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FOREWORD

The book *Recent Studies in Economics* is a collection of research papers on business and economics written by researchers from several countries. The taxation of minimum wage, risk management disclosure practices, the international economic performance of Eastern and Central European Countries, the possible effects of the proposed financial transaction taxes on the EU, a business plan for accountants, the impact of oil prices on macroeconomics of developed and developing oil-exporting countries, start-up entrepreneurships in Mexico, the impact of family life cycle on the investors' psychological biases, the impact of inpatriate assignments on localization efforts of multi-national companies, the International Accounting Standards for real estate construction agreements, a business plan for a firm to produce biodiesel renewable fuel from vegetable oils, the demographic characteristics of credit card usage, the impacts of time management on quality assurance and cost reduction, the debt burden distribution among inter-generations, the concept of independent auditing in accordance with Turkish Commercial Code numbered 6102, the co-integration and causality between socio-economic indicators and female labor force participation in Turkey, the effects of resisting intrusions on employee self-regulatory resources, attentiveness, and fatigue, the relation between the public savings and borrowing requirement and financial balances in Turkey after global crisis, applications, developments and improvements in Time Series Forecasting with Neural Network and Fuzzy Logic, the free market ideology on the axis of Karl Polanyi's book of Great Transformation, Turkish olive oil export performance, the financial performance of the ceramic industry companies listed in Istanbul Stock Exchange, the effect of volatility in stock exchange markets in Turkey, Italy, Greece and Russia, the role of job satisfaction in the relationship between management innovation and contextual performance are the subjects covered by the book.

ARIKAN and GÜRBÜZ examine the taxation of minimum wage in Turkey. The study by YEN and CHEN aims to analyze the multi-functionality of the community supported agriculture in Taiwan. The study of ADILOGLU and DEMIR attempts to explore risk management disclosure practices in Istanbul Stock Exchange Market. LOKAR, BAJZIKOVA and BAJZIK comparatively study the international economic performance of Eastern and Central European Countries and make forecasts about the possible effects on the world economy and the EU economy. SEN investigates the possible effects of the proposed financial transaction taxes on the EU in light of previous country experiences.

The study of ATAGAN-CETIN aims to present a business plan for accountants who are trying to open an accounting firm in the right place. BAIMAGANBETOV empirically studies the impact of oil prices on macroeconomics of developed and developing oil-exporting countries. VARGAS-HERNÁNDEZ and HERNÁNDEZ attempt to study the evolution and development of start-up entrepreneurships in Mexico and the Metropolitan Area of Guadalajara. The study by BAYRAKDAROGLU and SARIKAYA aims to examine whether family life cycle influences the investors' psychological biases. STERNECK inspects the impact of inpatriate assignments on localization efforts of a multi-national company. ÇALIŞ and ŞUEKINCI evaluate the International Accounting Standards for real estate construction agreements.

CETIN attempts to conceptually study a business plan for a firm to produce biodiesel renewable fuel from vegetable oils in Turkey. DEMIRALAY and LORCU scrutinize the credit card using habits of university students at the department of banking to determine the demographic characteristics of credit card usage. DEMIRKIRAN, ŞENER and ÖMER examine the importance of the time management concept in Kaizen philosophy and the impacts of time management on quality assurance and cost reduction. EROGLU evaluates theoretical

discussions on the debt burden distribution among inter-generations. The study of GÜRBÜZ analyzes the concept of independent auditing in accordance with Turkish Commercial Code numbered 6102.

KARAALP-ORHAN empirically investigates the co-integration and causality between socio-economic indicators and female labor force participation in Turkey by using the Bounds Test Approach. LIN, ASLAN, AYDIN, DJOKOVIC, İNCE, KAYA, SARAÇ, SARIER and ŞIHMAN attempt to test the effects of resisting intrusions on employee self-regulatory resources, attentiveness, and fatigue. OZKER qualitatively studies the relation between the public savings and borrowing requirement and financial balances in Turkey after global crisis. The study by PABUCCU examines some recent applications, developments and improvements in Time Series Forecasting with Neural Network and Fuzzy Logic. SARI assesses the free market ideology on the axis of Karl Polanyi's book of Great Transformation. SOYDAL, KURT and YAŞAR investigate the relationship between interest rates and investment in a comparative perspective between Turkey and Developed and Developing countries.

The study of TOKLU addresses Turkish olive oil export performance by examining the antecedents of export performance of SMEs in emerging markets. By using Grey Relational Analysis, UNAL, İCIGEN and GURDAL analyze the financial performance of the ceramic industry companies listed in Istanbul Stock Exchange. The study of YILDIZ and DIRIK focus on management innovation and explore the role of job satisfaction in the relationship between management innovation and contextual performance in the specific context of Turkish organizational life.

Taxation of The Minimum Wage in Turkey

Zeynep Arikan, Salih Gürbüz

1. Introduction

The purpose of being obliged to pay taxes according to everyone's financial resources is to be obligated to pay tax with individual's social, economic and financial causes and it is necessary to make according to financial resources. On the other hand, in Turkey, the tax burden on wage earners, especially the minimum wage is very high. Large portion of the income tax is paid by wage earners and the vast majority of the income tax payers are composed of wage earners. The tax burden on poor and fixed incomes doesn't secure the justice in taxation and tax burden on them encourages shadow employment. Although minimum living allowance application is a little bit reduce the tax burden on minimum wage, minimum wages are inadequate to meet the vital needs of the people.

The cost of the minimum wage on employer is also had a separate burden. The excess of the tax burden leads to high labour costs and it leads to unemployment and economic inequality in Turkey, as in many countries.

Therefore, administration's basic task is to create a fair tax system, with minimum wage. In our study, minimum wage will be determined the tax burden, the cost to employers, compared of Turkey and many other countries, the effects of the application will be examined and the increase of minimum living standard will be brought solutions.

2. The Definition of Minimum Wage

Minimum wage workers are paid in return for work premium and it is a charge which is important in terms of social welfare state. The definition of the minimum wage has been directly prescribed by 4 / D article of the Minimum Wage Regulations. According to the regulation minimum wage is defined as wage that workers are paid for a normal working day and they, essential needs such as food, housing, clothing, health, transportation and culture, can meet a minimum on price of the day.

There isn't definition of the minimum wage in 1982 Constitution but article 55 of the 1982 Constitution indicates as "The State shall take the necessary measures to ensure that workers earn a fair wage suitable for the work they perform and that they enjoy other social benefits and in determining the minimum wage, the economic and social conditions of the country shall be taken into account." Article 73 of the Constitution indicates as everyone is under the obligation to pay taxes according to his financial resources in order to meet public expenditures and an equitable and balanced distribution of the tax burden is the social objective of fiscal policy. In the context of these objectives, whether state receives taxes on minimum wage is described, and it is revealed that the tax burden is distributed according to which criteria. Thus practice in the context of economic and political preferences is formed.

The purpose of the fee under Article 39 of Labor Law is defined as "regulation of economic and social status of workers" but full definition of the wage is not been.

Minimum wage can be defined as meeting the most basic needs of the employee, allowing for a decent living and the lowest rate to be paid by an employer.

3. The Minimum Wage Determination Methods

Determination methods of the minimum wage are different from country to country. In general, determination methods of the minimum wage can be listed as follows:

1. State can exactly determine minimum wage with a law.
2. The amount of the minimum wage can be determined by commission of fixing the minimum wages of legally established.
3. It is agreed on the amount of the minimum wage between employers and workers' representatives in collective bargaining negotiations.

The second of these methods is applied in Turkey. In Turkey, the minimum wage decisions are taken by an independent commission. The process operates depending on the administrative mechanism. (Değer Hukuk Bürosu, n.d.).

The minimum wage is determined in five different ways in European Union Countries.

These (Burçin YILMAZ & HarunTERZİ, 2006);

1. It is determined by the governments in consultation with workers and unions as in France, Luxembourg, the Netherlands, Portugal and Spain.
2. It is determined with national collective agreements in Belgium and Greece.
3. The minimum wage is implemented differently according to sectors in Austria, Germany and Italy and It is determined with collective bargaining in these countries.
4. Minimum wages are determined to cover all workers with collective agreements in Finland and Sweden.
5. Industries, with low wage levels, are determined different rates of minimum wages in Ireland and the UK.

The sectoral distinction in determining the minimum wage is taken into consideration in some countries. This fair is an application.

The real value of the minimum wage is more important than the level of the minimum wage. Even though two different workers have the same wage from two different countries, their real purchasing powers are different. When evaluating the minimum wage of the countries, they will be useful to look at purchasing power parity. This is why; countries will be useful to look at purchasing power parity when evaluating their minimum wage.

According to OECD data, the minimum wage purchasing power parity can be listed as follows (AKBULUT, 2015):

- Annually 11,000 dollars in Turkey (for 2014).
- Annually 21,300 dollars in Australian.
- Annually 22.300 dollars in Canada.
- Annually 9.200 dollars in Hungary.
- Annually 15.100 dollars in Japan.
- Annually 15.200 dollars in Korea.
- Annually 2.100 dollars in Mexican.
- Annually 23.400 dollars in Netherland
- Annually 11.600 dollars in Portugal.
- Annually 13.300 dollars in Spain.
- Annually 15.000 dollars in USA.
- Annually 18.600 dollars in UK.

4. Elements of Minimum Wage

We can list the elements of the minimum wage as follows (TAŞKIN, Asgari Ücret Tanımı ve Unsurları, 2016):

1. The minimum wage is counterpart of a normal working day.
2. The minimum wage is counterpart of a minimum level of mandatory requirements.
3. The needs of working people and their families are taken into consideration.
4. The minimum wage shows the lower limit of the legal wage payable (TAŞKIN, Asgari Ücret Tanımı ve Unsurları, 2016).
5. Minimum wage is periodically reviewed and reorganized by authorities.

5. The Aim Of The Minimum Wage Implementation

There are some basic aims of the minimum wage implementation. We can list the basic aims of the minimum wage as follows (TAŞKIN, Asgari Ücret Tanımı ve Unsurları, 2016):

1. Minimum standard of living is provided to employees and their families with minimum wage.
2. It prevents the exploitation of labor.
3. It protects workers against unexpected and sudden fall of wage. Due to excess supply in the labor market, state prevents falling below a certain limit of wage with the minimum wage implementation .
4. The minimum wage is an important wage policy tool of state.
5. It helps the realization of the principle of equal pay for equal work between employees and thus it eliminates abnormal imbalance between wage payments.
6. It prevents unfair competition between employers.

The purposes of the minimum wage are of vital importance for the people involved with their effort into working life and people who earn income in this way. So that people's labour is valued and their working conditions are improved.

6. Features of Minimum Wage

We can list the features of the minimum wage as follows:

1. The minimum wage can't be matter of negotiation between the parties.
2. The minimum wage is implemented according to the legislation.
3. Personal characteristics such as experience, education level, seniority are not taken in consideration.
4. The minimum wage doesn't merely include employees under the status of workers. (AR, 2007)
5. Employees of an independent status are benefited from the minimum wage (example government employees).
6. The minimum wages contribute to the redistribution and equitable distribution of the national income.
7. The minimum wage is a social policy tool.

The minimum wage aims to provide a standard of living worthy of human dignity and to increase the level of prosperity.

7. Development of the Minimum Wage in Turkey

Over the past ten years the development of the minimum wage in Turkey is given in table 1.

Table 1: Development of the Minimum Wage in Turkey (2006 - 2016 Between the years)

Publication and Chronology in The Official Gazette	Period	Total TL
31 December 2015 29579	01.01.2016 – 31.12.2016	1.647,00
31 Aralı 2014 29222	01.01.2015 - 30.06.2015	1.201,50
	01.01.2015 - 31.12.2015	1.273,50
31 December 2013 28868 (3. Repeating)	01.01.2014 - 30.06.2014	1.071,00
	01.01.2014 - 31.12.2014	1.134,00
29 December 2012 28512	01.01.2013 - 30.06.2013	978,60
	01.07.2013 - 31.12.2013	1.021,50
30 December 2011 28158	01.01.2012 - 30.06.2012	886,50
	01.07.2012 - 31.12.2012	940,50
29 December 2010 27800 (6. Repeating)	01.01.2011 - 30.06.2011	765,50
	01.07.2011 - 31.12.2011	837,00
31 December 2009 27499	01.01.2010 - 30.06.2010	729,00
	01.07.2010 - 31.12.2010	760,50
31 December 2008	01.01.2009 - 30.06.2009	666,00
	01.07.2009 - 31.12.2009	693,00
31 December 2007	01.01.2008 - 30.06.2008	608,40
	01.07.2008 - 31.12.2008	638,70
31 December 2006	01.01.2007 - 30.06.2007	562,50
	01.07.2007 - 31.12.2007	585,00
31 December 2005	01.01.2006 - 30.06.2006	531,00
	01.07.2006 - 31.12.2006	488,70

Reference: Table 1 has been prepared by us benefiting from notifications published in the Official Gazette of the minimum wage.

The minimum wage has increased approximately % 60 on last decade years, as observed in Table 1. The minimum wage is the same according to the minimum wage laws for all businesses and professions in the private and public sectors in Turkey. The minimum wage varies according to each job and profession in foreign countries. Factors, such as; business of the physical challenges, the information needs of branches, causing differentiation, cause the differentiation of the minimum wage.

The minimum wage is below hunger* and poverty line** in Turkey. As of 2016 year, hunger threshold of a family of four is 1.370,00 TL and the poverty line is 4.462,00 TL (TÜRK-İŞ, 2016).

8. Tax Burden On Minimum Wage in Turkey

Net income of minimum wages of workers in the private sector after all deductions from their wages in Table 2 and the costs to the employer in Table 3 have been shown.

Table 2: Deductions on the Legal Minimum Wage in Turkey (01.01.2016 - 12.31.2016 Period)

Gross wage		1.467,00 TL
Insurance Premium Workers Share (% 1)		230,58 TL
Unemployment Insurance Premium Workers Share (% 1)		16,47 TL
Income Tax Base		1.399,95 TL
The Calculated Income Tax (1.399,95 * % 15=) Minimum living allowance for single people and childless The income tax payable		209,99 TL – 123,53 TL = 86,46 TL
Total Deductions (Total Tax Burden) • Incoma Tax • SSİ • UIP • Stamp Tax (1.647,00 * % 07,59)	 86,46 230,58 16,47 12,50	346,01 TL Tax Wages
Net Payable (Net Minimum Wage) (1.647,00 – 346 – 01 =)		1.300,99 TL

Reference: Table 2 has been calculated by us considering features of minimum wage

There are multiple taxes and other financial obligations on the minimum wage as shown in Table 2. The real value of the minimum wage with this burden is reduced and the effect of overload unregistered employment is encouraged.

Financial burden on minimum wage is emerging as the burden on employers and workers. Financial burden on labor in 2016 are given in Table 2, taking into account the minimum wage. Gross minimum wage in the amount of 1647.00 TL is decreased Net 1300.99 TL, after deduction such as ınsurance premium workers share, unemployment ınsurance premium workers share, income tax, stamp tax etc. It shows a tax burden exceeding 20% on the minimum wage. "Subsistence allowance application" for slightly reducing this burden has been brought with article 32 of the Income Tax Act. The deduction of 123.53 TL. per month is recognized for single people and childless in 2016, in other words, the person isn't received the income tax by this amount.

Table 3: Employer Cost of Minimum Wage in Turkey (2016 Period)

Minimum wage	1.647,00 TL
The employer's share of social security contributions (%15,5)	255,29 TL
The employer's share of unemployment insurance fund (%2)	32,94 TL
Employers total cost *	1.935,23 TL

Reference: Table 3 has been calculated by us according to the minimum wage.

* 110.10 TL of the total cost to the employer will be paid by the Treasury as a result of arrangements made according to the terms benefit

The financial burden of minimum wage constitutes the direct taxes (which are) deducted from payroll such as income taxes, stamp tax, social security contributions, funding and indirect taxes

such as value-added tax, excise duty in Turkey. Therefore, worker income is taxed both directly and indirectly. Indirect taxes have an impact on the real value of the minimum wage. The tax burden on the minimum wage is shown in Table 4.

Table 4: Tax Burden on Minimum Wage in Turkey (2016 Period)

Diverse Tax Burdens		According to Gross Wages %	According to Net Wages %
The tax burden in terms of direct taxes	-Income Tax (IT)* -Stamp Tax (ST)	6	7,60
The tax burden in terms of taxes and other financial obligations	-IT – ST -Unemploymentinsurance contributions (UIC) - Social security contributions (SSC)	21	26,60
The total tax burden, including indirect taxes**	-IT – ST -UIC -SSC -Indirect Tax	31	39

Reference: Table 4 has been calculated by us benefiting from Table 2

* Remainder, after minimum living allowance was deducted from income tax, has been taken into account in the calculation.

The tax burden on minimum wage is greater as shown in Table 4. The tax burden on minimum wage has exceeded 30% with indirect taxes on gross wages. When we consider the tax burden on minimum wage, we believe that the minimum wage should not be taxed. However the state will suffer a financial loss in this case and the minimum wage is not possible to stay out of tax as technical. Because, this situation causes an increase of informal economy in our country that informal workers is widespread.

On the other hand, the increase of the minimum wage isn't the solution alone. If the minimum wage increases, the tax burden on wages will increase the same rate. In this case, the increase in minimum wage will lead to request other paid raise, and the cost of the employer will increase. Either the employers will make self-sacrifice from their profit or they will raise their prices. Economic result of this situation is the rise of prices. Because of increase sales prices, the purchasing power of the minimum wage will reduce. When purchasing power is low, increased wages will not change in real terms. This vicious cycle will continue with this approach. Instead of increasing the nominal minimum wage, increase of the real minimum wage is a more accurate application.

9. Minimum Wage Implementation in Some Countries

Although different methods are applied for determining the minimum wage in various states, there isn't official minimum wage implementation in some states (ecotripsos, Asgari Ücretin En Yüksek Olduğu 10 Ülke, 2014).

The minimum wages in some countries of the world can be listed as follows:

- Germany: There wasn't a minimum wage in Germany until January 2015. Hourly minimum rate (8.5 euros per hour) in Germany has been put into effect on January 1, 2015. Minimum wage implementation, with some exceptions, is generally available in all areas and in all regions. Intern trainees under the training of up to 3 months and legal

workers under 18 without vocational training are outside of the minimum wage implementation (ecotripsos, Asgari Ücretin En Yüksek Olduğu 10 Ülke, 2014). The hourly minimum rate to be raised to 8.84 euros has been decided by special minimum wage commission consisting of workers and employers for 2017 (HABER, 2016).

- Austria: The worker who works 38 hours per week, earns 34 358 dollars per year in the country. This situation means 2,863 dollars per month. The country is among the countries paying the highest minimum wage with this wage amount (HABER, 2016)
- USA: The minimum wage varies according to provinces in USA. The provinces determine its own minimum wage. The provinces take into account some criteria such as size of an enterprise, revenues of an enterprise and the number of workers, while they determine the minimum wage. The minimum wage is determined hourly for federal employees. To create more efficient work areas and to improve living standards of workers have been targeted with minimum wage in the country. For example; California minimum wage is $ 9 hourly, and Seattle has the highest minimum wage in USA with $ 15 hourly (O'Sullivan, 2015).
- China: There are different minimum wages according to the level of development between regions in the country. Also intercity different minimum wage is also available. The minimum wage has been implemented in high amounts in cities depending on the provinces and in low amounts in cities depending on the underdeveloped regions. The minimum wage is implemented higher amounts in large export regions of same province (Kaymaz, 2012).
- India: A local minimum wage is designated by authorities in provinces where are governed by the province centre and the central government in India. The minimum wages above the poverty line, and equal pay for equal work is demanded strongly by citizens. Therefore, the minimum and maximum limits of the minimum wage are determined (ASLAN, 2013).
- Malaysia: The minimum wage has been put into effect for improving the living standards of low-income families. The minimum wage varies from state to state.
- Sweden: There is no official minimum wage. The minimum amount has been determined for wages of private sector workers in the provinces (Ticaret Gazetesi, 2012).
- Italy: There is no official minimum wage.
- Denmark: There is no official minimum wage.
- Finland: There is no official minimum wage.
- Southern Greek Region: There is no official minimum wage.

As seen in the example of countries, the minimum wage implementation is different in every country.

The amounts of real minimum wage in Turkey and in some OECD countries is possible to see in the Table 5

Table 5: Real Minimum Wage in Turkey and in Some OECD Countries (According to the Purchasing Power Parity / Annual - $ - 2005 - 2013)

Country / Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Austria	20240	19943	20621	20251	20444	20307	20521	20764	20743
Belgium	20615	20469	20658	20808	21499	21210	20940	21094	21116
Canada	13386	13658	13796	14349	15290	15795	15827	16227	16314
Chile	4828	4944	5080	5066	5363	5522	5632	5797	6071
Czech Rep.	7137	7537	7514	7054	6983	6913	6778	6584	6629
Estonia	4519	4796	5429	5951	5951	5772	5498	5524	5932
France	18177	18743	18814	18985	19334	19110	19108	19352	19414
Greece	11367	11658	11879	12213	12777	12353	12089	9640	9412
Hungary	6929	7310	7126	7095	7042	6877	7017	7911	8187
Ireland	18229	17995	18970	18620	19542	19737	19162	18978	18797
Israel	11189	11485	12068	11873	11718	11367	11423	11669	11864
Japan	12335	12277	12410	12552	12492	13289	13558	13711	13947
Korea	10891	11274	12375	12701	13198	13154	13294	13828	14402
Luxemburg	21279	21249	21676	21443	22190	22108	22280	22190	22409
Mexica	1735	1760	1745	1735	1721	1732	1751	1741	1750
Netherland	21123	21125	21399	21329	21805	21927	21650	21468	21329
New Zealand	15161	15723	16793	17282	17736	17820	17472	17891	18136
Poland	6639	6950	7075	8149	8949	8960	9067	9449	9986
Portugal	8750	8727	8926	9244	9765	10205	10019	9738	9738
Slovak Rep.	5752	5895	6298	6331	6818	7028	6962	6920	7077
Slovenia	10810	10920	10828	11096	11393	13402	13774	13822	13928
Spain	11232	11458	11704	11810	12408	12341	12137	11793	11752
Turkey	8428	8395	8373	8158	8407	8477	8771	8964	9107
UK	16491	16861	17350	17175	17349	17078	16800	16713	16557
USA	12735	12459	12784	13841	15572	16136	15666	15367	15080

Reference: OECD Satats (2014), http://stats.oecd.org/index.aspx?datasetcode=AV_AN_WAGE.

As shown in Table 5; Austria, Belgium, Luxembourg and the Netherlands are the countries where the minimum wage is the highest. France, Ireland and New Zealand are following them. Chile, Spain and Mexico have the lowest minimum wage. The Turkey has been ranked 19. among these 25 countries.

10. Conclusion and Suggestions

Article 73 of our Constitution is regulated the general principles of the minimum wage policy. These are "based on the person's financial resources" and "distribution of the tax burden through the government's fiscal policy fairly and levelly". However, the implementation of these principles is a political choice. In Turkey, the financial burden on the implementation of minimum wage is high and the real value of the minimum wage is low. The skilled workers as well as unemployed skilled workers in the economic crisis and other reasons are forced into working minimum wage. Therefore the number of employees on the minimum wage is very high. One of the most important problems in the minimum wage hasn't considered the needs of worker families and it only has considered the needs of the workers.

In Turkey, issues to be considered in the minimum wage are:

- The minimum wage should be determined taking into account sectoral and regional differences.
- The minimum wage should also be determined taking into account occupational criteria.
- An increase of the minimum wage must be reasonable and moderate, because this increase will trigger other wage increases.

- An increase of the minimum wage will increase costs, because necessary incentive mechanisms should be developed for business and employers.
- The informal economy-enhancing effects of minimum wage increases should be paid attention. Therefore, it is important to tackle the informal economy.

Resolving of problems with minimum wage is important in time. The weight of the direct and indirect burden on minimum wage reduces the purpose of the minimum wage such as fight against poverty and maintaining a life worthy of human dignity and this situation runs contrary to the goal of becoming a welfare state.

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The Multifunctionality of Community Supported Agriculture: A Study Case in Taiwan

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1. Introduction

Community supported agriculture (CSA), briefly to say, is the relationship between consumers and producers (farmers) reach an agreement to commonly cope with benefits and rights. The general process of CSA is that: 1) farmers and consumers make an agreement to ensure their rights and obligations separately; 2) consumers pay at first and then farmers have financing to manage farm affairs; 3) farmers send 6 to 8 sorts of vegetable to customers within a box; 4) depending on the contact, farmers send vegetable box twice a month and continually send it 6 to 12 months. During the process, customers and producers gradually establish fiduciary relationship and practice the multifunctionality of agriculture.

In CSA mode, both farmers and consumers adopt 'pay-first-and-sent-after' form, which means farmers have consumer-prepaid financing so that farmers, especially small farmers, would not have to worry about financial problem, instead, they have enough money to purchase seeds, seedlings, fertilizers, agricultural machinery renting, or any agricultural affairs. Farmers and consumers share risks (production shortage, climate, insect pest etc.), agree with mutual rights and obligations, and sign contracts to deliver seasonal 'vegetable boxes (bags, baskets)' once fortnightly or once per week to consumers' house.

Farmland as a carrier of production, has its multifunctionality on economic, social, environmental aspects, and so does CSA. Kline and Wichelns (1998: 212-213) claim that farmland has functions such as environmental conservation, ecological maintenance, landscaping, groundwater recharge, and cultivation, which aggregate as agricultural multifunctionality. People gradually pay attention to multifunctional agriculture for not only its role of farm produce provider, but also other functions beyond agriculture. However, the practice of agricultural multiple effects is depending upon types of farmland use. Nowadays, organic agriculture is considered to have multifunctional factors as agricultural sustainability, biological sustainability, inner-valued respect to flora and fauna, and local development. In the procedure of organic agriculture, it not only increases commercial value of food, but also creates non-commercial value, such as food security, environmental protection, cultural preservation, multiple landscapes, village stabilization etc., and even adjusts agriculture towards market demand (Lampkin, 1999:147-148).

In Taiwan, organic agriculture is initiatively promoted by the government in 1986. In 1999, the government authority has legitimated the first organic regulation "Production Standard of Organic Agricultural Products". Later, "The Regulation of Certification and Management of Organic Agricultural Products and Organic Processed Agricultural Products" has legitimated in 2007. The government authorized the private companies or organizations to testify the soil, water, seedlings, crop, and process goods and so on and then certificate farmers' products as organic.

By encouraging organic and certificated farm products, consumers can purchase safety food. In Yilan, Xingjian Village, a group of elder farmers organized a cooperative to promote organic farming. They depend on mutual trust and help among cooperative members, and practice chemicals free farming. Moreover, the cooperative began the CSA and attempt to make an environmental friendly, safe food production, and organic certificated agriculture. However, the outcome of CSA did not provide apparent evidence to say that it is successful to link producers and consumers. Thus, we attempt to review the process, analyze the reasons of failure, and provide our suggestions to further improvement.

This study firstly reviews theories of agricultural multifunctionality and organic agriculture. We went to Xingjian Village and made in-depth interview with farmers, discussing village economy, production, ecological environment, living culture, and development difficulties etc. We evaluate the effect of multifunctionality in organic farming development, and find the chance to advocate organic long-term development.

2. Literature Review of CSA and Multifunctionality

The community supported agriculture has promoted over 30-year all over the world. However, in Taiwan, it is still a new concept for most of the producers and consumers. Even the 'Kudon Club' initiated the first CSA to provide 'rice share' for their 'shareholder,' most of the people do not know what CSA is and how CSA works. Besides, multifunctionality nowadays is provided to interpret that agriculture has not only the function to produce but has multiple functions to protect the environment, maintain biodiversity, maintain rural landscape etc. Therefore, in this section, the literature of CSA and multifunctionality provides the insights for us to develop a more complete and sustainable way for agriculture.

(1) CSA

A. The Concept of CSA and its Development

Community supported agriculture (CSA) is the way for producers and consumers to mutually support each other. According to Henderson and Van En (2007:3), CSA refers to 'consumers who purchase local agri-product and farmers nearby are seeing as a main body. The amount of agri-product, consumers, and the commitment between people are equal to community supported agriculture and infinite possibility.' The characteristic of CSA is the face-to-face communication between consumers and producers, organic production, local production, and spreading risk (Stagl, 2002:145-146). The basic mode of CSA asks consumers order, sign a contract and pay at first and then producers can send weekly agri-products by vegetable box. Members of CSA support local agriculture and the reward is fresh and organic agri-products, so that farmers can avoid the risk of traditional market structure (Hayden and Buck, 2012:333).

The earliest CSA in the USA was in Indian Line Farm in western Massachusetts, and the Temple-Wilton Community Farm in southern New Hampshire in 1986 (The Call of the Land, Dateless). These two farms built up the rudiment of CSA. That is 'rice shareholder' productive mode (McFadden, 2003). Farms which practiced CSA gradually increase and they developed ordering institution, farmers' cooperative supply, and other kinds of ways (Lin, 2011:23).

The development of CSA in Taiwan began with in 1980s. At that time, as development of neoliberal economy, trade, international market change, and other factors. The development of agriculture confronts huge challenge. Until climate change and low-carbon economy promotion of western countries that make Taiwan society regards to issues related to farmers' right to live, balance of ecology, food security, etc. The direct contact between producer and consumer as well as providing healthy food and resolving marketing dilemma, are the reasons why CSA appears (Bei and Wu, 2010:12).

Ostrom (1997: 68) investigated several farms and found five reasons why CSA members join the grassroots action. They are: 1) for fresh and nutritious agri-products; 2) local purchasing; 3) supporting small farmer; 4) gaining organic or non-organic products; 5) protecting the environment. It is obvious that the establishment of CSA does not emphasize the provision of organic agri-products. However, because of the boost of CSA emphasizes healthy and safe food source, we suggest that CSA contains the meaning of non-toxic and cultivation friendly.

All in All, CSA is based on mutual recognition and cooperation between consumer and producer. The concept of CSA asks consumers to "know your farmers, your food, and your land." By sharing and cooperation, consumer and producer connect with each other and use friendly way to the land (Kao, 2013:15).

B. The Mode of CSA

Usually, CSA farms are related to four types of groups: farmer, community, core/management group, and CSA promoting institue. The core/management group includes farmer and community members to organize CSA. The responsibility of the group includes budgeting, withdrawing money, paying to farmers, distributing food, dealing with legal problems, organizing activities, recruiting CSA members. The CSA institue promotes hygiene, training, education, and other goals. The main responsibility of core group includes selecting farmers, farmland, crop typees, payment institution, logistic procedure, working distribution, and supervises entire CSA operation (Pilley, 2001: 6).

The operation types of CSA are divided into four types: 1) farmer dominance – CSA is organized by farmers and are responsible of all management strategic-making. Consumers passively accept producers' products weekly. 2) consumer driving – consumer organize CSA and find land, hire farmers, decide crops, and join labor and management of organization. 3) Farmer professional cooperation – this kind of CSA is operated by two or more farms for providing more agri-products for consumers. 4) Farmer-consumer cooperation – this type is similar to 3) but more consumer orient. Consumer and farmers can own land and other resources together and make efforts to produce and sell food together (Bauermeister, 1997; Pilley, 2001: 7).

Because of the different development conditions among different communities, CSA develops many operational modes. Henderson and van En (2007:7) consider that the difference between the levels which consumers and farmers join. If we take them as linear spectrum, in one side, consumers will be considered as 'rice shareholders[1].' In the other side, it is 'subcription' which consumers are considered as members of CSA so that they simply pay and get agri-products. Most of CSA cases are in the middle of the spectrum, which members are willing to join or help agricultural affairs and marketing in some days for amount redeeming (Lin, 2011: 21). CSA is directly sent from productive area to consumers' house, which farmers can gain huge benefits (Ostrom,1997:196; Galayda, 2006:58).

(2). Multifunctionality

If sustainability is a long-term, global resource-oriented concept, multifunctionality involves in production process and various activity-oriented concept, which these two concepts are very close. OECD (2001: 6, 7) indicates that the key factor of multifunctionality is: agricultural joint production existing various commerce and non-commerce output. Some non-commerce output appears the nature of externality and public goods, nevertheless, the market of products does not exist or cannot display its function. Wiggering et al. (2006: 239) considers that because agriculture has multifunctionality, on the aspect of holistic agricultural value, it is a good way to analyze two fronts of commodity output (CO) and non-commodity output (NCO). Besides paddy production, effectiveness of ecological environment and living culture always accompany with production behavior. The income of CO can be directly observed for evaluate

[1] The 'rice shareholder' is one sort of CSA, which means the one who join CSA to support farmers and share risks with farmers together. This institution is similar to people who buy share or stock in the stock exchange. Therefore, some farmers and consumers use 'rice shareholder' referring to the earliest CSA in Taiwan.

produce price; NCO has characteristics of externality and public goods. Such output will have new income type in market and quasi-market. The total revenue of multifunctional agriculture is the sum of income from CO and NCO. Therefore, social utility is formed by different extent joint production so that can be used as a principle to evaluate its sustainability. In other words, the emergence of agricultural multifunctionality has to be considered by the view of farmland sustainable use.

The core idea of agricultural multifunctionality is the possibility of agricultural plural development. It breaks away the past CO function and begins to value aspects of agricultural life and ecoagricultural, i.e. so-called NCO (village society, culture and biodiversity, etc.). The joint productive outcome of CO and NCO can reform as public goods and private property to put in public service and market. The major characteristics of multifunctionality are:

A. CO Output: Aspect of Production and Economy

The economic aspect of agricultural is real output of production, which provides necessary products or raw materials for human living. Moreover, this aspect also asks food security and food safety which are to ensure the food self-sufficiency rate and limit chemical fertilizers and pesticides use to protect health of consumers.

B. NCO Output

(A) Aspect of Eco-Environment

Eco-Environmental aspect extends from the production aspect. Due to agriculture linking with soil, water, flora and fauna, and agricultural landscape during producing, if farmers adopt environmental friendly cultivation, resource of production system can be maintained.

(B) Aspect of Social and Culture

On the other hand, beyond agricultural production, farmers' interaction among social and cultural system represents their unique non-commodity value. Moreover, by maintaining agricultural production and management within rural landscapes agriculture production supports rural communities as well as advocates rural employment, rural recreation, rural landscape, or pastoral life experiences and cultural heritage. It also contains the identity to the land.

In sum, the range of agricultural multifunctionality should have the value of production and economy aspect, eco-environment aspect, and living culture aspect.

3. The study case

(1) Background

Xingjian Village is located in the center of Sanxing Township, Yilan, Taiwan. Area of this village is 6.5 square kilometers, with 300 households and population of 1,000 (Fig.1). In recent years, Xingjian Village under the leading of Mei Chang and Shen, actively promoted organic agriculture and soon built as the first organic village in Yilan assisting by the agricultural authorities.

Figure1 Geographical Situation of XingJian Village

Nowadays, members of Xingjian Cooperative are about 40 people with 45 hectares' rice field and vegetable field. 40 hectares is paddy rice field and 5 hectares grows vegetable and other grains. This place is the most integral area for organic farming. However, marketing is always the problem for cooperative to promote organic agriculture, so as in most of the Taiwan agricultural organizations. In 2014, the products that Xingjian sold, 14% is corporation purchasing, 8% is governmental purchasing, 49% is wholesalers' purchasing, and 29% is retail by individual customers. The above three earning is 71% but unit price is low. The average discount for large sales is about 30% to 20% off. The individual purchasing is the highest which the price is 4.5 US dollar per kilogram.

Farmers wish to have stable marketing and sale so that lease of CSA ensures farmers' basic price. However, if disaster happened which led to no harvest, the lease cannot ensure farmers' revenue. However, the CSA in Xingjian is different. Consumers pre-pay all the fees. Even if disaster happened and made farmers could not send their products, consumers have to undertake the risk of poor harvest.

In the end of 2015, the Council of Agriculture (Abb. COA), Administrative Yuan, constituted that Xingjian Village becomes Organic Productive Professional Area[2] (OPPA) either two villages. Nowadays, Xingjian cooperative is on the way to become OPPA. They have four targets: 1) farmers' lease mode and management; 2) young farmers nurturing; 3) environmental friendly cultivation; 4) business operation and management.

(2) The CSA Operation: Production

As previous literature showed, four CSA operational types are: farmer dominance, consumer driving, farmer professional cooperation, and farmer-consumer cooperation. In Xingjian Cooperative, we found that the above four types cannot fully apply for Xingjian. Xingjian Village has to develop an unique 'fifth' way for new CSA institution. The first CSA was initiated by Kuo-Shian Chen (Chen and Yen, 2016). He made questionnaire to investigate consumers and try to organize the whole CSA action in Xingjian.

(3) The CSA Operation: Consumption

Marketing channels of distribution is always farmers' maximal dilemma besides cultivation. Farmers are exploited by wholesalers that farmers' profit cannot rise in a long time. This study adopts questionnaire and targets consumers as a core to spread questionnaires to their friends. Meanwhile, core consumers tell the concept of CSA to their friends. In 35 effective questionnaires, 13 consumers are willing to try the CSA's vegetable box sending service, which has to sign a contract and pay off six months' fees. We found that consumer is the key person that is related to the success of CSA under such consumption modes in Taiwan. One of the consumption modes is consumers buying and taking (in the market); another kind is paying when agri-products come to consumers' house (TV shopping). In this time, consumers pre-paid full amount of money for the first time. They were willing to share the risk of poor harvest.

[2] "Organic Productive Professional Area" is announced by the Council of Agriculture. The central government picked several agricultural areas and named as "Organic Productive Professional Area" or "Productive Professional Area" according to different agricultural conditions.

Figure 2. (left) Farmers usually send 6 to 8 kinds of vegetables each time.
Figure 3. (right) Farmers put vegetables in to box and then call "Black Cat Express" to deliver those paper boxes.

Although Xingjian organic CSA's production and cooperative communicated with each other several times, farmers grew similar vegetables. During the 6 months and 12 times delivery service, the cooperative sent 34 kinds of products. To compare with traditional market, the diversity of products is obviously inefficient. In the 12 times deliveries, the cooperative sent green onion (10 times), romaine (9 times), sweet potato leaves (9 times), cabbage (9 times), arden lettuce (8 times), sweet potato (8 times), and lettuce (7 times). The repeated provision makes consumers doubting to lack of diversity of cooperative products and then give negative influence to consumers' willingness to order again.

4. Analysis of Production

The cooperative summoned farmers and practice CSA during 11th December 2014 to 14th May 2015. We separately investigated producers and analyzed the results as follows.

(1)Producers' Questionnaire Analysis

Due to cooperative members practice organic farming so that farmers are not so strange to CSA. They understand the idea of CSA and are willing to fully put into CSA. CSA farmers conform that organic farming is necessary method for protecting the environment and farmland. Farmers consider that the minimum area which can feed a four-people household is 0.2 hectare. The labor that organic farming uses is 2 to 3 times than conventional farming but profit only increasing 0.5 times. However, farmers all consider that organic farming is the future trend.

(2)Producers' Post-CSA In-depth Interview Analysis

The Xingjian Organic Village was led by Mei Chang the former leader. In 2010, in order to assist farmers to sell their products, she asked a group of elder farmers to establish the 'Xingjian Organic Cooperative' to integrate each channel and promote marketing of organic products. Mei Chang said:

> "At that time, I was the leader of Xingjian Village. Most of the villagers are engaging in agriculture, and also most of them spray pesticide. The elderly especially, in some cases, they sprayed pesticide, poisoned, and then sent to hospital. Meanwhile, it was luckily to know that Hualien District

Agricultural Research and Extension Station was promoting organic cultivation. I went with someone to the station and felt that organic agriculture was good to farmers and the land. Therefore, when I came back to Xingjian, I fully spent my time to promote organic farming. I really hope Xinjian can become the first organic village in Taiwan[3]."

(3) Organic Cultivation and Its Promotion Problem

A. Serious Insect Pest

All the cooperative's members consider that organic production is the future tendency for the upcoming generation. Organic agriculture indeed decreases the use of chemical materials. However, organic farming is forbidden to spray pesticide so that causes serious pest problem. Informant B01 said:

"I grow paddy rice for over 65 years. About 3 or 4 years ago, Mei Chang suggested me to transform into organic farming. In the beginning, I am not used to practice pesticide-free cultivation. I cannot eliminate all the pest, and all weeds are bigger than vegetables. I am almost giving up"

Informant B01 now fully engages in organic farming and gives up conventional farming. Meanwhile, informant B04 also agrees with the positive aspect of organic cultivation.

"Although the man-hour of organic cultivation is twice higher than conventional cultivation, organic earning cannot be twice higher than conventional earning. However, for the land health and future generation, I am willing to engage in organic agriculture."

B. Lack of Financing and Fees for Organic Certification

Cultivation without pesticide and chemical fertilizers is helpful to the health of human and land. However, the cost of organic agriculture which includes organic fertilizers, green fence, labor cost, certification fee, and other sorts of fees. Namely, the cost of organic production is higher than conventional products. It results that consumers may not willing to pay such great amount of fee.

Informant A05 said: "Consumers all know that organic products are healthy, but high price makes them stepping back."

Informant A01 said: "I invest lots of money by myself in engaging in organic f arming. The organic certification has part of subsidy by the government, but I also have to pay. This kind of certification is forced by the government. So, the government has to pay for me."

C. Promoting Organic Agriculture by CSA Institution

Although Xingjian has promoted organic for years, farmers still have the dilemma of 'easy growing but hard to sell.' Farmers grow high quality crops, but have no efficient way to find the marketing channels. By the consumers' participation within CSA, consumers pre-paid the fees and enjoy safe and healthy organic products. Meanwhile, farmers will not worry about problems of selling and they can concentrate on cultivation.

(4) The Change of Attending CSA and Deficiency of CSA Promotion

A. Farmers' Cohesiveness Rise and Villagers Seeming to be close

Farmers consider that they became closer than before when they join CSA. They encourage each other, share cropping knowledge, and have regular meeting. Informant B01 said:

[3] In fact, Rousan Village (in Hualien, eastern Taiwan) is the first organic village in Taiwan earlier than Xingjian Village in 2002.

"We become closer because we turn to organic farming. The cooperative has regular meeting so that we can communicate with each other."

Besides, family members become closer as well. Informant B05 said:

"I change to organic farming because I hope family to become healthier."

Informant B07 said:

"Because we have the same idea (organic life) so that family become closer."

B. Deficiency of CSA's Return, High Cost, and Deficiency of Labor

In Xingjian, the cost of planting vegetable on 0.1 hectare land is about 2,200 USD. If farmers would like to deliver products to 25 household, the minimum is at least 0.2 hectare. Because of deficient labor force, people who join the CSA are few. Cooperative has no core members or leader to domain CSA so that makes communication and production in a difficult situation.

(5) Expectation of Promoting Organic Agriculture by CSA

Farmers consider that CSA is benefit to promote organic agriculture, so that they hope consumers to support CSA continuously. They also wish the government to help small farmers to promote CSA. Half a year later, farmers wish consumers continue the order. Informant A01 said:

"I wish to have CSA's order six months later, so that farmers would have confidence to continue CSA mode."

Informant B07 said:

"Of course, I hope I can coordinate with cooperative to deliver vegetable box. The institution of CSA make farmers no worry about selling."

5. Analysis of Consumption

This questionnaire of CSA sent to 50 people and 35 of them returned. We found 13 consumers joined CSA. The way of delivery is sent once fortnightly. Each delivery costs 47 USD and the six months' order costs 563 USD. The total gross income in the past 6 months is approximately $ 5450 USD/ € 4970 Euro.

(1) Questionnaire Analysis

In the 35 questionnaires, there are 10 males and 25 females. Their cognition of CSA is low, which 25 people do not know what CSA is. However, after they know the idea of CSA and organic cultivation, 27 people were willing to join CSA.

