined that the level of institutionalization is high in companies that have third generation managers.

According to ANOVA and regression tests done on data that have normal distribution for the purpose of determining the effect of information systems on the level of institution, information systems explain the level of institutionalization 20%. One of the most important reasons for this can be the definition of work processes that play a key role in information systems integration. In determination of work processes, improvement in work routines and the ability in the control of these routines increase. This increases the standardization of the company and contributes to the level of institutionalization.

Additionally, when this study is repeated in companies with different numbers of employees, the relationship between the number of employees and the level of institutionalization can be revealed more clearly. Also, with data on application purposes of information systems and level of awareness of users on information systems, the impact of information systems on institutionalization can be examined further. Especially, there is a need to determine the relationship between the level of institutionalization and how much managers from different levels use information systems in decision making processes.
Süer İrfan; Globalleşme Sürecinde Büyuyen Ve Gelişen Aile Şirketlerinin Kurumsalması, Yayınlanmış yüksek lisans tezi, Gazi Üniversitesi, Ankara, s.85, 2007.


Dunemann Mark, Rowena Barrett, Family Business and Succession Planning, Monash University, Avustralya, Faculty of Business and Economics, Linchpin Group, 2004, s.7


Fletcher Denise E., Understanding The Small Family Business, New York, Digital Pnting, 2002


ALTUNİŞIK, Remzi; Recai COŞKUN, Serkan BAYRAKTAROĞLU ve Engin YILDIRIM; (2007), Sosyal Bilimlerde Araştırma Yöntemleri SPSS Uygulamali, 5. Baskı, Sakarya: Sakarya Yayıncılık

Özdamar k. (2003). modern bilimsel araştırma yöntemleri. eskişehir kaan kitap evi


A Study on the Impact of Internet and Social Media on Tax Inspection Process

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ABSTRACT

Turkish Law System is a system which is based on declaration. That’s why, the accuracy of the taxpayers’ declarations should be inspected. There are inspection units regarding the tax inspection in Ministry of Finance. The number of tax inspectors in tax inspection units has been recently increasing, while new methods of inspection have been observed with the emergence of information technologies (e.g., E-book, E-bill, E-declaration, etc.). Tax inspectors are using tax inspection software tools of the Ministry in order to avoid tax evasion, while they recently use internet and social media tools for research, inspection as well as collecting the evidence. In order to support their inspection, tax inspectors are also able to collect information with respect to the firm they inspect by the use of internet search engines. Human resources web sites (i.e., www.kariyer.net, www.yenibiris.com, etc.) and popular social media sites (i.e., Facebook, Linkedin, Google+, etc.) are able to provide data source for tax inspection. These web sites and social media tools enable tax inspectors to cross-check and inspect the accuracy of the taxpayers’ declarations. In the light of the aforementioned information, the objective of the current study is to examine the impact of internet and social media tools on tax inspection process and inspection quality. In the context of this study, interviews are conducted with tax inspectors for data collection. The results report how these web sites and social media tools are used and influence tax inspection process.

Keywords: Internet, Social media, Tax inspection, Inspection quality
1. INTRODUCTION

For the seamless encashment of tax revenues, the tax regulations and the obligations brought by these regulations are not sufficient. Like in all kinds of laws, disobeying the laws has some punitive sanctions in taxation laws too. Therefore, it should also be inspected to what extent do the taxpayers conform to the legal obligations brought by the taxation laws. The fact that the estimated underground economy’s being no less then %50 of gross national product in Turkey, while it is approximately %15 in advanced countries and %30 in developing countries, increases the importance of tax inspection more (Bilici, 2012: 319).

Therefore, the inspection of the accuracy of taxpayer’s declarations and the need for putting them under tax inspection carries a greater importance in Turkey. About the inspection of taxes, tax inspection units serve under the roof of Finance Ministry. While an increase has been observed in the inspector numbers in these units in recent years, no change has been observed in the inspection methods with the effect of the development of information technologies. Although new generation information technologies in adjustment with E-notebook, E-bill and E-declaration are supported by information technologies, no increase of change, efficiency or profitability related to the use of technology in tax inspection can be observed. In addition, tax inspectors are actively in use of internet and social media tools along with the new generation inspection mechanisms so as to contribute to their inspection.

Under the light of the information given above, this study aims to investigate the effects of the social media tools on tax inspection process and its quality. Within the context of this study, data will be collected with the way of face to face interviews, the aim of the use of related web sites and social media tools in the inspection process and their effects on the quality of the inspection will be depicted.

2. TAX INSPECTION IN TURKEY
Regulations related to the ways of tax inspection are found between the articles 127 and 152 of the Tax Procedure Law. In the related articles of the law four main tax inspection methods are explained. These methods are as follows (Bilici, 2012:76-79):

- **Inspection:** With the inspection method it is tried to depict whether the taxpayers follow their obligations or not. The simplest example may be to go to the workplaces of the taxpayers in order to inspect the subjects such as whether they preserve non invoiced commodities, make out an invoice in sales and reflect the real sale value or not. Inspection authorizations is given to the tax office managers, tax officers, income specialists and other authorities who have the authority to do tax inspection by Tax Procedure Lax No: 128.
- **Search:** A tax payer in whose office traces are found about tax dodging upon notification or investigation, can be searched with the permission of the criminal court of peace judge.
- **Collecting Information:** In accordance with the article 142 of the tax procedure law\(^{13}\), tax administration can collect information by demanding registration records, Turkish Republic central Bank Records, and other bank records. It can make use of the information in mass media tools. For example, it can collect information about a contractor by asking about the payment of the houses s/he sold to the register owners who bought her/his houses.
- **Tax Audit:** With the way of tax auditing, books and documents of taxpayers can be examined and their reflection of reality is investigated. Different from investigation, tax audits are realised by the head of tax inspection, tax inspectors, vice tax inspectors, tax office managers, chamberlains and Revenue Administration department managers.

### 3. INFORMATION TECHNOLOGIES AND TAX INSPECTION IN TURKEY

The development of the e-state applications has almost become an obligation for the sake of public administrations’ fast and efficient services. Although the e-state and electronic financial

\(^{13}\)“Public administration and its establishments, tax payers, and natural and legal entities who execute authority over tax payers are obliged to provide information requested by Ministry of Finance or the ones who have the licensed to carry out tax audit.”
applications has not been completely formed yet, it can be observed that a significant progress has occurred so far.

E-state applications have developed the tax administration and tax inspection structure towards becoming electronic, and it has had contributions to the increase of the efficacy and profitability. In this respect, the continuous change occurring in information technologies have compelled the taxpayers to continue their necessitated traditional record and document systems in a numerical milieu and it has begun to develop electronic tax office automation projects executed by Ministry of Finance which includes main motives such as e-bill- e-declaration and e-confiscation (Hepaksaz, 2011: 37-73).

E-bill registration system removes the obligation of taxpayers’ transferring their bills to the Revenue Administration Department in the framework of legal applications and data standards and it removes the requirement of keeping the second copy of the bills, enabling the preservation of the first copy which was prepared for the buyers with electronic signature in the numerical milieu. The system serves on http://www.efatura.gov.tr page. With the e-bill system, a serious dissuasive effect has been formed against tax evasion because of the easement of reaching and inspecting the documents that taxpayers are obligated to preserve (Gelir İdaresi Başkanlığı, 2015a).

E-declaration application is a project that can be used by users who obtained passwords from tax offices who has passed to full automation systems, taxpayers who do not have to application to get their declarations signed by an authority since their sale proceeds exceed a definite amount, public accountants, certified public accountants and chartered accountants. Service are provided from the page https://ebeyannname.gib.gov.tr, which is conformed to Finance Ministry, Revenue Administration Department (Gelir İdaresi Başkanlığı, 2015b).

E-book is a Ministry of Finance project which preserves legal and technical regulations and which aims to enable the preparation of the books in the electronic file format which are
obliged to be kept in accordance with the articles of the tax procedure law and the Turkish Commercial Law, enables their being recorded without being printed, guarantee their unity, stability and the reality of their sources so as to make them to be used as a proof by authorities (Gelir İdaresi Başkanlığı, 2015c).

With the help of the automation system prepared with E-confiscation, the contents of the opened accounts of the taxpayers who failed to pay their liabilities on due dates according to requirements, their properties, transferable and their registered vehicles and other valuable commodities can be displayed by inspection staff. In addition to this, with e-confiscation project, the rendition process of the taxpayers’ commodities and values can be executed in the numerical milieu without any printed correspondence (İnce, 2009: 250).

Tax Office Automation Project (VEDOP): It has been implemented to ease the workload by executing the operations with connected computers, increasing the efficiency of profitability in tax office studies, easing the taxpayers’ procedures, strengthening the inspection and tracking functions and developing a healthy decision supplying and management information system for the tax office executives. In this respect, the central and provincial substructure of the project has been prepared and a tax base has been formed. Making use of the computers transformed from tax offices management information, decision supply and inspection supply systems have been formed and put to use. In this context, operations such as daily and periodical tax falling due and collection reports, bank collection reports, their summaries, estimation of late fines and tracking the taxpayer registration and account information have become possible to be realised on this system (Gerçek, 2009). Today there are 448 Tax Offices and Large Taxpayers Office 29 Provincial Tax Office Departments are working on VEDOP system and there is no tax office managements left who do not work with this system anymore.

With these systems which enable tax inspection in the numerical milieu, tax inspection phases are completed in a shorter time and a more efficient structure can be achieved in
struggling with tax drain exiles. In addition to this, the fact that there is less need for workforce, enables a more voluminous use of the present work force.

4. METHOD AND FINDINGS

In the context of this research, data have been collected with face to face interviews method which is one of the qualitative data collecting methods. In this part, the method of the research, profile of tax inspectors who took part in the conversations and research discoveries are included.

4.1. Purpose of the Study and Method

In this study which aims to depict the purposes of the use of internet and social media tools in inspection process and their effect on the quality of inspection, face to face conversation method has been used. A half-structured questionnaire form has been formed before these conversations and questions are directed in this context. Conversations are realised with specialists of the field and questions asked are like the following: “Which web sites do you make use of in tax inspection?”, “For what purposes do you use web sites?”, “Do you use social media tools in tax inspection?”, “What are the advantages that social media provides you in tax inspection?”. The occupational groups that the face to face conversations are realised are given in the chart below:

Table 1.1. Demographical Information

<table>
<thead>
<tr>
<th>Participant</th>
<th>Title</th>
<th>Age</th>
<th>Sex</th>
<th>Professional Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tax Inspector</td>
<td>32</td>
<td>Male</td>
<td>7 years</td>
</tr>
<tr>
<td>2</td>
<td>Income Expert</td>
<td>47</td>
<td>Female</td>
<td>25 years</td>
</tr>
<tr>
<td>3</td>
<td>Tax Inspector</td>
<td>28</td>
<td>Male</td>
<td>5 years</td>
</tr>
<tr>
<td>4</td>
<td>Income Expert</td>
<td>34</td>
<td>Male</td>
<td>8 years</td>
</tr>
<tr>
<td>5</td>
<td>Income Expert</td>
<td>36</td>
<td>Male</td>
<td>15 years</td>
</tr>
<tr>
<td>6</td>
<td>Income Expert</td>
<td>42</td>
<td>Female</td>
<td>20 years</td>
</tr>
<tr>
<td>7</td>
<td>Tax Inspector</td>
<td>39</td>
<td>Male</td>
<td>17 years</td>
</tr>
</tbody>
</table>
4.2. Findings

Face-face interviews were conducted in August 2015 and the data collected from the interviews are summarized in Table 1.1.

Table 1.2. Data from Face to Face interviews

<table>
<thead>
<tr>
<th>Participant</th>
<th>Internet and Social Media Devices on Tax Inspection Process</th>
<th>Intended Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Search Engines (<a href="http://www.google.com">www.google.com</a>, <a href="http://www.yandex.com">www.yandex.com</a> vb.)</td>
<td>Discovery of negative information concerning the taxpayer on internet (tax evasion, tax loss, corruption etc.)</td>
</tr>
<tr>
<td>1</td>
<td>Internet and social media ads for house sales of construction companies</td>
<td>Discovery of difference between house sale price and price recorded in company’s records</td>
</tr>
<tr>
<td>1</td>
<td>International stock exchanges and finance databases</td>
<td>Examination of financial databases, comparison of profit-loss to other firms in the sector for the related period etc.</td>
</tr>
<tr>
<td>2</td>
<td><a href="http://www.araba.com">www.araba.com</a> <a href="http://www.sahibinden.com">www.sahibinden.com</a></td>
<td>Comparison of equivalence price of vehicle and fixture value recorded in enterprise’s books to check tax evasions</td>
</tr>
<tr>
<td>3</td>
<td>Social media means (<a href="http://www.facebook.com">www.facebook.com</a> etc.)</td>
<td>Discovery of tax evasion by means of personal relationship (with decision from Prosecutor’s office)</td>
</tr>
<tr>
<td>4</td>
<td><a href="http://www.sahibinden.com">www.sahibinden.com</a> <a href="http://www.arabam.com">www.arabam.com</a></td>
<td>Comparison of sale price of vehicle in the enterprise’s books and price given in internet site advertisement to find out tax evasion</td>
</tr>
</tbody>
</table>
Generally speaking, tax inspectors use search engines, real properties or vehicles buy-sale web sites, online data published online by some entities and social media tools such as mainly Facebook and LinkedIn during tax inspection process. Tax inspectors discover tax evasions arising from misstatements in general while using such means.