(2) Consumers' In-Depth Analysis

A. Reasons to join CSA and Change after Joining

In 35 questionnaires, the 13 consumers are willing to joint CSA. The reasons are friends' recommendation and by word-of-mouth. Informant C01 said:

"My friend asked me to come here. Before this time to order organic products, I even do not know what the 'CSA' is."

B. Satisfaction to Delivery Service but deficient Kinds of Products

About the delivery, most of the consumers are satisfied. Informant C06 said:

"Generally, the delivery process is good. The cooperative can match my need to temporarily deliver to different place."

However, some consumers consider that the diverse of kinds of vegetables are too few.

C. Confirmation of Organic Agriculture and Land Sustainable Use by CSA Promotion

CSA consumers are all realize that organic products are friendly to the environment, land, and health to human body. They understand they have to pay first, and then every two weeks to have a box of vegetables. Informant C04 said:

> "Pre-paid institution is very helpful to farmers which releases farmers' from pressure."

D. Suggestions of Decreasing the Price and Adjusting Delivery Times to Match Consumers' Needs

After 6 months, consumers recognize the advantage of CSA and want to continue their order. However, they wish the cooperative to improve the delivery times and to match consumers' needs. Informant C02 said:

> "After 6 months, I am willing to continue my order."

Informant C03 said:

> "I think the price of CSA in Xingjian is expansive than other farms, but I support farmers."

E. Suggesting Improvement to Xingjian's CSA

(A).Suggesting Delivery Service Changing to Once a Week

Many informant said that fortnightly delivery cannot guarantee the vegetables are fresh or not. Informant C02 suggested:

> "Once two weeks' delivery is not good for me. Once a week's delivery is good to have fresh vegetables."

(B).Suggesting to Decrease the Price

Price is important factor to influence consumers' willingness to order. The consumers who order CSA are not in a low income. However, they felt that the price of vegetable box is too much. Only few of them think the price is reasonable. Informant C03 said:

> "The price is reasonable and acceptable. Other organic vegetable box sellers seem no contract. In Xingjian, we signed contact and felt it is guaranteed."

6. Discourse

In previous sections, we analyze aspects of production and consumption by the questionnaire. According to multifunctionality of agriculture, it is necessary to view CSA by the functions of CO and NCO.

(1) CO: Production and Economy Functions

A. (Supply) Decreasing the use of chemical materials

Farmers do confront serious insect pest in organic field and suffer great amount loss of crops. Nevertheless, on the one hand farmers do not want to use chemicals, but on the other hand they wish to have more harvest. Due to legal reason, organic farmland is protected under law so that farmers have to obey relevant regulations and ensure the farmland is organic certificated. Therefore, as farmers continually grow crops and vegetables, the decreasing of utilizing chemicals ensures the environmental friendly cultivation.

B. (Supply) Production costs are still high; payment for certificate fee is not affordable

Due to the requirement of chemicals free, organic agriculture becomes high cost and labor intensive. Also, small farmers encounter a problem which the certificate fee is high and not affordable for them. Both conditions may influence farmers' willingness to continue organic farming.

C. (Supply) No obvious rise of farmers' income within CSA mode

Farmers grow vegetables and provide vegetables to CSA. However, in this case, it is apparently that farmers not only sell vegetables to CSA but also other farmers' market to earn more money. That is to say, CSA may push farmers to grow more vegetables, but without incentives such as higher earning, farmers would rather to sell their products in farmers' market[4]. As a whole, farmers' earning has raised more, but the part of earning of CSA is less than others.

D. (Demand) Too expensive of each vegetable box

Consumers complain about the single price of each vegetable box ($49 USD/ €44 Euro) which is too much for them. To compare with private company or farms, generally one box of vegetable is about $32 USD/ €29 Euro. Indeed, the price of each vegetable box seems too much. The cooperative has to notice this problem to reduce the cost and make the price friendlier to customers.

E. (Demand) Lack of diversity of vegetables' types

The actual producers are not many and also, they have to grow large amount of vegetables including the parts which they will carry to farmers' markets. Besides, due to climate and pest problems, farmers usually suffer great loss of agri-products. Therefore, every time when they send vegetables to the cooperative for packaging, the provided kinds of vegetables are not diverse, and also the same vegetable may send repeatedly.

(2) NCO: Social and Cultural Function

A. Interaction among farmers is better than before.

Farmers said that before CSA mode, they were busy in their farms and rarely to communicate with other farmers. After the beginning of CSA, farmers have to carry basket of vegetables to the cooperative. Naturally, they have to discuss with each other and also exchange their planting experience. Farmers' interaction is apparently better than before.

B. Lack of leadership of mobilization

The director and supervisor of cooperative and its leader Chang did not show their leadership of mobilization to other members. The incentives between CSA and farmers' market are obvious economic-oriented. Farmers would choose to sell vegetables in farmers' markets

[4] The Yilan County government, several schools, and Sanxing Farmers' Association provide farmers' market for farmers to sell their products, and they usually have good price in these markets. Informant did not give us definitive price of how much they earn but they said the selling prices in above places are better than the price they have in CSA mode.

because of higher earnings, rather than sell vegetables to the cooperative (for packaging as CSA vegetable box). Therefore, the cooperative and the leader have to notice the key factors what influence farmers' willingness to provide vegetables.

C. No cohesion (the opportunity cost of CSA is larger than individually selling)

Although farmers described their interaction was better than before, in the above section, it is not necessary to say that farmers' interaction creates cooperative members' cohesion. Because of lack of economic incentive, farmers realize the opportunity cost of CSA is larger than individually selling so that the individual rational did not create collective rational and cohesion.

D. 'Fake organic' problem (farmers and farmers, and also farmers and customers would be lack of trust)

Some farmers do not fully invest all their farmland for organic production. In order to hedge, some farmers remained several pieces of land to ensure their earnings and avoid the loss in organic field. However, sometimes these farmers harvest vegetables which are not produced in the organic field and announce that they are organic. We do not really know if farmers intended to do so or not, but it is harmful to the cooperative's reputation and also influence customers' willingness to join CSA.

(3) NCO: Eco-Environment Function

A. Organic farming is good to the land health and biodiversity

In Taiwan, chemicals use in organic farming is strict forbidden[5] by law. If a farmer can provide his certification sheet to the customers, it almost represents that her/his farmland is organic. In Xingjian, not all the pieces of land are organic but the number of certificated land, under governmental encouraging, is increasing.

B. 'Fake organic' problem (influencing the environment of agriculture)

This kind of problem may make organic farmland polluting when pieces of organic and non-organic farmland are adjacent. Therefore, strict investigation is necessary to ensure the rights of farmers who uphold the law and order.

7. Conclusion and Suggestion

Although nowadays the CSA practice in Xingjian Cooperative seems failure due to several reasons such as: too few of types of vegetables, times to deliver vegetable box, high price, etc. Farmers are still optimistic to keep working on organic farming. They are planning to have more field to grow vegetables to provide the next CSA. In our opinion, the multifunctionality of the CSA, in NCO aspect, is to hold people and makes them closer. To fulfill the multifunctionality of organic farming in the village, the future policy measures may be shown as follows:

[5] Besides several chemicals that is allowed to use on fruit trees, basically chemicals are forbidden to use according to regulation of organic farming.

(1) According to the cost of organic farming and its certificate fee, the Government should provide organic subsidies.

Reasons to support organic agriculture development are: A) organic agriculture having "public goods" value: the public goods' value cannot reflect on commercial price so that government provides subsidies; B) develop new industry: the market of organic food is too small to satisfy the public demand so that the support and development should be provided by the government; C) correcting market failure: the demand of organic food is high but low producers leading to an inefficient market so that the government have to intervene for avoiding market failure (Lampkin ,2002:321).

This study suggests that to support organic agriculture development, the government have to legislate policy for "pushing" supply of organic food. Also, organic agriculture is no doubt to improve people's health so that the government should encourage farmers to transform to organic farming. This study suggests that besides organic verification fees, the government has to provide subsidies for those farmers who are willing to transform to organic agriculture.

(2) According to the non-cohesion problem to the CSA, the Cooperative must pay great attention to problem of mobilization.

The cooperative and its leader, as a conductor of CSA, have to seriously deal with the non-cohesion of mobilization problem. Farmers are not immobilizable, unless the cooperative eliminated appropriate profits. In our research, the benefit to sell vegetables in farmers' markets is comparatively higher, so that farmers would rather to decrease the supply to CSA than increase the supply to farmers' markets. If the cooperative would like to resume CSA, have to provide incentives to re-mobilize farmers to join again.

(3) In order to deal with the 'fake organic' problem, the government has to prevent the counterfeited organic products.

Fabrication of organic certification in Taiwan emerges in endlessly. It makes law-abiding legal farmers suffered great loss on their reputation and profits. In our research, farmers are not intended to fabricate their products as organic, once the investigator found, they have to face the legal responsibility. Therefore, we suggest that complete investigative institution has to be legitimated by the government for avoiding fabrication.

In the end of this study, we have learned that 2 of the household restart their order of vegetable boxes. It is undoubtedly good news for cooperative farmers. However, CSA is 'community-based,' which means that the 2 households-order is not convictive to say successfully. In this case, CSA is inconvincible to be profitable for farmers and cooperative. Thus, CO functions in this case seem not effective. Multifunctionality of agriculture in Xingjian is still a long way to go to make it success.

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A Content Analysis of Risk Management Disclosures in Borsa Istanbul

Burcu Adiloglu, Cagla Demir

1. Introduction

Today along with the increasing importance of transparency and accountability issues around the world financial statements are larger and cover more issues today than they did in the past. The need for effective risk management and transparent risk reporting in addition to financial data in annual reports has become an important corporate governance principle and a vital issue in business life. The core principles of good corporate governance are fairness, accountability, responsibility and transparency. (OECD, 2013) Good corporate governance helps companies operate more efficiently, improve access to capital, mitigate risk and safeguard against mismanagement. It makes companies more accountable and transparent to investors and gives them the tools to respond to stakeholder concerns. (IFC, 2012) However organizations are reluctant to disclose anything that might threaten competitive advantage or to discuss potential risks in detail in case this alarms stakeholders especially providers of finance. (ACCA, 2014) Most of the guidance and regulatory requirements for risk reporting were developed after the financial crisis, but some nations have a better record than others, historically, of forcing or encouraging companies to report on risk. The US, for example, has required companies listed with the Securities and Exchange Commission (SEC) to describe the risks faced by the business since the 1970. (ACCA, 2014) Although there are many researches related to risk disclosures all over the world there have been no research conducted about risk disclosure practices in Turkey. This paper attempts to find out the risk management disclosure practices within a sample of non-financial companies in BIST Corporate Governance Index. The rest of the paper is organized as follows: Section II provides a detailed survey of past studies. Section III explains the data (variables employed) and methodology while the results are presented in Section IV. Finally, Section V gives the conclusion.

2. Literature Review

Solomon et al. (2000) tried to validate two conceptual frameworks and is founded on a survey to canvas the attitudes of UK institutional investors towards risk disclosure in relation to their portfolio investment decisions. The first framework deals with publications on the system of risk management and the second one with actual risk publication. Both of them are supported by questionnaires. Stanton and Stanton's (2002) review of corporate annual report research identifies 70 disclosure studies published in the period 1990–2000, none of which specifically examine risk disclosures. There have been a number of risk-related papers published that study the effect of the Securities and Exchange Commission (SEC) Financial Reporting Release (FRR) on Derivative and Market Risk Disclosures (No: 48) Linsmeir et al. (2002) use a sample of nonfinancial firms to investigate the impacts of forward-looking Securities and Exchange Commission (SEC) mandated market risk disclosures. They document a reduced trading volume sensitivity to variations in market rates and prices, namely interest rates, foreign currency exchange rates, and commodity prices, following SEC's mandated market risk disclosure.

Beretta and Bozzolan (2004) build an index (using a conceptual framework whose objective is to integrate all dimensions of risk). The index aims at evaluating publications from a sample of Italian firms. They seek to develop an index of "risk disclosure" which aims at evaluating the voluntary publications of enterprises. The index values go from 1 to 4. This work has been

criticized because it deals with many dimensions and confuses the reader rather than aiding understanding.

Linsley and Shrives (2006) discusses the nature of the risk disclosures made by the sample companies specifically examining their time orientation, whether they are monetarily quantified and if good or bad risk news is disclosed. They analyzed the information disclosed in the largest banks in the UK and Canada and found that the main focus of the information disclosed is quantitative information and information on management policies.

In Portugal, Oliveira et al. (2011) analyzed the annual reports of 101 Portuguese commercial banks who disclosed the information at the Bank of Portugal on December 31st 2007. According to the results, the disclosure of risk-related information is reduced and based on entities that adopt the national standards. These results corroborate the view that the adoption of the IAS / International Financial Reporting Standards (IFRS) has led to an increased disclosure of risk-related subject. Researchers in many countries have expended considerable effort in the last years examining the risk disclosures in annual reports. However risk studies in Turkey are not parallel with the increase in the number of risk studies in the world. Because Turkish companies do not voluntarily report risk information in the annual reports.

3. Data & Research Methodology

The aim of this research is to explore the extent and content of risk disclosures in annual reports of a sample of 29 non-financial companies in BIST Corporate Governance Index. They represent different sectors, thus the data collected was also analyzed by sector.

The sample consists of 29 non-financial listed companies in BIST Corporate Governance Index as at 1 February 2016 which includes companies traded on Borsa Istanbul Markets with a corporate governance rating of minimum 7 over 10 as a whole and minimum of 6.5 for each main section. This sample selection based on the assumption that as a part of good corporate governance these companies would be more advanced in their risk disclosures. 21 companies which operate in financial sector are excluded because of their specific laws and regulations. The 29 sample companies are listed in Table 1.

The sample consists of 29 manufacturing firms. Data about sector classification of companies were collected from web site of Public Disclosure Platform. (Public Disclosure Platform is an electronic system which includes electronically signed notifications of listed companies required by the capital markets and Borsa Istanbul regulations. For further information please see www.kap.gov.tr.) 25 of the sampled companies are audited by Big 4 (Deloitte Touche Tohmatsu Limited, PricewaterhouseCoopers, KPMG, Ernst & Young) audit firms and audit opinions for all 29 of the companies were qualified. These audit reports were collected from the web site of Public Disclosure Platform.

Sentence-based content analysis method was chosen for this research which has been widely used in previous disclosure studies (Linsley & Shrives, 2005; Linsley & Shrives, 2006; E Silva, de

Table 1: Sample Companies

Anadolu Efes Biracilik ve Malt Sanayii A.S.	Petkim Petrokimya Holding A.S.
Aksa Akrilik Kimya Sanayii A.S.	Pinar Entegre Et ve Un Sanayii A.S.
Arcelik A.S.	Pegasus Hava T.A.S.
Aselsan Elektronik Sanayi ve T.A.S.	Pinar Su Sanayi ve T.A.S.
Aygaz A.S.	Pinar Sut Mamulleri Sanayii A.S.
Coca-Cola Icecek A.S.	Turk Prysmian Kablo ve Sistemleri A.S.
Dogus Otomotiv Servis ve T.A.S.	Park Elekt. Uretim Madencilik San. ve T.A.S.
Enka Insaat ve Sanayi A.S.	Turkiye Sise ve Cam Fabrikalari A.S.
Eregli Demir ve Celik Fabrikalari T.A.S.	Tofas Turk Otomobil Fabrikasi A.S.
Hurriyet Gazetecilik ve Matbaacilik A.S.	Turcas Petrol Anonim Sirketi
Ihlas Ev Aletleri Imalat Sanayi ve T.A.S.	Turk Telekom A.S.
Izocam Ticaret ve Sanayi A.S.	Turk Traktor ve Ziraat Makineleri A.S.
Logo Yazilim Sanayi ve T.A.S.	Tupras, Turkiye Petrol Rafinerileri A.S.
Migros T.A.S.	Vestel Elektronik Sanayi ve T.A.S.
Otokar Otomotiv ve Savunma Sanayi A.S.	

Albuquerque, Marcelino & Quiros, 2015; Mohobbot, 2005; Madrigal, Guzman & Guzman, 2015; Berger, 2012; Lajili & Zeghal, 2005; Amran, Bin & Hassan, 2009). Published annual reports for the year 2015 of sampled companies have been used. These reports were collected from Public Disclosure Platform's or companies' own web sites. Authors read each annual report to identify all sentences providing risk or risk-management information. The word "risk" did not have to appear within the sentences. If the given information which have already had an impact upon the company, or may have in the future, or if the reader is better informed about risk management of the company was considered as a risk disclosure sentence. Subjectivity problem in coding method cannot be avoided since risk information is open to interpretation of reader.

The risk disclosures identified placed into one of four risk categories: 'financial risks', 'operational risks', 'market and environmental risks' and 'managerial risks'. The coding used by Linsley & Shrives (2005) adopted in this study which includes the following attributes:

(1) whether the risk sentence provided monetary or non-monetary information
(2) whether good news or bad news was being communicated; and
(3) whether the information related to the future or the past

Managers need to use their best judgment to estimate and measure the risks by considering unexpected events can take place (Linsley & Shrives, 2006, p.391). Based on the companies' assumptions or knowledge, some risk elements can be quantified. These kind of disclosures were classified as monetary in this research while qualified explanations related to events had or can have any impact on companies were classified as non-monetary. Impacts of risks disclosed were taken into account as good news or bad news based on their present or potential positive or negative effect on company. Risks disclosed were also examined by their temporal context and classified as past related, future related or past and future related (information given about risk management policy of the companies were classified in this category since they have effect on both past and future).

Some disclosures includes more than one risk related information thus could be classified in more than one category. The most emphasized category was chosen for this kind of disclosures.

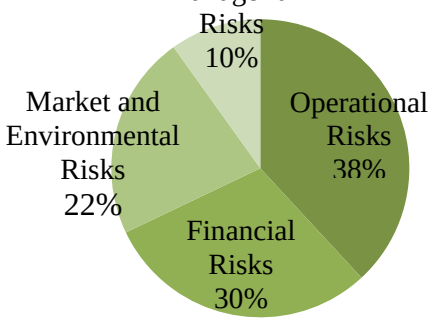
4. Analysis of Results

A total of 829 risk related sentences were identified in the study. Operational risk disclosures are dominant and which is followed by financial risk disclosures. The results and percentage of these risk types can be seen in Table 2 and Figure 1.

Table 2 : Risk Types

Type of Risk	Number of disclosures	Percentage
Operational Risks	316	38%
Financial Risks	247	30%
Market and Environmental Risks	184	22%
Managerial Risks	82	10%
Total	**829**	**100%**

Figure 1 : Percentage of Risk Types



A substantial number of operational risk disclosures were related to companies' risk management policies as a requirement of corporate governance practices. These results confirmed the findings of Linsley & Shrives (2005). This type of risk disclosures are useful and represent that risk management systems are in place. But they do not provide detailed information about specific risks that companies are face with and how effective these systems are (Linsley & Shrives, 2005, p.298). The common operational risk disclosures are as follows: customer satisfaction, stock obsolescence, efficiency and effectiveness, collection problems (bad debts or late collections), human resources (provisions for retirement pay, unused vacation and employee loyalty incentives) and risk of losing market share.

The same pattern is also valid for a significant proportion of the financial risks disclosed. This category either includes information about risk management practices as a requirement of Turkish Accounting Standards (For further information about these standards please see http://www.kgk.gov.tr) which has to be applied by listed companies. Most of the risks disclosed in this category are related to liquidity, credit, exchange and interest risk practices of the companies.

Market and environmental risks are generally related to environmental obligations and corporate responsibility which are comply with regulations. Most of the risks disclosed in this category were to indicate that there was no breach of regulations in the related fields. The lowest number of risk disclosures is related to managerial uncertainties. Only significant information disclosed in this category was internal control risk which is another necessity for corporate governance practices.

As it is seen in the Table 3 almost 72% of disclosures are made by companies in three sectors (Fabricated Metal Products - Machinery and Equipment, Food, Beverage and Tobacco, Chemicals, Petroleum Rubber and Plastic Products) and the same pattern is relevant for each.

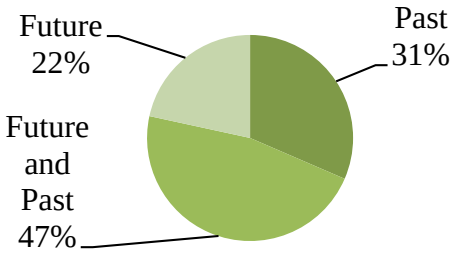
Table 3 : Characteristics of Risk Disclosures

	Measurability		**Nature**		**Time Orientation**			**Type**				
Sectors	**Non-monetary**	**Monetary**	**Good**	**Bad**	**Future & Past**	**Past**	**Future**	**Operational risks**	**Financial risks**	**Market & Env. risks**	**Managerial risks**	**Total**
Fabricated Metal Products, Machinery and Equipment	177	40	127	90	129	63	25	81	53	54	29	217
Food, Beverage and Tobacco	130	63	17	2	86	32	75	76	73	35	9	193
Chemicals, Petroleum Rubber and Plastic Products	127	56	43	11	86	55	42	70	66	32	15	183
Telecommunication	38	16	5	0	15	37	2	13	12	18	11	54
Paper and Paper Products, Printing and Publishing	20	17	11	3	9	5	23	13	16		1	37
Defense	30	3	18	15	19	12	2	11	6	13	3	33
Wholesale Trade	23	5	99	84	14	14	0	16	5	6	1	28
Basic Metal Industries	19	5	21	7	12	3	9	10	9	2	3	24
Non-Metallic Mineral Products	17	2	6	0	4	15	0	8	0	5	6	19
Large Stores	13	1	13	11	2	12	0	6	1	4	3	14
Transportation/Air Transport	9	2	10	27	6	4	1	3	5	3	0	11
Construction and Public Works	6	0	2	3	5	1	0	3	0	2	1	6
Information Technology	5	0	4	7	0	5	0	2	0	3	0	5
Coal Mining	3	2	106	87	2	3	0	4	1	0	0	5
Total	**617**	**212**	**482**	**347**	**389**	**261**	**179**	**316**	**247**	**184**	**82**	**829**

Operational risks are dominant and managerial risk category displays extremely low level of disclosure.

To inform decision makers better it is expected to disclose more forward-looking risk information in financial statements and reports of the companies. But as it is seen in Table 3 and Figure 2, past related risks were disclosed more in the investigated reports.

Figure 2 : Time Orientation Proportions of Risk Disclosures

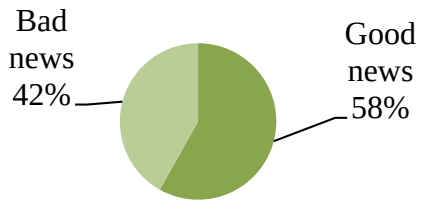


As it is indicated before, risk management policy related disclosures were coded as "future and past" and 47% of all are in this category. This result supports the previous discussion that operational and financial risks disclosed include a higher degree of risk management related information. Beretta & Bozzolan (2004) and Linsley & Shrives (2006) reported 16% and 39% of all risks, respectively, were related to policies of companies.

Past related risk disclosures are 31% of total which is less than Beretta & Bozzolan (2004)'s findings that is 50% percent and higher than Linsley & Shrives (2006) that is 26%. Linsley & Shrives (2005, p. 301) stated that since it's hard to assess future risks, higher disclosure rate of past related information is understandable by management's point of view. Managers may be reluctant to use their judgments in certain situations to avoid mistakes and losing confidence of investors.

When discussing good news and bad news disclosed it must be kept in mind that management cannot choose to withhold bad news. Poor financial results are needed to be explained by defining risks with negative effects on companies. At the same time managers have to consider image of their companies, thus good risk disclosures follow bad risk disclosures (Linsley & Shrives, 2005, p.301).

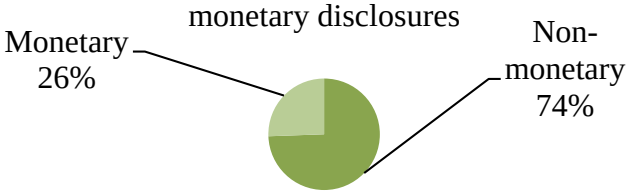
Figure 3 : Nature of Risk Disclosures



Bad news disclosed in annual reports investigated are mainly provision for uncollectible accounts, stock obsolescence and legal risks related to regulatory requirements. It's fair to indicate that other than those, bad risk disclosures are not common.E Silva et.al. (2015) found that 67% and 63% of all disclosures were good news in the years 2011 and 2012, respectively, to 58% in this study.

Risk disclosures were classified whether they are quantified or not. The results confirmed findings of Linsley & Shrives (2006) and Beretta & Bozzolan (2004) that is proportion of quantitative disclosures are higher. There is a significant gap between numbers of monetary and non-monetary disclosures. Linsley & Shrives (2006) found that 5.3% of total risk disclosures were quantified to 26% in this study. As it is seen in Table 3 monetary risk disclosures are higher than non-monetary ones and no monetary risks were disclosed in "Construction and Public Works" and "Information Technology" sectors.

Figure 4 : Proportion of monetary and non-monetary disclosures



Locations of risk disclosures by sector were summarized in Table 4 and Table 5. Audited financial statements and attached footnotes were added to annual reports by 5 companies. The highest number of risk disclosures were reported in these footnotes (34%) since they are prepared in compliance with Turkish Accounting Standards. 28% of all disclosures were reported in "Risk Management and Internal Control" and "Corporate Governance" sections in total. Amran et.al. (2009) found that in 65% of sampled Malaysian companies were reported the risk disclosures in "Chairman Statement" (is categorized in "Introduction" in this study) part of their annual reports. They found that 34% of total risk disclosures were reported in "Operation Preview" part to 9% ("Operation") in this study.

There is no specified preparation format for annual reports, thus different section names have been used by companies. The sections consist less than 3 disclosures are combined and categorized as "Other". Other category includes Management, Human Resources Management, Dividend Policy, Financial Structure, Markets, Perfection in Work, Audit Committee, Environmental Issues, Employee Relations.

Table 4 : Percentage of Where the Risks Disclosed

Location of Risk Disclosures	**Number of Disclosures**	**Percentage**
Footnotes	283	34%
Risk Management and Internal Control	116	14%
Corporate Governance	97	12%
Operations	78	9%
Introduction	68	8%
Board of Directors	29	3%
Audit Opinion	28	3%
Administrative Operations and Sectoral Developments	26	3%
Financial Assessments	26	3%
Corporate Responsibility	22	3%
Sustainability	17	2%
Other	17	2%
Innovation	10	1%
Lawsuits/Legal Issues/Auditing	8	1%
Basic Performance Indicators	4	0%
Total	**829**	**100%**

Table 5 : Locations of Risk Disclosures

SECTORS LOCATION OF RISK DISCLOSURES	FABRICATED METAL PRODUCTS, MACHINERY AND EQUIPMENT	NON-METALLIC MINERAL PRODUCTS	TELECOMMUNICATION	INFORMATION TECHNOLOGY	LARGE STORES	DEFENSE	CHEMICALS, RUBBER PETROLEUM AND PLASTIC PRODUCTS	WHOLESALE TRADE	CONSTRUCTION AND PUBLIC WORKS	BASIC METAL INDUSTRIE	PAPER AND PAPER PRODUCTS, PRINTING AND	COAL MINING	TRANSPORTATION/ AIR TRANSPORT	FOOD, BEVERAGE AND TOBACCO	TOTAL
Footnotes	55		14				87				19			108	**283**
Risk Management and Internal Control	48				4	17	19	9		11	1		6	1	**116**
Corporate Governance	25		12		3	5	27		5	6	1			13	**97**
Operations	14	9	6		2		17	5			10	4	1	10	**78**
Introduction	12						4	9						43	**68**
Board of Directors	6	1	15				7								**29**
Audit Opinion	7		2	1	3	1	3	1	1	1	1	1	1	5	**28**
Administrative Operations and Sectoral Developments	5	5		4		7	2	1		2					**26**
Financial Assessments	1				2	3	5	2			5			8	**26**
Corporate Responsibility	21							1							**22**
Sustainability	5		2				5							5	**17**
Other	6	4	2				2			3					**17**
Innovation	10														**10**
Lawsuits/Legal Issues/Auditing	2						2			1			3		**8**
Basic Performance Indicators			1				3								**4**
	217	**19**	**54**	**5**	**14**	**33**	**183**	**28**	**6**	**24**	**37**	**5**	**11**	**193**	**829**

5. Conclusion:

Bad management and disclosure practices have triggered the financial crises and company scandals that broke out in the recent years. This has clarified the importance of the concept of corporate management practices. The importance of the issue has been growing at an international level and the quality of corporate governance practices, which is deemed to be as important as financial performance in investment decisions, has become a subject of more serious consideration. (CMB, 2003)

This study examined the nature of risk disclosures within the annual reports of listed companies in BIST Corporate Governance Index. The disclosures were analyzed based on the risk types (operational risks, financial risks, market and environmental risks or managerial risks), temporal context (past related, future related or both past and future related), measurability (monetary or non-monetary) and impact on company (good or bad).

By using content analysis method 829 risk disclosures have been detected. 38% of all are operational risks which include risk management policy information given. In consistent with these results temporal context analysis of these disclosures shows that 47% of the risks disclosed are both past and future related which is the coding for risk management policy disclosures. The least disclosed risk category is managerial risks that are generally related to existence of internal control system or reliability of accounting system which are parts of corporate governance practices. Risk information disclosed can have positive or negative effect on companies' past or future financial positions and performances. 58% of the disclosures detected are good news for the companies investigated. A large proportion of negative risk disclosures are required by the rules and regulations such as doubtful receivables, stock obsolescence or lawsuits. Thus these results show the tendency of management to disclose risks that have positive effects on the companies. Risks disclosed are also categorized as monetary or non-monetary. 74% of the disclosures detected are non-monetary that is another expected result since there are a high number of disclosures about risk management practices that are non-monetary explanations. The highest number of risk disclosures is observed in three sectors which are Fabricated Metal Products, Machinery and Equipment (26%), Food, Beverage and Tobacco (23%) and Chemicals, Petroleum Rubber and Plastic Products (22%).

Different types of annual reports are prepared by the companies thus it was investigated where the risks are disclosed in. Some of the companies attached their audited financial statements and footnotes to the annual reports which is the part includes the highest number of risk disclosures (34%) and that is followed by Risk Management and Internal Control (14%) and Corporate Governance (12%) sections. This study has some limitations such as the sample size is 29 companies. Relationship between sectors and risk disclosures were investigated but total number of companies in each sector is different which makes it harder to generalize the results we found. Also financial companies were excluded from the sample thus the results cannot be used for financial companies.

This research contributes by providing an initial understanding of risk disclosures practices in Turkey. There is a need for additional risk reporting research. Further research that examines the risk disclosures in a larger sample will help to see risk disclosure practices from a new perspective. Also interaction between risk disclosures can be investigated such as monetary-good-future related disclosures, monetary-good-past related disclosures.

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International Economic Comparison of the Eastern EU Rim Countries

Alessio Lokar, Lubica Bajzikova, Peter Bajzik

1. Introduction

The global financial and economic crisis resulted in a remarkable recession in 2009, both, in the European Union and in the United States. The recovery started in 2010.
As it is renowned, Gross Domestic Product (GDP) is one of the most frequently used measures for indicating the overall size of an economy, whereas some derived indicators such as GDP per capita and others are widely used for comparison of living standards, or, they are used in order to monitor the processes of convergence between countries. In 2015, GDP in the EU remained ahead of that of the United States. This situation may be changed by a transformation and rapid expansion of the Chinese economy. The effects of the financial and economic crisis lowered the overall performance of the EU member states' economies with the exception of Germany, which is nowadays the best performer of the EU and possibly of the world.
The analysis of GDP per capita removes the influence of the size of the population, making comparisons between different countries possible. GDP per capita is a broad economic indicator of living standards. The calculation of the annual growth rate of GDP is utilized in order to allow the comparison of the dynamics of economic development both over time and between economies.

2. Method

Based on the Eurostat data as well as on the World Factbook 2016 (CIA, 2016) information, nineteen countries were selected for the purposes of this comparative analysis. Several criteria were chose to rank the countries according to their economic performance. Short commentaries to the outcomes were added to raise the interpretative quality of the analysis. The aim was not to present a detailed comparison between the countries; but to pinpoint the most notable differences in their economic results.

3. Discussion

This paper aims to juxtapose several countries of Eastern and Central Europe by several economic variables for the year 2015 in order to make conclusions about their international economic performance, possible effects on the world economy in general as well as specifically on the economy of the EU. This analysis makes possible following aspects regarding the EU's potential of future success, if it is considered as an economic and political experiment, which recently has been challenged by the occurrence of the Brexit. As a consequence of Great Britain's reluctance to continue its membership in the EU, several assumptions emerged regarding possible future transformation of EU as a whole and also the EU member states. In this study, nineteen countries were displayed and examined based on eight economic variables. They were compared in order to visualize significant economic consequences based on the comparison carried out.

Table 1. Economic Comparison of Selected Countries in 2015

Number	**Countries**	Number of Inhabitants	GDP in millions USD	GDP per Capita in USD	GDP percentage Growth from one year to the next	Budget surplus (+) or deficit (-)	Public Debt as Percentage of GDP	Current Account Balance, billion USD	Current Account Balance, Ratio to GDP
1	**India**	1,251,695,584	2,091,000	1,671	7.3	-4.1	51.7	-26.2	-12.5
2	**China**	1,367,485,388	10,980,000	8,029	6.0	-2.6	16.7	293.2	36.5
3	**Luxembourg**	570,252	57,420	100,692	4.5	0.0	21.7	3.0	52.2
4	**Czech Rep.**	10,644,842	181,900	17,088	4.2	-1.8	41.4	1.6	9.1
5	**Slovakia**	5,445,027	86,630	15,910	3.6	-2.5	52.5	-1.0	-11.5
6	**Poland**	38,562,189	479,900	12,445	3.6	-1.8	43.4	-2.2	-4.6
7	**Slovenia**	1,983,412	42,770	21,564	2.9	-1.0	62.7	3.1	72.9
8	**US**	321,368,864	17,950,000	55,855	2.4	-2.4	73.6	-484.1	-27.0
9	**Norway**	5,207,689	389,500	74,793	1.6	6.6	39.3	35.0	90.0
10	**Croatia**	4,464,844	48,850	10,941	1.6	-5.0	89.5	2.1	43.9
11	**Germany**	80,854,408	3,358,000	41,531	1.5	0.9	71.7	285.2	84.9
12	**Switzerland**	8,121,830	664,600	81,829	0.9	0.2	34.0	75.8	114.1
13	**Austria**	8,665,550	374,100	43,171	0.9	-2.1	83.4	13.5	36.0
14	**Italy**	61,855,120	1,816,000	29,359	0.8	-3.0	135.8	38.7	21.3
15	**Serbia**	7,176,794	36,510	5,087	0.7	-4.1	75.0	-1.8	-48.3
16	**Japan**	126,919,659	4,123,000	32,485	0.5	-6.5	227.9	137.5	42.3
17	**Moldova**	3,546,847	6,414	1,808	-1.1	2.3	51.9	-0.4	-66.4
18	**Russia**	142,423,773	1,325,000	9,303	-3.6	-2.9	13.5	65.8	49.7
19	**Ukraine**	44,429,471	90,520	2,037	-9.9	-4.4	94.9	-0.3	-2.9

Source: CIA, The World Factbook 2016.

Table 1 shows the results for the set of nineteen countries in our international economic comparison. Some of the analyzed countries were from the group of the EU core countries (Clemens, 2015), whilst the others were from the East and South-East Europe (Kafkalas, Panayotis, 2012). The collected data show the most recent economic trends and results (Eurostat, 2016).

In addition, we have selected seven Central and Eastern European countries for the purposes of this article: Czech Republic, Slovakia, Poland, Slovenia, Croatia, Serbia and Moldova. In order to interpret the results in a broader context, following countries have been added for comparative purposes: India, China, Luxembourg, USA, Norway, Germany, Switzerland, Austria, Italy, Japan, Russia and Ukraine.

For each country a number of economic and social parameters has been listed, in particular: number of inhabitants, GDP expressed in millions of USD, GDP per capita in USD, GDP percentage growth from one year to the next, budget surplus (+) or deficit (-), public debt as percentage of GDP, current account balance in billions of USD and current account balance as ratio to GDP (Sharma, 2016).

As for the country ranking based on GDP per capita in USD (Table 2), an enormous difference in GDP per capita between some of countries (Coyle, 2014) is observed. The wealth of an inhabitant of Luxembourg is 60 times bigger than that of an inhabitant of India and 56 times bigger than the one of Moldova.

Table 2. Country Ranking based on the GDP per Capita in USD in 2015

Number	**Countries**	Number of Inhabitants	GDP in millions USD	GDP per Capita in USD	GDP percentage Growth	Budget surplus (+) or deficit (-)	Public Debt as Percentage of GDP	Current Account Balance, billion USD	Current Account Balance, Ratio to GDP
1	**Luxembourg**	570,252	57,420	100,692	4.5	0.0	21.7	3.0	52.2
2	**Switzerland**	8,121,830	664,600	81,829	0.9	0.2	34.0	75.8	114.1
3	**Norway**	5,207,689	389,500	74,793	1.6	6.6	39.3	35.0	90.0
4	**US**	321,368,864	17,950,000	55,855	2.4	-2.4	73.6	-484.1	-27.0
5	**Austria**	8,665,550	374,100	43,171	0.9	-2.1	83.4	13.5	36.0
6	**Germany**	80,854,408	3,358,000	41,531	1.5	0.9	71.7	285.2	84.9
7	**Japan**	126,919,659	4,123,000	32,485	0.5	-6.5	227.9	137.5	42.3
8	**Italy**	61,855,120	1,816,000	29,359	0.8	-3.0	135.8	38.7	21.3
9	**Slovenia**	1,983,412	42,770	21,564	2.9	-1.0	62.7	3.1	72.9
10	**Czech Rep.**	10,644,842	181,900	17,088	4.2	-1.8	41.4	1.6	9.1
11	**Slovakia**	5,445,027	86,630	15,910	3.6	-2.5	52.5	-1.0	-11.5
12	**Poland**	38,562,189	479,900	12,445	3.6	-1.8	43.4	-2.2	-4.6
13	**Croatia**	4,464,844	48,850	10,941	1.6	-5.0	89.5	2.1	43.9
14	**Russia**	142,423,773	1,325,000	9,303	-3.6	-2.9	13.5	65.8	49.7
15	**China**	1,367,485,388	10,980,000	8,029	6.0	-2.6	16.7	293.2	36.5
16	**Serbia**	7,176,794	36,510	5,087	0.7	-4.1	75.0	-1.8	-48.3
17	**Ukraine**	44,429,471	90,520	2,037	-9.9	-4.4	94.9	-0.3	-2.9
18	**Moldova**	3,546,847	6,414	1,808	-1.1	2.3	51.9	-0.4	-66.4
19	**India**	1,251,695,584	2,091,000	1,671	7.3	-4.1	51.7	-26.2	-12.5

Source: CIA, The World Factbook 2016.

Switzerland and Norway have a level of GDP per capita of around 60% above the EU average. Italy has its level of GDP per capita at around 5% below the EU average. The Czech Republic and Slovenia are between 10% and 20%, Slovakia less than 30% and Poland 40% below the average. Croatia has GDP per capita less than 50% below average. The candidate countries of Montenegro and Serbia have about 60% below the EU average.

These large differences are quite explanatory for many modern economic and social phenomena, which are observed currently, for instance: first the drive of countries and organizations to improve persistently their economic performance and the country's (or individual citizens') wealth, in case their ranking is considered insufficient in the international classification, as well as in case their improvement is slow compared to the desires and predictions of the country's politicians or experts. Second, the trend toward emigration from countries with lower GDP per capita into the countries, where the level of development is more acceptable makes it possible for immigrants to find suitable work opportunities and hence to improve their quality of life.

According to Sharma (Sharma, 2016) GDP per capita might increase much faster in emerging economies than in rich ones. They might be able to exploit the innovative technologies in order to their advancement, learning from rich countries' experience. But history suggests that sustaining fast growth is in practice a rather hard task, so that we must be cautious with such predictions.

Table 3. Country Ranking based on the Public Debt in 2015

Number	**Countries**	Number of Inhabitants	GDP in millions USD	GDP per Capita in US $	GDP percentage Growth	Budget surplus (+) or deficit (-)	Public Debt as Percentage of GDP	Current Account Balance, billion USD	Current Account Balance, Ratio to GDP
1	**Japan**	126,919,659	4,123,000	32,485	0.5	-6.5	227.5	137.5	33.3
2	**Italy**	61,855,120	1,816,000	29,359	0.8	-3.0	135.8	38.7	21.3
3	**Ukraine**	44,429,471	90,520	2,037	-9.9	-4.4	94.9	-0.3	-2.9
4	**Croatia**	4,464,844	48,850	10,941	1.6	-5.0	89.5	2.1	43.9
5	**Austria**	8,665,550	374,100	43,171	0.9	-2.1	83.4	13.5	36.0
6	**Serbia**	7,176,794	36,510	5,087	0.7	-4.1	75.0	-1.8	-48.3
7	**US**	321,368,864	17,950,000	55,855	2.4	-2.4	73.6	-484.1	-27.0
8	**Germany**	80,854,408	3,358,000	41,531	1.5	0.9	71.7	285.2	84.9
9	**Slovenia**	1,983,412	42,770	21,564	2.9	-1.0	62.7	3.1	72.9
10	**Slovakia**	5,445,027	86,630	15,910	3.6	-2.5	52.5	-1.0	-11.5
11	**Moldova**	3,546,847	6,414	1,808	-1.1	2.3	51.9	-0.4	-66.4
12	**India**	1,251,695,584	2,091,000	1,671	7.3	-4.1	51.7	-26.2	-12.5
13	**Poland**	38,562,189	479,900	12,445	3.6	-1.8	43.4	-2.2	-4.6
14	**Czech Rep.**	10,644,842	181,900	17,088	4.2	-1.8	41.4	1.6	9.1
15	**Norway**	5,207,689	389,500	74,793	1.6	6.6	39.3	35.0	90.0
16	**Switzerland**	8,121,830	664,600	81,829	0.9	0.2	34.0	75.8	114.1
17	**Luxembourg**	570,252	57,420	100,692	4.5	0.0	21.7	3.0	52.2
18	**China**	1,367,485,388	10,980,000	8,029	6.0	-2.6	16.7	293.2	26.7
19	**Russia**	142,423,773	1,325,000	9,303	-3.6	-2.9	13.5	65.8	49.7

Source: CIA, The World Factbook, 2016.

Table 3 shows the countries ranking on the basis of the economic variable public debt expressed as the percentage of GDP for every country listed in the table (Buchanan, 1999). The expression as percentage of GDP is necessary, because countries differ considerably in size as far as the number of inhabitants and the economic power is concerned. In order to standardize that aspect, public debt is calculated as percentage of the GDP. A comparison of public debt in absolute terms would be meaningless because of country differences in geographic, social and economic size. This parameter is connected to the countries' past; many countries enter into the spiral of increasing their debt, trying to obtain the capital needed to bring up a quick improvement of their present economic situation.

In this context, large differences between countries in respect to the public debt can be observed. Interestingly, we observe, that the highest public debt is connected with one of the most renowned world economy, the Japan. It seems that the economic growth of Japan is linked not only to a commonly shared belief about the mentality of the Japanese people, that is to say their diligence, hard work and smartness, but also simply to the expansion of the Japanese public debt; more specifically, more money is put at disposal of any kind of spending, such move boasts almost automatically and everywhere the economic growth.

How was this debt expansion possible? Did the Japanese citizens and politicians not control sufficiently the debt increase and consequently feel menaced by its towering growth?

The answer is simple: most of this public debt does not relate to foreign borrowers, but toward citizens of Japan. In accordance with the Japanese mentality, this is not perceived as a problematic issue; no serious political risks are connected with the public debt, since the Japanese public opinion tends to respect governmental decisions.
In conclusion, in an extreme state of affairs, one can imagine, the politicians could also avoiding the return of the debt payments, as in the worst case of default, one can guess, that their citizens would not challenge the Japanese state in order to obtain back the money lent.
A different scenario is that of Italy, the country ranking second after Japan, as far as public debt size is concerned. The Italian public debt is extensive due to foreign borrowing; foreigners might be far less patient with the Italian state in the case of a delay in payment. In the case of some kind of crisis, they would demand their money back, pushing the country in a difficult situation.
Concerning the public debt, every country is in a different situation: Japanese public debt, even if higher, seems not to represent a big menace for the local political establishment, but the Italian one could become something rather different, compared to Japan, if events evolve in a wrong and undesirable direction.
The next parameter to be taken into consideration is the economic growth of the countries' GDP from one year to the next between 2014 and 2015 (Eurostat, 2016; Scott, 1991). The ranking of the countries is shown in the particular column blackened, in order to be easily stressed out (Table 4).

Table 4. Country Ranking based on the GDP Percentage Growth in 2015 to 2014

Number	**Countries**	Number of Inhabitants	GDP in millions USD	GDP per Capita in US $	GDP Percentage Growth	Budget surplus (+) or deficit (-)	Public Debt as Percentage of GDP	Cur-rent Account Balance, billion USD	Current Account Balance, Ratio to GDP
1	**India**	1,251,695,584	2,091,000	1,671	7.3	-4.1	51.7	-26.2	-12.5
2	**China**	1,367,485,388	10,980,000	8,029	6.0	-2.6	16.7	293.2	36.5
3	**Luxembourg**	570,252	57,420	100,692	4.5	0.0	21.7	3.0	52.2
4	**Czech Rep.**	10,644,842	181,900	17,088	4.2	-1.8	41.4	1.6	9.1
5	**Slovakia**	5,445,027	86,630	15,910	3.6	-2.5	52.5	-1.0	-11.5
6	**Poland**	38,562,189	479,900	12,445	3.6	-1.8	43.4	-2.2	-4.6
7	**Slovenia**	1,983,412	42,770	21,564	2.9	-1.0	62.7	3.1	72.9
8	**US**	321,368,864	17,950,000	55,855	2.4	-2.4	73.6	-484.1	-27.0
9	**Norway**	5,207,689	389,500	74,793	1.6	6.6	39.3	35.0	90.0
10	**Croatia**	4,464,844	48,850	10,941	1.6	-5.0	89.5	2.1	43.9
11	**Germany**	80,854,408	3,358,000	41,531	1.5	0.9	71.7	285.2	84.9
12	**Switzerland**	8,121,830	664,600	81,829	0.9	0.2	34.0	75.8	114.1
13	**Austria**	8,665,550	374,100	43,171	0.9	-2.1	83.4	13.5	36.0
14	**Italy**	61,855,120	1,816,000	29,359	0.8	-3.0	135.8	38.7	21.3
15	**Serbia**	7,176,794	36,510	5,087	0.7	-4.1	75.0	-1.8	-48.3
16	**Japan**	126,919,659	4,123,000	32,485	0.5	-6.5	227.9	137.5	42.3
17	**Moldova**	3,546,847	6,414	1,808	-1.1	2.3	51.9	-0.4	-66.4
18	**Russia**	142,423,773	1,325,000	9,303	-3.6	-2.9	13.5	65.8	49.7
19	**Ukraine**	44,429,471	90,520	2,037	-9.9	-4.4	94.9	-0.3	-2.9

Source: CIA, The World Factbook 2016.

We can observe that the "champion countries" as far as that parameter is concerned are India and China, two very big, but also very poor countries, whose lively growth is due mainly to their competitive position, such as lower wages, good working morale, attracting foreign investors with favorable conditions, and production of goods at competitive prices. As we can see from the tables, China's GDP per capita is 8,029 USD and India's is 1,671 USD.
However, on the contrary to the usual narrative in our modern global world economy, the third place in this ranking belongs to a country like Luxembourg, which is already a rich country with a very high individual wealth (one of the highest in the world, 100,692 USD per capita). This issue, however, does not damp its economic expansion.
As for the economic growth, somewhat higher ranking is noted, particularly for Central European countries like Czech Republic, Slovakia, Poland and Slovenia, whereas less positive state of affairs can be found for the East European countries, like Ukraine, Russia, Moldova, Serbia (but also others like, Japan, Italy and Austria).
The table 5, illustrates another important economic parameter: the current account balance, expressed as percentage of the GDP.

Table 5. Country Ranking based on the Current Account Ratio to GDP in 2015

Number	**Countries**	Number of Inhabitants	GDP in millions USD	GDP per Capita in US $	GDP percentage Growth	Budget surplus (+) or deficit (-)	Public Debt as Percentage of GDP	Current Account Balance, billion USD	Current Account Balance, Ratio to GDP
1	**Switzerland**	8,121,830	664,600	81,829	0.9	0.2	34.0	75.8	114.1
2	**Norway**	5,207,689	389,500	74,793	1.6	6.6	39.3	35.0	90.0
3	**Germany**	80,854,408	3,358,000	41,531	1.5	0.9	71.7	285.2	84.9
4	**Slovenia**	1,983,412	42,770	21,564	2.9	-1.0	62.7	3.1	72.9
5	**Luxembourg**	570,252	57,420	100,692	4.5	0.0	21.7	3.0	52.2
6	**Russia**	142,423,773	1,325,000	9,303	-3.6	-2.9	13.5	65.8	49.7
7	**Croatia**	4,464,844	48,850	10,941	1.6	-5.0	89.5	2.1	43.9
8	**Japan**	126,919,659	4,123,000	32,485	0.5	-6.5	227.9	137.5	42.3
9	**China**	1,367,485,388	10,980,000	8,029	6.0	-2.6	16.7	293.2	36.5
10	**Austria**	8,665,550	374,100	43,171	0.9	-2.1	83.4	13.5	36.0
11	**Italy**	61,855,120	1,816,000	29,359	0.8	-3.0	135.8	38.7	21.3
12	**Czech Rep.**	10,644,842	181,900	17,088	4.2	-1.8	41.4	1.6	9.1
13	**Ukraine**	44,429,471	90,520	2,037	-9.9	-4.4	94.9	-0.3	-2.9
14	**Poland**	38,562,189	479,900	12,445	3.6	-1.8	43.4	-2.2	-4.6
15	**Slovakia**	5,445,027	86,630	15,910	3.6	-2.5	52.5	-1.0	-11.5
16	**India**	1,251,695,584	2,091,000	1,671	7.3	-4.1	51.7	-26.2	-12.5
17	**US**	321,368,864	17,950,000	55,855	2.4	-2.4	73.6	-484.1	-27.0
18	**Serbia**	7,176,794	36,510	5,087	0.7	-4.1	75.0	-1.8	-48.3
19	**Moldova**	3,546,847	6,414	1,808	-1.1	2.3	51.9	-0.4	-66.4

Source: CIA, The World Factbook 2016.

The economic success of countries depends on how much they are exporting to abroad and how much they import from there. For instance, Germany is economically strong, because it exports lots of products with higher value (e.g. cars).
China is in a similar situation, still with a difference compared to Germany, that it is exporting lower value goods, for instance, paper flowers, garment, tiles, etc.
The current account, if it is negative (exhibiting a deficit), is a measure of what the country needs to borrow from abroad, in order to close the gap between exports and imports. Why it is so? Simply, because everything bought abroad has to be paid by the importer state A and everything sold abroad to state B must be paid by the state B to A. If A imports more than exports, the balance of the current account is negative and A must borrow the money abroad in order to carry out the payments requested. But it is necessary to consider that these payments can depend also on services, rather than solely goods, so that the payment flows are more important than the flows of goods, as payments, i.e., the monetary flow encompasses goods and services. Many states, for instance Switzerland, have a negative current account, if we consider only goods, but Switzerland, as commonly known, is closing the gap by tourism, a service offered to foreign citizens. Traditionally, many non-Swiss citizens travel to Switzerland, spend their time and money there, which, of course also adds to the Swiss current account. Therefore, the current account is a measure of performance of country A, considering all the payments carried out: those in exit, corresponding to goods or services acquired abroad and those in entrance, corresponding to goods and services sold to abroad. Therefore, the current account is a basic measure of the economic performance and health of the given country A.
The economic power of Germany, for instance, is due to the fact that the German current account is almost always positive, as we can observe in Table 5, where Germany ranks third after Switzerland (the first) and Norway (the second). In order to carry out an exact analysis, we cannot compare simply the current account data of the countries A, B, or C because they have different size. Hence, in absolute terms, the data are not comparable and it is necessary to standardize them by considering their size. But which kind of size? Number of inhabitants, or geographical size? It is easy to understand that the size which has to be taken into account, must be the economic one, as the current account parameter is an economic parameter. Hence, we determined the current account as ratio to GDP, as it is shown in the last column of Table 5. Interestingly, after Switzerland, Norway and Germany, Slovenia, a country of small size, ranks fourth. Despite economic analysts do not consider this country as economically important, it proves in this analysis to be economically quite healthy, because of the amount of its current account ratio to GDP.
The USA has a rather bad ratio of the current account to GDP. This is due to the huge import flows of the US. Most production of such goods needed by the US is delocalized in less developed countries i.e., in China, or some cross border neighbors, like Mexico. That way the US consumers obtain low cost products in many areas of consumption.

4. Conclusion

Our analysis of important economic criteria showed that the debt levels remain high in some parts of the economy of the compared countries. The highest value is showing by Japan with a Public Debt to GDP ratio of 227.5%, after Japan comes Italy (135.8%). The best levels are shown by China, Russia, Luxemburg, and Switzerland. Luxemburg has the highest GDP per capita, on the second position it stays with Switzerland, third, Norway and the as last ones are Ukraine, Moldova and India. Economic growth is highest in India and China, together with Luxemburg; lowest, Ukraine, Russia and Moldova. It is necessary to remark that the economy of Russia was hit by the decline of oil prices and economic sanctions. The current account ratio to GDP of the respective countries has the highest value in Switzerland, second is ranking

Norway, third Germany and fourth Slovenia. Slovenia has a favorable situation because of the high export level in comparison to other EU countries, particularly, Germany. The current results indicate that relationships in economy are not stable once forever; rather they change dependently on political and social turbulences in the current globally connected world.
The quality of life of EU citizens as well as globally is contingent on political accountability and responsible decisions of the authorities.

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Financial Transaction Taxes and European Union In The Light Of Country Experiences

Semih Sen

1. Introduction

The 2008 global financial crisis in the United States of America, and European debt crisis later on and the destruction caused by this crisis on the public finance of the countries have urged the financial transaction taxes attract global attention. In this regard, European Commission took a concrete step and suggested a financial transaction tax (FTT) to be applied at the European Union (EU) level.

In fact the idea of taxation of financial transactions –it may seem like a new discussion- based on the roots of John Maynard Keynes, has a long history. Keynes (1936, pp. 159-160), in his book "General Theory of Employment, Interest and Money" the financial markets have been likened to a casino. However, due to high cost of entrance, numbers of players in casino are low. Accordingly, lower transaction costs in financial markets cause too many investors to make transactions and excess liquidity on the market and growing speculative movements create instability. In this regard, a satisfying government transfer tax that will be applied to all of the financial processes will put on end to speculative movements on the market. Since, according to Keynes transaction tax will encourage long-termed investments. The first comprehensive and systematic study for FTTs has been carried out by Nobel laureate economist James Tobin (1976, p. 6) Keynesian economist Tobin has proposed the imposition of a small rate tax to the foreign exchange spot transactions. Such a foreign exchange transaction tax will stabilize the exchange rate and will create a secure environment for international trade in goods and services. Additionally, the tax in question will create significant public revenue.

FTTs proposed by Keynes and Tobin haven't received a serious demand in the concerned period. Afterwards, financial liberalization and the size that markets have reached with developments in information technology, with the growing crisis and instabilities and pressures of this crisis and instability of government finances; have caused increasing importance to these types of taxes over the time.

FTTs have previously been applied and are still being applied by different countries. This paper investigates the experiences of Sweden and the United Kingdom. Because, it is considered that these experiences involve some concrete lessons from which we can learn regarding the current applications and the next ones.

FTTs got into the agenda of the EU also after the suggestion of the European Commission. This paper will investigate whether the financial transaction taxes, put on the agenda of the EU following the global crisis, are useful or not based on their previously stated theoretical objectives.

2. Financial Transaction Tax: Conceptual Descriptions

According to the IMF's definition that is also used by EU and United Nations, financial transactions is an agreement that provides right and obligation associated with trading of financial instruments and/or it is a payment change process based on assets such as interest, currency or financial instruments (Sheppard, 2011, p.840). When this description is taken into consideration, FTT can be defined as small rated ad valorem tax based on the listed transactions (Institute for Policy Studies, 2011). Such taxes can be applied to wide scale of transactions from debt and equity shares to derivative and bank loans. Recommended proportions can generally vary from 0.0001% to 2% (Beitler, 2010, p.5). According to another definition, FTT, having ability of preventing financial speculation on the market and making a significant income, is a

low rated tax applied to the value of financial transactions, (Barclay, 2010, p.61). Pollin (2012, p.97), making a similar definition, considers tax as the sales tax which individuals pay when they buy automobiles, shorts, pants or food. Brondolo (2011, p.3) ponders the tax as the tax covering other operations which do not include commerce but have the same impact, as well as the implementation of financial instruments to buying and selling. According to the author FTT has some distinctive features. The features are financial instruments to be implemented in operations on primary and/or secondary markets, the amount of both transactions and implementation on the nominal value, some operations and individuals held exempt from tax, in addition to having one or more rates specific or ad valorem- based implementation, the purchase of assets and/or sales tax to be applied and collectability of the tax by the market participants or clearinghouses.
Often described as FTTs, taxes are classified into the following headings (Matheson, 2011, p.5):

- **Securities Transaction Tax:** They are generally proportional, ad volorem taxes, implemented on primary and secondary markets to the whole or a part of the taxes.
- **Currency Transaction Tax:** It is in question when a currency unit is converted to the other currency unit. In literature, the taxes are called as Tobin taxes as well.
- **Capital Increase Tax:** It is applied in the whole or the part of a specific capital increase of the firm.
- **Banking Operation Tax:** It is applied when deposits are drawn from banks at pre-maturity or maturity. It is common in Latin America and Asia.
- **Insurance Premium Tax:** Insurance premium tax is a special sales tax designed in line with the perception that it is exempt from the income tax or value added tax.

In the study, the tax imposed on foreign exchange transactions and deposits is expressed as FTT.

FTTs have two primary aims: The aims are to reduce speculative trading volume and volatility and provide income to the state. Besides; other purposes, such as to contribute to the financing of global public goods and to establish the principle of fairness in taxation, are concerned. However, priority in the aims can vary according to the conjuncture in the country. For example, prior to the 2008 global crisis, taxes concerned, mainly speculative trading volume and volatility reduction ranges, are widely stressed. After the crisis, especially the direction of EU income has risen to prominence.

The most important and articulated two problems bringing FTTs out are perhaps high speculative trading volume and volatility. In the last thirty years, the decline experienced in financial liberalization after transaction costs, and developments in computer technology observed in the increase in financial innovation have caused trading volume to reach large sizes. A large part of the transactions is daily and weekly speculative transactions, which is the main cause of instability in the system. The situation has put the price of assets in a continuous instability. That is to say, the process is accompanied by high volatility. By making it more costly financial transactions, FTTs aim to prevent excess liquidity in the market and speculative investment by reducing total transaction volume. In this way, it will increase the number of long-term investments, financial systems will become more stable, and it will reenact to fund real investment. Because it is related to the tax's characteristic of proportionality in parallel with increasing transaction frequency. For example, Let us say that a FTT by 0.5% is implemented in all financial instruments such as both to purchase and to sell. An investor will pay the tax by 1% only if the transactions are carried out once a year. If the trade is carried out once a month, an investor will pay the tax by 12%. An investor will pay the tax by 52% if one performs weekly. In case of daily operations, it is 261%. As it is seen, the increase in frequency of operations will be an important cost factor.

Stiglitz (1989, pp.105-106) has likened FTTs to the tariffs and quotas generally used to restrict imports of the country in international trade. According to him, FTTs are small

restrictions to international capital. However, the process enhances stability. For it will primarily affect speculators engaged in weekly and daily operations. Along with the cost created, it will lead to significant reductions in income expectations of the segment. Thus, the volatility will be prevented in large amounts. Long-term investors should not be affected on a large scale. Because, as previously stated, the rate will be increased by the number of transactions due to the structure (Stiglitz, 1989, pp.110-111). Summers and Summers (1989, p.263), citing similar reasons, stresses the stabilizing effect of taxes. However, according to the authors, the benefits of reducing speculative movements should be more than an increase in the cost of capital and a decrease in liquidity, therefore; one should act with caution and avoid applying a higher rate while the tax rate is determined.

Another of the purposes of putting FTTs into practice is to provide income for the State. For the process of globalization that has begun since 1970 has a negative impact on tax revenue of the State, it became essential to find new sources of income. Because globalization trends have increased the mobility of capital and entrepreneurs which is a factor of production and it has become impossible for the labor force to act in the same fluidity. In this case, the tax burden and sensitivity to the labor costs of the investments have increased. Countries with cheap labor and low tax rates, directly or financially, have become popular with investors. The countries, which attempt to prevent the shift of investments out of the country and attract investments, have entered into tax competition with each other. On the other hand, the costs caused by the financial crisis have been a major pressure on public finances.

In accordance with the theoretical explanation, FTTs could be a useful tax to resolve market disorders if it is well-designed. Because, even though it fails to fulfill its purpose, it will not only curb financial speculation but it will also generate significant revenue that can be used to reduce the fiscal deficit and enforce efficient financing of public investment projects. In addition, in case of and macroeconomic conditions, the well-designed tax provides the opportunity to choose between elimination of financial speculation or increasing public revenues by reducing the proportional terms. Therefore, the tax concerned would allow the governments to monitor freer economic policies (Polin, Baker & Schaberg, 2002, p.10).

3. Country Experiences Related to Financial Transaction Tax

FTT has previously entered the EU on the agenda of the two countries. One of them is the application of Sweden regarded as an unsuccessful application. The other is the application of the United Kingdom which is still continued successfully. The main reason to mention the applications concerned in the study is that it has some concrete implications for FTT from the European Union's agenda with the proposal of the European Commission.

3.1. United Kingdom

One of the examples widely shown in FTT is United Kingdom practice. With a long history, tax is also called as stamp duty. The name of the tax concerned is based on the application of securities that is financially transferred from a proprietor to the other to be registered. In other words, it needs to be paid to be the legal owner of the security (Schulmeister, Schratzenstaller & Picek, 2008, pp.24-25).

Stamp duty, is applied to company the shares with transactions at the level of the United Kingdom. General rate is 0.5% and is paid by the purchaser of the securities. It is applied to the global transaction price regardless of where the agreement is signed or the residence of the parties. This indicates that all agreements related to shares are taxable (Oxera, 2007, p. 3). On the other hand, it is understood from definition that foreign company shares traded in United Kingdom are non-tax. For example, transactions with shares of a Turkish company listed on

the London Stock Exchange remain non-tax. Stamp duty is applied to both primary and secondary market transactions. While the issuer of the securities side is taxpayer on the primary market, it is the purchaser on secondary one. The tax in question does not cover derivatives markets. However, it is valid in case of exercising a right in option contracts. Besides, the public or private sector debt securities are exempt from taxes (Campbell Frooth, 1993, p. 11). Over the years rate of stamp duty has changed several times. In 1963, rate has been decreased from 2% to 1%, raised again in 1974 to 2% and this rate has been applied till 1984. Then in 1984, rate firstly decreased 1% and in 1986 to 0, 5% which is also current rate.

One of the important features of United Kingdom stamp duty, considered as one of the guiding successful examples at FTTs design, is also its government revenues. In fact, the tax in question is a constant and stable supply with average annual income of 3.3 billion pounds created between 2000 2011 (Matheson, 2011, p.36). Especially within the period between 1997 2001, the balloon trend seen in London Stock Exchange has created more income than other taxes (Schulmeister, Schratzenstaller & Picek, 2008, pp. 25-26). Additionally, stamp duty collection costs are the lowest taxes. For each earned income, the concerned cost is only 0.11 pence. Furthermore, this is the average cost of all stamp duty revenues including purchasing land and property. If it is taken into consideration that most securities transactions have carried out electronically, the actual cost is estimated as much less.

3.2. Sweden

FTT in Sweden has been implemented for eight-year period from January 1984 to December 1991. Despite the opposition of Ministry of Finance and all business world under the leadership of the Labour Party, tax has entered into force by obtaining a strong public support. As a reason for tax related party shows waste of resources caused by talented and intelligent young people spending their time and capital on financial markets (Campbell & Frooth, 1993, p.4). FTT implementation began in 1984, January with 0.5% taxation for the purchase and sale of equities and derivatives. In option transactions, rate is 1%. Concerned tax is applied to performed transactions with Swedish intermediaries. The operations of these organizations on their own, behalf remain non-tax until 1987. Transfer of securities held through gift, donation and inheritance is exempt from the application (Schulmeister, Schratzenstal & Picek, 2008, pp. 20-21). The pressure of the Workers' Party in 1986 has led parliament to raise the tax rate double. In 1987 the base is expanded debt securities (1%) and derivatives are included as well. Kate, in these derivative instruments has been applied to maximum 0.15% ad valorem of linked securities.

From the date of entry into force of the tax, major immigrations have been detected from Stockholm Stock Exchange to other finance centres. Umlauf (1993, p.237) states that 60% of the largest 11 companies quoted on the Swedish stock have addressed the London Stock Exchange. Only these migrating stocks correspond to 30% of the total shares traded in Sweden. Until 1990, this rate has increased from time to time up to 50%. So, only 27% of the shares of Ericsson Company which is proprietor of the highest trading volume have been exhibited at the Stockholm Stock Exchange (Campbell & Frooth, 1993, p.6).

Expanding the tax to include debt securities causes a sharp transaction loss in private and government bonds, securities and their derivatives. According to Campbell and Frooth (1993, pp. 8-9) nearly 100% decrease in derivative has been observed at the end of first following weekend of implementation of tax in question. Recession of the related spot vehicles' volume is at the level of 85%. This situation makes public borrowing more expensive and FTT loses public support. Practise has been removed firstly from debt securities in April 1990, then from stock in December, 1991. Immediately after FTT has been terminated, the lost volume of transactions returned Sweden as soon as possible.

The amount of income tax has also been disappointing. According to Sweden Ministry of Finance in 1984, 820 million; in 1985 1, 7 billion; in 1986 2, 63 billion Swedish kronor revenue obtained from the tax in question. These amounts respectively correspond 0.37%, 0.45% and 0.96% of total public revenues. After doubling the tax rate, 3, 74 billion in 1987 and 4, 01 billion Swedish kronor revenue have been generated. This also corresponds respectively to 1.17% and 1.12% of total public revenues. To sum up, an increase of 100% in tax rate has resulted in only an average of 22% increase in the amount of income (Habermeier & Krilenko, 2003, p.170). This result shows that practise of FTT hasn't given the expected.

The failure of FTT practise in Sweden stems from its faulty design that is unable to prevent tax avoidance. As it is known when a new FTT comes into force, cost of each related investment vehicle increases; this will lead to tax avoidance behaviour of investors. According to Schulmeister, Schratzenstaller & Picek (2008, p. 24) tax should be designed not to give any opportunity to it. There are two important lessons that can be drawn from FTT practise, first in order to create a broad base by keeping tax-free vehicles that investors may direct as little as possible. Second one is, keeping the rates low in order to avoid the risk of migration. The most effective result gained from the tax may be obtained if global coordination exists.

4. Financial Transaction Tax in the European Union

The European Commission in 2011, by getting the approval of all member countries, has prepared a design to be put into practise unanimously earliest on January 1, 2014, at latest on January 1, 2018. The tax, being on agenda in one of the world's largest economies such as EU and a wide geography of different countries, has dragged an everlasting debate to a different dimension and has gained a positive impression for the future of the implementation at the global level. Idea of a FTT practise at EU level can be attributed to several reasons. The first and perhaps the most important one is the effect of the global financial crisis of EU in 2008. As it is known, this emerging crisis in US's financial system in 2008, while getting all the world under its influence, its most intense effect has been felt in Europe. Within the framework of the economic stimulus packages implemented by EU governments for the fight against the global crisis, the increase of public spending has led to a growing in budget deficits and public debt. In addition, a shrink in real sector leads to reduction in tax revenue and deepens situation. This crisis after causing a harsh destruction in the EU, has received European Debt Crisis name. In order to escape from crisis, transfer of major sources takes place from government to the financial sector indicated as being main responsible for crisis. In this process, the amount of assistance provided through The Union's bailout has reached 4.6 trillion euros (39% of EU GDP in 2009). However, the sector has had low rates of tax for a long time. For example, the advantage of being exempt from VAT is the average annual amount of 18 billion euro. This situation has led FTT to get public support at the global level. According to the European Commission to release a new tax on financial transactions is a compensation for financial institutions to make more contribution to economic recovery and to be a partner for the cost of the crisis (European Commission, 2011a, p. 1).

Second reason for why FTT on the agenda is the harmonization of indirect taxes imposed financial transactions. At EU level, many countries including France and Italy have met with new transaction taxes after the crisis. Being in the first place, especially UK and the others have already implemented these taxes for many years. Such different practices harm to functioning of the single market, increase the risk of migration of capital and distort competition. Mismatch mostly leads to double taxation or no tax receipt. According to European Commission at the union level by increasing the effectiveness of a single market to ensure coordination in this field, will move integration a step further (European Commission, 2013, p. 4).

A third reason for taxation is instabilities created by high-risk operations carried out on the market and short-term capital movements. This situation demonstrates itself once again during the last crisis. It is aimed to gain deterrence to capital movements and concerned transaction creating inefficiency with FTT. According to the commission, proposal is an effective regulatory tool that can solve the problems mentioned. (http://ec.europa.eu/taxation_customs/resources/documents/taxation/other_taxes/financial_sector/ftt_citizens_summary_en.pdf).

FTT proposed by the European Commission contains almost all financial instruments and it is planned to be applied to purchases and sales of these vehicles. For emergence of the tax, at least one of the parties performing the transaction must be financial institution and again at least one side must be settled within the EU borders (European Commission, 2013, pp. 16-17). With stock, mutual funds, bonds and their derivatives, including a very large base of foreign exchange transactions involving derivatives, tax includes not only organized markets but also the OTC (Over the counter) markets. Recommended rate for spot transactions is 0.1% while it is 0.01% for derivative transactions. In derivative products, it will be implemented based on the value of the asset. However, the rate is the minimum value. Member countries –if they want- are able to increase above the mentioned ratio. Main reason of covering almost all financial instruments of tax is the prevention of tax avoidance as much as possible and higher income obtained. However due to various reasons a number of exceptions and exemptions has been brought to some transactions. These exceptions and exemptions in question are as follows (European Commission, 2013b, p.15).

- Spot foreign exchange transactions related directly with the real economy and in order to protect the movement of capital as well, are excluded from the tax. However, derivatives are included in the scope of the tax.
- Stocks, bonds and bills presented on primary markets are exempt from tax in order not to make capital needed for financing of investments more costly.
- Transactions carried by EU, European Central Bank, European Investment Bank and European Investment Fund and other supranational formal institutions, both in order not to increase the burden of government debt and to provide lower cost liquidity to the market, are exempt from tax.
- Insurance contracts carried out in the daily life of ordinary citizens, mortgage loans, consumption and investment loans and bank deposit transactions are also excluded from the tax.

FTT will collect the tax with stoppage procedure (collection at source) after the taxable event occurs without clarifying by responsible financial institution. In electronic transactions, at the time of the transaction while in OTC transactions it will be paid within three business days. Financial institutions are obliged to deposit the tax to tax administration, the union member states are obliged to take necessary measures to prevent tax evasion. These measures in question include keeping the business records of financial institutions, accounting and reporting standards, presenting necessary measures to the tax administration, and making payment correctly (Güler, Keleş & Uçar, 2012, p.39).

11 countries in EU-28 have supported The Commission's FTT proposal so far. These countries are Germany, France, Italy, Austria, Belgium, Estonia, Slovenia, Spain, Slovakia, Greece and Portugal. In particular efforts of Germany and France have been effective for tax to be discussed so seriously. Other countries on the other hand led by Britain have taken place against the practise on the ground that they will face with large capital outflows and Union's Financial Centres will disappear one by one. Because the tax will be recorded as a resource to EU in order that member states of alliance get a share. In this case, some countries providing substantial income from taxes that they applied in present state like United Kingdom will have to share their earnings with EU. In addition, the biggest gain is expected from London Stock

Exchange in case the project is implemented. Potential economic and financial impacts of the tax must be taken into consideration in order to understand reasons of the countries reacting to tax.

There is not a literature wide enough on the potential economic and financial impacts of FTT planned to implement in EU –due to lack of consensus at Union level- the existing studies also reveal different results from each other. The most comprehensive study on this issue is impact analysis that European Commission prepared on its own. In the report, effects in question have been examined with their several aspects. Accordingly when concerned financial instruments are taxed with 0.01% of tax rate, an income between 16.4 to 43.4 billion Euros is expected. Numbers respectively corresponds to 0.13% and 0.35% of EU GDP. If rate is increased to 0.1%, expectations have changed from 73.3 to 433.9 billion Euros. In this case the figures respectively correspond to 0.60% and 3.54% of GDP. Main reason for so many different ranges of income is related to possible reduction occurring in tax elasticity and volume of transactions. According to report, changes occurring in transaction volume are influenced by the distinction between spot and derivative instruments. A transaction loss of derivative instruments is expected between 70% and 90%. When it comes to spot instruments, it is stated that high-speed speculative trades composing 40% of total transaction volume, is largely presented. Whether this reduction heading for different financial markets or not depends on the design and proportion of the tax. Another issue highlighted in the report, excessively risky behaviour of market investors will decrease with prevention of speculative trading. Any positive and negative influence on the votality will not occur. It is stated that this case depends on the structure of market. Additionally, according to the report in question, FTT is expected to create a shrink between 0.53% 1.76% in long term GDP of EU. (European Commission, 2011b, pp. 9-11).

FTT is successful to the extent that it avoids tax evasion and risk of migration on the market. It is essential that tax is broad based and low rated in order to prevent the occurrence of such undesirable situation. Financial transaction tax planned to implement in EU-wide, when evaluated with these criteria, is capable of preventing tax avoidance with its broad base form. Almost all financial instruments are included in the scope. Therefore, different non-tax investment vehicles that investors may turn their steps towards are very limited. In addition, it has been suggested that tax will cause a migration to other financial centres from the financial centres in EU. However this possibility is greatly reduced today. Because vast majority of the financial transactions in the world are gathered in a few centres like London, USA, Tokyo, Hong Kong and Singapore. All of these centres except for the USA have already implemented various transaction taxes. With the entry into force of FTT, USA is considered as only place that capital movements may be directed to. Furthermore, relatively low rate structure of the practise also decreases this possibility.

On the other hand, another point that should be highlighted on FTT proposal in EU, making a tax current issue coincides with crisis period. In fact, tax is not a precaution introduced to overcome the crisis; it is a measure that contributes to financial stability. European Union has not been fully overcome the effects of debt crisis yet, has undergone a process with continued recession since 2008. Moreover, it doesn't have a precise recipe in terms of exit from the crisis. Coming into force of tax in such a period, creating a liquidity problem, can move this recession a step further. It can be also said that the severity of the debate on the issue has already weakened a little bit after 2012. After FTT proposal implemented across EU, is on shaky ground, firstly France and then Italy have implemented their transaction tax at the national level.

5. Conclusion

The first proposal of taxation of financial transactions has been made by John M. Keynes in 1936. In the next period, Keynesian economist James Tobin has made the first comprehensive FTT proposal for spot foreign exchange transactions in 1978, Tobin's proposal is later called as Tobin tax. However, both proposals in the concerned periods have not been remarkable because of underdeveloped financial markets. In the following years with the increase in the trading volume on financial markets and settlement of short-termism culture, interest for taxes has increased. Especially after 2008 global financial crisis, EU has taken this tax on agenda.

FTT previously, has entered into the agenda of two EU countries. One of them is Sweden practice accepted as unsuccessful, while the other country is United Kingdom with continued successful FTT implementation. It can be stated that faulty design of tax and its implementation with higher rates are on the basis of the failure of implementation in Sweden. In this sense, it has a number of deductions for both implementation in EU and other countries.

In 2011, European Commission has presented proposal for the implementation of FTT at EU level. This tax proposal of the Commission is a broad-based FTT aiming directly at financial transactions. This tax aims to give priority to long-term investment by reducing volume of short-term speculative transactions on financial markets and ensure equal participation of financial sector to the cost of the recent crisis. Additionally, there are several FTT implementations in Union Countries. Harmonization in this area by regulations and creating a new resource in the budget are other goals. In general, it can be evaluated as successful with its lower rate structure that doesn't allow tax avoidance. However, due to opposition of 16 member countries leaded by United Kingdom, a concrete step hasn't been taken yet.

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Business Plan of an Accounting Firm[6]

Aysun Atagan-Cetin

1. Introduction

This research presents a business plan for an accounting firm to be located in the city of Eskisehir in Turkey which is a developing country. Economic growth has been slow for the past several years, although trade and small business, especially in the larger cities such as Eskisehir, show progress and growth. Eskisehir is the perfect place to open an accounting firm, because it is a center of Anatolia's business and economy, and it is a cosmopolitan city. Accounting firms are not a new business in Eskisehir, but there is always a market for accounting. Accountants have good job opportunities. This is because there are new and changing laws that will increase the need for accountants. Also, there will be more private companies that will need accountants because number of private companies increasing. Accountants who have special skills, such as Certified Public Accountants (CPAs) and Sworn-in Certified Public Accountants will have many career opportunities.

2. Method

This study is divided into 6 sections. In order to build a business plan, one should analyze the current situation in the accountancy business in Turkey. Also needs to check the requirements and steps that one should take in order to be qualified to perform the functions. The literature review was prepared accordingly.

The findings section outlines the situation in accounting regulation in Turkey. Also reviews the framework of the business planning. The final section provides some concluding comments. Then there are some proposals for the further researches.

3. The Literature Review

The main purpose of the study was to present current-state of accountancy profession in Turkey in order to open up an accounting firm. For this reason, accountancy profession, users of accounting information, financial statements, regulatory bodies related to the accountancy business and business planning were discussed in the study.

3.1. Accountancy Profession

As Muğan and Hoşal (2001, p. 15) stated, "Accounting is an information system that measures, processes and communicates financial information of an economic entity to the decision makers".

Arikan (2006, p. 35) stated that Accounting is the study of how businesses track their income and assets over time. An accountant is a person who has satisfied the education, experience, and examination requirements of his or her jurisdiction necessary to be certified as a public accountant. Accountants engage in a wide variety of activities besides preparing financial statements and recording business transactions including computing costs and efficiency gains from new technologies, participating in strategies for mergers and acquisitions,

[6] This study was derived from the writer's master thesis that named "Business Plan of an Accounting Firm". The Academic Adviser was Sharon Ann Wulf (PhD).

quality management, developing and using information systems to track financial performance, tax strategy, and health care benefits management.

In order to be an accountant, you need to have a disposition for mathematics and you need to be able to analyze, compare and interpret figures through the principles and facts. In addition to this an accountant should be able to explain his/her work to the customer both written and verbally. Another requirement is using technology such as computers and business systems as a tool and having excellent knowledge in this area. Also there is some accounting software, such as SPSS, Eta, Logo, Micro, Vega, and Link, that accountants may use and should be familiar with. Since they prepare financial statements that lead to financial decisions, they need to be able to provide high standards of accuracy by using all of their resources. An accountant should have time management skills, interpersonal communication skills, problem solving skills, technical skills and system skills in addition to their required education level.

Webster (2016, pp. 11-13) stated that "Bookkeeping is the act of recording transactions in the accounting system in accordance with the principles. Accounting ensures that bookkeeping is honest and accurate and, through financial accounting and management accounting, it provides people outside and inside the business the picture they need of where the company's money is".

In previous times, accountants were considered to be financial historian. But today the role of accountants has changed to participating in the process of defining organizational strategy. As business partners, the accountants' role is more analytical and decision-oriented. New accounting roles include financial modeling, strategic planning, business process improvement, internal consulting, financial analysis, systems implementation, and organizational education.

As experts stated, CPAs are now looked upon as valued professionals and are running major corporations, starting exciting entrepreneurial endeavors and developing private practices that handle much more than tax returns. CPAs are entering the field of education and are moving into areas, such as Assurance Services, that didn't exist a decade ago, but have a powerful impact on tomorrow's business environment (Toraman & Guvemli, 2007, p. 3).

As Ward (2005) stated, the accountancy profession plays a critical role in building an investment climate of trust, which is vital to economic stability and growth. As the financial problems of Enron, WorldCom and Ahold have demonstrated, the groups and individuals affected by accounting decisions go well beyond our traditional view of stakeholders. The public interest is also served by accountants creating wealth, working in business to drive strategy, efficiency and financial integrity; by providing advice on taxation that is supported by the law and provides full disclosure to revenue authorities; by helping to turn around ailing businesses, preserving ideas, jobs and the self-respect of those employees and their families whose livelihoods are saved.

Accountancy plays an important role in the monitoring of macro and micro-economic variables, and is widely used in determining national and personal income, estimating government expenditure, the administration of taxation and financial reporting to capital markets, and the management of companies for their external and internal control systems (Balım-Harding, 1995).

Ward also emphasized the importance of ethical standards in profession. "Profession must encourage and adhere to the highest ethical standards. Accountants must live the values of integrity, transparency, and expertise. This means putting the public interest ahead of the client's interest. IFAC's Code of Ethics for Professional Accountants provides guidance in this regard. There are five fundamental principles of professional ethics such as integrity, objectivity, professional competence and due care, confidentiality and professional behavior" (Ward, 2005).

3.2. Users of Accounting Information

Muğan and Hoşal (2001, p. 17) grouped the users of accounting information as internal users and external users who are considered as decision makers. They stated that "Internal users are top management, department managers, such as executive officers. External users can be grouped as users with direct and indirect financial interest. Example of users with direct financial interest is inventors and creditors. Example of users with indirect financial interest is government, regulatory agencies, labor unions, financial advisors, brokerage firms, auditors, lawyers, consumer groups, and academicians".

3.3. Financial Statements

Financial statements are useful to help investors and creditors evaluate the firms' financial positions. There are four main financial statements that accountants provide to businesses. Kuhlman (2005, p. 142) explained them as below:

- The balance sheet gives a snapshot of the firm's assets, liabilities, and equity at a point in time.
- The income statement gives a summary of the firm's operating performance over a specified period of time.
- The statement of cash flows shows the firm's operating, investing, and financing cash flows over a specified period.
- The statement of owner's equity shows the amounts of and changes in ownership

Webster (2016, p. 47) also explained the accounting cycle and its steps. Financial statements are a chief end product of sequential steps generally called the accounting cycle. The cycle ends with preparing for the next cycle. The accounting cycle will include the following steps:

- Analyze business transactions.
- Journalize transactions.
- Post transactions to the ledger accounts.
- Prepare a trial balance of the general ledger.
- Analyze, prepare, and post the adjusting entries.
- Prepare an adjusted trial balance.
- Prepare the financial statements: income statement, balance sheet, and statement of cash flows.
- Journalize and post the closing entries.
- Prepare a post-closing trial balance.

The objective of financial statements is to provide information to users to help them in their economic decisions. The financial statements are expected to provide information about the future cash flows of an entity, its financial structure, profitability and liquidity, and its financial position and changes in financial position (Akman, 2014).

3.4. Regulatory Bodies of Accountancy Business

In many countries the designation accountant is a certified accountancy and financial expert. Every country has their own training and examination systems to guarantee the quality of accountants at each level.

Muğan and Hoşal (2001, p. 15) listed the national and international regulatory bodies of the accountancy profession in their book as below:

- National
  - Capital Markets Board (CMB)
  - Ministry of Finance
  - Turkish Accounting Standards Board (TASB)
  - TURMOB (Union of Chambers of Certified Public Accountants of Turkey)
- International
  - International Federation of Accountants (IFAC)
  - International Accounting Standards Board- International Financial Reporting Standards (IFRS)
  - Financial Accounting Standards Board (FASB)
  - Federation of European Accountants (FEA).

4. Findings

4.1. The Accountancy Profession in Turkey

"The modern Income Tax Law was introduced to Turkish society in 1950 and shortly after affected accounting practices in such a way that only the income before the tax figure in the income and loss statement became extremely important for companies. The primary role of accounting - providing a true and fair financial and economic picture of a company to society - was almost ignored" (Arikan, 2006, p.12).

Accounting system and methods and accounting auditing plays a major role in globalization and its contribution to the achievement of an integration among countries. The international organizations that are founded by professional bodies of accountants since 1970s do carry out activities which meet the requirements of globalization (Türker & Kavut, 2004, p. 42).

As a result of industrialization, the need for accounting profession emerged. The legalization which was a basic factor for the development of accounting profession, unfortunately was delayed until 1989. Thus organization of the profession (TURMOB) could be achieved in a late time (Aysan, 2006).

TÜRMOB, the Union of Chambers of Certified Public Accountants Turkey, is the national professional body with the sole authority to award professional license. TÜRMOB was founded in 1989 with the Law 3568 on Certified Public Accountancy and Sworn-in Certified Public Accountancy.

The organizational structure of the TÜRMOB is supported by two distinct Chambers;

- Chambers of Certified Public Accountants (SMMM)
- Chambers of Sworn-In Certified Public Accountants (YMM).

85 Chambers form the TÜRMOB, of which 77 are SMMM Chambers and 8 are YMM Chambers. TÜRMOB is the national umbrella for the local Chambers. The Union renders a public service and is founded primarily to carry out activities to insure the development of the

profession and the protection of due interests of the members of the profession and the preservation of professional dignity, ethics, order and traditions. To comply with the aforementioned duties and responsibilities, the Union extends a continuous and intensive effort especially in areas such as practical training, licensing, professional rules and regulations, publishing and membership and participates in the activities of international professional organizations. In order to fulfill its duties such as the development of the profession, protection of interests of its members and the preservation of professional ethics and order, the Union carries out comprehensive efforts in areas like awarding of licenses, practical training, examinations, standard setting, quality control, application and enforcement of professional standards, professional rules and regulations, publications and continuous professional education (TÜRMOB).

The Union is empowered to award professional licenses; which Turkey's accountants must have to render professional services. TÜRMOB membership is comprised of CPAs, who are authorized to conduct financial audits, and Sworn-In CPAs, who are allowed to conduct financial and tax audits. The Union's mandate includes performing activities related to the development of the profession; protecting the interest of the profession and ensuring that its members uphold ethical standards; representing members of the profession; preparing relevant regulations to enable the Union to fulfill its duties; and representing the profession nationally and internationally (Tsen & Bryson, 2016).

A code of ethics is a crucial element in forming a professional CPA in the accountancy profession. (Smith and Smith, 2010). Specific responsibilities of the accounting profession are expressed in the various codes of ethics promulgated by the Union of Certified Public Accountants and Sworn-in Certified Public Accountants of Turkey. Accounting professions foundations are; generally accepted body of knowledge; widely recognized standard of attainment, and an enforceable code of ethics (Akman, 2014).

"The law primarily applies to the private sector with the objective of providing effective and reliable accountancy and audit services in Turkey and sets the qualifications that should be possessed to be a member of the profession and the organizational setup of the profession" (Türker & Kavut, 2004, p. 45).