It is seen that the tax inspectors have collected data to discover incorrect real properties and vehicle buy-sale market prices and rent revenue declarations by comparing them to those collected from face-to-face interviews. For instance, the participant (Participant #1), a tax inspector, stated it by giving the following example. “While inspecting real properties capital revenue (rental and possession revenues) declarations, accuracy of revenue declaration for rental prices are checked from real estate advertisement sites (hürriyet real properties, milliyet real properties, emlak net sahibinen com etc.). In case of discovery of any active advertisement of the taxpayer in such sites and if the price given in the advertisement is different from the one indicated in the declaration, then tax evasion is discovered. And the taxpayer is invited for interview and inspection is initiated.” Another participant (Participant #4) gave the following example: “A taxpayer indicated sale price of its truck as TL 30.000 in its records but from the active sale advertisement in sahibinden.com, we found out that the price was actually TL 90.000.”
Another purpose of internet use for tax inspection is the collection of negative information about taxpayers. Giving an example for the issue, Participant #1 stated that preliminary inspections were conducted firstly in web site of taxpayer/enterprise subject to inspection and data on taxpayer (shareholders, affiliates, professional organizations etc.) were collected. He also stated that in case of discovery of any negative information that might adversely affect the business and financial reputation of the taxpayer (tax evasion, tax loss, corruption etc.) as a result of the internet searches at search engines such as google etc., then they acted much more carefully in their tax inspections.

From the data collected from face-to-face interviews, it has been observed that the ways of using internet and social media in tax inspection are various. For instance, it is likely to access financial data of other firms in the sector where the firm under inspection is and to make comparison on sector basis (Participant #1). When compared to transfers made in person, discovery of forged documents and instruments in market circulation is much more difficult if made via banking system. In this context, it has been seen that social media tools have been used by tax inspectors upon authorization from prosecutor’s office to find out personal relations between taxpayers under tax inspection for use of forged documents and instruments and executives of the banks and financial organizations suspected to have incorporated forged documents and instruments in their systems (Participant #3). Staff of Ministry of Finance have employed internet and social media tools for discovery of deceased taxpayer’s successors (Participant #5).

4.3. Process of Research

The process followed in the study has been shown in Figure 1.1. First of all expert’s view has been referred to for better understanding and studying the issue. Following this process conducted concurrently with literature search, study variables, structural model and scale model are planned. In the next step, a structured survey is prepared and pilot study and consequential
surveys are applied. The collected data is analyzed by SmartPLS by use of partial least squares-PLS, one of structural equality modeling methods. This method is preferred because the study is a heuristic study and PLS method is admitted as one of the best methods in heuristic models.

**Figure 1.1. Process of Research**

![Process of Research Diagram](image)

5. **CONCLUSION**

Some positive developments have been experienced in tax inspection thanks to the developments in information technologies recently. It is endeavored to make tax inspection system more efficient by use of several electronic systems with infrastructure provided by Ministry of Finance. In addition to such systems, tax inspectors have started to use new generation tools such as internet and social media sites for evidence collection in order to discover tax evasions. The purpose of this study is to discover purposes of use of new generation tools in tax inspection and find out the effects of them on inspection quality. In this study data were collected by means of face-to-face interviews with tax inspectors.

The findings of the study suggest that tax inspection officials use internet and social media tools in many ways. The benefits gained by the tax inspection staff from such means can be seen from the inspection of advertisement sites for verification of correct revenue declarations by taxpayers, collection of data about taxpayer to be inspected from internet or
searching international stock exchange markets databases for comparison of taxpayer quoted shares in stock exchange market to the similar firms of the same sector.

Use of the said new generation electronic tools by tax inspection staff has considerably important effects on tax inspection process. New generation tools will help in collection of much more evidence for inspection when compared to past periods. The data not provided in the printed documents and instruments presented by taxpayer under inspection or the data not seen/caught in the document by the tax inspector can now be accessible by help of new generation tools. However, such case may cause negative effects on psychology of the tax inspection staff during tax inspection and thus may reduce inspection quality. For instance, if a tax inspection staff discovers in internet search that the taxpayer which s/he will visit for inspection has committed tax evasion in past, s/he may be biased in his/her approach to the taxpayer during inspection although it is not ethical. Such bias may adversely affect the inspection performance.

Out of new generation means being subject of the change in tax inspection recently, although each of systems such as e-book, e-bill, e-declaration, VEDOP etc. installed and applied by Ministry of Finance has legal infrastructure, submission as official evidence for tax inspection the data obtained by use of internet and social media etc. actively used by tax inspectors during inspection has no legal infrastructure yet. It seems necessary to establish legal infrastructure so as to incorporate into tax inspection the listed new generation tools for enhancing effective tax inspection and preventing tax loss and evasions.
References


Urban Entrepreneurialisim and Urban Governance: The Role of Corporate Social Responsibility

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ABSTRACT

It is observed that cities compete among themselves like companies in order to attract more resources in recent years. Successful governance may be one solution to many of the problems that affect the mostly minority of resource allocation. In many countries corporate governance practices is seen as a way to improve economic development of cities. As a governance tool, corporate social responsibility (CSR) can enhance entrepreneurial success for cities. CSR is one of the most important element of the character and culture of governance. CSR projects have a great power to attract private entreprises to the inner cities to create jobs. This paper aims to help increase understanding of urban entrepreneurial through governance and the important role of corporate social responsibility in particular Erzurum city, North Eastern Turkey. In addition this study could have significant implications for policy-makers as well as for businesses.

Key Words: City Entrepreneurial, Corporate Governance, Corporate Social Responsibility
Introduction

Local governments have to overcome a great number of problems related to city development. Especially the issue of cities’ economic development constitutes the key solution for the other problems. Cities have become arenas where new governance types and strategic economic growth skills are improved and spirit of entrepreneurialism is revealed (Tonnesen, 2015). With the beginning of increase in competition for the access to country sources, cities have started to build their politics upon the process that can be competed with economically (Dannestam, 2008). Effective source use, resourceful infrastructure, protection of life quality and entrepreneurialism constitute the prominent topics in the development of cities and building a powerful economy (Simionescu, 2015). The most important factor that includes all those topics and determines the growth rate of city economies on micro level is the spirit of entrepreneurialism of the cities. However, it has been seen that cities fall behind the metropolis in terms of entrepreneurialism characteristics due to some reasons such as labour with a low education level, incoherent job opportunities, logistic inadequacies and ineffectiveness of public investments. Development of urban entrepreneurialism, however, can be achieved by the fact that cities should follow innovative strategies and economic competitiveness should sustain increasing flexibility (Lee et al., 2011).

Although there are many opportunities of incentive for entrepreneurialism by the state in Turkey, the fact that those opportunities cannot be coordinated specific to city needs affect adversely the effectiveness and productivity of the sources. Thanks to the initiatives brought out by the state, it is tried to increase the welfare level of the cities, and decrease housing opportunities and unemployment through certain grant programs, however these initiatives remain incapable in the constitution of the long-term sustainable initiatives. With the increase of state-sponsored entrepreneurs in Turkey, it has been foreseen that entrepreneurs who try to develop their initiatives especially by winning tenders from the state cannot make a sustainable
contribution to the unemployment problem in the long run. The fact that politics towards entrepreneurs remain incapable for the solution of the afore-mentioned problems caused an emergence of a complicated environment for urban entrepreneurialism.

In effect, despite much impossibility the cities fall into, it is a fact that there are some advantages. Cities have potentials with their population density, natural beauties, historical pasts, underground sources that can create a market demand. In Porter’s (1995) ‘economic model, state and social service institutions became important for founding businesses in cities and reviving the society’. Similarly, Butler (1996) pointed out that people living in the cities should not become workers; instead they should be encouraged to become entrepreneurs. Every activity that can gather all the interest groups in a city can be able to provide a constitution of a mechanism that supports entrepreneurialism. Governance models that state can present on this issue can pave the way for organizing local activities co-ordinately and thus produce business incubators for entrepreneurialism.

Although there is comprehensive literature about entrepreneurialism, governance and corporate social responsibility topics are the ignored areas in the literature of entrepreneurialism. Studies show that there is a positive relationship between governance and entrepreneurialism (M.-T. Mendez-Picazo et al., 2012; Diochon, 2010). Also, country-level governance has a significant effect upon entrepreneurialism (Groşanu et al., 2015). With reference to the positive relationship between governance and entrepreneurialism, we can say that these are two important concepts that increase economic growth (M.-T. Mendez-Picazo et al., 2012). Governance is also a topic that encourages the flow of the long term investments (Pintea, 2015). Corporate social responsibility (Ahmmed & Mohammad, 2005), which is a supportive element in building governance, can be used as a commercial means that can provide the encouragement of commercial initiatives in the long run through public-sponsored social initiatives.
This study aims to constitute a model bringing forward the role of corporate social responsibility and governance in the development of urban entrepreneurialism specific to Erzurum city, north eastern Turkey. With the help of some questions formalized depending on the constituted model, the possibility whether cities can produce initiatives to prove themselves and new initiatives can be shifted towards the cities or not will be questioned. It is also thought that this study will contribute to the creation of awareness with the effect of corporate social responsibility studies of municipalities upon city’s spirit of entrepreneurialism. The other parts of study are organized as; first of all governance, corporate social responsibility and urban entrepreneurialism will be explained with a comprehensive literature review. Then with the help of certain research questions, the model of the study will be shaped and the result of the study will be presented in the conclusion.

**Literature Review**

**Urban Entrepreneurialism**

Entrepreneurialism constitutes one of the key elements of economic growth. When we try to define entrepreneurialism and especially urban entrepreneurialism, we encounter with a number of definitions. Entrepreneurialism is accepted as a concept including organizational innovation, renewal or creative activities within or outside of an organization (Sharma & Chrisman, 1999: 17). Innovativeness, risk taking and pro-activity become prominent for an activity to be considered an initiative (Covin & Slevin, 1991). Entrepreneurialism is considered one of the important forces of an effective sustainable development in modern market economy (Groşanu et al., 2015). Success of entrepreneurialism and new initiative performance are based on seven skills; product/service design, leadership, networking, business, industry, administration and entrepreneurialism (Herron, 1990). In short, entrepreneurialism can be defined as individual or group activities constituted with the purpose of engaging in an economic activity in a formal sector under a legal umbrella (Klapper et al., 2007).
Spirit of urban entrepreneurialism has been explained by Harvey (1989) through three basic characteristics. The first one brings out a structure which political arena of new city (local government where city-dwellers have influence) has a stronger business administration point of view more than ever and more aware of everything especially through state-private partnerships. The second one is the commitment to the high level speculative “flagship” projects which were organized with the purpose of increasing image capability of the city. However, Harvey (1989) claimed that this type of state-sponsored initiatives would not be like those who take risks heroically. The last one expresses the necessity that urban entrepreneurialism should be run through city political economy rather than the region’s political economy.

Urban entrepreneurialism, however, is related to small businesses that provides service or produces goods in economically stagnation areas. All the initiatives need capital, work plan and marketing but urban initiatives need much more than that. These initiatives need more and more of business coaching, business education, entrepreneur networking, social and human resource (Jones, S.R., 2007). There are many support institutions in our country such as development agencies, union of chambers and exchange commodities, chambers of commerce and industry, small and medium industry development organization, development banks and private banks. Urban entrepreneurialism, unlike other initiatives, has difficulty in accessing social networks that can solve their problems. Despite great efforts and supports, there seem problems in the cities about entrepreneurialism which is tried to be constituted towards the necessities of the city-dwellers. It is obvious that ambitious models that can take the place of old-fashioned entrepreneurialism applications are needed. Within this respect, city administrators should provide a point of view which can evaluate these topics for the emergence of the spirit of urban entrepreneurialism.

The biggest obstacles before the emergence of the spirit of urban entrepreneurialism are centralization of planning strength, high level financial restrictions, carrying out government
activities through privatization and public sector’s undertaking risks. These characteristics restrict public participation, cause a corruption in democratic principles and decrease public accountability. Independence, local economy, commitment to social, political and cultural structure should be basis for the nature of urban entrepreneurialism (Owen, 2002).

**Urban Governance**

Governance, in its simple form, is related to how an organization is managed. Governance can be accepted as a performance or a behaviour upon which many processes including historical, cultural, social and political indicators of an organization have an impact. Human communities, firms and institutions form the basic aspects of governance. The processes with which this multi-level concept is associated have made governance an indispensable part of a corporate mechanism (M.-T. Mendez-Picazo et al., 2012). Governance is also defined as the relations between all the sides which are efficient in the performance and direction of organizations (Monks & Minow, 1996).

Regulatory and administrative systems form the dominant structures in the analysis of governance. These systems have been supported with two theoretical perspectives. These are stewardship and stakeholder models. In the stewardship model of governance, the administrators aim to maximize the decisions of shareholders by focusing on the co-operation between administrators and those concerned. Yet stakeholder model bring in all the interest groups for providing economic success (Diochon, 2010). Interest groups constitute the basic foundation point of the governance. A good governance is based on the strength of the relations between interest groups and their being long term. The main principles that emerge governance also constitute the rule of competitive markets, property rights and good relations between the parties (M.-T. Mendez-Picazo et al., 2012).

However stakeholder model states how the behaviour should be expressed. That is to say it remains incapable in researching how the entrepreneurialism can be developed within an
organization. As an alternative, neo-corporate theory proposed by Mason et al (2007) suggests a structure including the stakeholder model. This theory has focused on analyzing the effect of corporate factors upon governance structure. Within the context of this theory, no matter how variable the environmental factors are, they show similar effects on the entrepreneurs (Diochon, M.C., 2010).