Admission to the Profession (TÜRMOB)**:**

- **General conditions for being a member of the profession are as follows:**
  - To be a citizen of the Republic of Turkey.
  - To be competent in exercising the civil rights.
  - Not to be deprived of public rights.
  - Not to be sentenced for offences against state security, offences against Constitutional order and the functioning of this order, offences against national defense, offences against secrets of the state and espionage, embezzlement, official corruption, bribery, theft, swindling, fraud, breach of confidence, fraudulent bankruptcy, bid rigging, corruption in performance of an obligation, laundering the value of assets gained via an offense or smuggling, irrespective of being sentenced to one or more years of imprisonment for intentional offences or granted amnesty, although the periods specified in Article 53 of Turkish Criminal Code have been passed.
  - Not to be penalized by expulsion from the government service consequent to an investigation.
  - Not to possess conditions incompatible with the honor and dignity of the profession.

The Law specifies that admission is compulsory in order to conduct the profession and besides the aforementioned general requirements, these two categories of professional members are required to have acquired some specific educational and 3 years of practical training qualifications and be successful in the relevant admission examinations. Educational and practical training requirements and subjects on which the candidates are to be successful in the exams held in order to be awarded a license, are given below for these two categories of members of profession;

Practical experience of certified public accountancy is gained at public practices of certified public accountants' or sworn-in certified public accountants' firms. In order to begin the practical experience, it is a must to pass the practical experience entrance exam and to successfully complete the education program of the Education and Training Center established by the Union. The periods, not longer than six months, spent at the courses and seminars of the Education and Training Center are considered as practical experience periods.

- **Certified Public Accountants (SMMMs)**

The following conditions are required to become a Certified Public Accountant:

  - To have at least a B.A. degree in law, economics, business administration, accounting, banking, public administration and political science from a Turkish university, or from foreign universities offering degrees equivalent to their Turkish counterparts, on the condition that this equivalence is ratified by the Higher Education Committee, or to hold a post-graduate degree in one of the disciplines mentioned above.
  - To have a practical experience of minimum 3 years.
  - To be successful at the proficiency exam for SMMMs.
  - To receive a license as a Certified Public Accountant.

To be awarded a license for SMMM, the written proficiency examinations conducted by TÜRMOB are to be passed and these consist of the following subjects:

1. Financial Accounting
2. Financial Statements and Analysis
3. Cost Accounting
4. Auditing
5. Tax Legislation and Implementation
6. Law
7. The Professional Accountancy Law

- **Sworn-in Certified Public Accountants (YMMs)**

In order to become a Sworn-in Certified Public Accountant the following conditions apply:

  - At least ten years of experience as a Certified Public Accountant,
  - To be successful at the proficiency exam for Sworn-in CPAs.
  - To receive a license for practicing in the field of sworn-in certified public accountancy.

To be awarded a license for YMM, the written proficiency examinations conducted by TÜRMOB are to be passed and these consist of the following subjects Advanced Financial Accounting

1. Financial Management
2. Management Accounting

3. Auditing, Reporting and Professional Accountancy Law
4. Revision
5. Taxation Techniques
6. Income Taxes
7. Excise and Wealth Taxes
8. Foreign Trade and Exchange Legislation
9. Capital Market Legislation

4.2. Business Planning

One expert said, "Numbers are the language of business management and intelligent decisions require an understanding of the quantitative factors involved" (Mancuso, 1992, p. 29).

According to Hall and Daschle (2001, p. 241), "successful entrepreneurs are natural, charismatic leaders; passionate about what they do, focused, optimists, realists when they need to be, creative problem solvers, angry, frustrated, hungry for control and responsible".

The process of putting a business plan together including the thought put in before beginning to write it, forces you to take an objective, critical unemotional look at your business project in its entirety. The finished product is an operating tool that, properly used, will help you manage your business and work toward its success. The completed business plan is the means for communicating your ideas to others and provides the basis for your financing proposal (Mancuso, 1992, p. 54).

Pinson and Jinnett (2006, p. 13) noted the three main purposes for writing a business plan. First, the plan is a blue print of the business and will serve as a guide during the lifetime of the business. Second, it is a requirement if the entrepreneur plans to seek financing, and for a new company, this will give the investor insight into ways in which the business will be conducted. Finally, if the business will be conducted internationally, the business plan provides a standard means of evaluating the business potential in a foreign marketplace. The success of a business plan depends on clear and detailed planning.

The core business plan sections are as follows (Lavinsky, 2014):

- **Company Analysis**: what products and/or services do you offer now and/or what will you develop and offer in the future?
- **Industry Analysis**: how big is/are your market(s) and how are they changing? What trends are affecting them and do these trends bode well for your future success?
- **Competitive Analysis**: who are your competitors and what are each of their key strengths and weaknesses? In what areas will you have or gain competitive advantage? How?
- **Customer Analysis**: who are your target customers? What are their demographic and/or psychographic profiles? What are their needs?
- **Marketing Plan**: how will you reach your target customers? What promotional tactics and marketing channels will you use? How will you price your products and/or services? What brand positioning do you desire for each?
- **Management Team**: who comprises your current team and what key hires must you make in order to execute on the opportunity in front of you. Will you build a Board of Advisors or Directors, and if so, who will you seek?
- **Operations Plan**: what is your action plan? What are the milestones you must accomplish to go from where you are now to where you want to be at year's end? At the end of five years?

- **Financial Plan**: how much external funding (if applicable) do you need to build your company? In what areas will these funds be invested? What are your projected revenues and profits over the next one to five years? What assets must you acquire?

In addition to those steps, also SWOT analysis needs to be done in order to see the strengths, weaknesses, opportunities and threats that the company would be faced with. And every company should have a contingency plan as well.s

5. Conclusion

Accounting has always been a point at issue since the beginning of human existence. There is a close relation between the development of accounting and the development of commerce and industry and economic growth. Economic growth and the development of enterprises have also contributed to the development of accounting (Orten & Bayirli, 2007).

Based on the economic developments, Turkish accounting profession has been in progress since the establishment of Turkish Republic (1923) (Aysan, 2006).

Financial crises make companies focus more on how they are doing and which areas they should look at in order to be able to control their costs. At this point accountants become more important than before to help organizations emerge from their current crisis, and calculate future potentials and problems better.

All of these analysis of accountancy profession and segments prove that building a business plan for an accounting firm and developing the business in Eskisehir, Turkey is a reasonable idea based on reality. As in every new business there will not be too many advantages for the business in the beginning. The founder needs to be ready for and aware of every condition and situation that might cause negative consequences for the first year of the business, and needs to observe all changes in the profession and consider the factors may affect the business.

As Mancuso (1992, p. 18) stated, “No business plan no matter how carefully constructed and no matter how thoroughly understood, will be of any use at all, unless you use it”.

6. Further Researches

This study emphasizes the Turkey’s situation related to accountancy profession. A comparative study can be conducted to determine the differences between accountancy profession of Turkey with that of other countries, with consideration of the interviewing market and environmental changes. It might provide valuable information for those individuals who try to decide for the right place for an accounting firm to open up.

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The Impact of Oil Price on Macroeconomics in the Developed and Developing Oil-Exporting Countries: A Panel Data Analysis

Sabit Baimaganbetov

1. Introduction

Over the last two years, oil prices have decreased very sharply, with the BP references price falling from a 10 years low of $112 per barrel in June 2014 to a bottom of close to $27 per barrel in the second week of January 2016. Changes in oil prices the impact of the countries on macroeconomic indicators during research especially that oil exporter or importer of the said country, we need to pay attention to the countries' development level.

There is a large literature about the effect of oil price changes on macroeconomic variables. After the oil price shocks in 1973, the number of studies on the relationship between oil prices and economic growth has increased. The effects of oil price shocks on macroeconomic variables are expected to be depending on the country. While the rise in oil prices is a good news for the oil exporting country it is bad news for oil importing countries.

M.Yaylalaı and others (2012) expressed that the impact of oil prices on economic variables is right to be studied under three groups. The first group studies decided to examine in terms of theory, the impact of oil prices on economic variables. A few of the studies are Bruno ve Sash (1982), Hamilton (1985, 1988) Rogov (2006). In the second group, the impact of oil prices on macroeconomic variables with the help of the econometric methods the research was found to be correct. Some of these group study can be listed as Mork ve Hall (1980), Lee and Ni (2002), Blanchard and Gali (2007), Kose and Baimaganbetov (2015). The third group studies the impact of oil prices advocates the idea that the countries should be examined on macroeconomic policy. Some of these studies are Lee and others, (2001) Huang and others, (2005) Cologni and Manera (2008). The studies focused on changes that occurred in the price of oil impact on the macroeconomic policies of countries.

F.Kaplan and others (2016) examined the effect of the real exchange rate of the real price of oil in oil-dependent countries. In the study, with the aid of data from 5 oil dependent countries using the data covering 1995-2014 research was done in the framework of panel data analysis. According to the results, it was found that the increase in real oil prices positively affected the real exchange rate of the oil-dependent countries. While impact of the rise in oil prices can be found in USA and china Canada and Mexico had positive and Russia had negative results.

M.Demirel and others (2016), in order to examine the relationship between economic growth with the revenues derived from oil sales, 12 oil-exporting developing countries were selected. With the data collected between 2000-2010 period panel regression analysis was applied. According to the obtained results, relationship between the positive relation between rate of crude oil prices and GDP per capita representing economic growth, CPI representing inflation was found. The result of the regression analysis, a unit increase in crude oil exports shows 0.14 increase in GDP per capita.

In this study, using quarterly panel date between the years 2001-2015 on GDP, CPİ and RER of oil-exporting developed and developing countries, Brent oil price impact is investigated in the framework of Panel Data Analysis.

2. Method

2.1. Data

The study uses quarterly data from 2001-2015 period of 14 oil-exporting countries. In the study, the real Gross Domestic Product (domestic currency) and Real Brent oil (in US Dollar) per barrel price variables are used. Data on the countries is taken from IFS the IMF database, from the database of Iran's central bank and the barrel price of a Brent oil is taken from the database Energy Information Administration. Logarithmic transformations made on variables used in the analysis.

The list of the variables used in this study will be as follows:
op: Real Brent oil price (barrel/US$)
rgdp: real Gross Domestic Product
cpi: Consumer price index (2010 = 100)
rer: Real effective exchange rate index (2010 = 100)

2.2. Method

The first study that takes into account the cross sectional dependence addiction is O'Connell (1998). With the help of Monte Carlo simulation method under the horizontal section of LLC test dependency it is proven that the degree of significance and the test power is reduced. Without taking into account dependencies among horizontal section Series the results could be misleading. (Pesaran, 2004). In Panel data analysis, among series forming the panels if it is dependent on horizontal section in terms of generation unit we need to root test is very important. Report if the Horizontal section dependence series was affected by the same shock and often it is frequently encountered in studies with data such as by country, region, states and cities. (F.Tatoğlu 2012)

Developing oil exporters for these countries T=58, N=5 and for developed countries oil exporters T =58, N = 9. To test the horizontal section dependence Breusch and Pagan (1980) and the LM test was found appropriate to use by Pesaran, Ullah ve Yamagata (2008). The presence of a unit root in Series taking into account the horizontal section dependence by Peseran (2007) was tested with the help of “Cross Section Expansive Dickey Fuller" test. In the series, the presence of the long term relationship developed by Westerlund (2007) Error Correction Model based on taking into account the horizontal section dependence Westerlund panels were tested with co-integration test. The next step is to find the long-term estimator. For this, DOLSAR (Dynamic Least Squares) estimator is used in the Kao and Chang (2000) study area. Finally, with Brent crude oil whether there is a causal relationship among macroeconomic variables was examined with the help of Panel Causality test based on a meta-analysis by Emirmahmutoğlu ve Köse (2011).

4. Finding

Table 1. The results of the cross section dependency test for developing oil-exporting countries

The cross section dependence test results for the CPI variable		
Models	Statistics	Probability
Breusch and Pagan (1980) LM test	476.2	0.000
Pesaran, Ullah and Yamagata (2008) LM test	221.7	0.000
The cross section dependence test results for the RER variable		
Breusch and Pagan (1980) LM test	284.2	0.000
Pesaran, Ullah and Yamagata (2008) LM test	124.7	0.000
The cross section dependence test results for the RGDP variable		
Breusch and Pagan (1980) LM test	752.6	0.000
Pesaran, Ullah ve Yamagata (2008) LM test	361.3	0.000

Above, to test for the independency of the cross section Breusch and Pagan (1980) LM test and Pesaran, Ullah and Yamagata (2008) the corrected LM test statistics and probability values are given. According to the results, correlation between units pointing H0 hypothesis is rejected and this way the cross cross-dependency is determined.

Table 2. The results of the cross section dependency test for developed oil-exporting countries

The cross section dependence test results for the CPI variable		
Models	Statistics	Probability
Breusch and Pagan (1980) LM test	193.1	0.000
Pesaran, Ullah and Yamagata (2008) LM test	175.1	0.000
The cross section dependence test results for the RER variable		
Breusch and Pagan (1980) LM test	175.3	0.000
Pesaran, Ullah and Yamagata (2008) LM test	158.1	0.000
The cross section dependence test results for the RGDP variable		
Breusch and Pagan (1980) LM test	370.1	0.000
Pesaran, Ullah and Yamagata (2008) LM test	344.8	0.000

The output, the cross correlation is tested for the developed oil-exporting countries. According to the results, H0 hypothesis is rejected and this way the cross-dependency is determined.

Table 3. The results Pesaran Panel Unit Root test for developing oil-exporting countries

Level	**First order difference**

Variable	Model	$\bar{t}$	%5	%10	Model	$\bar{t}$	%5	%10
CPI	Invariable	-0.975	-2.330	-2.210	Invariable	-2.948*	-2.330	-2.210
	invariable and trend	-0.701	-2.830	-2.720	invariable and trend	-3.468*	-2.830	-2.720
RER	Invariable	-1.692	-2.330	-2.210	Invariable	-4.754*	-2.330	-2.210
	invariable and trend	-1.895	-2.830	-2.720	invariable and trend	-4.851*	-2.830	-2.720
RGDP	Invariable	-1.823	-2.330	-2.210	Invariable	-3.907*	-2.330	-2.210
	invariable and trend	-3.246*	-2.830	-2.720	invariable and trend		-2.830	-2.720

*** Statistically significant at the 5% significance level**
*** Statistically significant at the 10% significance level**

For invariable, and invariable and trend situations in the above table CADF test results are presented. ¯t (t-bar) statistics 90% (CV 10) and 95% (CV 5) are critical reliable values. According to these results, RGDP series except the constant term and trend series model i.e. was found to be stable with the first order difference.

Table 4. The results Pesaran Panel Unit Root test for developed oil-exporting countries

	Level				**First order difference**			
Variable	Model	$\bar{t}$	%5	%10	Model	$\bar{t}$	%5	%10
CPI	Invariable	-2.134	-2.330	-2.210	Invariable	-3.407*	-2.330	-2.210
	Invariable and trendy	-2.336	-2.830	-2.720	Invariable and trendy	-3.280*	-2.830	-2.720
RER	Invariable	-1.751	-2.330	-2.210	Invariable	-5.044*	-2.330	-2.210
	Invariable and trendy	-1.818	-2.830	-2.720	Invariable and trendy	-5.302*	-2.830	-2.720
RGDP	Invariable	-1.247	-2.330	-2.210	Invariable	-4.632*	-2.330	-2.210
	Invariable and trendy	-1.053	-2.830	-2.720	Invariable and trendy	-3.921*	-2.830	-2.720

*** Statistically significant at the 5% significance level**
*** Statistically significant at the 10% significance level**

For invariable, and invariable and trend situations in the above table CADF test results are presented. ¯t (t-bar) statistics 90% (CV 10) and 95% (CV 5) are critical reliable values. According to these results, RGDP series except the constant term and trend series model i.e. was found to be stable with the first order difference.

Table 5. Westerlund Panel Co-integration test results for developing oil-exporting countries

Variable	Statistics	Value	Z Value	P-Value	Robust P-value
CPI	Gt	-1.864	1.838	0.967	0.927
	Ga	-19.878	-3.599	0.000	0.012
	Pt	-4.351	2.315	0.990	0.871
	Pa	-15.054	-3.064	0.001	0.117
RER	Gt	-2.796	-1.642	0.050	0.243
	Ga	-13.992	-0.944	0.173	0.350
	Pt	-7.473	-1.322	0.093	0.376
	Pa	-12.770	-1.917	0.028	0.298
RGDP	Gt	-3.216	-3.214	0.001	**0.031***
	Ga	-33.547	-9.764	0.000	**0.000 ***
	Pt	-8.117	-2.072	0.019	0.197
	Pa	-15.490	-3.283	0.001	**0.096 ****
*** Statistically significant at the 5% significance level**					
*** Statistically significant at the 10% significance level**					

Regarding theWesterlund (2007) co-integration test, the premise and delays has been identified as number 1, by using fixed and trend model 1000 repetitions core extraction probability values are given. According to the results, there is a long-term relationship between RGDP variable and Brent crude oil price.

Table 6. Westerlund Panel Co-integration test results for developed oil-exporting countries

Variable	Statistics	Value	Z Value	P-Value	Robust p-Value
CPI	Gt	-1.903	1.261	0.896	0.856
	Ga	-19.574	-2.580	0.005	0.030
	Pt	-3.061	1.938	0.974	0.842
	Pa	-10.644	-0.633	0.263	0.381
RER	Gt	-1.871	1.350	0.912	0.912
	Ga	-9.866	0.683	0.753	0.805
	Pt	-3.044	1.957	0.975	0.962
	Pa	-6.543	0.903	0.817	0.899
RGDP	Gt	-2.361	-0.013	0.495	0.598
	Ga	-16.029	-1.389	0.083	0.213
	Pt	-6.061	-1.557	0.060	0.281
	Pa	-17.765	-3.299	0.001	**0.086****
*** Statistically significant at the 5% significance level**					
*** Statistically significant at the 10% significance level**					

Regarding theWesterlund (2007) co-integration test, the premise and delays has been identified as number 1, by using fixed and trend model 1000 repetitions core extraction probability values are given. According to the results, there is a long-term relationship between RGDP variable and Brent crude oil price.

Panel co-integration results if a long term relationship is found in the variables, estimation methods such as Panel Dynamic OLS can be used to estimate the long-term parameters.

Table 7. Panel Dynamic OLS results

Country group	Variables	Coefficient	t-statistics	Probability	R^2
Oil Exporter Developing	RGDP	0.5242	19.9748	0.0000	0.9983
Oil Exporter Developed	RGDP	0.3498	13.7466	0.000	0.9921

In the above table Panel Dynamic OLS results are given according to the country groups. There is a long term relationship between Brent crude oil prices and RGDP of developing oil exporter countries. A long term relationship is estimated parameter in these variables (0.52) are a long-term parameters. T-statistic of the Long-term parameters was significant. According to the results, 1% increase in Brent crude oil prices RGDP increases 0.5%.

There is a long term relationship between Brent crude oil prices and RGDP of developed oil exporter countries. A long term relationship is estimated parameter in these variables (0.35) are a long-term parameters. T-statistic of the Long-term parameters was significant. According to the results, 1% increase in Brent crude oil prices RGDP increases 0.3%.

In this study, whether oil prices on macroeconomics variable is caused by "Granger Cause" are examined with the help of Panel Granger Causality Test developed by Emirmahmutoglu and Kose (2011). With the help of this test based on meta-analysis, analysis of the results can be reached both in terms of individual bases and on panel basis. If the series belonging to our panel contains cross section dependency, then Fisher test statistic distribution bootstrap method can be used. When series forming our panel contains cross section dependency, to obtain the bootstrap critical value 10000 attempts were carried out and this way the Fisher test statistic distribution is obtained.

Table 8. Granger causality test results for RGDP variable of developing oil-exporting countries

Country	Delay sequence	Wald statistics	P value
Azerbaijan	2	14.494	0.001**
Colombia	1	3.863	0.049**
Ecuador	1	0.889	0.346
Islamic Republic of Iran	1	1.399	0.237
Kazakhstan	2	4.660	0.097*
Malaysia	2	10.812	0.004**
Mexico	2	4.350	0.114
Nigeria	1	1.960	0.161
Venezuela	2	6.558	0.038**
Panel Fisher test	CV_1	CV_5	CV_10
55.542	**48.711**	**36.099**	**30.644**
***%5 ve **%10 At the significance level, statistically there is unidirectional Granger causality**			

According to the results of the Granger causality test and country basis presented in Table 8, Azerbaijan, Colombia, Malaysia and Venezuela, with a significance level of 5%, Kazakhstan 10% significance level of Brent crude oil prices RGDP found to be Granger cause. On the other hand, Fisher statistics result in a 1% significance level "was not Brent crude oil prices RGDP found to be Granger cause" null hypothesis is accepted. Thus, for developing oil-exporting countries it has been determined that Brent crude oil prices is leading the growth.

Table 9. Granger causality test results for CPİ variable of developing oil-exporting countries

Country	Delay sequence	Wald statistics	P value
Azerbaijan	1	2.756	0.097**
Colombia	1	2.521	0.112
Ecuador	2	5.247	0.073**
Islamic Republic of Iran	1	0.003	0.956
Kazakhstan	2	1.837	0.399
Malaysia	1	0.111	0.739
Mexico	2	2.306	0.316
Nigeria	1	6.387	0.011*
Venezuela	1	3.717	0.054**
Panel Fisher test	CV_1	CV_5	CV_10
33.899	**46.435**	**34.755***	**29.671****
***%5 ve **%10 At the significance level, statistically there is unidirectional Granger causality**			

According to Granger causality test results in Table 3:16, 5% significance level the countries that are found to be variable of Granger Cause are Azerbaijan, Ecuador, Nigeria and Venezuela. For developing oil exporter countries which make up the panel 5% significance level Brent crude oil prices CPI are Granger cause. Therefore, for developing oil-exporting countries we can say Brent crude oil price is a leading indicator of inflation.

Table 10. Granger causality test results for RER variable of developing oil-exporting developing countries

Country	Delay sequence	Wald statistics	P value
Azerbaijan	1	4.713	0.030*
Colombia	2	1.862	0.394
Ecuador	4	10.359	0.035*
Islamic Republic of Iran	2	8.572	0.014
Kazakhstan	1	2.997	0.083**
Malaysia	2	8.625	0.013*
Mexico	1	0.510	0.475
Nigeria	1	0.001	0.972
Venezuela	2	3.355	0.187
Panel Fisher test	CV_1	CV_5	CV_10
42.662	**43.815**	**33.949***	**29.431****
***%5 ve **%10 At the significance level, statistically there is unidirectional Granger causality**			

In Table 10, Brent crude oil prices is not the Granger cause in the real exchange rate. The hypothesis was tested. According to the results, Azerbaijan, Ecuador and Malaysia with a significance level of 5%, Kazakhstan 10% significance H0 hypothesis is accepted. Fisher test statistic result, 5% significance level the real exchange rate of Brent crude oil prices, has been

found to be Granger cause. Based on these data, we believe that Brent crude oil prices, is the premise indicator of the real exchange rate.

Table 11. Granger causality test results for RGDP variable of developed oil-exporting countries

Country	Delay sequence	Wald statistics	P value
Canada	3	0.722	0.868
England	2	7.987	0.018*
Saudi Arabia	1	5.299	0.021*
Norway	2	1.677	0.432
Russia	2	3.691	0.158
Panel Fisher test	CV_1	CV_5	CV_10
21.331	**35.724**	**24.020**	**19.418****
***%5 ve **%10 At the significance level, statistically there is unidirectional Granger causality**			

Table 11, according to Granger causality test results between GDP and oil prices, the price of Brent crude oil RGDP at 10% level of significance is Granger Cause in all countries. Thus, the in developed oil exporting countries, Brent crude oil prices economic growth is the Granger cause. If we are to look at the results on country basis, Great Britain and Saudi Arabia, with a significance level of 5% Granger cause can be found in Brent crude oil prices RGDP.

Table 12. Granger causality test results for CPİ variable of developed oil-exporting countries

Country	Delay sequence	Wald statistics	P value
Canada	3	3.110	0.375
England	2	4.776	0.092**
Saudi Arabia	2	3.429	0.180
Norway	2	10.589	0.005*
Russia	2	5.681	0.058**
Panel Fisher test	CV_1	CV_5	CV_10
26.437	**31.182**	**22.851***	**19.018****
	***%5 ve **%10 At the significance level, statistically there is unidirectional Granger causality**		

In Table 12, the relationship between CPI and Brent crude oil prices based both countries and general panel Granger causality test results is found. According to the results, while accepting Norway null hypothesis at 5% significance level, countries like Great Britain and Russia at 10% significance level "oil price is not the reason for CPI". The null hypothesis is accepted. According to Fisher statistic all countries forming the panel "oil price is not the reason for CPI". The null hypothesis is accepted. We can say therefore, the price of Brent crude oil is the effective variable on inflation.

Table 13. Granger causality test results for RER variable of developed oil-exporting countries

Country	Delay sequence	Wald statistics	P value
Canada	1	0.343	0.558
England	1	0.720	0.396
Saudi Arabia	1	1.824	0.177

Norway	1	3.095	0.079**
Russia	1	5.451	0.020*
Panel Fisher test	CV_1	CV_5	CV_10
19.440	**37.242**	**22.158**	**17.546**

The Granger causality test results in Table 13, for Russian Federation and Norway Brent crude oil prices is real exchange rate's Granger cause. As a result of Fisher statistic, "RER oil prices is not granger cause" null hypothesis is accepted. Therefore, we can say that Brent crude oil prices have a positive effect on the real exchange rate.

4. Conclusion

In this study, developed and developing oil-exporting countries for the period 2001-2015 long-term relationship between Brent crude oil price and RGDP, Westerlund (2007) co-integration test, Pedroni (2001) PDOLS methods and Emirmahmutoğl and Kose (2011), were investigated using the panel causality test. The presence of CSD among the countries that make up the panel, found by Breusch-Pagan (1980) and Pesaran et al. (2008) examined with Lm_{adj} that corrects deviation and crude oil prices, in RGDP and real oil prices series and that in the co-integration equation CSD is decided. The presence of a unit root in the series analysis, taking YKB into consideration in the series was analyzed using CADF test and series not stable on level, when the first differences were taken it became stable. The unstableness of series on the level shows that in time shock to the countries RGDP variable does not disappear and significant destabilization of the country's economy.

Long-term relationship between Series was examined by Westerlund co-integration tests and in the long term, it was concluded that it has co-integration relationship. In this regard, in the long term positive and significant correlation was detected between real oil prices and economic growth variables. Long-term relationship was found between developing oil exporter countries' RGDP and Brent crude oil price. In these variable a long term relationship is estimated and estimated parameter (0.52) is a long-term parameter. T-statistic of the Long-term parameters was significant. According to the results, a 1% increase in Brent crude oil prices RGDP increases with 0.5%. Long-term relationship was found between developed oil exporter countries' RGDP and Brent crude oil price. In these variable a long term relationship is estimated and estimated parameter (0.35) is a long-term parameter. T-statistic of the Long-term parameters was significant. According to the results, a 1% increase in Brent crude oil prices RGDP increases with 0.3%.

On the other hand, as a result of Fisher statistical significance level of 5% "Brent crude oil price RGDP, CPI and RER is not Granger cause" null hypothesis is accepted. Therefore, for oil-exporting developing countries Brent crude oil prices has been determined to be the granger cause of Growth, exchange rate and inflation. The developed oil exporter countries forming the panel at 5% significance level, RGDP Brent crude oil prices, the CPI and RDK is Granger cause. Therefore, for developed oil-exporting countries we can say Brent crude oil prices is the granger cause of Growth, exchange rate and inflation.

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Development Of Entrepreneurship In Zmg: Growth Startups And Precursor Of Innovation And Economic Development

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1. Introduction

Entrepreneurship is an activity that has developed over hundreds of years. However, the treatment study of entrepreneurship has had different approaches over time and has sometimes been confused and mixed definitions. Entrepreneurship awarded the creation of new businesses. However, how such a concept has several implications across different studies and related disciplines, sometimes often confused with theories of administration and management.

Over the years and due to the dynamism of markets, globalization and other external factors is that the characteristics of the firms have modified and adapted. It is no exception in the stage of starting a business. For them is that new models have emerged some models of companies because of its specific features is that do not fall into the traditional categories of the firm. Therefore, the study of these is very vague. However, in recent years these enterprises, which later will call as start-ups is starting to become more important in the economic and business context. It is likely to start and consider them as the birth of a new type of firm. Perhaps it is ambitious, granting this category to these new emerging firms. However, the international context starts showing that the start-ups are a model of companies that begin to take a strong role in the global context.

Following this new trend in business dynamics that also involves issues such as technological development, innovation, scalability, internationalization among other transcendental concepts, it is necessary to understand the position assumed by the country and the region to this phenomenon. This in order to avoid business and economic backwardness, which sometimes translate into knowledge and intellectual backwardness and detonate in slowing economic development.

2. Background of the problem

Entrepreneurship is an activity that has taken place for hundreds of years. However, the treatment study of entrepreneurship has had different approaches over time and has sometimes been confused and mixed definitions. In the text, the authors Griesa & Naude cite David Hart entrepreneurship defined as the process if begin, and continue the expansion of new businesses (Hart, 2003, p 5). Because of this, entrepreneurship credited as the creation of new businesses. However, as such the concept of entrepreneurship has several implications across different studies and related disciplines.

One could understand the theoretical historical development of entrepreneurship as follows, based on the theoretical review in the book "Entrepreneurship in Theory and History". The history of entrepreneurship dates back to 300 years ago, according Pepelasis (2005) which shows a summary of the main theoretical contributions of entrepreneurship and its historical development since the beginning of the term venture. Casis (2005) summarizes the contribution of Richard Cantillon as follows: The entrepreneur is the specialist in risk taking. The entrepreneur assumes the risks caused by price fluctuations in consumer markets. Unlike employees who receive a 'safe' salary in the short run, the entrepreneurs are willing to take the risk of economic transactions (Pepelasē & Cassis 2005).

Moreover, according to Pepelasē & Cassis (2005) the author Frank Knigth redefined the contribution of Cantillon, distinguishing between the concept of risk and uncertainty. By

separating these two concepts, assume that the risk can be "insured" and by blunted, however, the uncertainty is no assured.

Given that, the risk refers to the relative frequency based on experience of a phenomenon. Uncertainty refers to the unique events and that the probability of occurrence is under an assumption. On the other hand, it claims that the gain or business profits are the reward for assuming uninsurable risks and uncertainty, is the reward of the pure entrepreneur. With the freedom of entry into the industry, profits in one industry may exceed profits in other industry in the long term, only if the uncertainties are greater in the most profitable industry, in other words, if demands on entrepreneurship are higher in that industry (Pepelasē & Cassis 2005).

Years later Joseph Schumpeter (1934), Austrian economist awarded the most basic notions of entrepreneurship who gives a heroic vision of entrepreneurs. He tells that entrepreneur generates dynamism, after creating new industries, which makes it a precursor of structural changes in the economy. Among the characteristics of the entrepreneur, Schumpeter mentions that innovates through new or existing elements, so, it can be understood that is not pure inventive and sometimes turn to adapting existing inventions. Also he mentions that the entrepreneur is not the owner of capital, since in most cases are funded by external entities, which is another characteristic of entrepreneurs, the constant search for resources, but they are the ones who make the crucial decision to take the risk.

Schumpeter (1934) developed his work Theory of Economic Development; in this theory rejected two great courses. The first is that economic change develops exogenously, and the second is that business activity is a response to exogenous forces. In refuting these assumptions, he built endogenous growth theory. In this theory, he defines the entrepreneur as the precursor source of all dynamic change in the economy. Schumpeter attributed the adjective "creative rebels" to entrepreneurs. They are responsible for generating the necessary imbalance generated by the dynamism of the economic system; therefore, they play a key role in economic development, breaking with routine processes and systems through innovations and value creation.

Israel Kirzner (1973) cited by Pepelasē & Cassis, (2005), another Austrian economist, entrepreneurs are largely precursors of economic activity since for them one of the main motivators is the pursuit of high economic performance. For Kizner they seek for their benefit in buying low and selling high. Another characteristic attributable to entrepreneurs is that they possess the quality of a clearer judgment to improvise decisions when faced with a discrepancy. Coining to Kizner that through their studies embedded in the Stream of Neo- Austrian School is emerging concepts such as the "entrepreneurial spirit; which already formally defined as alertness to profit opportunities. Under this assumption of constant alert to opportunities, the entrepreneur is a balancing force between the opportunities and the economic environment.

Finally, according to Mark Casson (1990) entrepreneurs are very important figures in the capitalist economy and society. They are decision makers in complex cases appealed to his trial, for example, when resources are scarce or there is a situation of uncertainty.

After detailed explanation of the historical development of entrepreneurship, it is understandable that it is possible to undertake it within traditional structures of the firm. However, the emergence of dynamic conditions and global demands are emerging new structures outside the canons of traditional firms.

3. Conditions to generate an entrepreneurial ecosystem

Sustainable entrepreneurial ecosystem is defined how interconnected groups and networks of actors in a community are committed to the development and creation of new companies (Cohen, 2006). This is a very general definition for it to achieve to be more specific, is that a

detailed list of these networks and specific groups that must exist in order to affirm that the conditions is given to generate venture in a city. Then the author Cohen (2006) presents a list of the seven main elements of the necessary conditions to generate venture.

a. Informal networks
b. Formal networks
c. Universities
d. Government
e. Professionals and support services.
f. Capital services
g. Reserve and talent generation

Given the specific characteristics of a start-up and the context of the ecosystem of entrepreneurship, both in Mexico and in the Metropolitan Area of Guadalajara (MAG), it needs to define whether there are appropriate conditions to encourage the creation of start-ups and the variables of the entrepreneurial ecosystem models in which to take action.

4. Research question

Are there adequate conditions for generating start- ups for the ZMG?

5. Justification

It is Important to assess the context of entrepreneurship in the local area, since many adjectives are being Attributed to Jalisco as the "Mexican Silicon Valley" or “Jalisco Capital of innovation" Doing this analysis will allow to understand this situation.

The analysis on this matter is justified in few studies on the dynamics of start-ups in Mexico and much less to specific ecosystems like the MAG. There are some agencies and studies already evaluating entrepreneurship in various dimensions from the current conditions of the country to promote entrepreneurship to more specific indicators related to innovation and technology, but without taking into account the specific context that require start-ups.

Moreover, to study the dynamics of Startups as a new business structure is as important as this phenomenon is showing up increasingly and is emerging more strongly. There are hubs, innovation, and entrepreneurship ecosystems, which created the atmosphere and the conditions for growth start-up, such as the city of Victoria in Canada, Silicon Valley in California and Tel Aviv in Israel.

Given the specific characteristics of a start-up and context of the ecosystem of entrepreneurship, both in Mexico and in the MAG, it is a need to define whether there are appropriate conditions to encourage the creation of start-ups and what are the variables if the entrepreneurial ecosystem models in which action is taken.

6. Conceptual- theoretical framework

A. Entrepreneurship

The process of initiating and continuing the expansion of new Businesses (Hart, 2003, p.5) to entrepreneurship is credited the creation of new businesses. However, such a concept has diverse implications across the distinct studies and related disciplines.

B. Startups

A start-up is a technology-based business, high growth potential and a high degree of scalability. Startups research has focused on analyzing how new companies have the ability to develop new products and services and reach a large number of customers in a shorter period (Rasmussen, E. S., & Tanev, S, 2015). About the growth of start-ups is reaching more customers in a shorter period known as scalability, which can be one of the main features of a start-up.

According to Steve Blank, a startup is a temporary organization in search of a business model scalable and replicable (Blank, 2010). Temporal refers to having a lifetime to stop being start- up and become a consolidated, or fail and evolve to another detected business opportunity. The word search refers to the market in which it is involved, unlike traditional businesses operating in mature markets, start- ups seeking new business models in order to create, modify or have existing markets (Blank 2010).

C. Characteristics of startups

A scalable start-up usually requires a population of over 100 million people. If your country does not have that, the start-up needs to be born world (Blank, 2010). Trimi and Berbegal-Mirabent (2012) have discussed new trends in the design of the business model, focusing on open innovation, customer development, agile development, and methodologies "lean". That conclusion they reach is that the design of business models based on innovation should seek quick iterations and the adoption of a philosophy of trial and error to validate the assumptions of the business model and the specific characteristics of goods or services.

According to Stavnsager and Tanev (2015) the authors make a comparison between startups and global firms must be born yet we only we will focus on the features that the authors listed about start-ups.

1) Type of company: Start-up technology.
2) Market: New market niches.
3) Marketing strategy product: Model cycle technology adoption / cross into new market niches.
4) Product development: New product development / prototyping / testing / Dynamic Development.
5) Business model: dynamic model / pop business.
6) Focus entrepreneurship: entrepreneurship directed hypothetically.
7) Outlook key attributes of business: Ex ante.

D. Importance of startups

According to the Mexican Institute for Competitiveness, the dynamics of startups has come to challenge much of the theoretical structures have on the theories of the firm, business management and economic behavior. For example, some technology startups in less than 5 years have achieved greater value assessed to all listed companies belonging to a conglomerate.

Given to this dynamism has made that capital investment in technology issues have a growing five times greater than the rest of the economy.

E. Innovation in Mexico.

According to the World Intellectual Property Organization (WIPO), Mexico improved 16 places in the Global Innovation Index 2013 over the previous year. In 2012, it was in the 79th position and managed to move to position 63. This puts it in a position slightly above the average of the 142 countries assessed. However, its position remains less competitive than other Latin American countries like Costa Rica (39), Argentina (56) and Colombia (60)

There is another report issued by the World Economic Forum, Global Technology Report 2014 puts Mexico at the site 79 of 148 countries surveyed, down 16 positions from the previous year. Although the report can recognize similar to those highlighted by WIPO strengths, it indicates that the innovation ecosystem in Mexico needs to be strengthened and, in general, Mexican companies have a low capacity to innovate, resulting in low economic impacts and population which focuses heavily on low-productivity activities, and few jobs that are considered knowledge-intensive (Gallegos, 2015).

1) Quantitative investment analysis innovation

According to the World Intellectual Property Organization (WIPO) investment in research and development, according to the World Bank, in 2012, Mexico spent the equivalent of 0.37 Per cent of GDP, while Russia, for example, spent 1.0 Per cent, Brazil 1.1 Per cent, China 1.4 Per cent and South Korea 3.2Per cent.

One of the policies of the federal government has decided to attack with the aim of gradually increasing investment category at least the equivalent of 1 Per cent of GDP. International experience shows that the most successful entrepreneurship based on innovation, cases are those articulated under models "triple helix": that is, innovation does not arise in isolation, but thrives on networks that bring together entrepreneurs, research centers and support from government agencies.

In Mexico, by 2010 according to the SEP used in the report of the World Intellectual Property Organization (WIPO), 25 Per cent of Mexican companies that conducted research and development, it was in connection with a research center. According to this report, a key incentive is to have a robust and effective system of protection of intellectual property rights, and intangible to be a tool for entrepreneurs.

According to WIPO, Mexico local produce 0.7 patents per 10,000 inhabitants. Brazil produces twice, Russia 20 times and China 40 times. In the Federal District 36.3 patent applications filed per million inhabitants in 2012. In Oaxaca there were only two. Similarly, the Federal District has 14.9 researchers per 10,000 inhabitants, while Oaxaca has only one. In the innovation landscape in Mexico, there are cases of innovative regional clusters of remarkable success. The generation of new clusters of entrepreneurship and innovation requires an integrated strategy that responds to local vocations (Gallegos, 2015).

F. Mexico and entrepreneurship

1) Public policies in Mexico

In matters of importance to the government in entrepreneurship theory, for the promotion of appropriate conditions for the development of fruitful economic activities and enterprise creation conditions, an issue tops the public agenda and is evident in the country's development Plan. As a general goal, the National Development Plan 2013- 2018 locates the entrepreneurship and innovation within the national goal of "Achieving a prosperous Mexico" leads to the strategy To develop the strategic sectors of the country" and a specific action line is "to encourage entrepreneurs and strengthen micro, small and medium enterprises.

About to encourage entrepreneurs and strengthen micro, small and medium enterprises, the following specific action lines are as follows:

a) Support the successful integration of micro, small and medium enterprises to the value chains of more dynamic strategic sectors, with more potential for growth and job creation, in agreement with the state governments of the country.
b) To promote entrepreneurship through the creation of an educational environment, finance, legal protection and adequate competition.
c) Design and implement an information system, monitoring, evaluation and dissemination of the impact of entrepreneurs and micro, small and medium enterprises.
d) Promote intensive programs to develop skills in information and communications technology, and innovation to promote the creation of high added value of micro, small and medium enterprises ecosystems.
e) Improving technical advisory services to build an entrepreneurial culture.
f) Facilitate access to financing and capital to entrepreneurs and micro, small and medium enterprises.
g) Create entrepreneurial vocation from an early age to increase the critical mass of entrepreneurs.
h) Support the business escalation of micro, small and medium-sized Mexican companies.
i) Increase the participation of micro, small and medium enterprises in production chains, as well as its export capacity.
j) To promote social projects, green entrepreneurs and high impact.
k) To promote the creation of jobs through the development of entrepreneurial projects.
l) Encourage the creation and sustainability of formal small businesses.

Within these 12 lines of strategic action, it can highlight specific actions such as the creation of the National Fund of the entrepreneur. A fund aims to encourage national, regional and sectorial economic growth by fostering productivity and innovation in micro, small and medium enterprises in strategic sectors. That promotes the orderly strengthening, planned and systematic entrepreneurship and business development throughout the national territory and the consolidation of an innovative, dynamic and competitive economy.

G. Entrepreneur ecosystem assessments

In order to evaluate the factors influencing entrepreneurial activity and entrepreneurial activity related to innovation and technology are taken two tests that are performed in these contexts in particular. Firstly, the GEM (Global Entrepreneur Monitor) Analyzes environmental conditions to undertake and IMCO (Mexican Institute for Competitiveness) analyzes the environmental conditions to undertake but from a more specific vision of entrepreneurship in areas of technology, and innovation.

Table 1. Entrepreneur Ecosystem Assessment (GEM) and Entrepreneurship, Innovation and Technology Ecosystem Assessment (IMCO).

Entrepreneur Ecosystem Assessment (GEM)	Entrepreneurship, Innovation and Technology Ecosystem Assessment (IMCO)
GEM: Global Entrepreneur Monitor	IMCO: Mexican Institute of Competitiveness
1. Finance	1. Innovation
2. Government Policies: Entrepreneurship as a priority and support for business.	2. Environment for doing business
3. Governmental programs	3. Support infrastructure
4. Education and entrepreneurial training	4. Human capital
5. Technology transfer	5.Financing
6. Commercial infrastructure	6.Demand profile
7. Internal market: Dynamics	7. Industrial integration
8. Physical infrastructure	8. Entrepreneurial culture
9. Social and cultural norms	9. Governmental policies

Source: Global Entrepreneur Monitor 2014 and Mexican Institute of Competitiveness

Knowing the context of entrepreneurship is evaluated it is valuable because it allows to limit what are the determining variables. However, more importantly is to evaluate and assign a weighting to understand in clear and quantitative terms. Where does it meet? What is doing well? In addition, what can be improved?

Table 2. Entrepreneur Ecosystem Assessment GEM and Entrepreneurship and Innovation and Technology Ecosystem Assessment IMCO

Entrepreneur Ecosystem Assessment GEM Mexico 2014	
GEM: Global Entrepreneur Monitor	
1. Finance	As for funding by 2014 the outlook is bleak, the element with the worst result indicates that there is not enough equity of entrepreneurs in Mexico to finance new and growing businesses.
2. Government Policies: entrepreneurship as a priority and support	Compared to 2013, the year 2014 assesses negatively in all factors, concluding that the general perception is that support for new and growing businesses is not a priority the policy of the federal government.
3. Governmental programs	There is a perception that science parks and incubators provide effective support for new and growing companies.
4. Education and entrepreneurial training	There is not a good perception of entrepreneurial education offering, but has improved compared to 2010.

5. Technology transference	Technology transference perceives that science and technology developed in Mexico allow the creation of technology-based companies in the global level.
7. Commercial infrastructure	In 2014, there was a negative perception in commercial and professional infrastructure, which leads to lack of adequate for the development of entrepreneurial ecosystem conditions.
8. Internal market: dynamics	Perceives that new and growing companies cannot easily enter new markets, or assume the cost of entry this implies.
9. Physical infrastructure:	Although there are generally positive assessments regarding physical infrastructure, the results is lower in comparison to 2013.
10. Social and cultural norms	Norms presented a decrease in earnings during 2014. The worst evaluated element was no stimulation to taking entrepreneurial risk.

Source: IMCO (Instituto Mexicana de la Competitividad)

Results of that evaluation by IMCO (Table 3) in terms of technological entrepreneurship and innovation in terms of a comparison sheds alarming results that might make look like a laggard country. A recent study found that only teachers and students at Stanford University have created 40,000 companies and generated 5.4 million jobs since 1930. These businesses generated an added value of 2.7 trillion dollars that is more than the size of the Mexican economy. According to the Financial Report Stanford University 1995, the federal government accounted for 40 Per cent of funding for the institution in the field (Gallegos, 2015).

Table 3. Entrepreneurship Ecosystem Assessment and Innovation and Technology. IMCO.
IMCO: IMCO: Mexican Institute of Competitiveness

Factor	Evaluation
1. Innovation	This is the most backward factor according to IMCO. This is due to low investment in research and development compared with other countries. In Mexico 30 Per cent of investment in R & D comes from the private sector, in other countries like South Korea, this represents 80 Per cent. In addition, there is a perception that there are no institutional links between academia and industry; therefore, companies do not resort to the academy for innovation.
2. Environment for doing business	This is the third worst evaluated factor and it is not surprising as it coincides with other studies indicating the high cost and difficulty in performing procedures in Mexico, including paying taxes. The gap for the growth of corruption is huge and therefore perceives as a constraint to doing business in Mexico.
3. Support infrastructure	10 years ago, pushes the creation of incubators in Mexico resulting in nearly 500 institutions throughout the country by 2012, its results have not been the expected. Only one in seven incubators has some type of a tracking system of their companies. This explains why 70 Per cent of entrepreneurs who have obtained financing on the market do not come from any incubator.
4. Human capital	The main problems have to do with the lack of English proficiency. Because of the one-dimensional model of undergraduate education in Mexico, systems engineers, even

	though they have a technical soundness lack business elements. Similarly, business students lack the technical skills to carry out an ICT business.
5. Financing	Financing is considered one of the laggard's factors. In Mexico invests 0.06 Per cent of GDP in that market while in Colombia and Chile twice reversed in relative terms. On the other hand, the credit market companies are limited. In 2010, the percentage of credit to companies accounted for 21 Per cent of GDP while the Latin American average was 36 Per cent .5 As a result; entrepreneurs tend to finance their projects with family and personal funds. Mexican businesspersons prefer to invest in traditional sectors, new markets, which have inhibited the creation of angel investors.
6. Demand profile	This factor refers to the ability of a country to adopt and promote the use of technological developments. Its relevance is because those small businesses are the fastest growing permanently using ICTs to interact with their customers, according to a recent study by BCG. However, e-commerce in Brazil is three times that of Mexico in relation to GDP due to the higher cost of internet access and low quality service, low penetration of banking services, and low confidence in electronic commerce. This factor refers to the ability of a country to adopt and promote the use of technological developments.
7. Industry integration	ICT industry integrated under 3 main associations and 38 clusters in 28 states; this not necessarily reflects in new businesses. According to the survey conducted by IMCO, only 23 Per cent of ICT entrepreneurs belong to a business association and 28 Per cent to a cluster. Private partnership mechanisms are expensive for entrepreneurs for fees and even if they could afford, do not find their interests represented.
8. Entrepreneurial culture	According to an academic study (Ardagna & Lusardi 2008), this factor is one of the best that explains the likelihood of undertaking in a country. If individuals are confident in their entrepreneurial skills and knowledge, they have 8.5 Per cent more likely to start a business. In addition, those who are not afraid of failure have a 10 Per cent greater likelihood to undertake. Finally, knowing an entrepreneur increases the likelihood of undertaking by 3 Per cent. In Mexico, this culture is not consolidated. In the survey conducted by Monitor Group (Deloitte) the percentage of individuals who consider starting a business as a good alternative is 58 Per cent, while in Brazil it is 80 Per cent.
9. Governmental policies	This factor is in better shape. The work of public policy in creating support funds achieving that doubling in six years recognizes, creating the first seed capital funds in the country. It link public universities with entrepreneurial projects through meetings between entrepreneurs and industry.

7. Jalisco in entrepreneurship

Table 4. Objectives and Strategies of National Development Plan 2013-2016 Jalisco

Sectorial objective	
OD8O1	Expand and improve the supply of financing on appropriate terms for productive projects.
OD8O1E1	Strengthen specialized funds guarantees
OD8O1E2	Encourage financial institutions and bodies of state financial support to generate operating rules and guarantees according to the possibilities of MSMEs
OD8O1E3	Promote a state system of financing that consolidate and coordinate programs appropriate to the type and size of companies.
OD8O1E4	Enhance competition in lending to entrepreneurs to reduce interest rates
OD8O1E5	Boosting the financing companies of international migrants return
OD8O2	Sectorial objective: Strengthen the capacities of MSMEs operation
OD8O2E2	Strengthen educational programs and higher education in corporate financial education
OD8O2E3	Improve systems incubation, acceleration and entrepreneurship of universities and business organizations that promote, support and follow up on formal businesses with high added value and innovation
OD8O2E5	Generate incentives in coordination with the federal government and municipal governments to install new formal businesses seize the economic vocation and regional potential.
OD8O2E6	Strengthen the network of actors that make up the system entrepreneurs.
OD8O2E7	Generate comprehensive programs that allow potentiate the initiatives of entrepreneurs and creating high-impact companies.
OD8O2E8	Generate comprehensive programs that help expand niche markets MSMEs

Source: (General Secretariat of Government of the State of Jalisco, 2013).

A. Conclusions state enterprise development plan

This National Development Plan proposes as a priority objective foster a business climate that facilitates access to financing and encouraging the creation, innovation and expansion of companies, but with a special emphasis on the consolidation of MSMEs.

To assess the impact of entrepreneurship in the case of Jalisco four indicators are relevant: the number of registered companies, their operating capacity, retention of businesses and financing volume: Using this summary, are analyzed the challenges of these four indicators.

One of the main areas of opportunity to boost funding and entrepreneurship is within the structure of the State System of Entrepreneurship. In Jalisco there are 45 Incubators registered with the INADEM, there Jalisco Enterprise Development Fund (FOJAL) supports entrepreneurs through training and / or accompaniment

8. Jalisco in innovation

Jalisco faces several problems with competitiveness and economic growth. In 2012 Jalisco was located at position 13 Competitiveness Index nationwide calculates the Mexican Institute for Competitiveness (IMCO).

Table 5. Objectives and Strategies of National Development Plan 2013-2016 Jalisco
DEVELOPMENT OBJECTIVE: To promote technological development, scientific research and innovation through the articulation of sectors those contribute to the formation of human capital with high levels of expertise.
OD13O1: SECTORIAL OBJECTIVE: Create conditions for strategic links between academic and economic sectors.

OD13O1E1	Encourage the formation of high level human capital
OD13O1E2	Develop a dual model of higher education to strengthen the link between universities and industries and to encourage innovation and entrepreneurship with the vision to produce value added.
OD13O1E3	Develop marketing networks technology to the productive sector
OD13O1E4	Encourage the creation of a network of information and technology transfer to give added value to all productive sectors of identity.
OD13O1E5	Seek or venture capital fund for scientific and technological projects, academy-industry
OD13O1E6	Increase investment in innovation, science and technology as a percentage of state GDP, to form in the next few years an investment at least equal to the national average investment.
OD13O1E7	Motivate through a program the interest of industry research
OD13O1E8	Harnessing local research groups recognized in different areas to create specific poles of scientific development (e.g. biotechnology)
OD13O1E9	Promote a triple helix model linking the academy, industry and government to the generation of scientific development and innovation.

OD1302. SECTOR OBJECTIVE: To promote innovation and entrepreneurship for scientific and technological development.

OD13O2E1	Create specialized technology platforms to support high-tech entrepreneurs that allow incubation, integration into clusters. Accelerating and innovation (i.e digital creative city and centers of innovation and business acceleration)
OD13O2E2	Promote the development of the information society and knowledge through a statewide system of Entrepreneurship and a state innovation system, including sectoral strategic information.

Source: (General Secretariat of Government of the State of Jalisco, 2013).

A. Conclusions of the State Development Plan Innovation and Technology

Scientific research, technology development and innovation are three important elements, as has been demonstrated in various latitudes that these components of development have a direct impact on business competitiveness index. According to the ranking of Science, Technology Mexico and Innovation in 2011, conducted by the Scientific and Technological Consultative

Forum (FCCyT), Jalisco is located in fourth place nationally in terms of quantity and quality of resources in Science, Technology and Innovation (CTI). Only surpassed by the Federal District, Nuevo Leon and Morelos (General Secretariat of Government of the State of Jalisco, 2013).

However, this position not reflects an impact to increase business competitiveness of the state, because, on the level of business competitiveness, Jalisco ranks in tenth position by 2012. Some of the causes of why the state Jalisco is located in this position are that there is poor linkage between academia and industry for the generation of research and technological development. As it has been reviewing over the text in a nutshell, companies do not go to universities to generate innovation (General Secretariat of Government of the State of Jalisco, 2013).

According to the State Development Plan of Jalisco 2013- 2033, the results of the position of Jalisco also due to a low level of enrollment in undergraduate and graduate programs are related to the development of science and technology. In Jalisco, only 28.4 Per cent of undergraduate enrollment is located in engineering and technology programs, while nationally the proportion is 33.4 Per cent.

Another of the limitations that exist in the state for generating innovation, science and technology, is the number of researchers who are in state so that researchers who are attached to the SNI (National Research System) are taken into account. By 2011, in Jalisco, for every 10 thousand members of the EAP (Economically Active Population), there are 2.8 researchers from the SNI, with respect to this stated, Jalisco is located at number 12 in the country. (General Secretariat of Government of the State of Jalisco, 2013).

One of the main constraints to generate own business innovation is that this must be done by each and investment of own funds according to indicators of companies investing in innovation. Eighty seven Per cent of its total investment comes from own resources, although in the case of microenterprises this proportion rises to 92 Per cent. In addition, the nature of investment banking in Mexico and the likelihood that funding granted for innovation issues is very low. Regarding public funds are equivalent to only 2 Per cent and international funds less than 1Per cent. (General Secretariat of Government of the State of Jalisco, 2013)

In conclusion, the State Development Plan summarizes these two problems: First, there are no adequate financing mechanisms for high-tech entrepreneurs. In addition, there are no real mechanisms to support specialized entrepreneurs in high-tech incubators. It is also remarkable the digital divide that prevents the exploitation and use of Information Technology and Communication (ICT) for development of the state. Smaller and more companies to survive problems tend to use less resources and take advantage of ICT (General Secretariat of Government of the State of Jalisco, 2013)

9. Research method

In this research, it is used the qualitative method based on literature review of studies in Mexico and investigations in other countries. Also, there are analyzed statistics presented by national and international institutional bodies and public and private bodies are used in order to explain and describe the phenomenon that is the object of study.

10. Analysis of results

If it should be analyzed the conditions of the state of Jalisco that promote entrepreneurship and innovation, and with them the generation start-ups, it can be concluded that are aligned to the policies that both the federal government and the state government has ruled in their plans development. However, results in innovation and entrepreneurship in the state mostly have negative results.

As reviewed from the national sphere the two main constraints to which start-ups face, are the lack of availability of capital and financial instruments and low incentives that have to invest in research and development. Companies are still struggling to resolve operational and financial issues leaving aside the daily budgets and resources for this type of activities that add value.

Finally, it should be emphasized that both the IMCO report as on the findings of State Development Plan, although it is established clearly as a strategic line, collaboration between industry, academia and government is called the triple helix and it is already a proven to encourage high-value activities in a city model. There are alarming figures in which it shows that companies do not resort to universities, educational centers and research to generate innovation, which is a bit absurd in terms of policies judged as the creation of a Ministry of Innovation, Science and Technology.

11. Conclusions and recommendations

There are two main reasons why it is important to study the evolution and development of Startups in the MAG. The first is because there is evidence that the creation of startups based on technology and innovation has a positive impact on the economic development of the region. The second reason is that it is important to analyze the nature of what we might call a new type of firm and that for various reasons are unable to fit into conventional corporate structures and it is that is increasing the detailed study of the characteristics, dynamics and structure of startups.

Concluding that Mexico from its national policies and the State of Jalisco from State Development Plan, has tried to promote in the MAG conditions to promote the entrepreneurial ecosystem. However, there are key indicators that slow detonation and growth of startups based on technology and innovation.

Although public policies at the State and Federal level institutions create and allocate resources to encourage entrepreneurial activity, this can grow in terms of traditional business and of little value. However, to encourage start-ups and businesses based on technology and innovation, it is necessary that public policies not only focus on increasing Numeralia of companies created or loans granted. To increase the value should pay attention to specific indicators, greater reach and more intellectual, long-term nature.

The problem of creating value is not resolved with a high volume of micro-credits or incentives for micro and small businesses. However, there must be public policy incentives to the creation of intellectual capital, to prevent leakage of knowledge and generation of instruments for more solid financing and not only seek short-term returns.

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Is Family Life Cycle Affecting Behavioral Biases? An Analysis on Active Investors as Consumers of Stocks

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1. Introduction

Marketing science categorize the consumers in two groups: Rational-human behave reasonably in his every decision by focusing on maximum benefit and minimum cost for himself, whereas marketing-human sometimes make unreasonable decisions through going out of rationality. Behavioral finance comes into question at this point. In other words, by contrast with the rational-human, who is equipped with complete information and always center upon profit maximization, that conventional finance theories point out (Markowitz, 1952; Modigliani and Miller, 1958; Fama, 1970); various psychological variables affect the decisions and behavior of marketing-human. The effects of perception, learning, motivation etc. on the decisions of human as both investor and end user are known. In this case, according to Ateş and Altan (2008), two assumptions of behavioral finance draw the attention: (1) Investors do not always behave rational and normative, (2) and use cognitive heuristics and biases in information analysis.

From the view of consumer behavior, it is so crucial to know in what direction and extent those psychological and sociological factors have an impact on the decisions of decision-makers. Even though there is a tight relation between consumer behavior and behavioral finance, lack of the behavioral finance studies focusing on consumer behavior stands out (Lim, Soutar, & Lee, 2013). Moreover, consumers take part in "collective decision-making process" for most of their decisions instead of behaving alone (Solomon, Bamossy, Askegaard, & Hogg, 2010). Consumer behavior literature may place the family on the top in terms of collective decision-making. In this context, aim of the study is to examine the effects of Family Life Cycle (FLC), which is regarded as a powerful motivator in consumer behavior, on the psychological biases of investors.

2. Literature Review

2.1. Behavioral Finance and Psychological Biases

In recent years, the assumptions of conventional finance theories have been diminishing by the occurrence of irrational investor behavior that are observed in real life and stands in opposition to those conventional theories. This is because neoclassical economic theories- quite the contrary to conventional theoreticians - argue that individuals have limited information to make decisions and many external factors have impact on their behavior. More precisely, due to these reasons, individual investors form cognitive heuristics and those heuristics prompt investors to irrational behavior. Thus, according to the behavioral finance approach, several psychological biases play a role on the decision-making process of both individual investors and institutional investors (Jain, Jain, & Jain, 2015).

Since the beginning of 1960s, scientists- many of them are psychologist- have been verifying by various studies that human behaviors are not rational as expected. Furthermore, irrational behavior of human beings are not only referred to emotional matters as "mate selection", but also same as for automobile preferences or investment choices (Özerol, 2011). According to Fuller (2000), behavioral finance which is based on decision-making, finance and psychology focus on why some heuristics of investors arise. Moreover, behavioral finance

researches how decision makers (investors or their agents) stumble into systematic error in both judgmental and ideational ways (Taner & Akkaya, 2005).

The occurrence of behavioral finance stands up to taking attention of the studies in psychology science of economists, in fact, Slovic leads the discussions concerning behavioral finance with his two studies (1969, 1972) by distinguishing the relation between behavioral concepts and finance. But behavioral finance has earned reputation with the studies of Kahneman and Tversky (1974, 1979), and been noted for them (Bayar, 2011). According to behavioral finance theory which brought Nobel Prize to Kahneman and Tversky in 2002, data is filtered by cognitive heuristics and biases so data analysis takes shorter time for decision maker. Data is conveyed to the brain by passing through this accelerated process and decisions taken are not same as without this process. In behavioral finance, those filters and heuristics are known as psychological biases (Ateş & Altan, 2008). Döm (2003) states that psychological biases "in general terms, emerge with the errors in the process of problem formulation or as a result of misperceptions caused by storage, correction and processing of data" (p.43). In simple sense, psychological biases are psychological factors that affect the financial risk perceptions of individual investors (Kahyaoğlu, 2011). In behavioral finance context, it is possible to divide psychological biases in to two groups as heuristics and biases.

Heuristic, which is Greek originated and means to find or to explore, supports individuals to make automatic, fast and reliable decisions (Kübilay, 2015). In other words, heuristics lead the brain to make estimations without analysis of whole data and therefore to create shortcuts (Ateş & Altan, 2008). Tversky and Kahneman (1974) focus on three types of heuristics: Representativeness heuristic, availability heuristic and adjustment and anchoring heuristic.

In probabilistic questions such as "What is the probability of Object A belonging to Class B?" or "What is the probability of B process cause to A event?" individuals use representativeness heuristic (Tversky & Kahneman, 1974). In this regard, representativeness heuristic can be defined as a "judgment strategy in reference to how the probability of something meets or represents a specific stereotype" (Döm, 2003). "Expensive products have high quality." is an example of representativeness heuristic (Kübilay, 2015), whereas "A good stock is a stock of a good company." can be a representativeness heuristic of an individual investor (Ateş & Altan, 2008). Availability heuristic, which is a judgmental heuristic, means that the probability of something depends on frequency, availability and memorability of that event (Tversky & Kahneman, 1974). If you know many people who died from cancer, you may think that the mortality from cancer is high (Ateş & Altan, 2008). According to adjustment and anchoring heuristic, which is studied in cognitive psychology since 1970s, brain determines an anchor to solve complex problems and transform and process the data by making minor changes additively (Kübilay, 2015). According to Tversky and Kahneman (1974), people depart from a starting point (anchor) and make final decision by adjusting that point. But those adjustments may fall short. In this circumstance, decision makers are biased to the starting point and make decision by paying attention to that point and this means "anchoring" (Tversky & Kahneman, 1974). It is not a coincidence that a seller who bargains high price for his car at first and then underbids. In this case, seller aims to make the buyer anchor at a higher price and to make him feel latter price is charming when the seller underbids (Fuller, 2000).

The biases affecting investors' decisions are over confidence, over optimism, regret aversion and herd effect. Over confidence bias cause individuals misinterpret the risk they take as a result of over confidence about what they know and after all take high risk. It is observed that such investors usually increase their trading volume and frequency, however decrease their portfolio diversification (Kahyaoğlu, 2011). Over optimism- named also as fictitious optimism or positive illusion- leads comforting effect in terms of psychological tranquility on the individuals who feel uncertain circumstances concerning the decisions would be taken in the

future, but generally cause negative results due to misinterpretation depending on irreal conditions (Ateş & Altan, 2008). Regret aversion, particularly appears in individuals who do not accept his fault, reveals as holding the stocks for a long time in contravention of inexpectation (Kübilay, 2015). As Kahneman and Tversky (1979) prescribe "expectancy theory", many investors act in the expectation that stock prices would increase in the future by delaying to sell the stocks that depreciate in order to avoid from regret, on the other hand, those individuals avoid from regret by selling out their winning stocks in less than no time in the expectation that stock prices would decrease. In social psychology, herd behavior, which is defined as behaving likewise with the others in the group that the individual belongs to by ignoring his own decisions, refers to buying and selling the stocks with the decision of stock market rather than his own consideration (Ergün & Doğukanlı, 2015). Herd effect emerges mostly in the situations where small investors hardly and expensively reach the information (Ateş & Altan, 2008).

2.2. Family Life Cycle (FLC)

The steps of every family, which begin with marriage, enlarge with the birth of children, then become smaller with the children's leaving the house and finally last with the death of one or both of couple, are defined as "family life cycle" in the literature (Özdemir, Torlak, & Vatandaş, 2013). The term, which was used by Rowntree (1903) first to examine the poverty patterns in England, nowadays is frequently employed in fields like sociology, psychology, marketing and consumer economics (Xiao, 1996).

Family, which is described as a body where "two or more people who are close to each other and share the same place, some emotional bonds are established, some social situations, roles and duties are undertaken, and attachment and belonging feels are shared" (Hallaç & Öz, 2014), passes through various steps along its life cycle in which some changes emerge in terms of socio-economic characteristic and structure, therefore every type of family exhibit distinctive consumption patterns (Camacho & Hernandez-Peinado, 2009). Naturally, it is quite comprehensible that every family in different life cycle has heterogeneous investing approaches due to their diversified necessities (Zhang, Wu, Wei, & Pan, 2015). Since life cycle is a powerful effective factor on savings and financial consumptions of families, it is significant to understand the stages of life cycle one by one (Lee, Park, & Montalto, 2000).

The numbers and titles of family life cycle steps vary in different sources. The family life cycle is considered through between 4 and 10 steps in related literature (see Özdemir et al., 2013), in this study, this cycle is examined in six steps because of the assumption that it is meaningful in Turkish culture. Those steps are young married couple without children, young parents with preschool children, young parents with primary school children, parents with unmarried adult children, parents alone together and aloneness. The first step is young married couple without children because starting a family begins with marriage contract in Turkey. Young married couple without children cling to their single life and have outward-oriented living rather than staying at home, moreover, they spend the leisure time for sportive, social, cultural and educational activities depending on their socio-economic status (Alga, 2005). When the roles in the family change with the birth and growth of child is assumed, it is observed that some steps are generally determined by the age of oldest child (Güven, 1991). In parallel with the age of eldest child, the educational level of that child is another determinant of family life cycle (Sook & Kyung, 1984:36). Therefore, in young parents with preschool children- as the second step- the focus of family decisions shift to the "child" (Özdemir et al., 2013). According to Camacho and Hernandez-Peinado (2009), the spending of couples with children from 0 to 5 years old concentrate on nursery school, personal care and medical services besides socio-cultural and spare time activities. While educational spending increases in young parents

with primary school children, the increase in spending depend on the ageing of children is co-decision of parents with unmarried adult children (Özdemir et al., 2013). Parents alone together- also named as "empty nest period"- means degrowth of the family because of the separation of children as young adults on the purpose of living alone or marriage (Güven, 1991). In aloneness step, lone-parent family emerges with divorce, death or separation in years where the family continues to degrowing (Alga, 2005). It is seen that need and price are the most dominant factors on the decisions of families in this stage (Özdemir et al., 2013).

Thaler (1990) states that overconsumption is seen in middle aged stages of life cycle, whereas low consumption outweighs at early and late steps. On the contrary to life-cycle saving theory, the findings of Lee et al. (2000) indicate that young married couple without children and elder families with family dependent children have tendency to saving money in comparison to young unmarried. Even if the research findings concerning to family life cycle vary, the term is a drastic independent variable used to explain the economic behavior of consumers (Xiao, 1996).

3. Research Design

The aim of this study is to test whether there is an effect of family life cycle, which is regarded as a significant factor in consumption decisions of families, on financial biases regarding investment decisions. Hence, independent variable of the study is family life cycle, whereas financial biases constitute dependent variable. The hypotheses of study are defined as below:

H_1: Family life cycle has a significant effect on representativeness heuristic.
H_2: Family life cycle has a significant effect on availability heuristic.
H_3: Family life cycle has a significant effect on adjustment and anchoring heuristic.
H_4: Family life cycle has a significant effect on over confidence bias.
H_5: Family life cycle has a significant effect on over optimism bias.
H_6: Family life cycle has a significant effect on regret aversion bias.
H_7: Family life cycle has a significant effect on herd effect bias.

In this direction, a questionnaire composed by Kübilay (2015) was employed. The relevant questionnaire involves 24 questions. Four of those questions measure representativeness heuristic, two of them test availability heuristic, two of them focus on adjustment and anchoring heuristic, five of them survey over confidence bias, three of them measure over optimism bias, five of the questions evaluate regret aversion bias and finally three of them test herd effect bias. Moreover, in the study, family life cycle was handled in 6 stages as young married couple without children, young parents with preschool children, young parents with primary school children, parents with unmarried adult children, parents alone together and aloneness.

Research data was collected from 162 actual investors who take up stocks via a commercial investment and financial enterprise. However, data collected from 148 investors, who indicate that they are family, was employed for hypotheses testing because the aim is to reveal if there is a significant effect of family life cycle on financial biases as stated in the purpose of the study. To test the hypotheses, chi square test was used.

4. Findings and Discussion

The demographic findings of 162 individual investors are presented in the table below.

Table 1. Demographics Findings

Variable	Frequency	Percentage	Variable	Frequency	Percentage
Sex			***Marital Status***		
Female	38	23,5	Married	146	90,1
Male	124	76,5	Single	16	9,9
Education Level			***Trading Duration (Year)***		
Primary school	26	16,0	1-5	62	38,5
High school	33	20,4	6-10	29	18
Bachelor	89	54,9	11-15	24	15
Postgraduate	13	8,0	16-20	29	18
			21-25	11	6,8
			26-30	6	3,7
Income (TL)			***Age***		
1400-2000	27	17,9	25-30	15	9,2
2001-3000	35	23,1	31-35	20	12,5
3001-4000	41	27	36-40	24	14,9
4001-5000	18	11,9	41-45	25	15,4
5001-8000	17	11,2	46-50	20	12,4
8001-12000	11	7,3	51-55	17	10,5
12001-20000	3	2,0	56-60	15	9,3
Missing	10	6,2	61-65	9	5,5
			66-70	10	6,2
			71-76	7	4,2
Living Type			***Family Life Cycle Type***		
Alone	8	4,9	Young married couple without children	28	18,9
Couple	64	39,5			
Couple with Children	81	50,0	Young parents with preschool children	15	10,1
Parent	9	5,6			
			Young parents with primary school children	25	16,9
			Parents with unmarried adult children	42	28,4
			Parents alone together	35	23,6
			Aloneness	3	1,9
			Missing	14	8,6

According to Table 1, it is seen that majority of the investors who participated in the research are men (76,5%), married (90,1%) and have bachelor education (54,9%), 30-50 age predominate in terms of age, duration of trading in stock market weigh between 1-5 years (38,5%) and 2000-4000 TL mass in the meaning of income level. Moreover, most of the investor participants in the research live with their children and at the rate of 28,4% parents with unmarried adult children take the lead.

In order to test the relation between family life cycle and financial biases- as the main purpose of the study- chi square test was employed. Hereunder, Table 2 presents the findings concerning whether family life cycle has an effect on representativeness heuristic.

Table 2. FLC-Representativeness Heuristic (Chi-Square Tests)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12,973[a]	5	**,024***
Likelihood Ratio	12,053	5	,034
Linear-by-Linear Association	3,723	1	,054
N of Valid Cases	148		

When chi square findings in Table 2 are analyzed, it is observed that family life cycle had a statistically significant effect on representativeness heuristic in 0,05 significance level (0,024<0,05). Therefore, H_1 is accepted.

Table 3. FLC-Availability Heuristic (Chi-Square Tests)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7,310[a]	10	**,696**
Likelihood Ratio	7,797	10	,649
Linear-by-Linear Association	,061	1	,804
N of Valid Cases	148		

According to the findings exhibited in Table 3, there is no significant effect of family life cycle on availability heuristic. When significance level is considered (0,696>0,05), H_2 is not accepted.

Table 4. FLC- Adjustment and Anchoring Heuristic (Chi-Square Tests)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8,015[a]	10	**,627**
Likelihood Ratio	8,874	10	,544
Linear-by-Linear Association	3,648	1	,056
N of Valid Cases	148		

Table 4 shows the test finding that examines the effect of family life cycle on adjustment and anchoring heuristic. According to these findings, family life cycle do not significantly affect adjustment and anchoring heuristic (0,627>0,05), hence, H_3 is rejected.

* $p \leq 0.05$

Table 5. FLC- Over Confidence Heuristic (Chi-Square Tests)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20,385[a]	10	**,026***
Likelihood Ratio	18,583	10	,046
Linear-by-Linear Association	,744	1	,388
N of Valid Cases	148		

The 4. hypothesis of the study assume that family life cycle has an effect on over confidence heuristic. With respect to this hypothesis, chi square test findings is represented in Table 5. When significance level is considered (0,026<0,05), H_4 hypothesis and the effect of family life cycle on over confidence heuristic are accepted.

Table 6. FLC- Over Optimism Heuristic (Chi-Square Tests)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33,351[a]	10	**,000***
Likelihood Ratio	25,640	10	,004
Linear-by-Linear Association	,791	1	,374
N of Valid Cases	148		

According to Table 6, which shows the test findings employed to analyze the relation between family life cycle and over optimism heuristic, it is seen that there is statistically significant relation (0,000<0,05). Thereby, H_5 is accepted.

Table 7. FLC- Regret Aversion Heuristic (Chi-Square Tests)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15,532[a]	10	**,114**
Likelihood Ratio	18,030	10	,054
Linear-by-Linear Association	5,561	1	,018
N of Valid Cases	148		

The other chi square test findings are exhibited in Table 7. Because the significance level is higher than 0,05 (0,114>0,05) H_6 is not accepted. In other words, family life cycle do not affect regret aversion heuristic.

* $p \leq 0.05$
* $p \leq 0.05$

Table 8. FLC- Herd Effect Heuristic (Chi-Square Tests)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	24,634[a]	10	**,006***
Likelihood Ratio	25,714	10	,004
Linear-by-Linear Association	11,150	1	,001
N of Valid Cases	148		

Finally, in Table 8, the findings which test the relation between family life cycle and having herd effect are figured. According significance level (0,006<0,05), it is reached that herd effect is another variable which is led by family life cycle and so H_7 is accepted.

5. Conclusion and Implications

Behavioral finance is one of the most trending topics of recent researches. Moreover, the field is not only embraced by finance specialists and researchers, but also reviews on consumer behavior excite attention. Within consumer behavior discipline, this study aims at examining the behavioral financial biases that are potentially haven by investors while they are making their mind on investing from the view of family life cycle. As a result of chi-square tests, it has been reached that family life cycle, which is a key factor on consumption decisions, has a significant effect on representativeness and herd effect heuristics, over confidence and over optimism biases of individual investors.

Tversky and Kahneman (1974) outline representativeness heuristic occurs when decision maker judge the likelihood that an instance belongs to a category by its similarity to that category. With regards to genetic counseling concerning risks of birth defects, Shiloh (1994) relates representativeness heuristic to the family dynamic phenomenon named "preselection" that is often connected with family beliefs about similarity (representativeness) of the preselected individual to the sick parent, besides, she exemplifies like "he looks just like his father, has the same gleam in his eyes, or has his father's way of walking" (p.18) and states that representative heuristic is a way of unconscious coping mechanism. So, in families who exchange the stocks may have representativeness heuristic. Moreover, Kübilay (2015), points out that representativeness is a booster heuristic and may generate some biases. According to Nisbett and Ross (1980), over confidence is generated by representativeness heuristic. Thus, another remarkable finding of the study is generation of over confidence bias by representativeness heuristic of the sample.

Memories of the people accelerate the tendency of bias and subjectivity in a way to increase their over confidence (Peterson, 2012), therefore, when families go through in their life cycle and enlarge, their over confidence tendency consolidate with gaining experience on making decisions about both themselves and their children. In addition, many studies reveal that men feel more confident in comparison to women (Van Eaton, 2000). Men investors' predominance in the sample explains this finding.

Another variable that family life cycle affects significantly is over optimism. If over optimism is defined as a bias which makes people believe in the information they have (depending on over confidence bias), as a result of this, they over estimate and exaggerate their control ability (Çoban, 2009), over optimism's being a finding of the study can be understood. Group effect on families is studied by many researchers. Because family is a typical example of primary group where relations are quite direct. Moreover, group effect or "herd effect" (as

discussed in this paper) has an influence from the point of a family while investing decisions are being made. As Usul et al. (2002) state, the reason is if individuals stand alone while they are making decision, they feel insecure and need the help and approval of the family.

There are also some limitations of the study. Most of all, there is a need for further test to see how family life cycle steps affect those heuristics and biases. Besides, to balance the frequency of the sample in terms of gender, female investors can be surveyed in order to examine their role in family life cycle.

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Repatriate the Inpatriate! A Path to Localization

Robert S. Sterneck

Introduction

As firms continue to develop new markets and expand operations to capitalize on the benefits of globalization, they need qualified personnel to lead activities and organizations at all levels of the firm. Enterprises seeking to globalize may approach these challenges through mechanisms including adaptation of firm structure, organizational alignment, or human resource development. Some firm structures that transition from a fully centralized headquarters to more dispersed authority include regionalization according to product or national ties and trans-national approaches as exemplified by Toshiba's regional operations structure (Yongsun & Sohn, 2004). Firm structure also influences the level of autonomy granted to or developed by functional organizations within individual business units. Firms that develop more of a federative structure (Warren, 1967) will disperse authority across the enterprise and reduce the level of direct control over local business unit activities. Ghoshal and Bartlett (1990) review the organization and interaction density of a modern multinational enterprise (MNE) using the example of N. V. Phillips operating across 60 countries in multiple business sectors. This example highlights the complex structure of MNEs and the varying levels of authority possessed by individual organizations. Moving deeper into individual operational and functional organizations, dispersion of responsibility and authority comes with many challenges to effectively operate at the local level.

For firms seeking to develop distributed operations with higher levels of autonomy across the globe, localization is one avenue to pursue. As with many concepts, localization can be interpreted differently depending upon the context. For this review, localization represents local nationals filling positions "sufficiently and completely to fulfill organizational needs" (Potter, 1989, p. 26). This general expectation brings with it the implied requirement that the local labor pool includes individuals with the requisite skills, abilities, and experience. However, the ongoing use of expatriate personnel across the globe is an indication that firms are either unwilling or unable to secure local personnel that meet their specific organizational needs.

Western firms have a long history of deploying expatriates to manage overseas operations. As evidenced by Stening's (1994) review of British expatriates in India during several hundred years of colonial rule, the challenges of today mirror many from the past. These include recruitment and selection, training, adjustment, appraisal and reward systems, and repatriation. Add to these the expanded networks of multinationals, the speed of commerce, and the diversity of the workforce, today's organizations must develop approaches that address the full set of challenges.

In addition to the use of expatriates, firms use approaches including inpatriates, flexpatriates, third-country nationals, and local personnel. Inpatriate refers to personnel who originate from a subsidiary organization and are resident for a semi-permanent or permanent assignment (Harvey, Novicevic, & Speier, 1999b). Flexpatriates are personnel based in their home country and support international activities with extensive travel (Mayerhofer, Hartmann, & Herbert, 2004). Third country nationals (TCNs) are individuals who are neither home nor host country nationals but are resident at the international location. These individuals may possess multi-cultural backgrounds with some holding dual citizenship such as Brazilian Nikkeijin, or Brazilians of Japanese descent (Furusawa & Brewster, 2015). Hiring of local personnel reflects those that are native and permanently resident in the country. However, these local individuals often have little exposure to other cultures.

For firms that continue to expand globally and seek to become global/local, approaches for 'glocalization' (Guimaraes-Cost, 2009) need to be understood and deployed. Inpatriation is one approach to help achieve a more global mindset (Moeller & Harvey, 2011) and compete against those global competitors that are adopting multi-cultural perspectives (Harvey, Novicevic, & Speier, 2000a). To-date, much of the research on inpatriates is based on the concepts brought forward by Harvey and his associates. This stream of research is founded on the application of international individuals as boundary spanners by bringing them to the headquarters or home location for a long-term position.

While this perspective seeks to infuse an international perspective into the headquarters or home location, there is also a need for firms to extend the headquarters influence throughout the firm's international operations. Reiche (2012) provides initial evidence that there are benefits after repatriation both with knowledge diffusion and ongoing access to headquarters expertise. This study seeks to develop further insight into inpatriation approaches that integrate repatriation as a primary component. Specifically, this research seeks to answer the question: *What inpatriate assignment attributes contribute to localization efforts of a multi-national firm?* This research question assumes that the inpatriate is brought to the headquarters location on an international assignment and subsequently repatriates to the international location. Assignment attributes include considerations of individual candidate selection, length of time at the headquarters, and support mechanisms. A general framework for assignment structure provided by Harvey and Buckley (1997) maintains consistency with previous inpatriate research while expanding the understanding of specific assignment attributes aligned to repatriation. This departure from the semi-permanent or permanent placement of the individual at the headquarters will aid firms with an additional avenue to pursue globalization and localization activities.

Method

This review is a mixed evidence, configurative review to synthesize multiple studies developing an integrated understanding of the individual study conclusions. Including multiple studies improves the power of the review by reducing the possibility of bias and error from a single study (Rousseau, 2012). The evidence is developed from an extensive search of multiple databases identifying relevant studies for a fully representative sample. The studies include mixed evidence expanding the allowable studies to include those that integrate different types of data. The initial database search focused on the term 'inpatriate' and provided a set of articles from peer-reviewed journals. Additional hand searches and snowballing (Miles, Huberman, & Saldana, 2014) developed supplemental literature for review resulting in a final study set substantially representative of the body of evidence.

The study data set population includes both quantitative and qualitative studies. Publications that are theoretical in nature and do not present specific study data are separated and retained for their theoretical contribution, but not included as supporting evidence. The final data set includes 28 empirical studies. A further set of 26 publications inform the topic, but do not include empirical evidence or are purely theoretical in nature. Of these 26, 20 are authored or co-authored by Harvey indicating the strong influence this particular researcher has had on theoretical development of the field. The empirical publication data set does include authors that have collaborated with Harvey, but only one is authored by Harvey. Consequently, the empirical evidence represents a varied set of authors with each providing independent contributions to the field.

Findings

Inpatriate Program Structural Attributes

The result of the evidence synthesis yields a set of inpatriate program attributes, of which a subset has a strong relationship to repatriation and subsequent retention rates. In an effort to provide the broadest application possible and consistency with previous inpatriate research, the general structure provided by Harvey and Buckley (1997) is used. The general program phases are: 1. Identification and Selection, 2. Assessment and Training, 3. Benefits and Compensation, 4. Performance Appraisal, and 5. Career Path and Retention (Harvey & Buckley, 1997). The following provides a review of each based on the available evidence from the perspective of localization through the use of inpatriates. It is recognized that this application of inpatriates is a different interpretation than the earlier inpatriation approach developed by Harvey and others where the inpatriate is primarily a boundary spanner located at the home office or headquarters on a permanent or semi-permanent basis (Harvey, 1993). This adapted approach leverages the inpatriation experience with the express purpose of transitioning the inpatriate out of the home office or headquarters after a period of development and into a local or subsidiary operation. This approach addresses the concern posed by Harvey, Mayerhofer, Hartman, and Moeller (2010) regarding the effectiveness of inpatriates if they are returned to their home country. In addition, the localization perspective taken is that of the private or firm focused activity where the intention is to fill positions with local personnel and reduce or eliminate the need for an expatriate presence (Bhanugopan & Fish, 2007; Hickey, 2002; Potter, 1989; Selmer, 2004)

Identification and Selection

Consistent with earlier research (Harvey & Buckley, 1997; Harvey et al., 1999b) where inpatriates are likely to have limited business education and experience, the identification and selection approaches for candidates take these factors into account. Peterson (2003) identifies multiple elements that are considered in candidate selection including technical or basic skills, education, managerial skills, attitude, and adaptability. The attitude attribute is also supported in Peterson's (2003) study of an example from a former communist environment. Firms pursue younger staff where efficiency and performance are critical factors and hire older staff for positions that require specific skills or experience (Peterson, 2003). This focus on attitude and adaptability with localization as an express goal differs from the traditional inpatriate attributes that would infuse existing knowledge, experience, and relationships into the home or headquarters organization.

Given the express purpose of return to the international location, another element of identification and selection includes the future expectations of the candidate. As Reiche (2010) notes, "not all inpatriates [have] the clear objective of returning to their home subsidiary upon completion" (p. 38) of their inpatriate assignment. This highlights the need to provide clarity and transparency of expectations to the candidate for alignment to future individual desires and goals. In addition, the selection process should consider the ability of the candidate to work across cultures. While specific skills including language and technical elements (Furusawa & Brewster, 2015; Harvey, Kiessling, & Moeller, 2011; Peterson, 2003) are important, cultural flexibility and the ability to bridge cultures is a characteristic to seek in inpatriate candidates (Guimaraes-Cost, 2009). Guimaraes-Cost (2009) identifies this liminal tendency as a key factor facilitating the individual's ability to operate across cultures and connect with personnel through multiple location transfers and transitions.

Assessment and Training

Assessment and training covers several different elements of the process. First, the candidate assessment is noted earlier as part of the selection process. Once selected, a further assessment aids the firm in understanding training and development needs. Tysen Foods approaches assessment from both and initial and ongoing perspective (Harzing, Pudelko, & Reiche, 2015). Harvey and Buckley (1997) recommend an individual be subjected to a skills and capability assessment to inform the organization of the developmental needs. This baseline understanding aids in the individual development program as well as assessing progress through later performance appraisals. Skills and ability assessments may include both generic capabilities as well as those unique to the organization's functional work statement. As noted earlier, areas of general skill development include language, firm-specific, and cultural (corporate and national) training (Harvey et al., 1999b). Language and some of the firm-specific elements tend to be skill-driven, while corporate and national culture elements may be developed through experience and acculturation approaches.

Skill development training is not unique to inpatriates, but approaches may vary depending upon the location and group targeted. The study conducted by Wei-Wen (2009) concludes that the "goal is not to localize training, but how to reach similar outcomes in different cultural contexts" (p. 568). In addition to the technical content, some considerations when developing a training program targeting a culturally diverse set of organizations include language, cultural sensitivity, and local instructors (Wei-Wen, 2009). Recognition of the diverse target groups may require modifications to the training material and deployment mechanisms in order to maximize absorption of the content with various audiences. This is a particularly important aspect to consider with inpatriates as they represent a much more heterogeneous group than those present at either the home/headquarters organization or subsidiary location (Harvey et al., 1999a; Kühlmann, 2014). In addition, support is identified as a critical element for the inpatriate with the intent to return to their home country to quickly internalize the training and cultural content (Reiche, 2012).