Thanks to good governance, building coherent institutions can emerge in a city. These institutions will be able to undertake crucial roles for the sake of economic performance (North, 1990). Institutions have the opportunity to propose key solutions for the activities towards the society. Investment, technology and human capital are the crucial variables affecting the behaviour of the institutions. Some conditions under which city administrations can create positive effects on economic growth are that governance (Acemoglu, 2003);

- Should strengthen the property rights related to a great part of the society
- Should restrict the damaging activities of elite and pressure groups like politicians towards the property rights of the city
- Should determine the level of constituting equal opportunities for extensive part of the society, by this means more individuals can participate in economic activities.

The World Bank ranked the significant factors for the efficiency of governance as follows (Kaufmann et al., 2005; Groşanu et al., 2015);

1. Voice and accountability, which measures political, civil and human rights.
2. Government effectiveness, measuring the competence of bureaucracy.
3. Rule of law, measuring the quality of contract enforcement, the police and the courts.
4. Control of corruption, measuring the exercise of public power for private gain.
5. Political stability and absence of violence
6. Regulatory quality

From this point of view, urban governance can be carried into effect through two perspectives; the first one is about determination of conditions and factors that will constitute
the basis for the urban activities and affect the welfare of the city, the second one is about determination of outputs expected by the government towards all the interest groups.

**Corporate Social Responsibility**

Corporate social responsibility (CSR) is a concept which coalesces with social and environmental issues in organizations’ activities and which is based on the interactions and voluntariness with the interest groups of the organizations (European Commission, 2001). Milton Freeman (1970) claimed that a firm can maximize its social responsibility applications and its profit. Freeman (1984) has emphasized that organizations’ goals should be constituted with a principle that will serve them and should be coherent with the necessities of all interest groups. That is to say CSR represent a structure that decision-makers in firms should not ground their decisions only upon economic profitability and legal obligation and also they should turn it into a form which will include ethical and social-supported issues. Community-oriented corporate responsibilities should be constituted within a quality that will include all the society rather than having contributions from beneficial associations or charities. Corporate social responsibility can be accepted as commitment to the issues of developing the lives of employees, families, locals and extensive part of the masses in order to contribute businesses’ sustainable economic development (Simionescu, L.N., 2015). Social responsibility, which is defined as the obligation of evaluating the effects of individual-corporate decisions and activities during the decision-making process upon all social system, gives an opportunity to the institutions for taking the society and its environment to a better position (Davis and Blomstrom, 1971: 85).

Corporate social responsibility is also used as an ideal means by the entrepreneurs for the most important issue; i.e. constituting network. Thanks to social networks, entrepreneurs will have a quick access to the social capital by having a chance to create social relationships
(Burt, 1997). State entrepreneurs can use corporate social responsibility activities as a means for motivation.

In the developing countries, the governments use various means in order to meet the increasing needs of the public. They try to solve this situation through partnerships founded with private and non-governmental actors especially for the issues of social development. CSR provides mobility in certain and routine areas and reveals appeal for investments to shift towards that point. Local governments can serve for the spirit of urban entrepreneurialism by creating an opportunity for the city to prove itself with the help of CSR activities. Corporate social responsibility studies of the state can inform people about the resources of the city and that it is supported. For example, educational programs on how the relevant initiative will be carried out, existence of human resource potential, tax and other incentives and introducing the characteristics of the location where the initiative will be carried out.

**Constructing the Model**

Metropolises construct areas with high level of entrepreneurialism spirit in comparison to the cities. Metropolises always preserve their attractiveness for the entrepreneurs with their quality labour, structure of demand, and convenience of access to resources, economic saving and developed infrastructure. The fact that metropolises have high level of entrepreneurialism causes big shares of country’s income distribution to shift towards metropolitan regions. In Turkey, where differences between metropolises and cities increase gradually on a regional basis, cities need to take certain precautions about entrepreneurialism. The fact that the existent precautions have not been taken with a point of view peculiar to cities affect the efficiency and productivity of the resources in a negative way. Entrepreneurialism potentialities of the cities can be uncovered with the conditions specific to the cities. Elements such as historical and cultural infrastructures, underground treasures, tourism potentialities, level of employment, savings and human sources cause the original structure of urban entrepreneurialism to be
uncovered. Increasing entrepreneurialism on a city basis depends on the spirit of urban entrepreneurialism (Harvey D., 1989). Spirit of urban entrepreneurialism attracts attention for different regions and it also helps potential initiatives within a city to come out. The fact that local policymakers look for the ways to increase the spirit of urban entrepreneurialism on a city basis depends on the models to be developed for the cities. This study proposes a certain frame model for the solution of the above-mentioned problems.

As it is known, there are three structures coming to mind about entrepreneurialism; these are creating new ventures from scratch, self-employment and corporate entrepreneurship (Albu & Mateescu, 2015; Hagen et al., 2005). All the necessities of entrepreneurialism structures have similar qualities. In this study, in order to narrow down the research model and focus on the effect of some factors, necessities of entrepreneurialism have been referred as triggering element of entrepreneurialism spirit on a city basis. Erzurum which is located in TRA1, that means the highest region with the poverty rate considering the ratings of income and living conditions in Turkey (Erzurum, Erzincan, Bayburt) has been chosen for the focus of the study (Turkish Statistical Institute, 2016). Although Erzurum is a city participated in all the development plans, it is a city that could not reach to the expected level in terms of economy and entrepreneurialism potentiality. With the change in the system of metropolitan municipality thanks to the law number 6360 on 12 November 2012, Erzurum became much more prone to coordination. This change in the metropolitan municipality helped the city to become more market-oriented, innovative and risk-taking.

In this study, in the light of the data given by Erzurum Chamber of Commerce and Industry and the views of expert academics, a model has been developed accepting the fact that the most basic needs of the entrepreneurs around Erzurum are Learning and Training, Motivation, Resource and Skill. The model (figure 1.1.) which has been developed in order for the urban entrepreneurialism to be solves within the direction of entrepreneurialism necessities
has been integrated into the process as the intermediate factors of governance and corporate social responsibility. As there is a positive correlation between high entrepreneurialism rate and high-level of governance, entrepreneurs aims to establish low cost firms and know that they would be enough to develop economic relations because these relations reassures that possible controversies will be solved with a regulatory mechanism (Groşanu et al., 2015). There are numerous researches analyzing the existence of a relation between governance and entrepreneurialism (Zahra, 1996; Hagen et al., 2005). In order to construct the basic processes of urban entrepreneurialism, a concept, based on government’s employment policies in which
Entrepreneurial Needs:
Learning/Training

Entrepreneurial Behavior

Entrepreneurial Success

Urban Governance:
Relational Governance
Transactional Governance

Network Governance

Contractual Governance

Board Of

Stakeholders
Managers
Audit

Entrepreneurial Motivation

CSR Projects

Community
Supplier
Employee
Environmental
Societal
Demand
professional technical support and educations are given and an innovative culture is constructed and infrastructures with high targets are constituted, is necessary (Hooley, 2005). Governance processes where urban administrators are effective should be put into use in order for the solutions of entrepreneurialism necessities. For the solution of these necessities quadruple governance evaluation such as relational governance, transactional governance, contractual governance and network governance is suggested in terms of this model. Relational governance includes the governance form shaping the point of view on which all the parties who will take part in the study have common idea. Here the importance of organization purposes rather than the individual targets are emphasized in the rules to be constructed and plannings are designed (Dolci & Maçada, 2014). Transactional governance includes the precautions to be taken in order to minimize the opportunism between the parties in governance or to remove that opportunism. Contractual governance means that coordination and control during governance process is important. Leadership is required in city administration about the precautions to be taken after determining the necessities of entrepreneurialism. It is based on a governance mechanism including contracts which are signed not to lose control or coordination about corporate social responsibility and other entrepreneurialism studies which will be carried after determining leader board of management. Leader boards of management put the rules to be followed for things to be done about this issue and determine the conditions (Mustakallio et al., 2002). Network governance is a more market-oriented concept in the transformation of management system including a governance perception based on building closer relations with civil society. With this point of view, different actors are taken into the process by creating connection between commercial groups, professional organizations and non-governmental organizations. In this study, a network construction is mentioned which would be constituted towards supporting existing and potential entrepreneurs on regional and local basis (Holley, 2005). The problems triggered by the necessities of governance processes should be presented
to the views of board of directors with the solutions brought forward by stakeholder, manager and audit that are effective in a city. Then, CSR activities towards the solutions brought forward should be planned and CSR projects should be prepared in the fields of employee domain, environmental domain, supplier domain, local community domain, societal domain (Öberseder et al., 2014) and demand domain. Employee domain includes the corporate social responsibility studies to be prepared towards sector-based human source training and determination of salary levels. Environmental domain, however, includes the precautions towards CSR projects related to the preparation of infrastructures that initiatives can easily start a business (like organized industrial sites), precautions towards energy saving, emission and recycling processes. Every element increasing the life quality of the city in environmental terms constitutes attractiveness for smart and initiative people. Supplier domain; existence of independent suppliers creates attractiveness for the entrepreneurs. It includes the construction of regional supply infrastructures as the expansion of entrepreneurialism will be faster in the sectors where access towards supply is easy. Local community domain offers a structure including the use of local sources by focusing on the works that will catalyze local people’s employment. Societal domain is about the support of social projects for the solution of social problems. Demand domain, however, includes the processes related to the precautions to be taken for fair pricing, production of reliable and high-quality products and determining the demand structure by classifying. Thanks to every CSR project to be prepared in the above-mentioned areas, providing an Urban Entrepreneurialism Motivation will be easier. The model also assumes that this motivation can be provided by its transformation to behaviour through the conclusion of entrepreneurial with success. This study assumes that the needs of the offered model and entrepreneurialism can be solved with governance and corporate social responsibility, the spirit of entrepreneurialism can be mobilized and afterwards success of entrepreneurs can be achieved.
Considering the fact that the established institutions would fail in the first three years, the fact that the needs of the entrepreneurs should be determined and what factors would be efficient in the construction of sustainable initiatives should be understood is of capital importance. In this study, thanks to this developed model, a valuable frame is offered for evaluating the role of corporate social responsibility in the interaction of urban entrepreneurialism spirit.

**Conclusion**

Although governance does not have one exact definition and is tried to be explained with some terms such as democracy, accountability and institutionalization, the fact that it is a crucial topic for the economies is still accepted. In this study, the importance of governance especially for entrepreneurialism and that corporate social responsibility is an important means have been mentioned. In the cities without coordination where the communication system is weak, actors and policymakers will not be able to prevent the waste of sources towards entrepreneurialism. The developed model has been constructed on that entrepreneurialism success can be achieved with the help of the fact that team-based corporate social responsibility studies, which has been prepared by governance mechanism to be constructed among all the sharers of a city, would catalyze the transformation of urban entrepreneurialism spirit into behaviour.

Entrepreneurialism is not only based on investment incentives but also the quality of government politics. The decisions and laws made by policymakers, public officials and institutions will affect economic development by gaining favour to economic units in sharing investments and public expenses. In this respect, governments need to support local initiatives.

Urban entrepreneur-oriented corporate social responsibility projects can undertake a role that will help them start new businesses and develop entrepreneurialism networks. Individuals with entrepreneurialism skills would like to feel the support of the state because the state is considered the biggest problem solver in the perceptions. For this, those who prepare
corporate social responsibility projects need to learn what entrepreneurs expect and what their needs are. Because of this, those who prepare these projects need more systematic regulations with a quality to gather non-governmental organizations, universities, development agencies and policymakers.

The fact that non-profit making non-governmental organizations support entrepreneurs is of great importance. They can at least create processes that can be helpful to prepare public for certain initiatives. The contribution of the non-governmental organizations would be huge as they have an effect of revitalization upon the public. The biggest role here belongs to the chambers of commerce and industry. These institutions, which come forward with their quality of having serious experiences and background in taking precautions for business environments and determining every kind of need, have an effective role on city’s governance mechanisms. In addition to these, the elements such as women associations which will have effective roles upon supporting women entrepreneurs will bring forward an accelerator mechanism. Besides, faith-based institutions form another side of the issue.

Universities have an important role on the support of urban entrepreneurialism. The importance of university leadership about supporting local firms and increasing the effect of techno-cities comes into prominence. Every contribution from educational activities to project activities will provide support in this respect. The support of the universities will support the construction of a systematic that will allow the construction of more sustainable initiatives.

With their contributions, development agencies should prepare studies for determining special requirements that are necessary in order for regional needs and activities of entrepreneurialism to be in service throughout this region. Development agencies’ contributions, which they will provide for the determination of all the needs such as capital requirement, cultural structure, construction of regional networks and supportive infrastructures, are of great importance. In this respect, development agencies need to determine
their networks efficiently; they should undertake effective roles on the determination of potential fund resources, strategic partnership potentialities, coordination of service suppliers (accountants, bar associations, etc.) and following qualified and unskilled unemployed people.

In conclusion, it can be said that a government grant for the entrepreneurs is necessary. The model developed in this study assumes that achieving success of entrepreneurialism and constructing urban entrepreneurialism spirit can be possible with revealing city’s potentiality in itself. The way to this is considered to be based on the governance and corporate social responsibility studies.
References


ABSTRACT

Tax crimes are defined as economic crimes perpetrated against state treasury. The result of the acts of tax crimes is that the interest of public is violated. Hence, the act of a crime is punishable by law. Here, the main object of penalty is that the taxes must be paid punctually and completely. In Turkish Tax Law the tax crimes and penalties are regulated under the Tax Procedure Code. In this study, both crimes and penalties and some special issues are examined and evaluated in the scope of the Tax Procedure Code.