While many skills are essentially taught, a second aspect of training and development are those attributes that depend upon experience to develop. These elements are also part of the ongoing development of the inpatriate, even after they move to the next location. In order to accomplish experiential development, the evidence supports several approaches. The first is through exposure. Tysen Foods exemplifies this by providing the inpatriate with exposure "to the full range of the company's operations" (Harzing et al., 2015, p. 76). Kühlmann and Hutchings (2010) identify different approaches for experiential training targeting localization based on country of origin. In their study, German firms approached the challenge by providing intensive training at the headquarters location (inpatriation) while Australian firms tended to utilize expatriate-led in-country on-the-job training (Kühlmann & Hutchings, 2010). Through the inpatriate approach, the target is not only exposure to and development of firm-specific activities, but also the development of relationships and contacts to maintain links and access in the future (Azar, 2012; Kühlmann & Hutchings, 2010). Reiche, Kraimer, and Harzing (2011) identify development of links with HQ staff having a positive correlation with learning. From this evidence, inpatriate experience facilitates not only the experiential elements of learning, but also the ongoing relationship aspects to 'fit' into the firm (Reiche, et al., 2011). This is consistent with Harvey and Miceli's (1999) assertion that training is intended to help the inpatriate 'fit' into the headquarters organization but is also appropriate for individuals after the inpatriation assignment is completed.

While the time an inpatriate spends at the headquarters location supports interaction and relationship building, a specific focus on acculturation is identified by the literature to be included as part of the development activities. The traditional view of acculturation for

inpatriates is to "facilitate learning of the culture, values and decision processes" (Harvey, Speier, & Novicevic, 2001, p. 911) through permanent or semi-permanent position at the headquarters (Williams, Moeller, & Harvey, 2010). However, an approach that repatriates the individual must account for a shorter period of residency. The evidence indicates many challenges with this aspect of the development approach. The first is that inpatriates are not fully accepted by headquarters personnel (Reiche, 2006). This can be for several reasons including headquarters personnel not understanding the need (Reiche, 2006), national culture differences in relationship development (Reiche, 2006), and home-country personnel preference (Kühlmann & Hutchings, 2010). Although there are challenges, the relationships and social capital developed during the inpatriation experience positively correlates with the ability to transfer knowledge upon repatriation and must be a focus area of the program (Reiche, 2012).

Benefits and Compensation

Benefits and compensation is an area that is somewhat conflicted in the literature. The traditional inpatriate approach implies a foreign national resident in the headquarters country, but is not clear on the compensation recommended. Harvey, Novicevic, and Speier (2000) identify reduction in the potential failure of expatriate assignments as one of the benefits of inpatriate knowledge infused into the headquarters. Based on this perspective, the traditional view looks at cost avoidance of failure as opposed to the direct cost of the inpatriate assignment. Given that the inpatriate approach with the intention to repatriate is similar to an expatriate assignment, it is assumed that the cost during the inpatriation period will be comparable to that of an expatriate. The application of inpatriates as a component of localization attempts to address the future labor cost in the subsidiary unit by developing inpatriate personnel who, when repatriated, can replace expatriates.

With the cost of expatriate assignments well in excess of local labor rates (Gamble, 2000), companies can afford to provide compensation above market rates and still maintain a beneficial cost structure through localization. The study conducted by Peterson (2003) confirmed this with multi-national firms paying above market rates for local labor. This facilitates the retention of repatriated inpatriate employees, but is not the only factor that influences an employee's willingness to remain with the firm. Several additional elements are discussed as part of Career Path and Retention.

Performance Appraisal

Performance appraisals are applied from both the organizational and individual perspective. The organization employs performance appraisals to understand development and training needs as well as to track individual performance and progression toward future leadership activities (Azar, 2012; Maley, 2011). The individual inpatriate may use a performance appraisal as an opportunity to clarify development progress toward future opportunities (Maley, 2009; Reiche, 2006).

Performance appraisals come in many forms ranging from formal assessments to individual discussions. Maley (2009) identifies several attributes that were deemed 'exemplary' by individual inpatriates. These 'exemplary' elements include frequent face-to-face contact with supervisors, regular and appropriate (constructive) feedback, managerial follow-up, and alignment to a 'defined career path' (Maley, 2009). In particular, the relationship with the manager is critical. With an inpatriate, the manager could be the headquarters manager or the subsidiary manager. Study findings identify maintenance of the relationship with the subsidiary manager as critical to retain the ties with the local organization

(Maley, 2009). In addition, Maley (2011) identifies that performance appraisals focused on short-term business objectives without inclusion of development aspects generated negative feelings from inpatriates.

The evidence supports the inclusion of performance appraisals as an element of development and future career progression in addition to accomplishment of immediate business objectives. The connection between the inpatriate and management at both the headquarters and subsidiary locations is seen as one of the support mechanisms reinforcing the firm's support to the individual's personal and professional development.

Career Path and Retention

Inpatriate programs with repatriation to the subsidiary location bring with them several structural challenges. These include limited opportunities (Furusawa & Brewster, 2015), reduced compensation relative to international assignment benefits during the inpatriate period, reduced direct interaction with headquarters personnel (Harvey & Novicevic, 2004), and the status of being on an international assignment (Harvey et al., 1999a; Williams et al., 2010)

One mechanism to incentivize individuals is through higher than market rates of pay (Peterson, 2003). However, the evidence supports additional mechanisms that appeal to the inpatriate beyond direct compensation. The first of these is firm-specific learning. Firm-specific learning supports retention by providing the inpatriate specific knowledge and skills that are consistent with others across the organization, but make the repatriated inpatriate unique in their specific region (Reiche, et al., 2011). While both pay and firm-specific learning contribute to retention, perceived career support is a strong element generating organizational commitment (Reiche, et al., 2011; van der Heijden, van Engen, & Paauwe, 2009). The evidence identifies that the perception by the individual inpatriate of the organization looking beyond the immediate business objectives through support of future career growth as a key aspect (Reiche, et al., 2011; van der Heijden et al., 2009). Van der Heijden et al. (2009) identify that perceived positive career prospects supported retention. Further, Reiche et al. (2011) note that this positive perception extends out at least two to four years after repatriation.

Human Resource Program and Policies

While the review above focused on the specific attributes of an inpatriate program, the literature also informs the overall structure of international human resource strategies. Policies can be placed on a spectrum from rigid standardization for all locations to pure localization approaches (Chung et al., 2014; Edwards et al., 2013; Yongsun & Sohn, 2004). Given the diversity of regulations, pay practices, cultural expectations, and firm-specific elements, hybridization is the general approach that multi-national corporations pursue (Chung, Sparrow, & Bozkurt, 2014; Tregaskis, Heraty, & Morley, 2001). The structures used are not intended to make all locations equal, but rather to make them equitable and compliant (Kang & Shen, 2015). Standardization at the macro level provides consistency across the firm while modifications at the micro level allow for alignment to local needs (Tregaskis et al., 2001). Some of the elements where the micro modifications may take place include pay practices (Kang & Shen, 2015), national culture (Edwards, Sanchez-Mangas, & Tregaskis, 2013), societal norms (Hickey, 2002), and local labor laws (Tregaskis et al., 2001).

Discussion

Organizations seeking to infuse cultural diversity beyond the home organization have an option to utilize inpatriation and subsequent repatriation to the subsidiary location as an avenue to achieve this goal. Applying this approach allows the firm to benefit from the acculturation and integration into the home organization from the inpatriation period as well as capitalize on the positive aspects of localization. Localization requires that the firm diverge from the traditional inpatriate program focus of making inpatriates fit into the headquarters (Harvey & Miceli,1999) by joining the dominant culture (Harvey et al., 2010) and decreasing uncertainty during the integration period (Gertsen & Soderberg, 2012). The localization element requires the firm to develop approaches that support the repatriation, re-integration with the subsidiary location, and mitigate potential attrition.

The evidence supports the viability of this approach through several key elements of an inpatriate program. The first is the selection of the candidate. While the traditional approach seeks a candidate with fully established experience and relationships in the international location, the modified approach targets individuals who have the requisite technical skills and capabilities with relationships that are established and can be further expanded upon repatriation. In addition, the repatriated inpatriate will need to be able to not only continue to impart their cultural experience into the headquarters, but also nurture headquarters relationships remotely over the longer-term as they return to the subsidiary location becoming a bridge between locations and cultures. This liminal attribute is a key characteristic to not only absorb the headquarters cultural elements (both national and corporate) but also return to the international location and continue to be a business and cultural conduit (Guimaraes-Cost, 2009).

The intention to repatriate assumes an international assignment of months or more likely several years. This brings with it a substantial cost with values that can be anticipated to be similar to expatriate compensation. In order to bring value to the firm, it is essential to retain the individual after repatriation. Repatriation achieves two goals: 1. reduce or eliminate the need for future expatriates, and 2. establishing in-country leadership fully acculturated with the firm's leadership approaches. While compensation above local pay practices is one avenue (Peterson, 2003), the individual's positive perception of future career development and support directly supports employee retention (Reiche et al., 2011; van der Heijden et al., 2009). These elements, along with firm-specific knowledge imparted to the individual (Reiche, et al., 2011) create organizational commitment mitigating departure from the firm due to lack of opportunity or poaching (Gamble, 2000; Hickey, 2002) by other multi-national firms. Harvey (2000) identifies ongoing mentorship as one approach to develop perceived support, but other forms of general engagement and connecting with the inpatriate are also possible. Coca Cola employs an engagement survey to aid in understanding of avenues to pursue (Harzing et al., 2015).

Conclusion

This study contributes to both research and practice through the integration of inpatriate assignments and localization activities. It addresses one of the main goals of localization by providing a path to reduction or elimination of expatriate personnel. The approach also supports the goal of imparting multi-cultural knowledge and experience into both the headquarters and international locations. While repatriation reduces the amount of time an individual would be present at the headquarters, it provides an opportunity to cycle multiple high potential international employees through the headquarters creating opportunities to expand diversity and experience of a broad set of individuals both at home and abroad. Given the diverse nature of locations, the human resource approach needs to be adaptable with hybridization being the dominant approach identified in the study (Chung et al., 2014, p. 554; Tregaskis et al., 2001, p.

38). The combination of both standardization and flexibility allows the human resource systems to adapt to local needs and provided the needed support to retain employees.

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The Recognized Under The International Accounting Standards 11and 18 Of Real Estate Construction Agreement

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1. Introduction

Construction activity in its structure contains different types of agreements and practices. Businesses are able to undertake of the construction of real estate construction agreements in various ways before completion or start of construction phase. This study assessed the standard of which is under construction agreement international Accounting Standard 11 or international Accounting Standard 18. international Accounting Standard 11 about Standard for Construction Contracts.

Real estate construction agreements for businesses that undertake the construction of real estate can be realized in the following ways;

a) Of business ownership and property as belonging to the construction company,
b) The only firm commitment to undertake the construction work,
c) To obtain the ownership of a certain portion of the property to a new production of construction company, not have all.
d) While the initial phase of construction to deal more of the construction company,
e) Before the end of the entire business with sales agreements,
f) The enjoyment of a number of transfer without receiving progress payments,
g) Realization of construction in a land where of customer rent
Etc.

For example; It is possible the construction company undertaking the construction of residential real estate in the quality they produce beginning or start marketing residential construction is completed before they even buy all. This practice is called soil sale, This application is made within a certain marketing agreement with the realization of not yet delivered apartment. Marketing is done yet it happens isn't delivery apartment within a certain agreement.

If construction company is unable to complete its contractual obligations, a refundable down payment paid by the customer. The remainder of the purchase price is paid date on the actual ending of the property.

Customer may be required pay some merit between the date of the fulfillment of the contract with the commencement date of the contract. For example, Contracting services that businesses of progress payments they receive, depending on the degree of completion of the work.

1.1.International Accounting Standard 18 Is Standard Of Revenues

Revevues; When it is probable that future economic benefits of entering into business and those benefits are recognized when they can be reliably measured.
Revenue in the ordinary activities of the company are the result of increase in equity. Additional capital contributions of the partners (Cash Capital Increase) it's excluded from this definition. ''The increase in equity resulted in an increase in economic benefits'' term is used in the definition of revenue in the standard text. Desired to be expressed by the increase in the economic benefit; increases in assets to provide future economic benefits to company or are decreasing in debt will lead to future economic benefits out is from company (Conrod, J., ve Camby, C. 2005. Revenue recognition jugment in spot light. CAP, 4(2): 229-249).

1.1.1. Necessary Conditions For The Formation Proceeds

Revenue related to the sale of goods; When all the following conditions are reflected to the financial statements.

a) The significant risks and rewards have been transferred to the buyer on the ownership of the goods,
b) Effective control over the goods sold of the company or continued management activities as required by the general lack of ownership.
c) Can be reliably measured of the amount of revenue
d) Probable that the economic benefits associated with the transaction of the acquisition by the company
e) Processing for the costs incurred or to be incurred can be reliably measured

Revenue related to service delivery, The results can be reliably estimated cases, revenue associated with the transaction process for the end of the reporting period, the level of completion of the financial statements by considering. Revenue associated with the transaction process for the end of the reporting period, the level of completion of the financial statements by considering. If the presence of all the following conditions are considered in the outcome of a transaction it can be estimated reliably:

a) The amount of revenue can be reliably measured
b) It is probable that the economic benefits associated with the transaction obtained by
c) Reporting period of completion of the transaction at the end of the level can be measured reliably
d) Process for the costs to complete the transaction with the costs incurred can be reliably measured

Service Delivery, The job of the contractual parties have agreed period of time determined by the company includes the making. Services may be offered in one or more periods. related to the provision of services; project managers and architects, such as the services provided by, Some contracts are directly related to construction contracts. That arise due to this contract revenue in standard ‘’ international Accounting Standard 11 - Construction Contracts’’ designated Dealt with provisions for construction contracts (IAS-18 Article.20).

Buyer the right of the recipient abandon purchases on the basis of a reason specified in the sales contract and the company's absence from certain whether or not the return of the goods in question can not be considered as sales revenue (IAS-18 Article.4).

2. International Accounting Standard - 11 Standard Construction Contracts

international Accounting Standard-11, It applies if the agreement meets the definition of a construction contract: An asset or design, technology and function or their ultimate purpose or use terms closely related or a contract for the construction of a group of assets made exclusively dependent on each other. ‘’**Real estate construction agreements, identify major structural elements of the real estate customer's design before construction begins and / or civil case while continuing to identify major structural changes’’ (these forces are used or not used) It would have met the definition of a construction contract.**

Show can be for example that of XYZ firm commitment to undertake construction work on the road construction contract can be shown ministry CA. XYZ firm of the contract has the right to determine the technical specifications and technical matters required to begin construction of the C ministries without the right to make any changes to either make changes

to continue construction. XYZ company is engaged in business service delivery. Business ownership is not an issue. Therefore, for companies providing services must undertake the implementation of IAS-11 construction contracts.

Despite the customer's, for example from the options offered by the company directly to determine a design in itself or Minor changes in the basic design as in the present '' **The design has the power to affect the real estate deal in a limited way**'' international Accounting Standards-18 is an agreement for the sale of within.

Specialized Construction Activities can be shown as an example fort hat. For example; The design of the apartment wtih customers like to choose the color of paint on a limited basis, while real estate construction agreement is an agreement to have the power to influence for the sale of goods. Property ownership in private construction activity and saves right, the terms of the agreement are entitled to dispose of the construction company until the date on which both client and fulfilled by the construction company (Internatonal Financial Reporting Standard.15).

3. Obtaining The Revenue Recognized Be Of The Real Estate Building

Revenue arising from a transaction, usually determined by agreement between the purchaser or user of the presence of the company. Revenue, trade discounts applied by the company and quantity discounts are also considering quantity discounts are also considering The consideration received or to be opened is measured at fair value.

Fair Value: Around bilateral negotiations, the exchange of assets between knowledgeable and willing parties or is the amount required to be paid in the event of the emergence of a debt (IAS-18 Article.10). In most cases, the consideration is in the form of cash and cash equivalents and the amount of revenue is the amount of cash or cash equivalents received or opened. However, in cases where delayed entry of cash and cash equivalents; The fair value of the sales price, Cash to be received may be lower than the nominal amount. For example, businesses can run an identical sales receiver or the sales price below the market interest rate from the buyer as a receivable, which can take years. Agreement if the nature of a financing transaction bears, fair value of the sales price is determined by discounting all future collection of the reference interest rate. Imputed rate of interest can be identified as one of the following:

The applicable interest rate for a company with similar credit ratings and financial instruments being or A financial instrument's interest rate discounts cash sales price of the goods or services corresponding to the nominal value.

If the company's property and must be delivered to the customer and to provide services under the contractual obligation to supply construction materials, it said the agreement is an agreement for the sale of goods and According to the conditions for the sale of goods is recognized of IFRS-18 (IAS-18 Article.7).

For Example; to repair the roof of the factory building Purchase roofing materials ABC construction company of of XYZ construction company.

If there is an agreement on the provision of services in the real estate construction agreement; Property construction materials not required in cases where the supply or production. The construction materials business agreement where it is not necessary to supply or produce. If this situation provided conditions for the provision of services completion in accordance with IFRS-18 percent of the revenue should be accounted for using the method (IFRS-Comment.15 Article.16).

For example: XYZ Company to deal for roof repair with DEF company.
Customer construction while the case continues or identify major structural changes before construction begins, this is a case of service provision has such authority and evaluated under construction contracts. situations where the customer of the business property and and commitment exemplified by works. In fact, customer service delivery is question of construction contracting company.

4. Sales and Revenues of Contractor Before the End of Construction

Another name for this application is ‘**’From soil sale**’’.

According to IAS 18 Revenue-standard: Required for the formation of revenue; The seller, significant risks and rewards associated with ownership of the goods don’t to be transferred to the buyer. soil sales transactions due to the continuation of effective control over the goods sold can not be recognized as revenue. Receiver effective control by the transfer of an interest will be the risks and rewards of the past.

For example: ABC construction firm was sold while the construction flat No: 5, price 120.000 TL to Mr. Ahmet. For that construction continues and the transfer of the right of disposal was not yet done proceeds will not be written yield standard terms.

Accounting record;

Bank	50,000		
		Received advances	50,000

Construction completed on 30.06.2016, Mr. Ahmet began using the his house. The remaining TL 70,000 has already been collected.

Revenue history is to be written the history of the proceeds.

	30.06.2016	
Received advances	50.000	
Bank	70.000	
	Revenue	120.000

5. Land Transfer By Contractor To Owner

Land owners in the value of available land, receivables are increased with new properties.

IAS - 18 Revenue in the standard definition of revenue while " The economic benefits resulting increase in capital increase self " expression is used. That the increase in value of the transfer of land as a result of the presence of contractors involved fort he landowner. Also, according to standard conditions required for the formation of yield also it occurred (ÖRTEN Remzi, KAVAL Hasan, KARAPINAR Aydın, **international Accounting – Financial Reporting Standards,** March 2009, pg.128**).**

6. Revenue In The Year To Spread Construction Activity

Construction activities spanning the years because it took a long time to its structure in accordance with the accounting principle of periodicity record revenue shown as income during the time of the offer proceeds will provide more accurate information more realistic financial statements.

In construction activity years spanning is possible service delivery. The outcome of a transaction involving the rendering of services in cases where reliably estimated, revenue associated with the transaction reflected in the financial statements considering the completion stage by the end of the reporting period.

Percentage of Completion Method: In this application, the periodic costs will be reflected in the financial statements and the determination of income considered as a benchmark the percentage of completion contract. Job completion percentage is determined a percentage of the total costs estimated cost of the actual costs. Therefore, the cost of expenses incurred each period and to be certain that the costs. Also found in the profit figure for the total cost can be estimated and able to be reflected to the financial statements.[10]

The recording of revenues taking into account the level of completion of the transaction called **‘’Percent Complete’’**. Proceeds according to this method In the period in which the services are reflected in the financial statements. According to this method of revenue recognition provides useful information about made in a period of service and performance. ‘’**IAS-11 Construction Contracts in standard**’’ requires the recognition of revenue on this basis. Of the provisions of this standard possible to apply the proceeds usually under the provision of services and the accounting of expenses.[11]

Detected completed portion of job, of the proportion remaining estimated costs of completion and percentage of completion of job. Reporting the actual costs can be ensured business is not the year to end, each year. Thus the financial statements provide more convenient and accurate information is provided to the concept of periodicity.

To recognize the revenue derived from real estate construction

The case of a construction contract deal; To be covered by the Agreement IAS-11 and The results can be seen in a reliable revenue is recognized in accordance with IAS-11 the contract is based on the level of work completed. Of a transaction involving the rendering of services the result can be estimated in the case of reliably; revenue associated with the transaction reflected to the financial statements considering the completion stage by the end of the reporting period operations.

If the presence of all of the following conditions can be estimated reliably accepted the outcome of a transaction (Lubbe, I., ve Milligan, J. 2006. Measurement of revenue - what value? Accountancy SA. Accounting & Tax Periodicals);

a) The amount of revenue can be reliably measured
b) It is probable that the economic benefits associated with the transaction will be received by the company
c) By the end of the reporting period can be reliably measured of completion of the transaction
d) The costs incurred for the transaction and It can be reliably measured costs necessary for completion of the process.

IAS.11 provisions apply revenue related to such transactions, and the accounting of expenses.

For example: ABC engineering firm has plumbing labor agreement 20 pieces for XYZ construction villas. Meterial isn't belong to ABC engineering firm. Progress payments will be made according to the agreement as %20-%60 and %100 in each stage 10.000 TL and total 30.000 TL. Job cost is 23,000 TL. As shown in the example following conditions is ensured;

a) The detection of completion of the work,
b) The economic benefit obtained by the company,
c) Reliable measurement of costs incurred,
d) Reliable measurement of the amount of revenue.

If there is an agreement for the sale of goods:
Firm transferred to the customer at a time; control of ownership of real estate, the significant risks and all returns (For example: when construction is completed, when delivered construction or after delivery).

Businesses recognize revenue, but if all the following conditions are met specified in IAS18:

a) The company has transferred to the buyer
b) The significant risks and rewards of ownership of the goods
c) To maintain the efficiency of business management on the goods sold
d) The amount of revenue can be reliably measured
e) Process-related is likely to achieve the economic benefits by the company.
f) Processing for the costs incurred or to be incurred can be reliably measured

7. Results

Real estate construction agreements can be recognized according to IAS 18 and IAS 11 as it can be realized in different ways.

To give examples of them:

- IAS 18 Revenue Standard should be considered business ownership, and where property belonging to the construction company.
- IAS 11 Construction Contracts Standard should be considered only in cases where he committed work of construction companies.
- In such cases of the construction company not to have a part of or full ownership of real estate, IAS 18 and IAS 11 Construction Agreement Standards will be applied together.

As should be apparent from the foregoing implementation of the construction company the design of the property that has the power to make significant structural changes or in the contract that ownership of the assets emerging IAS 18 Revenue Standard, the design of the property to have limited power to influence and in cases where no claim of ownership of the assets emerging standard IAS 11 Construction Contracts.

8. References

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A Business Plan for a Biodiesel Company[7]

Olgun Irmak Cetin

1. Introduction

This study is a business plan for a firm to manufacture biodiesel renewable fuel from vegetable oils in Turkey. The purpose of the business plan is to invite investment for creation of the biodiesel production plant. The business plan, provides the production cycle of the product and the marketing process which also includes strength weakness threat and opportunity analysis of this business plan.

National Biodiesel Board (2012) stated the definition of biodiesel as "the name of a clean burning alternative fuel, produced from domestic, renewable resources".

Technically, biodiesel is a fuel composed of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats (National Renewable Energy Laboratory, 2006).

Nowadays the variety of new and renewable energy sources increase continuously. Some of them gain value in terms of being an economic alternative, others were analyzed and everyday new energy sources were discovered. The common feature of most of these energy sources are not being a threat for the environment. Biodiesel is one of the newest in this content. Biodiesel makes sense in Turkey because Turkey's dynamic economy is a complex mix of modern industry and commerce, along with a traditional agriculture sector that still accounts for more than 35% of employment. Most of the agricultural crops are considered as raw material, such as corn, wheat and olives. Turkey is the world's ninth largest wheat and seventh cotton producer.

The focus of this business plan will be marketing the product in order to make it clear that biodiesel is an alternative energy source that considers environmental safety. Biodiesel is meeting the requirements Turkish Standards TS 14214 which is as same as the European Standards EU 14214. This is an effective way to convince community that biodiesel can replace petro diesel without any doubt and with all experimented information.

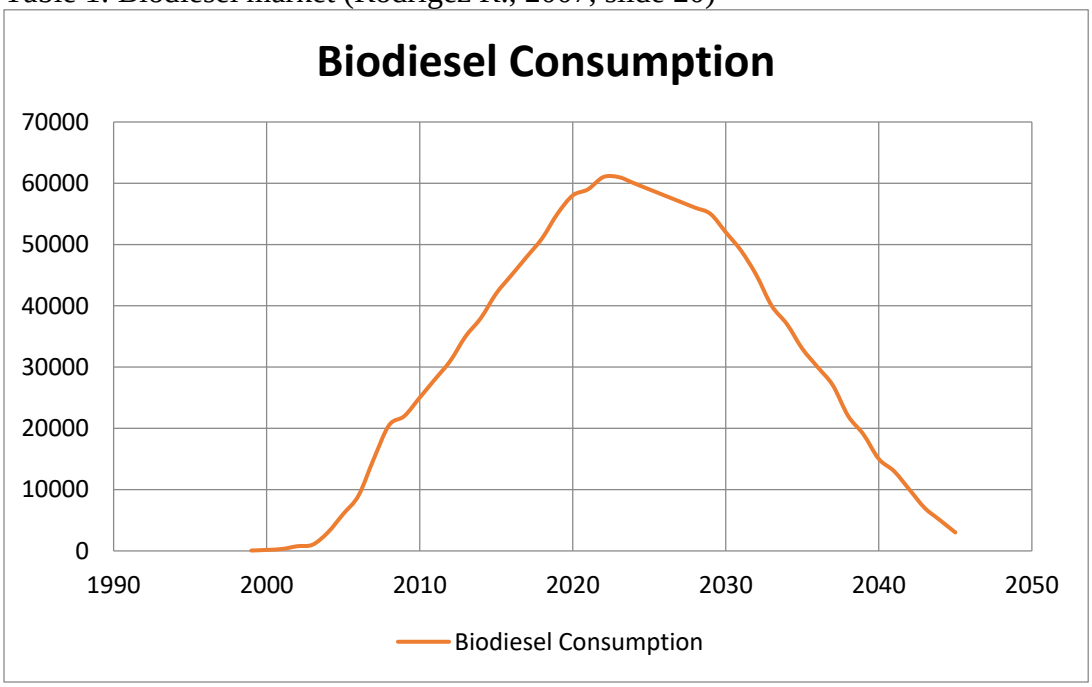
The benefit of this business plan is to support new local businesses and the creation of local jobs and slightly reduced dependence on foreign oil. The ultimate goal of the plan is to contribute to building a stronger, more self-sufficient community by way of a community based biodiesel production model. A community based biodiesel distribution program benefits local economies, from the farmers growing the feedstock to local businesses producing and distributing the fuel to the end user.

2. Method

Successfully making biodiesel is more about understanding the world situation rather than getting involved in the process. Making biodiesel can be learned, by studying biology and chemistry for three or four days. On the other hand, the world situation, and the global market should have been considered. The reason of that is the market is at the beginning of bell-shaped curve (Table 1). The biodiesel market is now 35 million liters. In addition to this, biodiesel marketing is getting bigger year by year until 2023. After that biodiesel will replacement by other technologies such as boron, hydrogen, water, solar or wind power cars. However, the main mentality will be the same for all kind of fuels from now on: Clean and renewable energy.

[7] This study was derived from the writer's master thesis that named "Business Plan of an Accounting Firm". The Academic Adviser was Sharon Ann Wulf (PhD).

Table 1: Biodiesel market (Rodrigez R., 2007, slide 20)



The first diesel engine was invented by Rudolf Diesel in 1897. In 1893 Rudolf Diesel published his famous paper "Theory and Construction of a Rational Heat-engine to replace the Steam Engine and Combustion Engines Known Today." which described his invention as a "compression ignition engine" that could burn virtually any fuel. Pahl (2008, s. 8) stated that "Now the challenge was to turn his idea into an engine that actually worked".

In Turkey first biodiesel engine was tried in 1934. Mustafa Kemal Atatürk, the founder of the Turkish Republic and its first President, wanted to get rid of oil dependence from outside in a state of war. He ordered to use vegetable oil in the agricultural tractors (Alternatif Enerji ve Biyodizel Üreticileri Birliği Derneği, 2005).

Biodiesel is a renewable, relatively clean-burning, carbon-neutral fuel that can be obtained from a variety of oilseed plants, waste oils, and rendered animal fats (Kempt, 2006).

According to the regulations issued by the Ministry of Environment and Forestry, Republic of Turkey, concerning the control of waste vegetable oils and animal fats, biodiesel is defined as follow: "Biodiesel is a product that results from the reaction of oils extracted from oilseed plants such as rapeseed/canola, sunflower, soybean and sunflower or waste vegetable oils and animal fats. It needs to mix a short-chain alcohol (methanol or ethanol) with the assistance of a catalyst. Its national and international commercial names are "biyomotorin" and biodiesel, respectively."

The Process of Biodiesel

Bulan (2001) explained the process of making biodiesel which is called transesterification comprehensively. "It is the transformation of one type of an ester into another type of ester. Transesterification chemically break the molecule of the raw renewable oil into methyl ester with glycerol as a by-product. During transesterification, glycerol is removed from the vegetable oil making the oil thick and reduces viscosity" (Bulan, 2001).

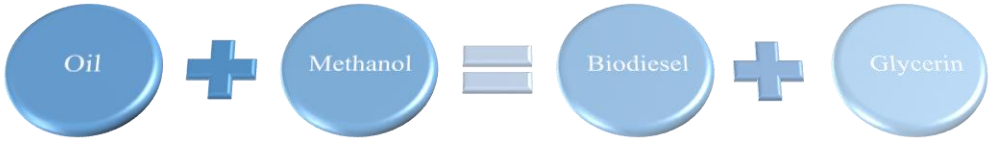


Figure 1: The Transesterification reaction

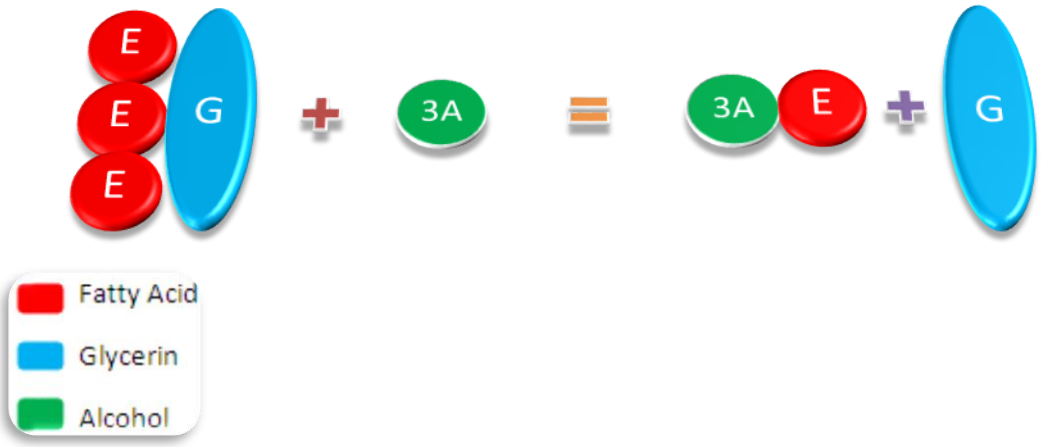


Figure 2: Biodiesel's chemical content

A typical transesterification procedure follows (Figure 2). A weighed amount of oil is charged into a biodiesel reactor. The catalyst is dissolved in alcohol in a small reactor by vigorous stirring and then added to the oil. A successful reaction produces two liquid phases: the ester found at the upper layer and the crude glycerol which is found in the lower layer. After complete settling the glycerol is drained. The catalyst goes with the glycerol. The ester layer is washed with water at the rate of 28 percent by volume of the oil with gentle agitation several times until the washing is neutral to pH paper or the washing becomes clear. After a gentle agitation the solution is allowed to settle. After settling, the aqueous solution is drained. For the final washing, water alone is added at 28 percent by volume of oil (Bulan, 2001).

Performance of Biodiesel

National Biodiesel Board (2012) explained the performance of biodiesel as follows:
"Successful alternative fuels fulfill environmental and energy security needs without sacrificing operating performance. Operationally, biodiesel blends perform very similar to low sulfur diesel in terms of power, torque, and fuel without major modification of engines or infrastructure. "

- Biodiesel offers similar power to diesel fuel. It can be used in existing engines and fuel injection equipment with little impact to operating performance.
- Biodiesel can be affected from cold weather.
- Biodiesel has a higher flash point.
- Biodiesel provides significant lubricity improvement over petroleum diesel fuel.
- Biodiesel is compatible with engines.

Feedstock

Biodiesel can be produced a wide range of feedstocks such as, straight vegetable oils (SVO), waste vegetable oils (WVO), animal fats, even pond algae (Figure 3). These feedstocks can be used individually or blended to produce biodiesel with specific traits. The ability to adapt the production process to locally available feedstocks and end-user needs is one of biodiesel's most attractive advantages (Pahl, 2008, s. 37).

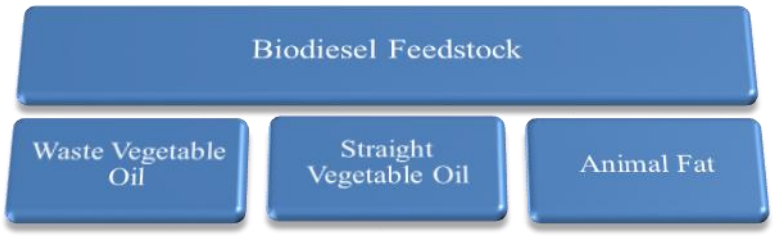


Figure 3: Biodiesel feedstock

Waste Vegetable Oils and Fats

According to Kempt (2006, s. 130), waste vegetable oils and fats can be collected directly by micro scale biodiesel users, providing them with a low (or no) cost feedstock. The type and quality of the WVO used by a given restaurant determines the ease of production as well as the quality of the biodiesel.

However, Kemp claimed that using waste vegetable oils and fats can solve two problems: the food processor saves or recycling costs and the producer gain a low -or no- cost feedstock. The relative simplicity and low cost of transesterifying WVO into a “rough-quality” biodiesel have led thousands of people to produce their own fuel this feedstock (Kempt, 2006, s. 133).

Straight Vegetable Oils

“Commercial biodiesel producers may use the most economic oil feedstock for their location: the Canadian prairies may use canola, Americans may concentrate on soybean, and tropical regions may use palm oil” (Kempt, 2006, s. 135).
Kempt (2006) stated that there are three kinds of crops to be source of making biodiesel (Figure 4).

Figure 1: Straight vegetable oils to make biodiesel

Kleindorfer ve Öktem (2007) noted that the Turkish Government provides incentives for canola farmers such as tax breaks, subsidies and guarantying the purchase of canola at a given price.

The Standards of Biodiesel

Biodiesel has already reached a considerable position on the market. It has become necessary to determine the quality requirements for the new fuel by means of a standard in order to allow for a free movement of goods. The producers of vehicles and boilers need a standardized quality for an approval of their products and for granting guarantees (Prankl ve Worgetter, 1999).

The Biodiesel Standards in the U.S

National Biodiesel Board (2012) gives the regulation of the biodiesel standards in U.S.
"In the US, the industry organization that defines the consensus on fuels is the American Society for Testing and Materials (ASTM). In the case of diesel fuel (and biodiesel), the responsibility for setting standards lies within ASTM Committee D02 on Petroleum Products and Lubricants. For diesel fuel, the ASTM standard is ASTM D 975. All engine and fuel injection manufacturers design their engines around ASTM D 975."

The Biodiesel Standards in EU

Ahmad ve Sue (2005, s. 8) stated that;
"The Biodiesels Directive basically requires member states to increase the use of biodiesels to a minimum of 2% of total liquid fuel consumption by 2005 and progressively increase it further to 5.75% by 2010. These targets are nonmandatory but require all EU member states to annually report their progress on implementation with close monitoring by the EU authorities on the levels of achievement in the targets. These targets serve as a strong political signal and indicate the determination and commitment of the EU member states to the use of biodiesels. It is acknowledged that without tax relief, biodiesels are uncompetitive with conventional fuels. In November 2003, after several years of negotiations, the EU finally agreed on a Biodiesel Standard, EN14214 CEN for FAME (Fatty Acids Methyl Esters). EN14214 is now the only standard applicable to biodiesel in the EU and a recognized reference both for biodiesel producers, and for the mineral oil and car industries. This is an important development in terms of standardizing technical purity and strengthening product warranty."

The Biodiesel Standards in Turkey

The Turkish standards are similar to EU standards. Kleindorfer ve Öktem (2007) said that;
"Until 2003, oil importers have been producing biodiesel and marketing without being subjected to any fuel related taxes, such as OTV (Özel Tüketim Vergisi – Special Consumption Tax) and KDV (Katma Deger Vergisi – Value Added Tax). This was made possible by presenting biodiesel as an extension of food process in the early days of its production through the efforts of an organization that biodiesel producers formed – ALBIYO (Alternatif Enerji ve Biyodizel Üreticileri Birliği). The result was a very cheap, extremely competitive, and alternative to regular diesel. In 2003, through a joint public private partnership, the government acted on biodiesel free ride issue through Enerji Piyasası Düzenleme Kurulu (EPDK) (Energy Market Organizing Committee – a group of independent, non-political individuals appointed for 5 years by the government). The trade associations formed by petroleum firms; PETDER, ADER, AKADER, PUIS, and TABGIS, jointly worked with EPDK on establishing a biodiesel norm. It is called TSEN 14214, based on the EU norm EN 14214. TSEN 14214 took only 7 parameters out of the 21 in EN 14214 as a "must" for the standard."

3. Findings

The legal name of the company will be Myodizel Biyodizel Uretim AŞ (Myodizel Biodiesel Production Corporation). In the foundation stage of Myodizel, paid-in capital is given and shares in the equity of the company are received. As an equity company, Myodizel can be classified as Anonim Şirketi (a Joint Corporation) or Limited Şirketi (a Limited Corporation). The degree of shareholders, liability is the main consideration in deciding the corporate structure of the company. A joint corporation is the shareholders' liability is limited to the equity which they guarantee in the company. A joint corporation can be founded with a minimum equity of 50,000 TL (equivalent to $30,000 US) and the value of each share is a minimum of 1 KR (equivalent to $0.30 US).

The Myodizel Company will produce biodiesel, renewable fuel from vegetable oils, in Izmir, Turkey starting in January of 2010. The target customers are located in The Aegean Region in Turkey, which has eight cities.

Mission Statement

Myodizel's mission is to provide useful product from the most efficient plant producer of oil. Profits on the bottom line will be achieved through careful attention to cost control, increasing demand for clean fuel, and fair treatment of individuals involved in the production and use of the product.

The firm will be the leader to attract production of biodiesel in the area and biodiesel will be known by the firm's brand by the time.

Myodizel's plan is to produce biodiesel from canola. The Myodizel's product replaces conventional diesel and will become the most important fuel of the 21st century, due to its environmental friendliness, renewability and low costs.

Keys to Success

The key success factors are:

- Competitive Price: Since the importance of the biodiesel product is not yet fully understood by consumers, the price will need to be directly competitive with conventional diesel.
- Constant Product Quality: Biodiesel is new in the market. Therefore, good reputation and high performance standards that equal conventional diesel will be especially important.
- High-performance Management Team: The team will consistently deliver products on time, control costs in order to avoid negative results, and increase customer demand through hard work.

Description of Proposed Biodiesel

Myodizel will use vegetable oils in Izmir to make economical and clean fuel. The feedstock that will be used in the chemical process will come from straight vegetable oil (SVO). If it does not enough to produce biodiesel to the market, Myodizel might use waste vegetable oil (WVO) collected from recycle companies which are located in Izmir area.

At the beginning of operations, Myodizel will sell a range of biodiesels. It will provide quality B100, B20, B5, but mostly B2 biodiesel blends. The feedstock used in the chemical process will come from canola collected from farms by Myodizel, around the District of Aegean. Myodizel is involved in contracted canola agriculture. Myodiesel will offer them

competitive price based on the last year's canola market price. The farmers will also receive incentives from the government for each kilogram they produce. If farmers want to cultivate canola, Myodizel can provide them seeds whose price is paid during the purchase of harvest.

Myodizel will be able to sell 1.75 ton biodiesel in a day, if the farmers produce canola from 8,482 decare land.

The fuel will meet six parameters and their actual characterization methods have been evaluated by the Turkish Standardization Commission. All the Turkish standards are the same as European Union Standards.

In order to get investment for the land, processing equipment, and 40 percent of the first year's employees' salaries Myodizel will use government incentives. The incentives to reduce individual and corporate income taxes for firms located in organized industrial zones appear in the Incentive of Investment and Employment Law numbered 5084 which was approved by TBMM (The Constitution of the Republic of Turkey) on January 29, 2004. These corporations were given free investment land allocation, and utilities subsidies (Revenue Administration).

- Income Tax Withholding Incentive: Law numbered 5084 a.3, a.7/h and General Communiqué of support for investment and employment serial number 1 and number 2.
- Employer's Contribution Incentive: Law numbered 5084, a.4, and a.7/h.
- Free Investment Place Assignment: Law numbered 5084, a.5.
- Energy Support: Law numbered 5084, a.6, a.7/h. separately body of organized industrial zones is exempt from all types of tax and fees such as land, electricity, gas, steam and water about the operation of Organized Industrial Zones Law.

Business Location and Facilities

A property meeting these requirements has been found. Myodizel will be located at Izmir Ataturk Organized Industrial Zone Cigli/Izmir, Turkey. The location is strategically situated on one of the most successful free zones in Turkey, with a trade volume of 1.2 billion dollars. Also, there are government incentives in this free zone, such as giving land to startup companies, and providing all utilities at no cost for five years.

Size Specifications

The optimal property would have at least 12,500 square foot of warehouse space with six big storage tanks. It would have one office building of 2,000 square foot with three floors, and one 1,000 square foot parking lot. The main building's third floor will have the CEO's office, and a conference room; the second floor will have the marketing manager office, the accounting manager's office, the production manager's office; and the first floor will have the kitchen and dining area (in Turkey, employees provide lunch on the premises).

The warehouse can house the tanks that need to be kept warm, and be protected from extremely high temperature. They also need to be isolated in case of leakage or accident. There will be ten tanks in the plant.

- Methanol (1) 5,000 gallon tank. The dimension of it is 5'x 7' on saddles and it will be horizontal.
- Feedstock (3) 10,000 gallon tanks. The dimension of these three tanks is 11' diameter x 14' straight side each. These tanks will be vertical.
- Catalyst, the dimension of this tank is 11' diameter x 14' straight side each. It will be vertical. It has to provide 20,000/Kilowatt/hour electricity.

- Biodiesel (3) 10,000 gallon tanks. The dimension of these three tanks is for each of them 11’ diameter x 14' straight side each. These tanks will be horizontal.
- Glycerin (2) 10,000 gallon tanks. The dimension of these two tanks is for each of them 11' diameter x 14' straight side. It will be vertical.

The government will pay for the processing equipment. For the first year the government will pay for the tanks and their shipping. In the second year the government will start to get back the payment for the processing equipment. From the second year on Myodizel will make the payment on the tanks. There will be twelve years to pay back the government for the processing equipment.

Industry Analysis

The biodiesel industry in Turkey is in its infancy stages. Although the demand is high for biodiesel, especially with regard to the benefits it could provide communities.
Biodiesel production and consumption in Turkey has increased literally exponentially since the year 2000. Thirty new plants were built, and commercial production tripled to almost one million gallons. There are 90 companies involved biodiesel in Turkey in 2015.

Marketing Segmentation

Marketing opportunities for biodiesel can be segmented along at least five different lines. These possible segmentations are:

- Application: Light duty vehicles, heavy duty vehicles, off-road vehicles, heating oil, backup power generation, boats and fixed operations equipment.
- Blend level: B2, B5, and B100 (percentage of biodiesel).
- Environmental characteristics: Emissions reduction, biodegradability, and non-toxic.
- Organizational niches: Fleet vehicles, military, transportation company vehicles, protected land, agriculture, mining.
- Aesthetic characteristics: Acceptable odor, renewable, biodegradable.