Keywords: Tax Crimes, Tax Penalties, Tax Procedure Code

1. Introduction

Taxes are an important part of public revenues. On the other hand, if the taxpayers don’t obey the rules, violate these rules and thus perpetrate a crime of tax, they must encounter legal sanctions, which is called penalty of tax. Some of these crimes of taxes are called as economic crimes perpetrated against public treasury. Some of others also have sanctions, both as monetary and as restrictive in the sense of limiting liberties.

In this paper, actions that cause crimes of tax and their sanctions are examined and evaluated as part of the legal and administrative regulations and within the scope of Turkish Tax Procedure Code. The paper is mainly composed of two chapters. In the first chapter it is aimed to state and evaluate the concepts of tax crimes and penalties within the framework of tax procedure code. The second chapter intends to explore some special issues regarding tax crimes and penalties.
2. Tax Crimes and Penalties in Turkish Tax Procedure Code

To ensure the security of taxes, tax crimes are supported by an order of sanctions that is called tax penalty or punishment. Tax crimes are defined as economic crimes perpetrated against state treasury. The result of the acts of tax crimes is that the interest of public is violated. Hence, the act of a crime is punishable by law. On the other hand, although penalties raise revenue, they are also sanctions assumed to act as deterrent (Morris, 2010: 28).

In Turkish Tax Law the tax crimes and penalties are regulated under the Tax Procedure Code. Some of the penalties listed under the Tax Procedure Code are considered as administrative penalties and for this reason these penalties are applied and collected directly by tax administration without a judicial decision. The acts within this framework are regarded as “administrative crimes and penalties.”

a. Administrative Crimes and Penalties

Within the context of the Tax Procedure Code, the administrative crimes that are called “loss of tax” and “irregularity” are penalized by administrative penalties, in other words by monetary and applied by tax administration.

a1. Loss of Tax

Loss of tax is regulated under the Tax Procedure Code in Article 341; “Loss of tax means late- or under-accrual of tax due to the non-performance or under-performance of liabilities of taxpayers or tax responsible relating to taxation”.

Penalties of loss of tax is regulated under the Tax Procedure Code in Article 344; “If loss of tax occurs due to the reasons written in Article 341, the taxpayer or tax responsible is penalized with the amount of loss of tax”.

a2. Irregularity Crimes and Penalties

Irregularity is regulated under Articles 351-353 of the Tax Procedure Code and means; “Failure to comply with the provisions of tax laws relating to the material and formal”.

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The given irregularity crimes and penalties in Tax Procedure Code are respectively enumerated and are categorized as follows:

- 1st Degree Irregularities,
- 2nd Degree Irregularities,
- Cases requiring special penalties.

Irregularities will be penalized according to the degrees written below and to the table attached to the Tax procedure Code.

1. **a2a. 1st Degree Irregularities**

1st Degree Irregularities are as follows [TPC, Article 352];

- Failure to submit tax and fee return in a timely fashion,
- Failure to keep the obligatory books according to this law,
- Incomplete, irregularly and unorderly books entries and the documents related,
- Failure to comply with the provisions of this law relating to ordinance of recording,
- Failure to commence the date of employment in a timely fashion,
- Failure to attest any of the books required to be attested.

2. **a2b. 2nd Degree Irregularities**

2nd Degree Irregularities are as follows [TPC, Article 352];

- Failure to notice the declaration written in tax laws in a timely fashion (except the declaration of the commencement of employment),
- Attestation any of the books required to be attested within one month from the end of legal period,
- Failure to comply with the provisions relating to the form and content of tax returns, notifications, documents, certificates and their annexes,
- Failure to exist or submit some documents and certificates, provided that don’t disrupt accuracy or clarity of accounts or transactions
b. Crimes and Penalties Restricting the Liberty

The justification for tax penalties would appear to turn on what motivates taxpayers to comply with their tax obligations. It is legally important to collect taxes accurate and timely (Doran, 2009: 111). Taxpayers consciously or unconsciously can act illegally about tax duties. These actions cause different types of tax penalties. For example, crimes that violated public order are adjudicated by the criminal courts and penalized by restricting of liberty.

In this respect, general provisions of the Turkish Criminal Code according to the Article 5 of this Code are also applied to special criminal codes and also the crimes stipulated in the laws including penalties.

b1. Tax Evasion and Tax Evasion Penalties

Taxes are the most important source of revenue for governments to be financed the public services. Taxes are also unwilling and undesirable burden for taxpayers. This unwilling and undesirable burden has negative effects such as tax evasion and loss of tax. It can be said that tax evasion exists whenever a taxpayer intends to defraud the tax authorities by intentionally avoiding paying the true tax liability (Teijeiro, 2015: 1). Consequently, some inequities relating to noncompliance (i.e. shifting from honest taxpayers to dishonest evaders of real resources, tax liabilities from present to future generations) precipitate greater discontent with the government and further erode public revenues (Cebula and Feige, 2011:2).

Evasion also imposes economic costs because taxpayers expend resources to facilitate evasion and the tax agency expends resources to contain it (Feldman and Slemrod, 2007: 327). And therefore, one of the most important purposes of the government is to prevent tax evasion and thus to prevent loss of tax. Here, it is especially important to determine whether there is a correlation between tax morale and levels of tax compliance (Sabaini and Jimenez, 2012:32).

The most serious violations of tax law are considered by the legislator as a criminal of-fence and in this sense; the most frequent tax crime is tax fraud (Diaz, 2015: 13). By reason of the
crimes of tax evasion, those who commit acts of tax evasion become subject to penalties of restricting of liberty.

The acts of tax evasion and tax evasion penalties are regulated under the Tax Procedure Code in Article 359.

Crimes of tax evasion are as follows [TPC, Article 359]:

1-) Those, who do accounting and bookkeeping tricks in the books and booking records that are kept or edited and that are required to be retained and exhibited according to tax laws,

2-) Those, who open accounts in the name of persons who don’t exit or aren’t subject to the transactions of bookkeeping entry,

3-) Those, who completely and partially enter the accounts and transactions, that should be entered in the related books, in other books and documents in a way that will result in the reduction of the tax base,

4-) Those, who deface or conceal the books, bookkeeping entry and documents,

5-) Those, who issue or use the misleading documents in terms of content.

The sanction to be applied to the crimes mentioned above, the imprisonment changing between 18 months to 3 years.

b2. Breach of the Secrecy of Tax

A further tax crime is the “Breach of the Secrecy of Tax”. During the taxation process and then the personal and financial data of taxpayers must be preserved. This situation can be called as “breach of secrecy of taxes”. And in case of breach of secrecy of tax, those who violated this secrecy should be punished. The breach of secrecy of tax as a crime is regulated under the Tax Procedure Code (with the Article 362); on the other hand it refers to Turkish Criminal Code as a sanction and penalty (to the Article 239).

According to Article 362 of the Tax Procedure Code;
“When those, who must abide by the secrecy of taxes written under this Law in Article 5, are violated the secrecy of taxes, in this case they are penalized in accordance with Article 239 of the Turkish Criminal Code”.

3. Some Special Issues Relating to the Tax Crimes and Penalties

These special issues are as follows:

- Complicity
- Repetition
- Separation of Acts
- Joinder of Offences

a. Complicity

It is “complicity” that is meant when people talk of a perpetration of a crime in cooperation with more than one perpetrator of a crime.

In accordance with the provision in article 360 of the Tax Procedure Code regarding complicity, those who are complicit in a crime of tax evasion with material benefit and those who influence the other persons in order to commit a crime are punished with the same penalty.

On the other hand, in accordance with the provision in article 360 of the Tax Procedure Code regarding complicity, the reduction in article 360 is applied to those who are complicit in a crime of tax evasion without material benefit. In other words, the penalty should be reduced by half.

b. Repetition

The concept of “Repetition” is regulated under Article 339 of the Tax Procedure Code; “For those who are penalized due to give rise to a loss of tax and irregularity, starting since the beginning of the following year, penalty of loss of tax is increased by half if the loss of tax is repeated within 5 years, and penalty of irregularity is increased by one-quarter if irregularity is repeated within 2 years”.

As it is meant above, if the taxpayers who are penalized due to give rise to a loss of tax and irregularity commits the same crimes more than once within a certain periods, in this case the penalty of loss of tax and irregularity are increased to a certain extent.

c. Separation of Acts
The Provision about the “Separation of Acts” takes place in Article 337 of Tax Procedure Code; “Due to the loss of tax or irregularity made separately the penalties are applied separately.”

d. Joinder of Offences
The conception of “conjunction” used in the area of criminal law and in the sense of “the commitment of more than one crime through one act”, can also be evaluated in terms of the area of tax law.

According to Article 340 of the Tax Procedure Code;
“The penalties of loss of tax and irregularities written in this Law cannot be incorporate with the penalties written in Article 359 and written in the other penalties in terms of the provisions of “conjunction” and “repetition”.

Conclusion
Taxes are the most important source of revenue for governments to be financed the public expenditures. Taxes are unwilling and undesirable burden for taxpayers. This unwilling and undesirable burden has negative effects such as tax evasion and loss of tax. And therefore, one of the most important purposes of the government is to prevent tax evasion and thus to prevent loss of tax. The Tax Procedure Code includes detailed provisions relating to tax crimes and penalties and the major aim of this is providing to comply with the laws. On the other hand, there are also some special issues in Turkish Procedure Code. These special issues are; “Complicity”, “Repetition”, “Separation of Acts” and “Joinder of Offences”.

It is naturally desired that the taxpayers lead a life in accordance with the rules of law. In contrary cases there may be some sanctions relating to the taxpayers. It is very important that
these sanctions to be deterrent. There are some elements affecting the deterrence of the penal sanctions. These elements may emanate both from acts and behaviors of the taxpayers and from administrative acts and applications. Tax evasion is one of the most major crimes. Governments are faced with several kinds of tax evasion and because of tax evasion, tax revenues are falling in Turkey as well as all over the world. It can be said that the tax penalties have deterrent effects for the prevention of tax evasion. But, at the same time it is also very important that the reasons giving taxpayers cause for tax evasion should be investigated.
References


Tax Procedure Code [TPC]
Turkish Criminal Code [TCC]
ABSTRACT

The Ottoman administrators took great care to record the governmental affairs. As a result of it many documents are still available today. Indeed, it is known that about 15 million documents and 180,000 accounting books can be found in the Ottoman Archives of the Prime Ministry. In this study, the documents belong to the rice muqataa in Tire District between the years 1694-1714 which is a kind of receipt of payment among the accounting documents in Ottoman archives in Turkey were studied by translating from Ottoman Turkish. Therefore, information was gathered through the accounting documents belong to 320 years before today about how much the Ottoman Empire attributed importance on accounting science, how the accounting of rice muqataa in Tire bounded to İzmir in today was recorded, which system they used for the accounting, and how the planted products were shared between the authorized persons and manufacturers thanks to the information on these records.

Key Words: Accounting History, Ottoman Empire, Tire District, Rice Muqataa.
documents related to the transactions recoded by the Ottoman Empire are available. Some of
them are documents related to the Muqataa system which was the subject of this study. It is
possible to evaluate the archive documents which can be accepted as muqataa contracts as
receipts. Of course the documents which are evaluated as receipts are quite different from
today’s use. At that time, the word receipt was used as payment proving document in terms of
the usage of the word.

Some of the muqataa documents kept in the Ottoman Archives of the Prime Ministry
are rice muqataas due to the fact that analysing all of them was beyond the scope of this study,
Tire district of Aydin formed the place border of the study. Again due to that fact that all the
rice muqataa documents (receipts) issued in Tire were too many in terms of numbers, twenty-
year time period (1694-1714) was selected through drilling method and in this way time
limitation was made. In addition, although limitations were made in terms of the scope the
number of the files which were analysed in the study included only the documents numbered
6243, 6770, 7608, 9186, and 7955 which concerned mostly the Tire district. Thus, by taking
Tire which is connected to the province of Izmir today’s as an example it will be accessed from
the information in these records how the rice muqataa accounting was recorded and by which
system these accounting records were kept in the Ottoman Empire.

3. Muqataa System in the Ottoman Empire (Definition, Scope and the Form of
Income Collection)

The word muqataa has the following meanings in the dictionary giving the land to
someone who agreed to pay a fixed rent for the state; tax paid for the vineyards and cultivated
land (Devellioğlu, 2008:679). The practice of Muqataa dates back to the Abbasid Empire (750-
1258) historically. This system which was applied in the Turkish –Islamic state with small
differences was observed in the Ottoman Empire too (Genç, 2006:129).
In the Ottoman Empire (1299-1923) muqataa was used to mean “give muqataa”, “get muqataa” or the phase “muqataa” meant to give a portion of the tax which belonged to the state to iltizam. With time muqataa shifted towards the meaning of “the unit of tax farming”. According to the financial texts it started in the middle of the 14th century and its appropriate use was realized at the end of the same century. Until the middle of the 19th century the valid definition of the use was the following: “a financial unit created from a portion of taxes belonging to the treasury.” The word muqataa includes also the meaning of “determining the tithe or tribute which had to be taken from the taxpayers according to the volume of the production as a fixed amount of tax” (Genç, 2006:129).

Various muqataa applications were applied in the Ottoman Empire. These applications can be listed in the following way; Dar‘üd-Darb (the coining right muqataa which remained at the treasury from the coining), memleha (muqataa taken from the salt production), çeltük (muqataa taken from the rice production), fee, ihtisab (muqataa taken by the ottoman official due to the provision of the public area and security), beytülmal (the unclaimed property and the property of the persons who died without heirs was sold and this amount stayed at the treasury), mizan-ı-harir (muqataa taken from the silk production), fisheries official (muqataa taken after the caught fish and seafood), avarız (muqataa taken in extraordinary cases), zarar-i kasabiye (muqataa imposed in addition to the customs duties in order to meet the meat needs of the Janissaries), cendere and simsariye (muqataa taken from mohair and yarn), rüşum‘u arak ve hamr (rüşum-u zecriye), (muqataa taken from the consumption of alcohol), pençik mukataası (one fifth of the profit taken from selling the children\textsuperscript{14} and women and men who are incompatible with military) and customs muqataa. (İstek, 2014:16).