One of the most important marketing advantages of biodiesel is that, any diesel vehicle or engines can use biodiesel. The only diesel equipments that need modification are building heat systems, and these modifications are minor. The Myodizel’s potential marketing segments will be based on the type of the applications. Myodizel can put biodiesel on the market by itself or can use distributors, fuel stations, or refineries. Putting biodiesel on the market is much harder than using the chain of distribution. Myodiesel is choosing to sell to distributors.

SWOT Analysis

The firm uses SWOT Analysis as strategic planning tool to evaluate the Strengths, Weaknesses, Opportunities, and Threats that involved in this business plan. This analysis helps the owner to see the position of the firm in the market, and have the control of the firm’s activities to turn into success.

Strengths

It is a newly developed market, and being the firsts will give the Myodizel company advantages for growth and recognition.

Since canola is the Myodizel Company’s raw material for biodiesel production, the favorable climate and environmental conditions for canola cultivation in Izmir, one key

advantage for this firm. Between the production-processing, purchase-distribution will be the strength of the firm. The firm will develop good relations with the providers of raw materials and the users of biodiesel. A byproduct of the biodiesel production will be biodiesel and glycerin, which will be sold to the soap companies that need it for their production process. The company will have extra income from this additional business activity.

The existence of canola processing plants in Izmir will be the potential raw material providers for the company. Canola is being chosen as a raw material for the firm as having a financial advantage of producing it such as being able to produce in a small space for work which also will cause low electric energy usage as well.

The production of biodiesel creates an additional distribution channel for agricultural products and raises the income for farmers. This business will have a big impact on Turkey's economic development and this image will help the growth of this business.

Weaknesses

Being a startup company and staying in business in a new market will be hard for Myodizel Company. There are a number of companies that already exist and are recognized by market. However, this market has a great deal of room for new companies.

The owner is a holder of management and business administration degrees which are not related to the chemistry industry. He will be spending time not only on marketing, but also on understanding the process of biodiesel production and distributing. He will not be able to concentrate fully on the production process. However, he will work with qualified employees who will closely supervise this process.

There is still confusion in the public about using biodiesel instead of petro diesel. It necessitates a great deal of explaining the product to the users, and reassuring them that they will gain the same performance with the same price and also be ecologically safe. These will need to be a large budget for educating about biodiesel. While educating the public, the firm will also be advertising the product. Biodiesel's ecological advantages will be the firm's a greatest strength in the market.

Threats

Possible economic crisis in Turkey is one of the most possible threats for this business. There is currently a recession in Turkey. By the time Myodizel will be selling in 2010. The situation will not be expected to get worse.

With the technology that is developing every minute, there might be new alternative products for biodiesel.

The biggest competition will be petro diesel producers. Because biodiesel is a substitute for petro diesel, it would be a problem if the petro diesel companies think that Myodizel is a threat for them. However, Myodizel is a small producer and not likely to be seen as a threat.

If the petro diesel price goes down more than one dollar U.S., it will cause a trouble for Myodizel. However, petro diesel producers will not let this happen.

Opportunities

The possible increase of financial support that government provides to the biodiesel producers will be another opportunity for this business. The product itself has a significant value. People are starting to understand the importance of the environment and will be supporters of this

product. This is a business that supports the well-being of the economy and at the same time the environment.

This is a good example of a win-win business situation. The business has a huge market which is ready for a clean environment. The numbers of biodiesel users are increasing and demand will be good enough for all the producers of biodiesel.

This business has a chance to integrate forward or backward. A biodiesel producer can extend its operations to raw material production as well as biodiesel distribution.

The EU provides incentives for agricultural and alternative energy producers. The ability to obtain funds for projects from EU or non-governmental sources is another opportunity that will help the business to develop without any financial problems.

Because it is a new product; there is a big possibility of continuing scientific improvements to the production process, as well as interest in use of biodiesel by universities and government.

Positioning Strategy

The project is to serve selected states in the beginning, starting with the District of Aegean. Biodiesel can be marketed as an ordinary fuel and substitutes for petro diesel with little or no modification. The first prospective customers will be city buses, school buses, marine fleets, and large diesel users, who need and want to use non-polluting, ecologically friendly fuel. Unlike mineral fuel, biodiesel is renewable energy source, with comparable cost and performance. The ease of use of biodiesel and its environmental advantages are how the target segments of initial Myodizel in the market were determined.

While positioning the product, the first mission is to provide satisfaction of the segment through conceptualization of biodiesel in the institutional identity of Myodiesel as an environmental champion advocate.

These customers will choose biodiesel rather than petro diesel, if the product pricing is the same or just a little bit less than petro diesel.

3.10. Marketing Strategy

Myodizel will focus on fuel distributors and big consumers as key target markets.

The firm will separate a budget for marketing in order to highlight natural qualities of biodiesel and gain potential clients' trust. The firm will produce high quality fuel that will be friendly to the environment. The firm will offer a competitive price, to higher than the price of petro diesel. This will help people to make the environmental choice without any price differences. Once they test the product, many people will prefer biodiesel.

In order to create a public recognition of Myodizel, the firm will use media tools to make its brand known in the market and also be able to emphasize the key advantages of biodiesel.

Building long term relationships with existing customers in the area will help the firm to be known. The firm will provide educational materials in order to show that biodiesel has moved from being experimental to being a mainstream renewable fuel with multiple benefits and ease of use.

3.11. Product Strategy

Myodizel will position the product for people would like to use nonpolluting and ecologically friendly fuel. The firm will emphasize the product's being environmentally safe. In order to

connect with possible customers, the firm will have a website that explains the significant role of biodiesel the protecting the wellbeing of the environment.

3.12. Placement Strategy

Since biodiesel is an alternative for petro diesel, the firm will meet with the city transportation organization, which is called IZULAS, in order to increase their knowledge of the benefits of biodiesel and convince this organization to try biodiesel for a period of time for some of their vehicles. This will be the placement strategy with this customer. Once Myodizel has their trust and attention, the firm will use this as an advertisement for other potential customers.

In addition to this, ecology and energy related seminars will be effective in finding local suppliers and buyers of the product. The firm will maintain close relationships with transportation companies and agricultural ventures.

3.13. Sales Plan

The firm will focus on its primary market in order to implement its sales plan. Using media tools to generate positive public opinion on biodiesel and the Myodizel brand will help the firm to gain new customers in the market. The firm plans to promote the image of biodiesel and the name of firm by direct mail, seminars and advertising in the local newspaper, which is called Ege'nin Sesi.

3.14. Pricing Strategy

Myodizel will use a pricing strategy that is the same as petro diesel in order to emphasize their ability to use the new fuel without any modification. In addition to this, the marketing strategy will emphasize its being environmentally safe. So the firm will sell biodiesel at current market price as regular fuel in order to encourage potential customers to try it.

4. Discussion

Since biodiesel has a great deal of potential market and customers could start using it immediately, the firm will recover its expenses in the second year of operations.

If this strategy does not work, the firm can integrate to forward or backward. Myodizel can partner with its supplier or user, and have an opportunity for growth. Being a larger company, would create a bigger market for the product, and the firm will use this advantage out of such a situation.

If there is a problem in reaching the firm's primary market, the firm can rapidly change its focus to other users since users, in environmentally sensitive areas such as wetlands, marine environments, and national parks would like to replace toxic petroleum diesel with biodiesel.

It is Myodizel's hope that the firm will lead to an increased awareness and usage of biodiesel systems, even if this impact is only on a small scale. Through a greater understanding about environmentally friendly fuels, the firm hopes to improve the environment at large, one community at a time.

The market is new and there will be a transition period which will cause failures of companies in the industry. This disadvantage might create in consumers a hesitation to switch to biodiesel from petro diesel. However, crisis times can be turned into a success with a strategic planning. The firms, who will be the firsts to be known in the industry, can create a brand for

this product. With a well prepared marketing plan, the firm will be the one known as the preferred source for biodiesel.

Transportation cost is high in the city. However, the firm can use this to stay in existence in the industry since its pricing strategy based on competitive pricing and it offers other advantages.

Since biodiesel is newly developed industry, the suppliers are new and not well known. However, there is an increasing demand for this product, so the number of suppliers will increase as well.

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The Analysis on the Credit Card Using Habits of Banking Students[8]

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1. Introduction

The banking sector has recently entered into a rapid and radical process of change, and started to operate in multiple countries gaining an international dimension. As a result of this sectoral structure, efforts to improve new products, services and approaches in order to meet the demands are increasing too. In this context, the banks in Turkey are focusing now rather on individual marketing, and experiencing an intense competition environment - especially regarding the marketing of credit cards. Parallel to this fierce competition, marketing and using of the credit card types that are already in use in Europe have become widespread in Turkey (Asan, 2007, 257).

In this competition, to ensure the continuity of the customers, to respond the needs, and to minimize the risks while performing this, it is important to determine the potentially most profitable group as target. In today's banking concept, the most successful marketing program is not to take the biggest of the existing marketing share but to obtain the largest percentage of customers which is profitable or has potential.

In order to become prominent in this intense competition, the customer profile is gaining in importance for banks. The basis of the acquisition of customer investments or marketing of banking products are recognizing, classifying and updating the type of customers properly. Identifying the behaviors, attitudes, preferences and problems of the costumers regarding credit card using habits has a great importance for the banking sector especially in the marketing of individual products. Competition in the credit card sector has led the expansion of the target customer profile, and students in recent years have become one of the main players in the market of credit cards. Banks, with the development of the technology, have set young people and children as their new target group. Young people and children gaining customer loyalty would mean bringing significant customer potential in the later years. Especially university students are regarded as important and creditworthy customers to be after graduation.

With this purpose, at the end of 2000 in Turkey, the first shopping card for students has been put on the market with the name of Advantage Campus Card by Benkar Tuketici Finansmani and Kart Hizmetleri A.S. which provides finance and bank card services to its customers under the brand name Advantage (Karbay, 2012, 24). All organizations involved in the credit card sector are carrying out important practices in order to create future consumer groups and provide loyalty. Ten banks with the most preferred credit card and loan services addressing students in 2015 may be summarized as follows (https://ekonomist.co, 20/07/2015):

- ✓ Turkish Is Bank – Is'te Universiteli - subscription free
- ✓ Turkish Is Bank - Is'te Universiteli
- ✓ Turkish Economy Bank TEB - UniversiTEB
- ✓ Ziraat Bank - Genc BankKart/Genc Kart
- ✓ Ziraat Bank - Ziraat Campus Card
- ✓ Akbank - Axess Exi26

[8] This work is produced from the project named "**Attitudes towards Credit Card Using Habits of the Students in Trakya University, Department of Banking**" by Sevil Demiralay (TU Social Sciences Institute Distance Education Master of Business Administration).

- ✓ HSBC - Advantage Campus
- ✓ HSBC - Advantage Concept Universiteli
- ✓ HSBC - Advantage HIZZ Universiteli
- ✓ Vakifbank - Like Card Universite
- ✓ Yapi Kredi Bank - Credit PlayKart
- ✓ Finansbank - Cardfinans GO

Determining the attitudes of the students in the younger age groups towards credit card will be shaping some issues such as product planning, marketing and employee training. Identifying their aspect regarding credit card has also become necessary for; planning products in this area, marketing and promotional activities, deciding on the educations for consumers and employees (Girginer, Celik & Uckun, 2011, 18). Determining the attitudes towards the credit cards of the students especially who are studying in banking department and who are well informed about the products and practices in the sector, will also help to identify the needs of education of the employee. It is possible to find many studies in the literature prepared for this purpose.

While Sinangil (2005) studied the credit card preferences of the university students, Karbay (2012) revealed the undergraduates' perception of credit card experience. On the other hand, Akca and Sonmez (2008) have done a research on the relationship between credit card using and financial wellbeing of the third and fourth-year students in all departments of Kirikkale University's Health Science Faculty. This study showed that students who use credit card spend more money than they actually have and this affects their financial wellbeing in a negative way. Moreover they have more financial difficulties than those who do not have a credit card.

A study made to size the attitude of the students (studying in Eskisehir Osmangazi University's Faculty of Economics and Administrative Sciences) in terms of credit card using habits, and to identify these aspects as per their differences based on various demographic characteristics, has revealed five distinctive aspects of credit card attitude (Girginer, Celik & Uckun, 2008). These aspects were based on: behavior, emotion, cognition, anxiety and reliability. The differences according to demographic characteristics were determined here too. Again, in another study, a follow-up of the previous study by Girginer, Celik and Uckun (2011), the Structural Equation Model (SEM) was used, starting with the idea that the attitude regarding credit card using habits would be affected by anxiety, cognition and emotions.

Another study was performed by Yayar, Karaca and Turgut (2011) in order to determine the factors that decide on which university student matches the needs to use credit cards, and how and in which direction these factors affect the credit card using habits. Another study, by Gozener and Sayili (2013), was aiming to determine some socio-economic structure of the students in Gaziosmanpasa University, their credit card using habits and the factors which were considered to affect these habits.

There is another study which examines the current attitude of young people as future-consumers towards credit card using habits. This study shows differences (Suher, Ulusu & Bir, 2014) based on demographic characteristics by determining the factors related to credit card ownership and using of the university students. Students' behaviors, who are studying in state and private universities in Ankara, related to credit card using habits on Internet (online shopping) can be given as an example to another study followed by Yurtseven (2014).

Hayho, Leach and Turner (1999) is carrying out evaluations with the attitudes scale depending on how many credit cards do students have, whereas Hayho, Leach, Allen and Edwards (2005) is carrying out the differences between the students who have credit cards and who have not, within the scope of credit card attitudes, cash attitudes and behaviors, power and inadequacy

and influence of the families. In the study of Jones (2005) it was identified too that the students have very little financial information about the loans and credit cards.
In a research of Norvilitis and MacLean (2010) at a state university in the US, the subject about the students who have credit card, is evaluated within the framework of the consulting services. The study investigating the impact of the parents' role, work experience, information about financial issues and personal characteristics on students' attitudes and behaviors regarding credit cards, was carried out by Hancock and Bryce (2013). On the other hand, Anderson and Card's (2015) studies are about examining a one-year financial education's impact on students' credit card attitudes and behaviors.

2. Research

2.1. Objectives and Importance of the Study

The purpose of this study is to inspect the attitude towards the usage of credit card of the university students learning banking and to determine the differences of these aspects according to various demographic characteristics (gender, income, whether they have a credit card or not, the number of the credit cards they have, etc.).
In recent years, the competition in marketing of credit cards has highly been intensified, and the marketing and using of European credit cards in Turkey has become also widespread. Banks has to build healthy relationships with customers in order to ensure their continuity and minimize the risks they face while performing the process. On the purpose of realizing this consciously, the customers must be identified according to their characteristics properly. In this respect, young generations, especially university students, are regarded as potential future customers, and after graduation in order to ensure their continuity, investigating the details of this group properly is also gaining importance.
The researches include studies on students of different departments. However, the Banking department students will be the employees who are marketing credit cards after graduation. In this respect, determining the attitudes and behaviors of the Banking department students towards credit cards, which will be an important part of their future profession, is also very crucial.

2.2. Method and Sample

The empirical study was being carried out among students at Trakya University's School of Applied Sciences. This survey involved 248 bachelor's degree students.
The instrument used for a data collection was a face-to-face survey. CCAS (Credit Card Attitude Scale) of which validity and reliability was pre-tested, developed by Hayhoe, Leach and Turner (1999) and adapted to Turkish by Girginer, Celik and Uckun (2008) is used in the study.
In the first part of the survey there are CCAS related questions, while the second part consists of the questions prepared by the researcher herself in order to determine the current credit card using habits of the students and to point out the demographic characteristics (gender, class, income, age, whether they have a credit card, the number of credit cards they have, expenditures made by credit card, etc.). The data on the results of the survey application is evaluated by using SPSS 17.0 statistical packaged software.

3. Results

3.1. Demographic Characteristics of Study Sample

First, the demographic characteristics of the participants are examined and shown in Table 1. Accordingly, 60.1% of respondents are male and 39.9% of them are female students. 50.4% of students' monthly budget is between 501-1000 TL, and 57.7% of the students have credit card while 42.3% of them do not have. The rate of those who have single credit card is 42.7% and the rate of the students who have multiple credit cards is 15.3%. 33.9% of the students stated that they owned their credit card by applying directly to the bank, 83.9% of the students pointed out that they do not have a problem related to credit cards (Table 1).

Table 1. Demographic characteristics of the study population

Variable		**Frequency**	**%**			**Frequency**	**%**
Sex	**Female**	149	60.1	Marital Status	Married	3	1.2
	Male	99	39.9		Single	245	98.8
Age	**17-20 years**	70	28.2	Numbers of credit cards	N / A	104	41.9
	21-25 years	170	68.5		There is 1	106	42.7
	26-30 years	8	3.2		More than 1	38	15.3.
Class	**Class 1**	45	18.1	Card Ownership	Yes	143	57.7
	Class 2	50	20.2.		No	105	42.3
	Class 3	57	23.0	Having Card Problems	Yes	40	16.1
	4th class and +	96	38.7		No	208	83.9
Monthly Payment Amount with Card	**N / A**	103	41.5	Amount of Monthly Expenditures by Card	N / A	103	41.5
	10-50 TL	13	5.2		10-50 TL	12	4.8
	51-75 TL	26	10.5		51-75 TL	18	7.3
	76-100 TL	27	10.9		76-100 TL	18	7.3
	101-125 TL	28	11.3		101-125 TL	33	13.3
	125 and +	51	20.6		125 and +	64	25.8
Ownership type	**No owner**	98	39.5	Ownership type	Applying Out of the Bank	28	11.3
	Applying to a Bank	84	33.9		Additional Card	11	4.4

	Other	27	10.9

In the second part of the study, construct validity of the scale used for the first time, tested by factor analysis was investigated whether single or multi-factorial. (KMO = 0.781; Bartlett χ2nd= 1257.082; df = 120, p = 0.000; p <0.05).As the result of the factor analysis it has been clearly seen that the scale has five factors structure. According to this result, the first factor is called "behavior"; the second factor, "emotion"; the third factor, "trust on bank"; the fourth factor, "anxiety" and the fifth factor, “usage reliability Cronbach Alpha Coefficient method was used for the reliability analysis of the scale used in the study and Cronbach's Alpha Coefficient (α = 0.651) was found sufficient.

3.2. Investigating Attitude Towards Credit Card by Demographic Characteristics

Factors which are determined as a result of the factor analysis of CCAS, were analyzed in terms of different variables. It has been researched with the Mann-Whitney U method, when normal division procedure failed in comparing the two groups and it has been researched with the Kruskal-Wallis test when comparing more than two groups.

Table 2. The mann-whitney u test results

Student's Demographic Characteristic	**Category**	**Factor**				
		Behavioral	Emotional	Trust in Bank	Anxious	Usage Security
Sex	**Female**	1.61 ± 0.773	2.69 ± 1.082	2.86 ± 0.813	3.7 ± 1.004	2,58 ± 0.815
	Male	1.63 ± 0.673	2.78 ± 1.171	2.72 ± 0.956	3.7 ± 0.923	2.85 ± 0.872
	Asymp. Sig. (2-tailed)	0,495	0,659	0.079	0,983	0,003*
Credit Card Ownership	**I own**	1.69 ± 0.77	3.15 ± 1.04	2.89 ± 0.86	3.60 ± 0.99	2.93 ± 0.83
	N / A	1.52 ± 0.68	2.16 ± 0.96	2.68 ± 0.88	3.84 ± 0.93	2.36 ± 0.76
	Asymp. Sig. (2-tailed)	0,48	0,000*	0,654	0,738	0,000*

***p <0.05**

When examining Table 2; it has been determined that there is a significant difference between genders in terms of usage reliability, and in terms of credit card ownership in the average of emotional attitudes and usage reliability (p <0.05). According to that, it can be said that the credit card usage reliability of female students is lower than that of males. It is clearly seen that the emotional attitudes and usage reliability of the students who have credit card is higher compared to the students who do not have.

Table 3. The kruskal-wallis test results

Student's Demographic Characteristic	Category	Factor				
		Behavioral	Emotional	Trust in Bank	Anxious	Usage Security
Number of Credit Card	**N / A**	1:53 ± 0.696	2:21 ± 0.985	2.68 ± 0.866	3.80 ± 0.930	2:40 ± 0.804
	One Credit Card	1.65 ± 0.803	3:00 ± 1.051	2.90 ± 0.896	3.73 ± 0.990	2.88 ± 0809
	More Than One	1.76 ± 0.611	3:40 ± 1.020	2.87 ± 0.811	3:32 ± 0.96	2.96 ± 0.848
	Asymp. Sig. (2-tailed)	0.334	0.000*	0.664	0.083	0.002*
Amount of Monthly Expense	**10-50 TL**	1.75 ± 1.158	2.08 ± 0.911	2.86 ± 0.858	4.00 ± 0.804	2.67 ± 1.110
	51-75 TL	1:53 ± 0.542	2.80 ± 0.887	2.72 ± 0.998	4.19 ± 0.669	2.54 ± 0.768
	76-100 TL	1.39 ± 0.589	3.09 ± 0.941	2.80 ± 0.785	4.15 ± 0.930	3.02 ± 0.812
	101-125 TL	1.79 ± 0.742	3.21 ± 1.020	2.76 ± 0.636	3.67 ± 0.846	2.92 ± 0.786
	125 and +	1.73 ± 0.761	3.33 ± 1.053	3.04 ± 0.956	3.22 ± 1.031	3.04 ± 0.806
	Asymp. Sig. (2-tailed)	0.467	0.012 *	0.489	0.000*	0.712
Monthly Payment Amount with Card	**10-50 TL**	1.65 ± 1.058	2.28 ± 1.129	2.877 ± 0.967	4.10 ± 0.762	2.59 ± 1.098
	51-75 TL	1.85 ± 0.936	3.09 ± 1.022	2.95 ± 0.987	3.77 ± 0.837	2.71 ± 0.642
	76-100 TL	1.68 ± 0.772	2.86 ± 0.864	2.67 ± 0.679	3.96 ± 0.940	2.98 ± 0.685
	101-125 TL	1.83 ± 0.717	3.23 ± 1.093	2.83 ± 0.772	3.71 ± 0.937	2.80 ± 0.823
	125 and +	1.51 ± 0.543	3.41 ± 1.007	3.01 ± 0.924	3.19 ± 1.040	3.14 ± 0.885
	Asymp. Sig. (2-tailed)	0.080	0.029 *	0.593	0.007*	0.198

p<0.05

In the analysis made with the help of Kruskal-Wallis Test according to the class and the credit card ownership type variables of the students, it has been determined that there is no difference in the average of the related factors (p> 0.05).

The differences between the averages of the factors are analyzed with the help of Kruskal-Wallis Test according to the number of cards the students have, the monthly expense made by credit card and monthly payment variables and shown in Table 3.

According to Table 3 in terms of the number of cards students have, it is seen that there is a significant difference in the average of emotional behavior and usage reliability. Accordingly,

the emotional attitudes of students without a credit card are lower than those who have one or more. Similarly, the usage reliability of students without a credit card is lower than those who have one or more.

It is seen that there is a statistically significant difference in the monthly expense made by credit card and monthly payment amounts of the students in terms of the average of emotional and anxious attitudes (Table 3). Accordingly, who has fewer expense and monthly payments, has also lower emotional attitudes. When the amount of the expenses increases, the emotional attitude level of the students increases too. But in case of anxious attitudes, in terms of both the monthly expense with credit card and payment variables, it's just the opposite. When the amounts of expenses and payments increase, anxiety decreases on the contrary.

4. Conclusion

It is seen that the rate in using credit card was average (57.7%) between the students taking part in this study on attitudes regarding usage of credit cards at Trakya University's School of Applied Sciences' Banking Department.

According to the scale used, there are five aspects in terms of credit card using habits: emotion, cognition, behavior, anxiety and reliability. On the basis of these aspects; boys and girls differ from only their reliability amongst credit card using attitudes.

There is no significant difference in attitudes towards credit card in terms of age and class of the students. Maples and Sonmez (2014) also states that the gender factor has a significant impact on the attitude of credit card, but the age is not an influential one.

Another finding of the study is that the students who have credit card has more emotional attitudes than those without card, in other words, they are happy and feel pleasure to have a credit card. Likewise, the students owning a credit card find it more reliable to use a credit card than those who do not have one. Parallel to the number of credit cards, both the emotional attitude and the usage reliability increase.

The findings related to the credit card ownership and the number of credit cards is in the same direction with the findings obtained in the study of Girginer, Celik and Uckun (2008). According to the Girginer, Celik and Uckun (2008) the students who do not have credit cards, consider the using of it unreliable and their emotional attitudes are influenced in a positive way when the number of credit card increases.

The two aspects which are influenced by monthly expenses and the amount of payments with a credit card are: emotional and anxious. A higher expense and payment amount indicates an increase in the emotional attitude. However, when the payment amount is increased, anxious behavior is decreased on the contrary. When the amount of expense and payments is above a certain level (125 TL and above), it seems like the anxious attitude has a decreasing trend. And it is understood that this reducement is related with monthly budget of the students. The increase in the monthly budget of students leads to a variation in behavioral patterns. Maples and Sonmez (2014) found that with the increase of the average monthly income, students are more likely to use a credit card. According to this conclusion monthly income can be accepted as it is one of the important factors which have effect on usage of the credit card.

In the changing conditions depending on the technological developments, the banks have increased in number and the international financial institutions have been widely involved in the market of banking products. This fact verified a need for creating a policy for all business in the market, according to their target customer group (Citoglu, 2004, 54).

University students have become an important target group for banks active in the credit card market in Turkey. Bank employees working in the marketing area of credit cards consider the students who can be taken into the market as to-be-customers and direct their marketing activities within the frame of this idea. Credit card marketing activities are carried out by

creating marketing teams both in the branches and the centers (Yurtseven, 2014, 92). At this stage, active working of the bank employees as marketing executives comes into prominence. These employees are required to operate in many areas such as; establishing the first contact with the customer, raising awareness of the customers and creating the sense of need, convincing them to experience bank products and selecting the right group of customer. Fulfillment these tasks is obviously the element depend on the training of the bank staff (Citoglu, 2004, 54-55).

In this context, university students practicing in banking education have a different importance in banking and credit card sector, both as target customers and target group of employees. However, in recent years, viewpoints and attitudes of the students towards credit cards practice, which has a very important place for banking business in marketing individual products, are gaining importance. In banking business they will create a privilege in operating a sustainable training for future and existing employees, and dominating their business policies.

Considering that the credit card sector is expanding with its new products and growing every day, the need for more customer profile studies regarding consumers' attitudes and behaviors, habits and preferences is rising. In this study, it was aimed to provide a different perspective by examining particularly the attitudes of the Banking Department students. For this purpose, the studies which will be carried out using different methods of analysis in order to reveal the perspectives of different social groups would be able to contribute to the companies and the banks in the sector.

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Time Management In Accordance With "Kaizen"

Senem Demirkiran, Tuna Şener, Esin Ömer

1.Introduction

With the emergence of globalization concept that affects the whole world; economic, cultural and social changes have taken place. Especially in economic field, the market structure of enterprises has changed due to the effect of liberalism. Businesses that want to realize their objectives about profitability and sustainability have had to change their marketing strategies in a global market insight. Changing market conditions resulted in changing consumer demands, changing customer behavior and working conditions. One of the successful techniques developed by the companies which are forced to enter into global competition with global competitors in the global market is the Kaizen philosophy. This philosophy that emerged in Japan, began to be implemented in all over the world in a short time since it provides efficiency and time management.

Kaizen that applies the philosophy "Welcome problems!" contains 2-5 days of process and aims to reduce all kinds of costs with a speedy development.Kaizen remarks the importance of time efficiency in order to increase the customer satisfaction and competitive power. All the personnel in an institution is responsible of Kaizen, that includes continous improvements about the process. Kaizen consists of planning, implementation, sustainability and enlargement sections and improvement process starts from the purchase of raw materials till the product arrives to the customer. In Kaizen, customer satisfaction and customer loyalty are very important issues, because it is cheaper to get customer loyalty than getting new customers. Thus, in Kaizen, quality assurance, minimizing costs and time management come into prominence.

The first two provisions of Kaizen are "Team starts and finishes a day always together and it is important to be always in time" and these two statements reveal the importance and indispensability of time management that aims people to use their time most efficiently. In this study, the importance of the time management concept in Kaizen philosophy is examined and it is tried to analyse the effects of time management to the quality assurance and reducing costs. Waste of time is a waste of resources, and this is not acceptable in professional business life.

2.Global Marketing, Time Management And Kaizen

The concept of competition has become globalized together with the impact of globalization on businesses since the 1960s. Since world has become a small village for commercial activities, industry started to be globalized and this has brought the globalization of trade and necessity of entering a global competition for enterprises. Therefore, globalized industry has caused businesses to undergo structural changes by creating new businesses on a global scale. The organizational structure and business philosophy of the companies have also changed along with these structural changes. Businesses have sought to develop global marketing activities in order to compete globally. Standards and strategies builded by businesses have become globally competitivewith this change (Saeed,S.,Kendall,R.1992;7-15).

In a growing competitive environment, it's not enough for companies just to produce suitable products in order to increase the productivity of the company, in rapidly growing markets. They should also have global competition rules knowledge, marketing skills and improved intercultural understanding and should make a good schedule (Kaufman,P. A.,. Melton , H.L., Varner , I. I., Hoelscher , M., Schmidt , K .,and. Spaulding,A. D.,2011;285).

Today, the key element of time management in global markets is human and human-oriented marketing approach has come to the forefront. Companies should apply customer-oriented strategies to achieve success in the competitive global environment. So, what kind of market strategy provides employee motivation and controls customer relationships in global markets? Marketing based behavioral approach is market-oriented and covers the key processes of marketing (Tadajewski,M.; Hewer,P.,(2012;1017).

Financial obstacles in global markets necessitate to improve customer buying behaviors to improve the operating performance of the company. Because, global competitive potential in global markets are causing of businesses to increase their financial gains or to suffer financial losses. Therefore, companies develop various strategies to improve the customer buying behavior and ensure customer loyalty. The strategies developed are awards, methods like shopping bonus that customer can spend as he/she buys in a certain amount, etc. (Beck, J.T. , Chapman, K. and Palmatier ,R. W., (2015;7). However, in order to increase competitiveness of the enterprises in the global market, enterprises should enhancetheir competitiveness, provide job scheduling and technological development and reduce costs in addition to customer satisfaction. And, they can only handle it by providing time management, continuous change and development.

Time management is the effective and efficient use of time for business purposes. The concept of time is devoted to varieties. Time types are as follows:

-The Real Time: The time shown by the clock. It is objective. It can be monitored.
-The Psychological Time: The time that is felt.It is subjective. It is difficult to understand.
-The Biological Time: All living things have a biological clock and their attitudes are directed by this biological time unwittingly.
- The Managerial Time: It is the use of financial and human factors together for the purpose of business.

Time has been classified aspsychological, biological and managerial and many different definitions have been made. Some of these definitions are as follows(Güçlü,2001:88):

-Newton: “Timeceaselessly flows in one direction”
-Einstein: “Time is a dimension that regulates events chronologically and gives meaning to them.”
-Smith:“Time is a continuous process”
-Tezcan:“Time is long or short and impossible to repeat. It is a part of human life that can be measured with hours.”
-Açıkalın:“Time is a process that we can measure events”

The usage of timeby the managementwith management functions (planning, organizing, directing and controlling) in order to achieve the aims of business is called time management. Time management is important for everyone in the business (Erdem and Kaya 1998:102).What is important in time management is to plan what could be done in current time and it aims to do the right things in a short time.Time management is also an improvement technique of personal performance. Business success of managers depends on the effective management of time (Gürbüz and Aydın,2012:14).

But,one of the main obstacles about time management are time traps.Time traps in businesses leads the work not to finish on time and this results in loss of productivity in the business. Major time traps in a business are as follows:

-Lack of planning
-Failure to determine priorities
-Delaying works to do
-To devote himself to work more than needed
-Impetuosity
-Paperwork and inefficient reading
-Routine and redundant jobs
-Open door policy (Unable to say no)
-Unnecessary phones
-Agenda-free and inefficient meetings
-Instability
-Unable to authorize
-Messy desks and office layout

Kaizen and time management works together in a business in order to prevent these time traps and increase the productivity and efficiency. No doubt that, there is no place for time traps in Kaizen philosophy.

Therefore, some techniques have been developed for time traps management. These techniques are as follows(Demir,2016:34-61):

-Being aware of the time flow
-Preparing time record and evening analyze,
-Determining priorities,
-Discrimination of important and emergency works
-Recognisingenergy periods
-Giving importance to planning
-Efficient use of communication factors
-Efficient use of secretarial services
-Avoiding delays
-Good organizing of work environment, table set up and file system
-The development of fast reading techniques
-Planning of the visitor traffic
- Providing effective communicaiton
-Dissemination of authority devolution,
- Managing employees’ time
- Efficient meeting management

In addition with time traps management, a business should also make planning, use technology, use various techniques for memory improvement and increase the efficiency of the memory in order to increase the operating efficiency in the context of time management. Time management consists of eight stages (Gürbüz and Aydın,2012:16):

- Time ruler
- Defining of problems
- Defining of himself
- Determining aims and priorities
-Adding program goals into execution plans
- Preparing daily programme
-Developing time management techniques

- Following the process and making analyzes.

Many large companies have developed their own strategies to increase competitiveness in global markets. Toyota is in one of these companies. Toyota has created a unique problem-solving method named "Kaizen". This improvement-focused system also includes improvement of social activities. The basis of this method has been to eliminate problems such as Muri (unreasonableness), Mura (inconsistency) and Muda (waste). In addition, on-time delivery, just-in-time system, and all elements of marketing have been included in Kaizen system and continuous improvement, fundamental sales and marketing activities have been considered as part of the Kaizen (Tsukada,2013;54-55).

The main reason of Japan's success in competition is Kaizen. And Kaizen is one of the basic principles of Total Quality Management.Total Quality Management is a management approach that aimscontinuous improvement in all processesof production and tries to get customer satisfaction. Therefore, Kaizen is defined as "continuous improvement" in Japan. It involves the senior management, managers and employees. Western management style is different from Japanese management style. Kaizen management style is exactly opposite of the western management style. Kaizen begins with identification of problems. Everyone in the organization acknowledges problems and tries to solve them. All the elements of business are involved together in the Kaizen execution. The company should provide three basic elements in order to perform Kaizen executions (Doğanay,2008:142-146):

- To find current situation inadequate: The acceptance of functioning of the system is not perfect.
- To improve human factors: The most important factor of a business is human and the main goal in Kaizen is to increase the human quality.
- To use problem solving techniques continuously: The sources of the problem should be detectedand solved.

Continuous development and improvement of new ideas and technical knowledge provides the necessary support for the success of the organization. This improvement process beginning with positive attitudes and behaviors of employees, achieves success with customer satisfaction and customer loyalty. It is obligatory to identify the roles and working times of employees, to determine the business processes and to get the product ready on time. Just-in-time application is necessary for the success of Kaizen. It is an important marketing strategyto deliver the right service at the right time, accurate, at the right amount to the customer, used by businesses as a global marketing strategy. And, Kaizen application should be implemented for successful implementation of this marketing strategy. Continuous improvement should be based on development of any standard activity for enterprises (Beck, J.T. , Chapman, K. and Palmatier ,R. W., (2015;38).

Kaizen, expressing continuous improvement including workers and working conditions in workplace; is a strategy applicable for both managers and employees. In some enterprises, it is also defined by managers as the improvement of an ever-increasing activity, the elimination of waste, inequality and non-conforming conditions and an activity to create more value to the business (Sua´rez-Barrazaa, M. F., and Rodrı´guez-Gonza´lez ,F.G.,2015:1003-1004).

In Kaizen applications, it is also aimed to determine the cost of business activities and gain maximum profit with minimum cost (Tomic,V. P., Andrijasevic, M., (2014;367).

This costing process called "Kaizen costing" or "reducing costs by continuous improvement method" is applied in different processes of production or services. Kaizen is an application that starts with all business resources with the beginning of manufacturing process of the product (Kaya,C.T.,2013:151). Therefore, Kaizen including continuous improvement of

business functions, human resources and non-human resources, should include the following basic principles (Mano,Y.,Akoten,J.,Yoshino ,Y.,Sonobe,T.,2014;26):

-Teamwork : The creation of trust within the team with all elements and the creation of organizational commitment in the organizational environment
-Strong personal discipline: Workers must be in high motivation and discipline.
-Confident about offering suggestions: Even when the system appears to be functioning adequately, employees still must be confident about offering suggestions.
-Always room for improvement: Kaizen recognizes that there is always room for improvement.
-Quality circles, worker groups: The system uses quality circles and worker groups who meet and work together to solve problems and come up with innovative changes.

Time management is one of the key components of Kaizen. Time management is the total process of planning, implementing and controlling of activities within the business in terms of time.Time management can also be defined as a method to control the time spent on specific activities consciously in order to improve productivity and efficiency.

A time management system is a designed combination of process, tools, methods and techniques. It is also an important requirement in project development process, because time management determines the project completion time and scale.The common point between time management and Kaizen is “planning”. If planning is not made properly, there is no possibility to finish the work on time and consequently no time to organize jobs to do in the business.

To finish the work on time, the following calendar can be applied:

4 Days Kaizen Calendar

Day 1
Discussion of Kaizen Process
Planning of further situations
Brainstorming for improvement

Day 2
Planning of improvements
Establishing of standards for processes
Testing the standards created

Day 3
Continuing to planning of standards
Investigation of labor productivity
Termination of the standard work process

Day 4
Training of necessary workers
Completing the report of Kaizen
Making preperation for team presentation

The contribution hierarchy of Kaizen in4 DaysKaizen Calendar is as follows:

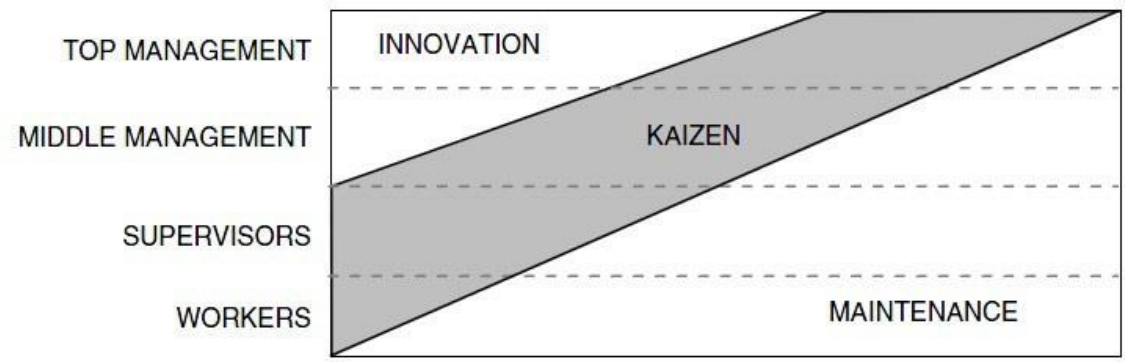

Figure1:Responsibility for Kaizen and Kaizen's Role in Process Improvement (*Pyzdek,2000):*

The following 10 steps are critical to the success of Kaizen (Imai,M.,2003:81):

-Notify team members of planned Kaizen event
-Set planning meeting, complete Area Profile
-Review team make up.Are the right skills on hand?
-No distractions to the team during the event
-Set start time and times for event
-Start on time
-Take action
-Team is empowered to make positive changes and enforce
-Be maticulous about the execution,be alert to safety issues,clean everything,even the borders
-No “doggy bag”.Add unfinished or open actions to Kaizen newspaper or work plan
- Celebrate,reward or recognize team accomplishments

After applying the Kazien Calendar in a business, the following benefits will be gained **(**Doğanay,2008:147):

-Kaizen involves every employee in making change in most cases small,incremental changes.
-It focuses on identifying problems at their source,solving them at their source and changing standards to ensure the problem stays solved.
-Kaizen reduces waste in areas such as inventory,waiting times,transportation,worker motion,employee skills,over production,excess quality and in processes
-Kaizen improves space utilization,product quality use of capital, communications,production capacity and employee retention.
- Kaizen provides immediate results.Instead of focusing on large,capital intensive improvements, Kaizen focuses on creative investments that continually solve large numbers of small problems.

Kaizen Philosophy, which is expressed as the road to success by enterprises, is a whole that includes all the components of enterprises. Thus, without global marketing operation Kaizen planning desired global competition conditions may not be ensured. In order for enterprises to be more successful in the global markets, making a business plan within a specified period and realizing it by including employees and by creating organizational loyalty could be beneficial to keep continuous innovative operations alive.

3.Conclusion

As a result of the increase in economic competition (leaping from domestic level to international areas), companies’ luxury of making mistakes have been eliminated and their effort to achieve perfection has led a new perspective to born; called total quality. This new concept of total quality makes it necessary for all companies to achievecontinuous improvement. Kaizen, which is combined of two Japanese words (Kai=change and Zen=good, better) is a continuous improvement and development process, applied for achieving total quality. The target is not to secure a certain standard, but to improve the level in a continuous and speedy pace. That means, the Kaizen philosophy suggests to reach continuous improvement with small but frequent steps. These improvements come from anyone from any department in any subject. Since the improvements are at small sizes, the change and impact they created are at small sizes, too. Thus, the problem in compliance with the new standards developed is getting minimized.

One of the biggest problems experienced in business life is a waste of time. In marketing, this occurs by losing the time in traffic because of not fine-tuned appointments. In production department, it occurs by spending extra time because of the lack of correct and practical production line. In customer services, it occurs by even losing a customer because of a bad-planned order. In logistics, it occurs by paying extra duties or other obligations because of a product which can not be reached on time. In purchasing department, it occurs by missing more suitable opportunities because of a manager who can not plan his/her time and purchase materials without taking offers at enough number. These examples may be reproduced for all departments. So, we can say that, time is a factor of production just like land, labor, capital and entrepreneurship, and should be planned and managed well just like other production factors. Therefore, time management, has always been one of the most important factors for Kaizen.

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The Debt Burden Distribution Issue Between Intergenerations

Abdulkerim Eroglu

1.Introduction

Despite their changing role in economic life, governments consistently have maintained their presence throughout the history. Sometimes for dealing with poverty and income inequality as a social state, sometimes for establishing command economy by publicly owned production as a communist state and sometimes leaving the economy alone to recover on its own as a regulatory state, their role always existed. Such these roles of governments in economy, in other words, the level of the state intervention in economy differentiate the combination of public revenue and expenditure severely.

Today, one of the biggest problems faced by developed and emerging countries is the sustainability of debt issue. Many countries could not pay their debt, and have failed to come over this situation, and forced to declare "moratorium". Societies' tax payments have gone to heavy debt payments and public expenditures have not taken place enough because of these failed policies.