\textsuperscript{14} One fifth of those who were captured during the wars were the property of the state. From them the men who were compatible with military were taken to novis camps. Other men who were not suitable with military together with the children and women were sold (İpekcioglu, 1996:38)
The collection of the muqataas which had an important share within the government revenues was important. Some units were formed for this and the income generating activities were combined in these units. Thanks to the system which was formed by these units the revenues of tax farming, trust and estate proceedings were collected easily. The duty of the central treasury was to ensure the control of the incomes and costs emerging at the center and in the provinces. Here the control of the muqataa incomes was also ensured alongside the jizye and avariz incomes.

The officials called as varidatçı and başbaki had an important role in the collection of the muqataa revenues. The center finance office included the big muqataas such as Head Muqataa, Appanage Muqataai, Harameyn Muqataa, Bursa Muqataa, Istanbul Muqataa, Scale Muqataa, Mine Muqataa, Avlonya Muqataa, and Eğriboz Muqataa (Şahin, 2013: 1020). The officials called as varidatçı and başbaki had an important role in the collection of the muqataa revenues. In the Ottoman Empire a significant portion of the muqataa incomes were collected by the persons such as emin-i mültезim, el-havale and nazir. The income which was collected from the bondholders was transferred to the person designated for state expenses through another officer without entering the treasury (İpcioğlu, 1996:33). Within the historical facilities, the muqataa incomes obtained for the treasury were recorded to the treasury only on the basis of the accounting records and were removed as expenses from the record in order not to lose time by entering the treasury physically and then sending it to its place.

The Muqataa income was one of the major revenues contributing to the state treasury. There were various tax payments within the muqataa system. The size of these taxes was significant among the treasury revenues. The muqataa areas were sometimes limited to a small area such as a village or hamlet while sometimes it could include a district or even a province (Başarır, 2014: 127-128). The companies from which the muqataa income was obtained operated with trust-method as “ber vech-I emanet” or with iltizam method as “ber vech-i
"iltizam". In the form of “ber vech-i emanet”; the state as an operator collects the income of the business unit by appointing an officer under the name such as emin, voyvoda, nazır, el-havale. The emirs are usually appointed from the Ebna-i Sipahiyan, Çavuşan-i Dergâh-i Ali and Silahdaran class and the daily wages of the appointed officers were determined according to the profits brought by the business to the state treasury (İpcioğlu, 1996:33)

3. Rice Muqataa in the Ottoman Empire

During the Ottoman Government a great importance was given to rice production and it was supported also by the state. Even on other conquered places especially in Rumelian areas its production was started promptly. Rice production was made in every wetland areas of the state territory. Rice was a very precious product thanks to the limited production areas and to the difficult production. Due to this, within the state borders an organization was formed with specials incentives and special system purposely for the rice production (Emecen, 1993: 265). The rice producers who were engaged with the rice production were exempted from “avarez-i divani, tekâlif-i örfi, resm-i hane, resm-i ganem” (Kurt, 1990: 200). So the rice producers were exempted from the taxes significantly.

The rice production in the Ottoman Empire was carried out usually on land owned by the sultan or by the foundations which were given to high state officials such as sultan, princes and members of the dynasty. However for rice production empty lands were preferred which were not used for any other production. Water was carried to these lands with the so called “nehr-I çeltük” water channel for the rice production. These lands were either rented through muqataa or were operated with a corporation status. There was a rice custodian on the top of each muqataa. Under this custodian the “rice rayah” who were engaged with agriculture and the so called “rice rowers” were working. Rice production was a profession which was inherited from father to son and there was a “rice chief” on the top of them (Emecen, 1993: 265).
When the planting season was approaching the reis chief identified the land where rice would be cultivated and when the season arrived planting was done on the predetermined areas. The required seed was supplied by the state during the planting. During the harvest time of the product, the custodians took back the seed primarily by means of judge. From the remaining product the official known as “emin” took first the share of the state on behalf of the state. After the state share was taken, tithe tax was taken for “sipahi” known as the owner of that area from the remaining rice. The remaining part was shared among the rice workers (Kurt, 1990: 200).

The direct income to the treasury was realized with the conversion of the agricultural lands into muqataa system (Çakır, 2004: 557). Agricultural lands converted into muqataa were available in many part of Anatolia. Tire (as a district of Aydın) was included among the regions where rice was produced.

In the district of Tire various water resources were available for the rice production. In the past 17 lakes were active within the Küçük Menderes Plain which does not exist nowadays. From these lakes the Belevi, Akarca, Karagöl and Gümüş lakes are still active (www.tire.bel.tr).

Rice is not produced anymore in the district of Tire. However, in the first half of the 16th century (1528-9) the main source of livelihood was agriculture and the share of rice among the agricultural products was 10.5 %. This share was reduced to 3% during the second half of the same century (1575-76) (İslamoğlu and Faoqhi, 1979: 417-419). It could be understood from the archives that the rice production was continued in the district during the following years. This cultivated rice was produced on muqataa lands and the production showed continuity in certain periods.

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15 Today Tire’s main products are especially cotton, corn, wheat, barley, tobacco, sesame and all kinds of vegetables and fruits. All kind of fruits especially watermelon, cherry, walnut, peaches, figs, chestnuts and pomegranates are produced (www.izto.org.tr)
3. Samples of edited receipts\(^\text{16}\) (receipt- acceptance certificates) used for the rice muqataa in the district of Tire\(^\text{17}\) in the Ottoman Empire

In the Ottoman Empire, all commodities including income-expenditure, received-imputed were followed by being recorded. These records were sometimes in the form of accounting records while other times they had the quality of a written document concerning accounting. Quite a many of these documents are available in the Ottoman Archives of the Prime Ministry. The analysis of the sample receipts which were issued in the district of Tire during a twenty–year period and were related to the subject of the study were given below.

The first among the documents whose analysis was made in the study is the No. 6243 archive documents from the year of 1694, it consisted of 67 files with the fund code of İE. ML. This document is a sample receipt of the amount taken by an official called Arapzade Ali Çavuş from the rice river muqataa in Tire district in Aydın Brigadier. The document was a certificate and it was coded as “İE_ML_00067_06243_001” in the archive. The document which was a “hüve” in other words copy form, was recorded on the date of “fı gurre-i Receb sene 1105”.

The transcription and calculation of the ongoing part of the document is the following:

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“an tahvil an akçe-i mukataa-yı hasha-ı Çeltük enhar-ı Tire ve tevabiha der liva-ı
Aydın an vacib-i sene-i 1104 be-cihe-ti mevaceb-ı Ali bera-yı oda-yı küçük an silahdar-an-ı
yedekkeş vacib-i Lezez Sene 1104 an yed-i Arabzade Ali Çelebi an çavuş-an-ı Dergâh-ı Ali
2566

Be-hesab-ı esedi kuruş 16
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\(^{16}\) Receipt was formed from the Arabic kabz Word (Devellioğlu, 574;1998) and the receipt which was used in a meaning that something was taken was defined as a document showing that the Money or something was delivered

\(^{17}\) Tire is situated among the 38089 latitude and 27735 longitude coordinates (www.google.com.tr/maps/), the town which is about 75 km far from the province of Izmir. The population of the town reached 80381 habitants since 2013 (www.tuik.gov.tr)
It demonstrated the amount of transfers made by mean of Arapzade Ali Çelebi from the silver coins of the rice land muqataas located in the district of Tire which was connected to Aydın and around the surrounding rivers for the income of the reserve Silahdar Ağa Ali for July, August and September month of 1693. The total of the document is 2566 (silver coins)
when its list was made and it was calculated\(^{18}\) as 16 esedi piaster\(^{19}\), 1 money\(^{20}\) and 2 silver coins\(^{21}\). Here 16 esedi piaster \(*160\) silver coins made 2500 silver coins together with 2 and 3 silver coins it should have been 2565 but here an error was made in the record and it was undertaken as 2566 silver coins. 1925 silver coins of it was his own debt, this 1925 silver coins consisted of 16 esedi piaster \(*120\) silver coins and of 1 money and 2 cash coins. Again 1899 silver coins were deducted from the 1925 silver coins (as the mentioned coins) and the 26 silver coins transferred to the treasury emerged as a difference. This process was also demonstrated as total in the document. Finally, in the special nature 16 esedi piaster, 1 coin and 1 silver coin was mentioned as cash together with the difference. In the end of the document it was mentioned\(^{22}\) that the processes was recorded into a privately owned accounting item.

The second muqataa related document which was used in the study consisted of 73 files, case No.6770, İE.ML coded issued on 23 February 1705\(^{23}\). This document was a certificate of receipt made with a person called Mehmed in relation to the rice river muqataas in the district and environment of Tire. The document was arranged in the shape of two laminations with the codes of “İE_ML_00073_06770_001” and “İE_ML_00073_06770_002”. The first lamination of the document was in “hüve” in other words copy forms and it consisted of 198\(^{24}\) pages. The transcription of the information included in the lamination continued in the following form.


\(^{18}\) Esedi: is a Seljuk Money which had a lion image on it. 1 Esedi cent : 160 silver coins
\(^{19}\) 1 coin is 3 silver coins
\(^{20}\) Nakdiyye used in the sense of cash, here it was equivalent to silver coin.
\(^{21}\) Nakdiyye used in the sense of cash, here it was equivalent to silver coin.
\(^{22}\) However here, according to the calculations mentioned as nakdiyye coins it should be 2. It is possible that here a calculation error was made.
\(^{23}\) All the dates used in the study were recorded according to the Hijri calendar in the original documents.
\(^{24}\) Because these numbers are different in each documents they are likely to have document number feature.
“Kisve-i mutad-ı yoklama nefer 17 Beher nefer fi kuruş 10

Kuruş 170

Tenzil ba ferman 10

Kalan 160

Kalem-i mukataa-yı hasr-ı saniye kayd.

Nukilet”

In this part of the document a payment certificate was mentioned which was taken for the cost of the covers and polling dresses put on by the people who entered the Islam religion by Uzun Mehmed a resident of the Tire district between the period of 7 July 1704 and 9 December 1704. The total payment was 170 cents (17 persons each of them paid 10 cents). 10 cents discount was made and it was recorded as 160 cent land tax.

The second part of the same document had the document number 106 and its transcription was in the following form.

Fi gurre-i Za [Zilkade] sene 116

An yed-i İbrahim [bin] merhum Mustafa Ağa serhazin-i biruni

Kuruş 170

Kuruş 170-10= 160

Beher nefer Fi (160)

Yekün 25600
The main text of the document was issued on 25 February, 1705. After the description of this date, it was recorded that through Ibrahim Ağa the son of the treasurer deceased Mustafa Ağa 170 cents receivable were taken which was reduced with 10 cents so in this way 160 cents were taken per person. This case revealed the following result $160 \times 160 = 25600$ silver coins. In the second part of the document 19200 silver coins were transferred and 6400 silver coins were determined as the balance remained for the treasury. On the left and right side of the document various calculation were done about the emergence of this amount.  

Another document related to the subject consisted of 81 files, case No. 7608, İE.ML. coded document. The issue date of the document is 21 August, 1705. The document was a “hüve” in other words a copy and the sequence number of the document was 80. This document consisted of two laminations. The archive numbers given to the laminations are the followings İE_ML_00081_07608_001. The transcription of the document is given below:

"An tahvil-i Uzun Mehmed Ağa an akçe-i mukataa-yi çeltük-i enhar-i Tire ve tevabiha vacib-i sene 1117

nukilet

Kalem-i mukataa-yi hasr-i sani"

This lamination stated that silver akche (price ) of the muqataa belonging to the Tire district and to surrounded rivers which was sent by Uzun Mehmet Ağa related to the year of

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25 $(160 \times 12 = 19200), (25600 - 6400 = 19200), (19200 - 268 = 18932)$
1705 were transported. The accountant office which dealt with this document was the office of Hasr-I Sani.

The second lamination number of the document was “İE_ML_00081_07608_002” and it transcription was given as below;

“Fi gurre-i C. sene 1117

An yed-i Uzun Mehmed Ağa sakin-i Tire

zolata-i cedid be-hesab 150 kuruş-1,5= 148,5 kuruş

1782 (148,5*12)

Bera-yı fazla-yı minha 5940

148,5*12= (297,0+1485) 1782,0

1782,0*14= (7128,0+17820) 24948,0”

This document which was issued on 21 August 1705 stated that 5940 akche in the “zolata-yı cedid”26 account for which Uzun Mehmed Ağa a habitant of Tire district was responsible was the surplus of that year.

Another document related to the muqataa process of the Tire district was the archive document consisted of 97 files, had the case No. 9186 and the code İE.ML. The document sequence number of this document was 50, at the beginning it was stated that the document was “hüve” in other word copy. In addition, from the first lamination of the document which was coded as “İE_ML_00097_09186_001 it can be understood that it was obtained from the

26 A kind of a silver coin
responsibility field of the same individual mentioned in the previous document. The transcription of this document was the following:

“an tahvil-i mehmed ağa an akçe-i mukataa-yi hassa-yı çeltük enhar-ı Tire ve tevabiha an evvel-i mart sene 119 ba-muaccele

Nukilet

Kalem-i mukataa-yı hasır”

It was stated that the payment which had to be paid by the rice land muqataa situated with the Tire district and the surrounding rivers was transferred by Mehmed Ağa on 12 Mart 1708 and that this payment belonged again to the “Hasr-i Muqata” office.

The No. “İE_ML_00097_09186_002 part of the document’s second lamination was given below;

“fi 11 za sene 1120

An yed-i mehmed ağa

zolata-yı cedid

Be-hesab-ı kuruş 500-5 = 495

59400

bera-yı fazla-yı minh= 19800

59400*14 = (238600+59400,0) = 231,600

59400-731= 58569”
The document started with the date of issue January 22, 1709. The document just as the previous document was issued by Mehmet Ağa. After the calculations made in the document, it was determined that in that year the amount was increased by 19800 akche.

The last document related to the study was a document which was issued in Mart 1714 delivered by the receipt of Mehmed Ağa from the Bayındır, Balyanbolu (Beydağ) and Tire district muqataas. The file number of this document in the Archives of Prime Ministry was 85, case number was 7955 while its code was İE.ML. The first lamination of this document had the number “İE-ML-00085_07955_001” and the transcription of the document content was the following:

“an tahvil-i mehmed ağa emin-i mukata-yı tamga-yı boğacı ve tahmis-i kahve ve rüşum-ı duhan der kaza—yı tire ve bayındır ve birgi ve Balyanbolu ve tevabiha an evvel-i mart vacib-i sene 1126

nukilet

Sahh

Kalem-i mukataa-yı Kefe”

From the document it could be understood that the amount of muqataa was transferred and it was an accounting record belonging to the “Scale Muqataa Office”. The second lamination of the document was recorded under the No. “İE_ML_00085_07955_002 and its transcription was the following:

“fi 17 Şaban sene 1126"
An yed-i Ali Bey an canib-i Mehmed Ağa emin

zolata-yı cedid

Be-hesab-i kuruş

858,5-8,5=850

Akçe/zamm, para 6, nakdiyye 2

102020

Suret-dade

850*12= (1700+85020) 102020

102020*14= (408080+102020) =1428(280)

102020-1428=100592”

The document was issued on August 28, 1714 it was issued by Emin Mehmet Ağa by means of Ali Bey. In this document after the calculations were made, the information which was written as a copy was also recorded.

Conclusion

The taxes and similar payments were the leading among the main income sources of the Ottoman Empire. Despite of the periodical changes one of the agricultural incomes which were in the first low of the budget lines was the mutaqaa. Despite the fact that muqataa was used with various meanings, basically it is the name given to tax incomes taken from the agricultural lands owned by the state. The muqataa incomes can be ranked as the incomes collected from the salt deposits, customs, mines, tobacco and rice production of the state lands.
The rice production was an agricultural activity whose production was made within the Turkish state. This tradition coming from the past was also made in the Ottoman Empire. Within the borders of the state it is possible to come across the production in many parts of Anatolia. In Anatolia, one of the centers of rice production was the Tire district which was connected to Aydın until the years of Republic. Due to the fact that Tire district was a settlement established in the Küçük Menderes basin, it was engaged with rice production which needed water intensively. In Tires district not only the rivers but also the small or large seventeen lakes provided a convenient environment for rice production.

The Ottoman Empire was not only interested in the production and in the taxes of the agricultural products. At the same time it allowed the recording of any kind of transactions. Some of the documents included within the context of the essentially accountant documents found in the Ottoman Archives of the Prime Ministry were analysed and some results were achieved as the conclusion of this analysis.

5 pieces of muqataa documents prepared in the Ottoman Empire were found and these could enter the scope of the study. The common feature of these documents was that the delivery of a specific product was made within the muqataa system. At the same time it was demonstrated in various parts of the documents how the delivered product was calculated. During the examination of the documents it was concluded that these documents had also the nature of a receipt. For example the documents having the nature of a receipt had also a number, when information was required about the nature of the good the documents contained information about the unit prices and about the overall total. In addition, it can be understood from the copy writings on the head of the document that the same document was prepared in more than one piece. The documents were issued respectively in 1694, 1704, 1705, 1708 and in 1714. The muqataa to which four of the documents were connected was the “Haslar mukataası Office, while one of the documents belonged to the Scale Muqataa Office. As far as
it could be detected from the documents, the income of the smallest muqataa was 2566 akche, while the income obtained from the biggest was 100.592 akche. It can be advised to the other researchers that the future studies should include not only the Tire district but a wider area or even researches can be carried out on the comparison of different areas’ muqataa accountings.
References

BAO, File No: 56, Order No: 5316, Fon Code: İE.ML.
BAO, File No: 73, Order No: 6770, Fon Code: İE.ML.
BAO, File No: 81, Order No: 7608, Fon Code: İE.ML.
BAO, File No: 97, Order No: 9186, Fon Code: İE.ML.
BAO, File No: 85, Order No: 7955, Fon Code: İE.ML.

Başarır Özlem (2014), “Production and Trade specific to the muqataas of the Ottoman provincials during the 18th century with the example of Diyarbakır Province”, Journal of History Review XXIX/1, pp.127-166.


İstek Gülşen, (2014), Ottoman Finance Organizations, Norderstend, Germany: Grin Verlag GmbH.

İzmir Kalkınma Ajansı, Tire, www.izto.org.tr/portals/0/29_t%C4%B0re.pdf (06.01.2015).

Kurt, Yılmaz (1990), A research on the Social and Economic History of Adana according to the Mufassal Tahrir Records issued in 1572” Belleten, S.209, ss. 179-211.


Tire Municipality, Tire During the Period of Aydınogulları, www.tire.bel.tr/ (05.01.2015)


Yılmaz Kurt, (1990), A research on the Social-Economic History of Adana according to the Mufassal Tahrir record issued in 1572.
The Relationship between Growth and Carbon Emission in the Developing Countries

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ABSTRACT

Global warming was become the most important issue for countries around the world. Carbon emission, what was seen as the leading cause of the global warming, was also become a much debated research subject. In this study, the relationship between growth and carbon emission was investigated for 22 developing countries at the period of 1990-2012. These above-mentioned 22 countries’ Gross Domestic Product (GDP) and carbon emission datas are derived from World Bank’s database. Panel co-integration tests were employed to examine the relationship between GDP and carbon emission and as a result it was found evidences for existance of long run relationship between these two variables.

Keywords: Growth, Carbon Emission, Panel Co-integration, Developing Countries.

1. Introduction

Growth especially in developing countries is usually associated with industrialisation. Thus these countries struggle for being industrialised to achieve sustainable economic growth. Along with the low level of technology and insufficient legal regulations these efforts of industrialisation effects the natural environment dramatically and most of the time irreversibly. As well known most current effect is global warming and carbon emission which is generally seen as main reason of global warming.
Carbon emission is increasing not only because of the increase of fossil-fuel-based energy consumption but also because of the increase in number of fossil-fuel-based vehicles as a result of growing transportation sector as an example of growing economic activities. In spite of having larger transportation sector and energy consumption, developed countries, owing to their high-tech industrial structure and legal regulations which aim to protect the environment, have less carbon emission values compared to the developing countries. There are several studies in the literature which try to explain this situation with environmental Kuznets curve.

Apart from the ongoing debates about the reasons of the climate change and global warming, the main question should be who is effected by this climate change. The answer should be the whole world without any doubt. Lately the international community and institutions are more likely to take concrete steps about the matter. Paris Agreement which signed by 195 countries in December 2015 might be seen as an example of those steps. According to this agreement, signatory countries agreed to stop global warming under 2 centigrade degree by reducing their carbon emission values. Such examples are significant to emphasize the importance of the matter.

In this study, the aim is to investigate the relationship between carbon emission (CO$_2$) and economic growth (GDP) with an econometric approach. For that purpose, Westerlund co-integration and Dumitrescu & Hurlin (2012) panel causality tests were applied to carbon emission and economic growth data which were derived from World Bank database for 22 developing countries in the period of 1990-2012. While in the second chapter of the study the literature review about the topic was introduced, the dataset and econometric methodology was introduced in the third chapter. In the fourth chapter the findings were delivered. Finally in the last chapter conclusion and suggestions were shared.
2. Literature Review

The relationship between carbon emission and economic growth was investigated with various methods in the literature. In this chapter some of those studies were introduced.

Soytas et al. (2007), investigated the relationship between energy consumption, carbon emission and economic growth in their study for the United States of America (USA). They included the labor and gross fixed capital formation to the model as control variables and applied Granger causality test in order to investigate the relationship. They found that income does not Granger cause carbon emissions in the long run, but energy use does.

In 2008 Huang et al. took 84 countries and distinguished them between four groups according to their income level. They investigated the relationship energy consumption and Gross National Product (GNP) with dynamic panel approach. Their results show that for low income group, there is no causality between energy consumption and GNP while there is a causal relationship from energy consumption to GNP positively in the both upper and lower middle income group. Finally in the high income group they suggest that economic growth leads energy consumption negatively.

In their study Soyta and Sari (2009), investigated the nexus between energy consumption, carbon emission and economic growth for Turkey, as an European Union candidate country, with the use of Granger causality test. They included the gross fixed capital formation and labor variables into the model for controlling. According to their results carbon emission is Granger cause energy consumption, but not vice versa. At the same time they found that there is no evidence of a causal link between income and carbon emission which means that Turkey doesn’t have to forgo economic growth to reduce carbon emission.

Lean and Smyth (2010), investigated the relationship between carbon dioxide emissions, electricity consumption and economic growth within a panel vector error correction
model for five Association of South East Asian Nations (ASEAN) countries over the period 1980 to 2006. According to their long-run estimates, there is a statistically significant positive association between electricity consumption and emissions and a non-linear relationship between emissions and real output, consistent with the Environmental Kuznets Curve. The results of Granger causality test shows that in the long-run there is unidirectional Granger causality running from electricity consumption and carbon emissions to economic growth.

Arouri et al. (2012), applied bootstrap panel unit root tests and cointegration techniques and investigated the relationship between carbon emissions, energy consumption, and real GDP for 12 Middle East and North African Countries (MENA) over the period 1981–2005. Their results show that in the long-run, energy consumption has a positive significant effect on carbon emissions and real GDP exhibits a quadratic relationship with carbon emissions for the region as a whole.

In 2012 Farhani and Rejeb took 15 MENA countries and investigated the nexus between energy consumption, carbon emission and economic growth with panel unit root, panel co-integration and panel causality tests. The findings of their study reveal that there is no causal link between economic growth and energy consumption; and between carbon emissions and energy consumption in the short run. However they found a unidirectional causality running from economic growth and carbon emissions to energy consumption in the long run.

In their study Chen and Huang (2013), investigated the relationship between carbon dioxide emission per capita and economic growth in Next Eleven countries (N-11) over the period 1981-2009. Their panel co-integration and panel causality test results show that there are positive long-run relationship among carbon dioxide emissions, electric power consumption, energy use and economic growth. At the same time they found that there is bi-directional causality between carbon dioxide emission and electric power consumption.
Bozkurt and Akan (2014), investigated the relationship between economic growth, carbon emission and energy consumption in Turkey by using co-integration test. Their results reveal that carbon emission effects economic growth negatively while energy consumption effects economic growth positively.

With dynamic panel data methods, the relationship between carbon dioxide emissions, economic growth, electricity consumption and financial development in the Gulf Cooperation Council (GCC) countries is investigated by Salahuddin et al. (2015). They observed no significant short-run relationship, but in the long run they found that electricity consumption and economic growth have a positive relationship with carbon dioxide emissions. They also found a negative and significant relationship between carbon dioxide emissions and financial development. On the other hand their Granger causality test shows that there is a bidirectional causal link between economic growth and carbon dioxide emissions and a unidirectional causal link running from electricity consumption to carbon dioxide emissions.

Generally speaking, it seems that the relationship between carbon emission and economic growth depends on the regions or countries, period of time even the tests that applied for the model.

3. Data Set and Econometric Method

In this study, the relationship between carbon emission and economic growth was investigated for 22 developing countries. For this purpose, developing countries’ carbon emission and economic growth data were derived from World Bank data base over the period 1990-2012. Panel cross section dependence, homogeneity, panel unit root and panel co-integration tests were applied to model to analyze the aforementioned relationship.

In order to reach healthy results, it is appropriate to start empirical studies with tests that take the relationship in between countries into account, in such a globalised world. Thus we
started with the cross section dependence test which defined as the effect of a shock that happened at any point of time in any given country to another country (Nazhoğlu and Kayhan, 2011: 6617-6618). Thus we applied Pesaran’s Lagrange Multiplier tests whereof the null hypothesis suggests that there is no cross section dependence.

The homogeneity of the model’s slope coefficients is important since unit root, co-integration and causality tests were applied and the characteristics of the countries were taken into account in this study. Hence Delta Tilde and Delta Tilde adj tests which are developed by Pesaran and Yamagata (2008) were run to the model.

Since panel data analyses involve both cross section data and time series data, before running the unit root tests in panel data models, it is crucial to investigate if cross section dependence and/or heterogeneity of slope coefficients problems are in question or not. Because panel unit root test should be chosen by considering if either or both of these problems in question for the model or not. Pesaran’s CADF unit root test which takes both cross section dependence and heterogeneity into account, is an example for aforementioned tests. CADF test also allows to have individual unit root results of each cross sections as well as a total unit root result of panel data. Obtained results from CADF test shall be compared to the critical values which developed by Pesaran (2007) in order to decide if there is unit root in the model.

In this study the long run relationship between variables were investigated with Westerlund co-integration test which can be applied under assumption of heterogeneity and cross section dependence with non-stationary variables in their level. The Westerlund test consists of four statistical values which are Pτ, Pα, Gτ and Gα. Statistical values of Pτ and Pα are used under assumption of homogeneity and with the null hypothesis that suggests there is no co-integration in whole panel data. On the other hand Gτ and Gα statistical values are used under assumption of heterogeneity and with the null hypothesis that suggests there is no co-
integration for every individuals in the panel data. Since Westerlund test is based on the error correction model, it is hard to talk about cointegrated relationship in models with no standard deviation (Aytun and Akın, 2014: 69-94).

To test the causality between carbon emission and economic growth, Dumitrescu and Hurlin causality test was applied to model. This causality test takes cross section dependence and heterogeneity into account and tests the null hypothesis of $\beta_i$ equals to zero (1) for all groups in panel (Dumitrescu and Hurlin, 2012: 1450-1453).

$$H_0 = \beta_i = 0, \quad (1)$$

Standardized $Z_{N,T}^{HNC}$ which is the result of the average of every unit’s Wald statistics (2,3), was checked with simulation table critical levels that developed by Dumitrescu and Hurlin for 5 percent level of significance (Dumitrescu and Hurlin, 2012: 1457).

$$W_{N,T}^{HNC} = \frac{1}{N} \sum_{i=1}^{N} W_{i,T}$$

$$Z_{N,T}^{HNC} = \sqrt{\frac{N}{2K}} \left( W_{N,T}^{HNC} - K \right) \rightarrow N (0,1) \quad (3)$$

4. Findings

The empirical findings of this study were divided into three sections. In the first section cross section dependence and homogeneity tests results were presented. In the second section unit root tests and in the third section co-integration and causality tests results were delivered.

Test results of cross section dependence were shown in Table 1. According to CD_{LM} test statistics the null hypothesis which suggest that there is no cross section dependence, was
rejected. In other words in the model where foreign direct investments and exports were included as control variables, there is evidences for existence of cross section dependence at one percent significance level.

Table 1: Cross Section Dependence Test Results

<table>
<thead>
<tr>
<th>Cross Section Dependence</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>statistics</td>
</tr>
<tr>
<td>CDLM1</td>
<td>399.824</td>
</tr>
<tr>
<td>CDLM1</td>
<td>7.854</td>
</tr>
<tr>
<td>CDLM1</td>
<td>5.711</td>
</tr>
<tr>
<td>LMadj</td>
<td>16.558</td>
</tr>
</tbody>
</table>

The homogeneity of slope coefficients were tested with Delta tilde test. The results of Delta tilde which tests “H₀ = slope coefficients are homogeneous” null hypothesis, suggests rejection of null at 5 percent significance level. These results can be seen in Table 2.

Table 2: Homogeneity Test Results

<table>
<thead>
<tr>
<th>Homogeneity Test</th>
<th>statistics</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delta tilde</td>
<td>1.742</td>
<td>0.041</td>
</tr>
<tr>
<td>Delta tildeadj</td>
<td>1.862</td>
<td>0.031</td>
</tr>
</tbody>
</table>

To sum up, as seen from the test results in Table 1 and 2, there is cross section dependence and heterogeneity of slope coefficients in the model. This is important since unit
root tests should be chosen with respect to these test results. Hence CADF unit root test which takes cross section dependence and homogeneity into account, was applied to the model. CADF test results are shown in Table 3.

Table 3: CADF Test Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Level</th>
<th>First Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intercept</td>
<td>Intercept/Trend</td>
</tr>
<tr>
<td>CO₂</td>
<td>-1,68</td>
<td>-2,36</td>
</tr>
<tr>
<td>GDP</td>
<td>-2,57</td>
<td>-2,42</td>
</tr>
</tbody>
</table>

Note: * shows the significance at 5 percent of significance level. Obtained test statistics checked with Paseran’s (2008) critical values.

As seen in the Table 3, tests results suggest that there is unit root for both series while they are at level. However at first difference, series are seem to be stationary. Then Westerlund co-integration test that takes cross section dependence and heterogeneity of slope coefficients into account, was applied to these I(1) series to examine whether there is a long run relationship between them. Aforementioned test results can be seen in the Table 4. According to these result it seems that there is a long run relationship between carbon emission and economic growth.

Table 4: Westerlund Test Results

<table>
<thead>
<tr>
<th>Statistics</th>
<th>values</th>
<th>z-value</th>
<th>p-value</th>
<th>Bootstrap p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gₜ</td>
<td>-2.626</td>
<td>-1.500</td>
<td>0.067</td>
<td>0.025</td>
</tr>
<tr>
<td>Gₘ</td>
<td>-9.427</td>
<td>-1.783</td>
<td>0.963</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Finally the Dumitrescu and Hurlin panel causality test results which can be seen in the Table 5, suggest that there is a unidirectional causality from carbon emission to economic growth.

Table 5. Dumitrescu and Hurlin Test Results

<table>
<thead>
<tr>
<th>Z statistics</th>
<th>( K=2 )</th>
<th>( K=3 )</th>
<th>Causality</th>
</tr>
</thead>
<tbody>
<tr>
<td>( p\text{-value} )</td>
<td>(0.3015)</td>
<td>(0.2838)</td>
<td>No Causality</td>
</tr>
<tr>
<td>GDP ( \rightarrow ) CO(_2)</td>
<td>1.033</td>
<td>1.0718</td>
<td></td>
</tr>
<tr>
<td>CO(_2) ( \rightarrow ) GDP</td>
<td>2.338</td>
<td>0.3768</td>
<td>Unidirectional Causality</td>
</tr>
<tr>
<td>GDP ( \rightarrow ) CO(_2)</td>
<td>(0.0194)*</td>
<td>(0.7063)</td>
<td></td>
</tr>
</tbody>
</table>

Note: \( p\)-values shown in parenthesis, * shows the significance at 5 percent of significance level. Obtained test statistics checked with Dumitrescu and Hurlin’s critical values.

5. Conclusion

In this study, the aim was to investigate the relationship between carbon emission (CO\(_2\)) and economic growth (GDP) with an econometric approach. For that purpose, Westerlund co-integration and Dumitrescu and Hurlin (2012) panel causality tests were applied to carbon
emission and economic growth data which were derived from World Bank database for 22 developing countries over the period 1990-2012.

Cross section dependence and heterogeneity of slope coefficients were found in the model with the help of CD_{LM} and Delta tilde tests. Then CADF unit root test which takes cross section dependence and homogeneity into account, was applied to the model. According to the test results the series were stationary at first difference.

The long run relationship was investigated by Westerlund co-integration test and the results suggest that there is a long run relationship between carbon emission and economic growth. Then the causal relationship between these two series are investigated by Dumitrescu and Hurlin panel causality tests and the results suggest that there is a unidirectional causality from carbon emission to economic growth.

To sum up, in this study a significant and strong relationship between carbon emission and economic growth was shaped for developing countries. In this context it is important to evaluate environmental effects of the economic growth to reach a sustainable welfare.
References


Nazlıoğlu, S., Kayhan S. (2011) nuclear energy consumption and economic growth in OECD
countries: Cross-sectionally dependent heterogeneous panel causality analysis, Energy
Policy, 39(10), 6615-6621.

Pesaran, M. H. (2007), A simple panal unit root test in the presence of cross-section

Pesaran, M.H., Yamagata, T. (2008), testing slope homogeneity in large panels, *Journal of
Econometrics*, 142(1), 50-93.


Soytas U., Sari R., 2009. Energy consumption, economic growth, and carbon emissions:

Salahuddin M., Gow J., Ozturk I,. 2015. Is the long-run relationship between economic
growth, electricity consumption, carbon dioxide emissions and financial development
in Gulf Cooperation Council Countries robust?. Renewable and Sustainable Energy
Towards a Participative Democratic Organization Model in Turkey: Discussing Neighborhood as a New Political Actor

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1. Introduction

The pace of change in the last few decades has been very significant and fundamental and has caused many different ideas to flourish about the government and its organization. This period was remarked by various new ideas on almost everything that shaped our society. One popular of these hot topics was certainly localization. Localization has different motivations and outcomes in different disciplines and motivations for it which "range from communitarian intents to liberal and libertarian agendas and are riddled with tensions between progressive and regressive potentials." (Davoudi and Madanipour, 2015: 1) In this regard, there are various different reasons and goals for those who advocate or defend localism, which will not be our discussion. Whatever the reasons and outcomes of this phenomenon might be, whether we support or not, localism is an undeniable phenomenon altering our social structures.

Localization can be defined by many of its attributes, but to be accurate, politically it is characterized by decentralization, grassroots forms of power, devolution of state power and responsibilities to local governments and its empowerment of its civil society, (Davoudi and Madanipour, 2015: 1-2) and includes local and extra-local agencies into participation of government. (Davoudi and Madanipour, 2015:20) This participation can be defined as rather a
necessity in the era of globalization, and with this process emerging, the process of localization as a whole, has also changed public administration and its organization and created a need for localization in public organizations in this same period. (Aydın, 2012: 152) It is often claimed that this new period inherits new dimensions which necessitates a new model which decentralizes authority. (Schmid, 2001: 17) According to Schmid, these dimensions are adaptation to rapidly changing, turbulent, uncertain, heterogeneous environment, delegation of decision-making processes to local(operative) field units, the need for a faster decision-making model, the fostering of local mechanisms of coordination and channels of communication, heterogeneity of products and services which is effected by local participation and culture and what Schmid calls "the Power Revolution" which presents us "a reversal of power relations in the organizational pyramid", which power concentrates towards the bottom. (Schmid, 2001: 17-21)

With accordance with the needs and capabilities of the contemporary society, therefore, major changes in the organizational structure are requirements for the world today is much faster and efficient than ever before. It is the local governments which have the capability to fulfill local needs very quickly and efficiently in this new period, as institutions that are located much closer to local public. (Arslan, 2005: 204) In this sense, old bureaucratic mechanisms rest inadequate to solve many problems today, and not only shall states be responsible from the top to bottom towards citizens, but also citizens become more obliged to contribute to the state. (Schmid, 2001: 27) It is evident that the production of public services by organizational units which are closest to the public is useful both for rightful evaluation of actual needs and also for efficient use of public resources. (Göküş et.al, 2013: 32) And more importantly, public demands will be better addressed and served by local governance processes. (Sezer, 2008: 164)

Starting with the new millennia, we have witnessed gigantic events in many countries all over the world, of which some is closely related to the tensions between the central and the
local. Not only mentioning the everyday political conflicts and occasional economic turmoil
but we can see that some were very highly influenced by the failure of old central mechanisms
and the disagreements between the central governments and local public. Certainly, it is
possible to claim that with all the advancements in people's ability to communicate, organize
and cooperate there are many occasions that central governments remain hefty and slow and in
most of these the conflict between the interests of local public and the government is evident.
As a general rule, designated local officers feel more responsible and loyal towards the central
government than the local population. (Çevik, 2004: 68) As these wounds were not healed by
a new and participative mechanism, they led to new symptoms, and over the course of only a
decade, many large events have trembled the existing political structure in many countries. If
evaluated accurately, numerous critical events including Paris, London and Boston riots, Gezi
Park uprising in İstanbul, environmentalist protests in Karadeniz and Aegean regions of Turkey
and many others are closely bound with this dichotomy and discontent with central
government's acts and decisions. These events altogether voiced demands for an enhanced local
participation, self-governance and a structural necessity for a healthy public participation in the
decision-making and implementation mechanisms.

It is obvious that a new organizational model in public administration and its local units
is sought by many, but a central question to the question remains: What will be the core of this
new model? If the traditional central government's power and responsibilities are to be diffused
towards the bottom, then which organizational unit will bear the burden? Academics and
scholars have quite often asked this question in the last few decades, and neighborhood
organizations have therefore become an important area of interest for many. In this study, we
will address the significance of neighborhoods for building a new model of administration,
advantages and opportunities of neighborhood administration in public services. In order to do
this, we will first start with the general literature on the debate than narrow our focus to the case
of Turkey, presenting a historical background of its experiences and suggesting its applicability for the future.

2. The Neighborhood and It's Rise

For many years, some scholars studied and emphasized the importance of neighborhoods and different neighborhood institutions shaping and strengthening social identity, local participation and consent, and indirectly, national integrity. As Dilger states, there is a wide belief on the role of participatory mechanisms and neighborhood institutions:

There is a strong and prevailing belief embedded in our political culture that direct, participatory democracy is the best government form because in decision making process is based clearly and directly on the consent of the governed. As a result, Americans have always valued citizen participation in public affairs. (Dilger, 1991: 132)

The interest on the prominence and role of neighborhood as a core unit of social organization is not new and Americans have valid reasons to appreciate them. Kotler was one of those who called for a new model based upon the great roots of neighborhood institutions. According to him, there is an impregnable division between the local and the central governments, for what he calls "the central government can't rule the neighborhood well because of what it despises - namely, local liberty." (Kotler, 1969: xiii) Kotler sees the neighborhood having great potential for its liberating and unifying characteristics and as a seed for self-ruling, political unit (Kotler, 1969: 8-9) The neighborhood according to him, is the very foundations of the United States, as he exemplifies in details, for some neighborhoods being older and more effective than their cities in the formation of American social and political institutions. (Kotler, 1969: 15-26) Kotler's understanding of the neighborhood is that neighborhoods are bitter opponents to central authority and shall by all means defend themselves (1969: 33) and should be entitled all kinds of autonomy, economic (1969: 37), political (1969: 39), military and education (1969: 40).
With the period of globalization the world has gone through ever since written, Kotler's averse ideas of a cooperation between the central and local authorities can now be more suitable than before. His contemporary fellow Woods was more accurate addressing neighborhood's role in creating and recreating national identity (1970: 126-133) and reconstructing social institutions, even the family as it is even more ancient and constitute the foundations of all our sociality. (1970: 147) Woods have the utmost belief in the neighborhood as the core of all social problems and revitalizing the society as it is the key element of all human integration (1970: 149). For this he understands the neighborhood not as a threat but as a keystone to building a stronger integrity amongst people, which is why he defines the neighborhood as progressing, constructing, educating and training unit for the society. (1970: 88-105, 172-181) Our approach offers a similar belief in the potentiality of neighborhood and its vital and positive effects which may be realized as bounding locality and the central government and empowering both sides simultaneously, revealing both the efficiency of personal participation and power and mutually reinforcing both parties. (Giles and Dantico, 1982: 149)

With the increase in political crisis in the last decade, once again, the neighborhood and its role has once again become very popular in academic debates. This period corresponds neither to a renewal of the existing organization nor rejuvenating the wounds of the old organizational model - just similar to our discussion, necessitating a holistic reformulation of the social and political organization which is caused by the monumental changes of existing conditions and experiences. As Bogason has rightly addressed, modern and postmodern conditions of our world do not erase each other, but co-exist. (Bogason, 2000: 21) The distinction between the central and local government lies between modern and postmodern, alas industrial and post-industrial, which the former is characterized by "customary allegiances, predictability, bureaucracy, discipline, authority and mechanical operation" where the latter by "difference, dealignment and realignment, unpredictability, freedom, delegitimization and
distrust, power and spontaneity." (Bogason, 2000: 19) Quite commonly, all studies on the state and democracy in this period emphasize multiplicity, participation and the voice of the local to be heard over the central (Yıldırım, 2003)

The questioning and criticism in the earlier decades owed much to the decline in legitimacy of the state structure, which can be attributed to economic pressures and crises. (Schmid, 2001: 28) The efforts to adjoin neighborhood economies to overcome the economic crises have been of great importance to overcome the crisis of the welfare state. (Segal, 1979: 5) Similarly, after the economic stagnation, crises and instability in late 2000s, today, as we have mentioned, neighborhood has become an important topic in recent debates. Additionally, it is widely accepted that the success of a reform in social issues is closely related to the acceptance and adaptation of its target group, as well as the institutional culture and background of the country. In the next section, in this sense, we would like to discuss the neighborhood and self-governance experiences in Turkey's historical background. An important point to make here is that the changes proposed do not mean a return to pre-modern society and should not be considered so, they resemble a completely new paradigm (Bogason, 2000: 39) For this reason, in the next section of our study, by revisiting a historical background of neighborhoods, we do not intend to offer a return to them, but only reconsider them as instances for reformulating the future organizations. This is what Nelson frames as "creating private governments" by transforming the older neighborhood systems, where municipal zoning can no longer help or is desired in the new period. (Nelson, 2005: 265-267)

3. Neighborhood, Turkey and its historical veins

One thing certain is that the main goal of our interest in neighborhood is its participatory characteristics. This also means the extensiveness of political participation, and certainly its acceptance by different segments of the community. (Thomson, 2009: 50) In Turkey's historical
framework, neighborhood’s extensive and vital role is rooted very deep and even in contrasting political fronts, it is the same. After the foundation of the republic, the establishment of a unitary central government became a salient obstacle for the neighborhood in Turkey. The transition to republic reduced the social role and importance of neighborhood administration yet still protected certain institutional bases for it. Neighborhood administration and the reeve is a traditional institution which is transferred to the republic deriving from traditional Turkish-Ottoman social formation. (Palabıyık and Atak, 2002: 2)

An interesting point is that neighborhood autonomy is greeted with a positive fashion in both right-wing and left-wing politics in Turkey, mostly driven by different expectations yet producing similar results producing their ideological identities. This is closely related to the historical backgrounds of local governance experiences in neighborhoods which deeply effect Turkey's political atmosphere. Neighborhood's crucial role in different ideological positions in Turkey is rooted deep in traditional and historical attributes (Palabıyık and Atak, 2002: 1) and both in the experiences of Islamic and leftist movements. The traditional roots of neighborhood governance and its influence can be tracked into eras of classical Islam in the early periods and the Ottoman Empire. For this reason, we would like to shortly discuss these separately:

3.1. Neighborhoods in Classical Islam and the Ottoman Period

The main source that we can sketch out a similarity between modern neighborhoods in the early Islam period is the Medina Constitution, or Medina City Treaty, which is acknowledged to be drafted by Muhammad (Cook, 1983: 65) and is not a constitution in the modern sense, but a unilateral manifest. (Lewis, 2002: 42) According to this manifest, which is often claimed to be the foundation of the first Islamic state by scholars (Khan, 2006), different Muslim and Jewish tribes are treated equally in many instances. In a theocratic medieval state, neighborhoods were not as we would see them today, mostly different districts of the city was
divided into different religious groups or clans. In Medina constitution's article 38, it is openly stated "Every clan is totally responsible for its own district." (Kahveci, 1995) and this might be a very ancient source to see a neighborhood governance idea in the Islamic history.

In the Ottoman period, which is highly influential on Turkey's current administrative context, neighborhood was again a critical administrative unit. Again unlike our current day, neighborhoods were formed not on social class or status, but on religious differences. (Ortaylı, 1979: 196) As Behar rightly mentions, "the traditional mahalles of Istanbul were generally very mixed in terms of wealth, social class and status. Residential patterns usually ran along lines of ethnicity and religious." (Behar, Until the late Ottoman period in which neighborhood reeves became existent, imams were responsible for the administration of Muslim neighborhoods (Eryılmaz, 1992: 215) and priests and bishops were responsible for the administration of Christian neighborhoods. (Ortaylı, 2008: 306) These religious men were replaced with a muhtar(neighborhood reeve) in 1829 first time in Istanbul's three neighborhoods. (Çadırçi, 1970: 409) The mahalle in the Ottoman period had the utmost importance in creating local identity for both its positive and also negative effects, for both the perception of urban space by the populace as well as situating local identities. (Behar, 2003: 5) The mahalle as a pre-capitalist urban model of the Islamic state, did not only bear social integration, but also carried an absoluteness of ethnic and religious doctrine, and to a certain level "absence of interpenetration between the ethnic and religious constituents". (Behar, 2003: 7) For this reason, it would be beneficial to not fall in mere admiration for the historical model, but to reformulate it for our modern society.

Nevertheless, apart from its social framework and integration, the mahalle had always been a basic urban administrative unit and a social and economic entity. (Behar, 2003: 6) In both periods, under the management of the imam or the neighborhood reeve, the mahalle administration had wide responsibilities and duties. Ankara states that in the Ottoman period
mahalle was a self-sufficient economic entity, providing many daily life services for the inhabitants. (Arıkboğa, 1999: 106) The mahalle administration financed its own school (mahalle mektebi), as well as its public café in some occasions. (Eryılmaz, 1992: 215) "The mahalles, notwithstanding some remarkable exceptions, were of vital importance only to their denizens and their names might not be known to inhabitants of different districts." (Behar, 2003: 5)

After the implementation of neighborhood reeves, they had more power than the imams did in the earlier periods. (Palabıyık and Atak, 2002: 336) Reeves were elected by the neighborhood denizens as two for each mahalle, as the evvel (first) and the sani (second) in hierarchy. The reeve was responsible for auditing the imam and over the course of time, also took many of imam's duties, hence becoming the stronger figure in mahalle in this process. (Eryılmaz, 2012: 236) Two important amendments to organize local governments in years 1864 and 1876 have passed and with these, the election and clear definitions of reeve and council of elders in neighborhoods were sketched in their details. (Koçberber, 2005: 104) After the abolition of all regulations for local governments in 1913, occurred a major legal gap and old regulations were still in application until 1930, where a law for regulating municipalities included regulations for neighborhood, yet was abolished only 3 years later in 1933. (Koçberber, 2005: 104) In effect, the legal crisis of neighborhoods ended in 1944, where reeves and council of elders was legal once again (Palabıyık and Atak, 2002: 337) This law with small amendments is still effect today. (Eryılmaz, 2012: 237)

3.2. Neighborhoods in Turkey's Leftist Movements

One very striking feature of Turkey's political framework on neighborhood, as we have mentioned earlier, is that there is a general consensus on the importance of a strong neighborhood administration. Turkey's leftist parties, similarly, take this notion very seriously.
Neighborhood committees were offered in CHP (Republican People's Party) program before the military coup in 1980. (Demirbilek, 2011: 120, CHP, 1976: 254-255) The peak of Turkey's leftist experience in local governments is arguably Fatsa. A town in Karadeniz region in Turkey, had a short period of socialist self-government. After the election, firstly the new administration organizes and forms neighborhood committees, where eleven different neighborhoods at first instance is formed. Every committee is responsible for locating and evaluating problems concerning their neighborhood and report it to the municipality, run the municipal services that is decided in neighborhood meetings for the public, control the prices of neighborhood markets and provide basic needs for every neighborhood. (Bayramoğlu, 2015: 163) In addition to these, these committees were appointed to distribute some needs like food and olive oil. (Uyan, 1989: 97)

Members of the neighborhood committee were elected by neighborhood's inhabitants and everyone including oppositional party supporters could enter or vote in the elections, leading to the inclusion of right wing members being elected for the committees. (Demirbilek, 2011:120)

This short experience ended with the military coup, yet in terms of neighborhood committees the result carried out a success in many ways. With the effective work of neighborhood committees the vast majority of the town was very rapidly resolved. Not only that they located the problems from the very bottom and found solutions to them, neighborhood committees also was a bridge between the municipality and the public. Fatsa's short journey of 9 months have thought many lessons about the possibilities of bottom level participation and its benefits on the development of neighborhood. (Yıldırım, 2008: 285-286)

It is evident that still today, the vast majority of citizens in Turkey have a very high level of trust in neighborhood governments, participating in their neighborhood managements and
have an ideological affinity to it. In the last section, it will be beneficial in the light of all we have discussed, the current situation of *mahalle* administrations.

**4. Suggestions and Final Assessments on Turkey’s *mahalle* today**

The legal framework for mahalle administrations are in its general terms not much different than the legal act 4541 passed in 1944. With a new regulation in 2005, law number 5393, we have witnessed an increase in importance of *mahalle*, at least in its acknowledgement. In the earlier law number 4541, neighborhood reeve and council of elders, elected by the neighborhood had some monotonous duties such as registry of population changes, military documents etc. Neighborhood was more likely to be an office for central government for routine and unimportant works.

In law 5393, we can see an ambiguous effort to make neighborhood more effective in non-routine, participatory and spontaneous problems of the neighborhood. However, the law is ambiguous as it remains vague to frame how these mechanisms will be structured. For instance with the new law, municipalities can now legally finance neighborhoods for special needs of neighborhoods from its own budget and assistance. This was practically the case earlier as well, yet with the law it is now legally stuctured. (Göküş et. al., 2013: 36) The municipality is also requested to consider neighborhood denizens common needs when taking an action and must keep in mind the common good of its population.

As these can be considered as positive, they are very inadequate changes. There is no legal obligation or certain regulation as to how and how much should municipalities should aid neighborhood administrations. For this reason, the aid and support of municipalities have totally been left to themselves and become arbitrary. (Göküş et. al., 2013: 43)

It is also another question to ask how insufficient would be to ask municipalities to support the neighborhoods in the new period, for both its practical impossibilities but also for
its democratic inadequacy and inaccuracy. Even today, the vast majority of citizens remain unhappy and discontent with the services and power of neighborhood administration. (Göküş et.al., 2013: 41-43). Especially after the law 6360, which includes an article for abolition of villages in borders of metropolitan municipalities and become neighborhoods for the metropolitan municipalities, the number and extent of neighborhoods increased, making it even more important today to replace the neighborhood's administration with a new one.

Even today, neighborhood administration fails to provide any important solutions to daily needs and issues. Firstly, the neighborhood is not considered as an administrative unit, being no legal entity. For this reason, neighborhood administration can have no budget and legal responsibility. As we have discussed from the beginning, realizing this should be the primary goal in the future.

Secondly, neighborhood's legal responsibilities and duties are very narrow. Most of daily needs, such as infrastructure building and repairing is still done by the central municipalities which slows the speed for public services. In addition, neighborhoods have no mechanisms to resist decisions concerning their own neighborhood's landscape. The reeve is today still seen as a public servant for monotonous duties, and council of elders is an incompetent and mostly an inessential part of neighborhood administration. One thing we might take into account from what we have discussed, and we would like to propose, is to remove council of elders completely and replace it with neighborhood councils which would be a great step forward.

In the last few decades, one another major problem as we have mentioned in the beginning of this paper, was that the tensions between the central government and local public flared up in environmental decisions like green acres and public parks in neighborhoods. For this reason, neighborhoods should be able to participate in decisions of reconstructions in their
territory, which would be a great asset for the political and social integration between the central and the local and democratize neighborhoods’ governance processes. At least similar to city councils which gain importance in Turkey in the last years, neighborhoods should be able to carry their own agenda into municipality councils regularly.

The lack of any reliant monetary source for the neighborhood makes it impossible to provide the services at the bottom level and is an important obstacle for neighborhoods if our proposals would become realized. For this reason, neighborhoods should have a clear funding and the arbitrariness of their funding should be solved in the near future.

It is obvious that in Turkey new regulations and mechanisms are needed in neighborhood administration with accordance to all the great changes and public demands occurring in the last few years. Many more can be proposed and needs a very deep and long reconciliation yet in this study we wanted to contribute by providing a general framework and point to certain needs and problems of neighborhoods. Neighborhood participation, especially today, are greatly essential as the old administration model is not enough in the new era of instantaneous communication and governance. Neighborhoods in this regard, should be the new keystones of a new administrative reform.
References