Governments need to obtain public revenue depending on their economic activities. In order to finance increased public expenditures they borrow when tax income is insufficient. Especially, after the idea of " the task of the government is not do previous duties or make them better, but do what has not done yet" (Keynes, 1926) becoming popular with Keynes and his followers' accepting borrowing as ordinary public revenue have caused high public debt burden. As a result, Keynes and his followers' advocacy of the state intervention forced them to accept public debt as an ordinary revenue. Actually, governments had high amount of debt even before Keynesian period. But the important issue need to be focused on here is that borrowing had occured for financing such as war that classical economists accepted as reason of borrowing. And after the war period, some governments included their debt service in total public outlays and then paid attention not to borrow again. It was observed these governments had been implementing balanced budget till war time even without legal/constitutional binding force; governments did not attept to tune their deficit or surplus to achieve the economic goals Some economists are against to borrowing and claim that "spend without taxation is not good" to show the results that will come out with debt problem. But other economists have claimed debt is not different than regular public revenue, such as taxation. And they go further on this issue and claim that governments can borrow as much as until they get point of full employment. First group of economists argue that debt makes a burden on future generations, latter group reject it and defend that debt does not make a burden on future generations. In this study debt burden on future generations have been discussed rather than requirement of the debt. Borrowing made by governments has impact whether on current generation or future generations will be discussed by the views of economic schools. On the other hands, it will be focus on what should be understood from definition of future generation and differing effects of internal debt and external debt. Because it is observed that the lack of consensus on the some consepts is an important of the debate on the issue

2.Evolution of Debt Burden

Debt burden is ration of total debt stock (that consist of internal debt stock and external debt stock) of a country in a given period to the country's gross national product (GNP). Generally, only capital of debt is included concept of debt stock and debt burden. Main reason of this is interest payments are accepted as public expenditure (Eğilmez & Kumcu, 2007).

There is no consensus between economist if debt burden take place on future generaiton or present generation. Specially, after Lord Keynes accept debt as regular revenue, many countries had faced excessive borrowing and sustainability problem of debt. Under these conditions an argument taken place; who is affected debt burden, and who benefit from this debt?

When taken a look debt burden statistics it is seen that developed countries face much higher debt burden. But here much important thing is that developed countries have also higher per capita income, and therefore debt burden has less influence on people.

World Bank (WB) has formulas about sustainability of debt, and according these formulas "heavily indebted" countries are determined (for instance countries have ratios of debt/export ration>150, debt/government revenues>250 are declared as heavily indebted) (World Bank, 2014). 36 countries that most of them are from Africa countries were declared as heavily indebted by IDA/IMF as shown in table, in 2015.

Table 1. List of Heavily Indebted Poor Countries

Afghanistan	Congo, Dem. Rep. of	Haiti	Niger
Benin	Congo, Rep. of	Honduras	Rwanda
Bolivia	Côte d'Ivoire	Liberia	São Tomé and Príncipe
Burkina Faso	Ethiopia	Madagascar	Senegal
Burundi	Gambia, The	Malawi	Sierra Leone
Cameroon	Ghana	Mali	Tanzania
Central African Republic	Guinea	Mauritania	Togo
Chad	Guinea-bissau	Mozambique	Uganda
Comoros	Guyana	Nicaragua	Zambia

Source: International Development Association & International Monetary Fund, 2016

3.The Debt Burden Distribution Issue Between Intergenerations

For some economists say maturity of debt, amount of debt, and interest rate have influence on level of debt burden on future generation. Long maturity periods, high interest rate and amount of debt would have more effect by this opinion. But other economists do not accept debt would be a burden for future generation. Generally, who has similar ideas about debt burden they are member of same economic schools (such as Keynesian and Classical).

3.1.Defenders of Idea That: Debt Has No Burden On Future Generations

Lord Keynes and his followers are famous economists of this group. Keynesian Theory accepts debt as policy instrument to achieve full employment. So, there is no any limit of debt, and debt must increase untill get point of full employment (Yilmaz, 2012). During long years when Keynesian economic was dominated in economic policies governments did not limited borrowing critically. In fact, this situation was comforting politicians during elections, they could choose deficit financing with borrowing instead of taxation. Keynesian economists had to claim debt does not have burden on future generations because of idea that accepting debt as regular public revenue. For the first time this policy had applied in UK government as result of intense efforts of Keynes and his followers. But especially during WWII period this policy caused UK government had large deficits.

Actually, Keynesians were aware of debt payments had a burden on economy, and so that government had to raise taxes. But if government spend loans effectively then this debt would contribute to national income, and compensate for the debt burden (Seker, 2006).
For Keynesian economists the idea of debt has burden for future generations is wrong. For them, real burden of debt does not transfer to future, because society and economy who bears tax burden are same. Future generation would have better life standards and bear the interest burden (Yilmaz, 2012).

When debt spend for investment goods, future generations would more likely benefit from effect of increasing income of the investment, even some of debt burden transfers to future generations increasing income of the investment goods would be higher than debt burden. According this argument, Keynesian economists argued that external debt has not a burden completely on future generations. Even external debt is not problem if project which loans spend on it able to create benefit more than it's cost.

Lerner and Hansen who makes Keynesian thoughts more functional argued fiscal instruments can be used for solving economic problems when the instruments taken functionally. They also claim there is no any problem financing of increased public expenditures with debt (Aktan, 2007). For Lerner, in case of external debt its possible to talk about a debt burden but otherwise, in case of internal debt, or absence of external creditors there is no debt burden. He put forth his idea clearly with this words: "we owe it to ourselves"(Lerner, 1948). Likewise, Pigou has similar thoughts. He says debt from foreigners can bring a burden on future generations, but if the debt that gained from internal creditors then it is only transfers from a group of country citizen to another group of same country citizen (Pigou, 1949). Keynesian economists such as Dean Baker and Paul Krugman argue that future generation will owe it to themselves if we disregard treasury bond held by foreigner. Because they accept foreign debt are able to make future generations poorer. But they object to internal debt has same affect, because while a group of future generation pay the debt (taxes), other group will get this payment in their pocket. So this will lead to changes in the volume of income distribution, but wont lead to changes in average life standards (Murphy, 2012a). The problem is that they have been overlooked government deficits tend to damage private investment (Murphy, 2012b).

Lerner does sustain because amount of debt would over in short time we should not accept a existence of a burden on future generation: "the national debt is not a burden on future generations. Because when future generations would pay the debt, previous generation when debt issue come true would be alive". Domar has been saying there is no burden on future generation caused by debt, and also has claimed debt/income ratio will be equal to zero by the time (prerequisite is fast growing of economy, and high demand is requirement of fast growing) (The Keynesian Revolution, 2016).

Some economists claim that if loans spend on productive projects or the project able to make benefit more than it's cost then it wont be a burden for future generations. In such borrowing will create net investment for future generations (Miller, 1997).
Wren-Lewis has been evaluated debt burden issue in context of the climate change. The present austerity measures make debt issue unimportant. He says: "The welfare loss to future generations of delaying debt reduction by ten years is small relative to the massive loss of resources and welfare caused by austerity today". Future generations faced welfare loss caused by reduction of debt stock will be smaller than welfare loss caused by austerity polices in current period. The cost of global warming problems faced by future generations will be higher in case of not to take measures to prevent it in current period and main reason of not take measurement is austerity policies (Wren-Lewis, 2012). To give up spend for enviroment protection, or to postpone spending of combat with global warming in order to protect future generation from debt burden will cause much more trouble.

3.2. Defenders of Idea That: Debt Has Burden On Future Generations

Monetarism, supply-side economics, public choice and constitutional economics what they called as “new public finance” argue that mainly future generations will endure cost of debt burden (Aktan, Dileyici, & Ozen, 2012). However, this discussion has gone to earlier times; classical economics.

Adam Smith, the pioner of classical economics argue that even main burden of the debt take place in present time of borrowing, secondary burden transfers to future generations (Yay, 1996). In other words, even whole debt burden does not transfers to future generations, part of debt will transfer to our descendant. And governments will need to continue increase taxes as long as the closure of debt, and economy will be damaged during the payoff period (Yilmaz, 2012). To put it simply, according to Keynesian economists debt is just intrageneration transfer, but for classical economists it is nothing more than intergeneration transfer.

Adam Smith and some of his allies claim that funds will cause increasing unproductive public expenditure and damage accumulation of capital through public debt, while the funds could use in industrial and commercial sectors. Governements have more political power as result of increasing of government debting and ignoring tax revenues. Therefore, spending of loans for budget deficits could conduce to increase budget deficit into a vicious cycle. This situation would cost on public sector because of matured liabilty. David Ricardo adopts this thought, but he argue that a debt what developed in this direction would bring debt burden on future generations (Arican, 2005).

According to Ricardo effects of debt and taxation are same on the economy (Clingermayer, 1991). Because present debt, ie the present value of debt is equal to future taxes. Debt has no different impact on the economy, further probably future generations would bear debt burden.

In subsequent years, Robert Barro who developed Ricardian Equivalence Theorem has claimed that individuals are rational and forward thinking, and they perceive future tax burden what caused by present debt correctly. He says debt in the first period will be paid by the taxes levied in the next period (Yay, 1996). This means taxes paid by future generations will go to payment of debt. According to Neutrality Theorem developed by Barro taxation and borrowing have same impact on all economic behaviors including consumption and investment decisions, because all economic actors perfectly foresees results of deficit financing and taxation (Clingermayer, 1991).

Michael Kelbaugh gives a good example to show if debt is burden on future generation or not: Suppose that a government decides to borrow, rather than tax, 100 million USD in year of X. In X, investors give up this amount of Money and will receive government bonds in return, present value and 3% interest compounded annually. Years after years the aging bondholders realize that the government is not going to redeem their investment in soon. So, while some decide to keep their bonds in hand, others sell the bonds to other private individuals to get Money for their present consumption. Total debt has increased 1 billion in X+78 year, when the government decide to redeem the bonds and pay off the group of bondholders. This 1 billion of debt will cost people through new taxes. But bondholders did not get the bonds for free; 1 billion USD is not a net gain, they had to buy them. Similarly, suppose that the government issued 1 millon bonds in X, each has 100 USD value. Each bond has matured to 725 USD at %3 interest rate in X+67, 11 years before pay day. Suppose that a bond is sold from a old man to a young at this price. In X+78, each bond will be worth one thousand USD. But this is not net gain, because young bondholder paid 725 USD to get the bond, 11 years ago. So he made a profit of 275 USD, whereas taxpayers had to pay one thousand USD. But the way, we have ignored opportunity cost in this calculation. Previous generations of bondholders did not bear

the burden cost themselves, a future generation will have less wealth indeed, when the government decide to pay off the debt (Kelbaugh, 2012).

Miller accept that it is possible to talk about a debt burden in two cases. First, taxes will be levied on future generation to pay off the public debt, if debt was to taken root from present generation's increased consumption of public goods. Second, consumption of the present generation crowds out investmen and reduce the growth of capital goods, so this will lead to future generations face the smaller capital stock and wealth (Miller, 1997).

Neo-Classic who have followed Classics, have tried to reach the macro economic analysis by interpreting the classical perspectives. They have used math different from the classical analysis. They assume rational and reasonable acts of individuals but they claim that this rational planning is limited different from opinion Ricardian (Seker, 2006).

According to neo-classical thought, when taxes increase in order to pay the debt interest at long-term, consumption of individuals will restrict. Increased taxes to finance debt, will lead to a reduction of savings and they will result in the release of less capital stock for future generations (Seker, 2006).

According to the Public Choice Approach pioneered by J. Buchanan, public debt is defined as a process that destroying accumulation of capital and debt on future generations. In this approach, not emphasized only principal payments and interest payments, bu also debt burden transfered to future generations because of it's destroying effects on capital efficiency. So present generation leaves a burden through meltdown of capital (Arican, 2005).

Buchanan argues the debt burden passed on future generations, he defines future generation as "any set of individuals living in any time period following that in which the debt is created". Buchanan adds that It should not affect their children and grandchildren with ongoing debt (Buchanan, 1999a). Indıviduals living in future are obligated to pay high taxes to service the debt. So the debt is not more than transfers of the responsibility of generations (Buchanan 1999b). If the debt is especially provided from external sources, futures generations will see reduce their income. If foreign debt is paid, internal resources will be transferred to external markets, the debt burden will be passed on to future generations (Buchanan, 1999c).

Although some economists have argued that the foreign debt can cause a burden but the domestic debt will not cause a burden, Buchanan has argued that the interest rates should be considered. 1% external debt interest rate will cause more debt burden than 10 % the domestic debt interest rate. But Buchanan says that it is impossible to carry out in practice. If the country has not been isolated from the world, debt burden will also occur in both cases. Buchanan claims that if savings are not used for investment because of public debt then even internal debt able to has negative effect on production. In another word, internal debt will lead to a reduction in the capital stock (Buchanan, 1999d).

Keynesian thought of "when treasury bonds held by that country's own people, then future genearation will become indebted to on their own" fails to notice that government deficits tend to damage investments and prompt to expenditure. In this regard butget deficits leave less means of production, reduces the production capability, and make them poorer.

Accoring to Keynesian funds should be invested in productive assests. Thus collected taxes from future generations would not affect them. But according to Buchanan productive assests invested by the funds should be profitably to the public, so it would have no need to raised taxes on future generations to service the debt. If assests or services were not sold to public but distributed among others systems, then service the debt with the taxes would be inevitable, and at the same time person would have to pay higher tax for debt service more than increasing ratio of his income (Mishan, 1963).

Buchanan, Bowen, Davis, Kopf, and Modigliani who came on same line later are opposed to idea what advocated by Keynesian economists that to get out of recession and get recovery economy again governments can have budget deficit. Buchanan and his allies argue

that in such a situation debt burden will get down the total income and also it will transfer to future generations (Mishan, 1963).

4.Conclusion

Economists who argue about problem of debt burden on future generations stay with other economists who have same thoughts about that, and hard work to defend the idea what they think it should be right. When take a look economists who claim that debt burden is not problem for future generations it is easy to see they are composed of advocates to effective government intervene. In parallel with their "interventionist state-state interventionism" approach led government to borrow without waiting for an extraordinary situation. In any case, their advocating of state interventionism make them inevitably to accept borrowing. They defence necessity of borrowing, and it's importance for economic growth, and they also claim debt does not leave any debt on future generations not to abondon their debt policies.

Some Keynesian economists have been tried to explain what shoul be understoon from "future generations", or some Keynesian economist have been used mathematical formulas to prove that debt burden does not influence future generations. But other side, some Keynesians economists accpet that debt burden may remain when future generations are alive, but same future generations would benefit more than bear cost of debt, so it is meaningless to talk about a debt burden on future generations.

Main arguments of other economists who oppose the borrowing are future generations would bear debt burden and loans will be spent on unproductivity areas. This views back to the classical economics, but also supported by the different economic schools in the time. In their opinion pay off the debt would take place by increased tax revenues levied on people. In this case, it will lead to a decline in total income and will lead to people stay under debt burden. They have been emphasized the need to avoid debt, only exception is an extraordinary situation. And there is no any difference between foreign debt and internal debt as result of debt burden on future generation.

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Independent Audit In Corporations According To Turkish Commercial Code

Diğdem Göç Gürbüz

1. Introduction

One of the reforms brought by Turkish Commercial Code numbered 6102 is the removal of audit committee and establishment of independent audit instead. In the previous Commercial Code, there was an audit committee consisting of at least one person and up to five people and audit committee was one of the mandatory organs of corporation. With the new amendment, audit committee was removed and independent audit was established instead. Ministry oversight, practiced in period of previous code as well, which constitutes another of aspect of outside audit and rules regarding audit prescribed for public corporations which is realized by Capital Markets Board still apply with some changes. Removal of internal audit in corporations and establishment of external audit which will be carried out by independent auditors with new TCC would not prevent the corporation from carrying out audit in its own structure.

In our study independent audit which takes place in TCC art. 397 and following provisions is outlined in terms of TCC. System and explained (Kendigelen, 2016).

2. Concept of Audit

Audit, in its most general sense, could be described as evaluation that whether certain activities and transactions are carried out in compliance with rules or not (Bahtiyar, 2015)

In a broad sense, audit involves every matter which limits corporation's will and radius of action including minority rights and individual rights (Pulaşlı, 2015; Bahtiyar, 2015). In a narrow sense, audit, which is carried out by authorized organs and institutions, is the control of whether transactions of board of directors, corporation accounts comply with relevant legislation or not (Pulaşlı, 2015; Bahtiyar, 2015). In this respect, audit is two types as internal and external. Internal audit is the audit corporation would carry out in its own structure. It's carried out more for interest of shareholders. External audit is audit of corporation by outside authorized person or institutions. It's the audit carried out on behalf of present and future investors, corporation creditors, persons who would get into business relation with corporation and State along with shareholders. This is the audit carried out by public legal entities on behalf of State and audit carried out by independent auditors.

3. Regulations on Audit brought by Turkish Commercial Code

Radical amendments on audit are made with new TCC numbered 6102. In corporations, auditor is not an organ of corporation anymore (Köksal, 2009; Kırca, Şehirali, Feyzan, & Manavgat, 2013; Bahtiyar, 2015; Özkorkut, 2013; Tekinalp, 2012; Arı, 2013; Şener, 2015); Bilgili & Demirkapı, 2013). Audit is left to persons called independent auditors which would be selected outside of corporation and number of mandatory organs was reduced to two as general assembly and board of directors.

In the first enactment of law, all capital companies (limited liability companies and limited partnership associations) were made subject to independent audit regardless of their sizes. With the law numbered 6335, important amendments were made before TCC came into force. One of these is that companies which would be subject to independent audit shall be determined by Council of Ministers resolution (TCC. Art. 397/4). Thus the principle that all capital companies shall be subject to independent audit is abrogated.

Criteria regarding companies subject to independent audit is set by "Resolution on Determination of Companies Subject to Independent Audit" (Official Gazette dated 01.23.2013, numbered 28537) of Council of Ministers dated 12.19.2012, numbered 2012/4213. However, when significant number of capital companies were left out of audit's scope with determination of these criteria, Council of Ministers extended scope of independent audit by easing independent audit criteria with resolutions, first with 2014/5973 and later with 2014/7149 (Official Gazette dated 02.01.2015, numbered 29254) and finally with 2016/8549 (Official Gazette dated 03.19.2016, numbered 29658). These regulations apply to limited liability companies (art. 635/1) and limited partnership associations (art.565/2) as well.

In order to make companies outside of scope, subject to independent audit, 5th and 6th sections were added to TCC. Art. 397 with Law on Amending Customs Law and Certain Laws and Statutory Decrees numbered 6455 (Official Gazette dated 04.11.2013, numbered 28615) which was approved on 03.28.2013. Accordingly, corporations outside of fourth section's scope, cooperatives within the scope of Law numbered 4572 and parent companies of these which are not subject to independent audit, are audited per provisions of this section. Procedures and principles regarding audit shall be regulated with a regulations to be prepared by Ministry of Customs and Commerce and to be issued by Council of Ministers. Provisions of the code regarding liabilities of auditor shall apply by analogy to auditors who would carry out audit per this section. As per TCC. Art. 397/6, financial tables of companies which are subject to audit under section five and which did not carry out this audit and their board of directors annual activity reports shall be as if they are not prepared. A regulations draft on this subject is not approved and did not come into force yet.

In TCC, special audit other than independent audit is regulated as well (TCC art.438-444). Special auditors are those who are employed in cases articulated in TCC, who have specialty regarding the transaction or incident to be audited.

4. Business Entities Subject to Audit

In the resolution adopted by Council of Ministers, the standards that must be met by capital companies in order to be subject to independent audit are as follows:
a) Total of actives equal to or greater than forty million Turkish Liras. b) Annual net sales equal to or greater than eighty million Turkish Liras. c) Number of employees equal or greater than two hundred.

Capital companies shall be subject to independent audit in the following accounting period if they exceed the limits prescribed in at least two out of three standards for two consecutive accounting period. According to the resolution, regulation applies to a single capital company as well as to a group of companies. Group of companies shall be subject to evaluation together with parent company and its subsidiaries (Resolution art.3/1 and art.4/3). If they together meet two out of three of these standards, these companies will be subject to independent audit. On the other hand, if companies subject to independent audit stay below the limits in at least two of these standards in two consecutive accounting period or if they stay below the limits in at least two of these standards twenty percent or more in an accounting period, beginning with the following accounting period they are removed from scope of independent audit (Resolution art.4/1).

When determining whether limits in two out of three of the standards specified in Council of Ministers Resolution; in terms of total actives of company and annual net sales, financial tables of last two years prepared per the legislation in force, in terms of number of employees, average employee number of company in the last two years are taken into consideration. With respect to subsidiaries, these standards are taken into consideration in proportion to shares in subsidiary.

Per article 3 of Council of Ministers Resolution, capital companies shall be subject to audit under TCC and provisions of Statutory Decree on Organization and Duties of Public Oversight Accounting and Auditing Standards Authority numbered 660 dated 09.26.2011.

5. Characteristics of Auditor

In a corporation subject to audit, who could carry out audit is articulated in TCC art. 400/1. According to this article, auditor could be persons who hold the title of certified public accountants or public accountants, who are licensed per Public Accounting and Certified Public Accounting Law numbered 3568 who are authorized by Public Oversight Accounting and Auditing Standards Authority to carry out independent audit or capital companies whose shareholders consist of these persons. Thus, auditor could be natural persons who hold the title of CA or CPA and who are authorized by Public Oversight Authority, it could be capital companies whose shareholders consist of these persons. Per TCC art. 400/1, independent auditors are encountered in two types. One type is independent auditor who is natural person, other type is independent audit institution which is a capital company.

Independent Audit Regulations (Official Gazette dated 12.26.2012, numbered 28509) is prepared by Public Oversight Authority in order to set the procedures and principles regarding independent audit, independent audit institutions and independent auditors. Authorization standards of independent audit institutions and independent auditors is articulated with "Independent Audit Authorization Communique" (Official Gazette dated 01.25.2013, numbered 28539). Operating conditions of independent audit institutions and standards required for independent auditors are to be specified by Public Oversight Authority as per Statutory Decree numbered 660. Public Oversight Authority specified independent audit institutions to be authorized and qualifications that must be met by independent auditors with the regulations and communique stated above.

Apart from the qualifications sought by the authority, additional conditions could be foreseen in authorization of auditors who would audit in certain markets. As per art.62/1 of Capital Markets Law numbered 6362, Capital Markets Board may set additional conditions for auditors to operate in capital markets, it would announce the persons who meet these additional conditions in a list and only auditors in that list could operate in capital markets. Similar regulation takes place in section 33, article 15 of Banking law numbered 5411. As a result, if there is special regulation, independent auditor or independent audit institution authorized by Public Oversight Authority must be also authorized by the board overseeing regulation and control of a relevant market, in order to carry out audit in a relevant market.

Likewise, provision that auditor could be a natural person or a capital company with the conditions set in TCC art.400/1, do not apply to all companies subject to independent audit. It's embodied that independent audit of institutions concerning public interest articulated in art. 2/1 of Statutory Decree numbered 660 shall be carried out only by independent audit institutions (Statutory Decree numbered 660, art.23/1). Thus, natural person auditors are not allowed to individually audit institutions concerning public interest.

6. Selection and Appointment of Independent Auditor

6.1. By General Assembly

As per TCC art.399/1, selection of auditor shall be done by general assembly. In an enterprise system, auditor of enterprise shall be selected by general assembly of parent company. This powers are among the powers of general assembly which could not be transferred (TCC art.408/2, c.). Auditor could not be appointed with articles of incorporation in the formation of

company. After the company gains its legal personality, general assembly shall assemble and select the first independent auditor. In the meeting of general assembly for this purpose, selection could be resolved with usual quorum (Arı, 2013).

When an auditor is not selected for enterprise, auditor selected to audit financial tables of parent company included in consolidation, is deemed to be the auditor of enterprise financial tables (TCC art.399/3).

After general assembly's selection of auditor, board of directors registers which auditor is appointed with trade registry without delay and shall announce it in its website and in Turkey Trade Registry Gazette. Necessary preparations for the selection of auditor by general assembly must be carried out by board of directors. Board of directors must designate candidate or candidates of auditor which meet the qualifications and submit them to general assembly's review and ensure selection among them. It's even possible for board of directors to sign an independent audit contract with an auditor before general assembly meeting and submit it to general assembly's approval. In this case the contract could be approved in general assembly as it is or it could be approved with amendments. After general assembly, independent audit contract must be signed between board of directors and auditor. After that, board of directors shall register the auditor with trade registry without delay and shall announce it in its website and in Turkey Trade Registry Gazette ((Tekinalp, 2015; Özkorkut, 2013).

As per TCC art.399, auditor must be appointed for each accounting period and in any case prior to end of accounting period in which it will serve. This way, auditor selection shall be made for each accounting period separately, general assembly shall not be able to select an auditor for more than one period.

6.2. By Board of Directors

Selection of auditor by board of directors is an exceptional method. As per TCC art.399/9, if auditor makes a termination notice per sixth section provision, board of directors immediately selects a temporary auditor, submits the termination notice to general assembly's review and submits the selected auditor to general assembly's approval.

If general assembly approves the auditor selected by board of directors, this auditor shall carry out duty of audit. If general assembly does not approve the auditor selected by board of directors, it shall select a new auditor.

In the legislative intention of article, it's stated that this article is implemented to prevent any gap in audit process.

6.3. By Court

Appointment of auditor by court occurs in multiple occasions. First is the occasion when auditor is removed from duty with a court ruling as foreseen in TCC art. 399/2, a new auditor is appointed in the same lawsuit with court's ruling. This lawsuit is the action for removal from duty and appointment of new auditor. This lawsuit could be filed by board of directors, shareholders who constitute ten percent of capital (shareholders who constitute five percent of principle or issued capital in public companies).

Second occasion is when auditor is still not selected by the fourth month of accounting period. In this case auditor shall be appointed by court upon request by board of directors, each board of directors member or any shareholder.

Finally, in cases when auditor selected by general assembly rejects the selection or terminates contract, when resolution of selection is annulled, declared null or when auditor could not perform its duty with legal grounds or any other reason or when it's prevented from

performing its duty, auditor shall be appointed by court upon request by board of directors, each board of directors member or any shareholder.

When auditor could be appointed by court, court ruling is final. Competent court of jurisdiction in this matter is the commercial court of first instance where company headquarters are. When auditor is appointed this way, advance payment that must be deposited to court cashier for fees and possible expenses is determined by court considering precedent. Who must deposit advance payment is not specified in the article, it's left to court's discretion. Because the purpose here is to prevent company from being without an auditor and to immediately fill the gap in this respect, it would be appropriate to purpose for court to impose this payment on company itself (Tekinalp, 2015; Kendigelen, 2016; Şener, 2015; Özkorkut, 2013). Objection period is three business days. Court ruling on objection is final as well (TCC art. 399/7).

7. Audit Contract

For the auditor to perform its duty, there has to be an audit contract between the company and the auditor. In TCC, this contract is not named. However, mandatory elements of this contract is specified (Köksal, 2009).

When auditor is selected by general assembly, audit contract would be formed when duty is accepted by auditor. There is no provision in TCC regarding form requirement of this contract either. In article 29 of Independent Audit Regulations, it's specified that audit contract must be made in writing and what minimum elements must be present.

Audit contract is in the nature of a contract of work which is synallagmatic and which establishes a performance relationship (Tekinalp, 2015; Köksal, 2009; Özkorkut, 2013).

In cases when auditor is appointed by court; because court ruling is final, company would sign a audit contract with the auditor appointed by court. When auditor is selected by board of directors, when selected auditor accepts duty, independent audit contract would be formed between parties. When this auditor is approved by general assembly, contract continues to exist. However, if general assembly selects a new auditor, contract made with the auditor selected by board of directors shall be removed with forward looking consequences (Köksal, 2009; Özkorkut, 2013).

8. Resignation and Removal of Auditor

8.1. Termination of Contract by Auditor

Auditor could only terminate the audit contract between itself and corporation due to two reasons foreseen in TCC. One of these is the existence of a valid ground, the other is the filing of action for removal from duty and appointment of new auditor against it (TCC art. 399/8). It's not possible for parties to agree on termination grounds other than these limited grounds specified in code. Purpose of such enactment is to procure continuity in audit and to prevent change of an auditor within an accounting period.

It's not specified in the code what would constitute a valid ground for termination. On the other hand, what would not constitute a valid ground is specified. Discord over content of opinion letter, limitation of audit by corporation or avoidance of giving opinion letter would not constitute a valid ground. In legislative intention of TCC art. 399/8 examples of valid grounds are stated. These are unavailability of working conditions, not paying fees and expenses timely, prevention of auditor from carrying out its duty. Among scholars following cases are also accepted as valid grounds: presence of threat or physical prevention, bankruptcy of auditor, strike by audit firm employees, lockout and similar occasions ((Tekinalp, 2015; Pulaşlı, 2015; Özkorkut, 2013; Bilgili & Demirkapı, 2013).

Auditor could terminate the contract when action for removal from duty and appointment of new auditor is filed against it, or it could file a termination lawsuit as a counter action. However, in both cases auditor's duty shall not end. Auditor's duty can only be withdrawn when another auditor is appointed per TCC art. 399/2.

Auditor's termination of contract shall be reasoned and in writing. Auditor is responsible to submit the findings it obtained until termination to general assembly. These results shall be given to general assembly in the form of a report in compliance with TCC art. 402 which regulates audit report.

8.2. Removal from Duty and Removal from Duty through Appointment of New Auditor Action

Conclusion of auditor's duty by corporation is only possible with action for removal from duty and appointment of new auditor which would be filed per TCC art. 399/4. This action is filed in commercial court of first instance where corporation headquarters is located. Those who are authorized to file are board of directors or minority. Code articulates that minority consists of shareholders who hold ten percent of capital in private corporations and shareholders who hold five percent of principle capital (or of issued capital in authorized capital system) in public corporations. This way those who are authorized to file are stated as numerus clausus in provision. Scope of those who are authorized to file can not be extended with articles of incorporation, percentage regarding minority can not be increased either.

For minority to be able to file this action following conditions must be met: minority must have ruled against selection of auditor in general assembly, must have recorded its dissenting vote in minutes and must have kept the status of shareholder in at least three months prior to general assembly (TCC art. 399/5).

Action against auditor could only be filed when a valid ground regarding auditor itself is present. Whether asserted gorund is valid or not is to be ruled by judge. In TCC art. 399/4, especially presence of suspicion that auditor is acting partially is indicated as a sign of valid ground. In legislative intention of article, reasons generating from auditor itself as valid ground are stated. For instance, not having professional competence, loss of reputation, not having sufficient equipment or employees, not being able to allocate sufficient time for corporation, being partial, leaking information, etc. According to legislative intent, existence of dissent between corporation and auditor could only be accepted as valid ground if concrete case supports it.

Action must be filed within three weeks of general assembly resolution's announcement at Turkey Trade Registry Gazette. This three weeks period is final, action can not be filed after lapse of this period (Tekinalp, 2015; Özkorkut, 2013; Bahtiyar, 2015). If valid ground occurs after the lapse of three weeks period, period should start to run from the date wen valid ground occurred (Özkorkut, 2013; Bahtiyar, 2015; Kendigelen, 2016; Bilgili & Demirkapı, 2013).

This action could not be in question for auditor appointed by court. If a valid ground occurs for the auditor appointed by court, this should be notified to court who appointed the auditor and court should handle this matter.

As a result of its review, if court finds it appropriate, it rules for removal of the auditor and appointment of a new auditor. Although it's promulgated that court's ruling is final in cases when auditor is appointed by court (TCC art. 399/6), there is no clarity in article on whether court ruling is final or not regarding action for removal from duty and appointment of new auditor. In our opinion, because the purpose is to prevent corporation from being without auditor, court's ruling when this action is filed is also final (Kendigelen, 2016; Moroğlu, 2016; Şener, 2015; Özkorkut, 2013; Bahtiyar, 2015; Arı, 2013)

9. Those Forbidden from Being Auditor or Auditing

In TCC art. 400/1, it's articulated certain cases when an auditor cannot audit a corporation even if auditor is authorized to audit. Code does not allow a direct or indirect relationship between the auditor and corporation other than audit relation. Purpose of this article is to protect objectivity and independence of auditor, to ensure that auditor is impartial. In this respect,

Auditor has shares in the company subject to audit (subsection a),

Auditor is an executive or employee of the company subject to audit or held these positions within three years prior to be appointed as auditor (subsection b),

Auditor is legal representative or representative, director, executive or owner of a legal entity, commercial company or business enterprise which is connected to company subject audit or auditor owns more than twenty percent of shares in these or auditor is ascendant or descendant, spouse or relative (through blood or marriage, up to third degree, including third degree) of company's director or executive (subsection c),

Auditor is working at a business which is in connection with the company subject to audit or which owns more than twenty percent share in such company or auditor is serving in any way beside a natural person who owns more than twenty percent in such company (subsection d)

Carrying out an activity other than audit or contributing in keeping the books of or preparation of financial tables of company subject to audit (subsection e),

Auditor is legal representative, representative, employee, director, shareholder, owner of natural or legal person which could not be an auditor because of carrying out an activity other than audit or contributing in keeping the books of or preparation of financial tables of company subject to audit per subsection (e) or one its shareholders (subsection f),

Auditor is working at an auditor which could not be an auditor due to having one of the conditions set in subsections (a) to (f) (subsection g),

In the last five years, auditor gained more than thirty percent of its income generating from professional activity through audit and consultancy services provided to the company subject to audit or companies participating more than twenty percent in the company subject to audit or auditor is expected to gain such income in the current fiscal year (subsection h)

In the existence of one of the conditions stated above, these persons shall not be auditor at relevant company or shall not serve as audit personnel at relevant company. It would be appropriate to the provision's purpose to accept that conditions stipulated in the article are not numerus clausus and that an auditor couldn't be selected as auditor in the existence of direct or indirect relationship between auditor and company which is in the nature to break impartiality of auditor.

Auditor can not provide services or consultancy other than tax consultancy and tax audit to the company it is auditing, can not do this through a subsidiary (TCC art. 400/3). This way it is forbidden for auditor to provide services other than audit at the company it is auditing. Purpose is to prevent establishment of any relationship based on interest which would hurt the impartiality and independence between auditor and company.

As per TCC art. 400/2, an auditor who was selected as auditor for a total of seven years out of ten years for the same company, can not be selected as auditor in the same company unless three years pass. However, Public Oversight Authority is authorized to determine procedure and principles regarding application of this section or to shorten the periods specified in this section. In independent audit, with concerns that long term relationship between company and auditor would mean dependence and that in this case connections between company and auditor would become strong and that independence of auditor would be in question, the relationship between company and the same auditor is limited with time.

10. Subject and Scope of Audit

When TCC art. 397/1 and 398/1 are examined it's observed that scope of independent audit in principle is the audit of a corporation or enterprise system's financial tables. As per TCC art. 397/1, financial tables of corporation or enterprise system are audited by auditor according to Turkey Audit Standards which comply with international audit standards and which is published by Public Oversight Accounting and Auditing Standards Authority

Annual activity report of board of directors will be audited as well. In this respect, whether financial information contained in annual activity report of board of directors are consistent with audited financial tables or not and whether they reflect the truth or not are under the scope of audit (TCC art. 397/1).

Audit is to be carried out in the way to fairly state whether financial condition of corporation or enterprise is reflected in compliance with fair presentation principle under TCC art. 515, if it's not the reasons why. As per TCC art. 398/1 and 2, audit is to be carried out in the way to state and explain whether corporation's financial tables, annual activity report of board of directors under article 397's first section and article 402's second section, consolidated financial tables of enterprise and annual activity report of board of directors under article 397's first section and article 402's second section are consistent with the information obtained by auditor during audit or not.

In this way, matters to be audited by auditor are specified numerus clausus in TCC (Özkorkut, 2013). Presentation of findings whether early diagnosis and management of risk committee is established in public corporations or not, its structure, whether it's functioning or not, in the form of a report by auditor to board of directors is included in this limited scope. Principles regarding this report are to be specified by Public Oversight Authority as well (TCC art. 398/4).

11. Audit Reports and Opinion Letters

In TCC art. 401, it's articulated that board of directors is obliged o submit financial tables. For the auditor to carry out audit and to prepare audit report, board of directors must have the financial tables and annual activity report of board of directors prepared, must approve them and give them to auditor without delay. Board of directors is also obliged to make necessary arrangements for auditor to examine and audit company's books, correspondence, documents, assets, liabilities, vault, negotiable instruments, inventory (TCC art. 401/1). Board of directors of company, which is responsible to have consolidated financial tables prepared, is obliged to give to the auditor, which will audit consolidated financial tables, financial tables of enterprise, annual activity report of enterprise, individual financial tables of companies, annual activity reports of board of directors of companies, audit reports of parent and subsidiary companies if an audit took place (TCC art. 401/3).

In TCC art. 401/2, auditor's right to demand information is articulated as well. Auditor will request information from board of directors. Auditor may request from board of directors that information required for a statutory and diligent audit and documents which could be basis are given to it. This right to demand information could be required for year end audit preparations, it could also be used by auditor prior to preparation of financial tables. Board of directors is obliged to provide information to auditor on this matter. Otherwise, in the presence of its fault, it would be liable as per TCC art. 553.

As a result of audit procedures, auditor will prepare a report on type, scope, nature and results of audit, which will be of required clarity, understandable, written with a simple language and prepared in comparison to past years, which is about financial tables (TCC art. 402/1). With a separate report, auditor will evaluate board of directors' remarks on company

or enterprise's condition included in annual activity report, in terms of their consistency with financial tables and their integrity (TCC art. 402/2).

In the main part of its report, auditor must clearly state whether book keeping order, financial tables and enterprise financial tables comply with financial report provisions of code and articles of incorporation or not, whether board of directors made the requested statements in context of audit and gave documents or not (TCC art. 402/4). Also it must be stated whether financial tables and books which are their basis are kept in accordance with the prescribed accounting plan, whether company's assets, financial and profitability condition are fairly presented under Turkey Accounting Standards or not (TCC art. 402/5). In the special part of audit report, auditor explains whether commercial books are kept according to fair presentation principle, in accordance with accounting plan and under Turkey Accounting Standards, whether assets are reflected according to these principles as well (Tekinalp, 2015).

Within the scope of audit, as per TCC art. 398/4, auditor will indicate its determination regarding early diagnosis and management of risk committee (TCC art. 402/6).

Result of audit carried out by auditor is explained in opinion letter. As per TCC art. 403, auditor could give four different opinions.

11.1. Affirmative Opinion Letter

If auditor gives affirmative opinion, it would state in its letter that in the audit carried out according to TCC art. 398 and Turkey Audit Standards, there was no discrepancy in terms of Turkey Accounting Standards or other requirements; that according to information obtained during audit, company or enterprise's financial table are accurate, that representation regarding assets, financial condition and profitability seems to be truthful and tables fairly reflect this. In the opinion letter, it's stated that there is no reason that would bring liability for board of directors in terms of matters regarding financial tables, if there is such reason it must be stated clearly. Opinion will be drafted in the way specified by Public Oversight Authority and with a language understandable by everyone.

Although affirmative opinion letter of auditor would be basis for discharge of board of directors, it's possible for board of directors not to be discharged despite this opinion letter.

11.2. Limited Affirmative Opinion Letter

If auditor has reservations, it could limit affirmative opinion letter. In this case, it's concluded that financial tables contain discrepancies which could be corrected by authorized organs of company and effect of these discrepancies on the result disclosed by tables is not extensive or major. Subject and scope of limitation and how it could be corrected must be clearly stated in limited affirmative opinion letter. Actually in this opinion letter, auditor has a positive opinion on company to a large extent. General assembly will resolve on required precautions and corrections.

11.3. Abstention from Stating an Opinion

In case when uncertainties in such scale that they prevent the performance of a proper audit and obtaining results are present or company imposes significant restrictions for matter of audit, auditor may abstain from stating an opinion by declaring its justifications, even if it has no evidence to prove these. Abstention would have the same consequences as negative opinion.

11.4. Negative Opinion Letter

When company's financial tables and annual activity report do not reflect truth and significant discrepancies are present, auditor give a negative opinion. In this case board of directors must call for a general assembly meeting within four days from when opinion letter is delivered to it. Board of directors selects a new board of directors. Unless it's agreed otherwise in articles of incorporation, previous board of directors members could be elected again. New board of directors must have financial tables complying with the code, articles of incorporation and standards prepared in six months and must submit these to general assembly along with audit report.

With the amendment to TCC art. 403/5 with the law numbered 6335, when auditor gives negative opinion or abstains from giving opinion, general assembly is able to directly or indirectly resolve for profit or loss based on this financial tables.

12. Dissent between Auditor and Company (Action for Interpretation)

In TCC art. 405, situation in which there is dissent between auditor and he corporation it audits, is articulated. Between corporation and auditor, there could be dissent on application and interpretation of relevant law, administrative action or articles of incorporation provisions regarding corporation's or enterprise's year end accounts, financial tables or activity report of board of directors. In this matter, board of directors or auditor is given the right to action. Action is filed in the commercial court of first instance where company headquarters is. Court examines and rules over file. Court's ruling on this matter is final. Expenses belong to company in the lawsuit.

This action brings novelty procedural law as it was not regulated in our legal system. It's possible to call this action "action for interpretation" (Kendigelen, 2016). In the legislative intention of article, it's stated that the purpose is to save corporation from dangerous consequences in cases when auditor gives limited affirmative opinion or abstains from giving opinion with its inaccurate interpretation. Even though it's not stated in article, it would be more appropriate to purpose for court to benefit from expert opinion when ruling in this action (Arı, 2013).

13. Liabilities of Auditor

When auditors or special auditors who audit company or enterprise system's year end and consolidated financial tables, reports, accounts act in fault while carrying out their statutory duties, they are responsible for the damages they caused to company, its shareholders and its creditors (TCC art. 554/1). The liability here is liability in fault. By the contractual relationship between auditor and corporation, as per Turkish Code of Obligations art. 112, auditor could be saved from liability by proving that no fault could be attributed to itself. Otherwise it would be liable (Özkorkut, 2013). Action could be filed by company or a shareholder. However, damages are only payable to company itself.

In case of joint liability of multiple auditors, each of these auditors would be jointly and severally liable together with others for this damage according to their faults and requirements of situation, to the extent damage is imposable to them (TCC art. 557).

Right to recover damages from auditors, lapses in two years from the date when plaintiff is aware of the damage and who caused it and lapses in five years from the date of act causing the damage occurred. However, if act constitutes a criminal offense and subject to a longer statute of limitations according to Turkish Criminal Code, that period shall be applied to recovery action as well (TCC art. 560).

In TCC art. 404, liability which occurs when auditors breach their duty of confidentiality is articulated (Arı, 2012). Auditor and special auditor, their assistants and their representatives who help them audit are obliged to carry out audit fairly and impartially and to protect confidentiality. They are forbidden from using work and business secrets regarding audit they learned during their activities without permit. Those who breach their duty of confidentiality intentionally or negligently are liable to company and other affiliated companies if they harm them. If harm is caused by multiple actors, their liability is joint and several.

As stated in the legislative intention of TCC art. 554, in breaches under article 404, article 554 won't apply. In TCC art. 404, auditor's behavioral liability is articulated. Word of behavioral includes and implies honesty, impartiality and commitment to company confidentiality. Honesty is a reference to any kind of moral rules including professional ethics. Information obtained during audit activity is meant with confidentiality. Condition for this liability is the use of secret. However for liability, having a gain due to use of secret is not required. Use of secret with permission would prevent liability.

As per TCC art. 404/2, for those who were negligent in keeping confidentiality, one hundred thousands Turkish Liras could be ruled per audit for the harm caused, for public companies amount is three hundred thousands Turkish Liras. This limitation of damages for those who are negligent, could be applied when multiple parties commit multiple harm causing acts, also when some of participants act intentionally. In legislative intention of article, it's stated that those who cause harm through negligence would be liable with the limitation specified whereas there is no limitation for those who acted intentionally. There is no limitation for auditor's liability articulated in article 554 (Özkorkut, 2013). In the liability rising from confidentiality, code specifies whether damage is limited depending on the level of fault. When auditor is a capital company authorized to carry out independent audit, duty of confidentiality attaches to board of directors members and employees of this institution. Recovery rising from these provisions cannot be removed or narrowed with contract. Requests for recovery from auditor based on these provisions lapse in five years starting from the date of report. However, if committed act constitutes a criminal offense under Turkish Criminal Code and is subject to a longer statute of limitations, this period would apply to recovery action as well.

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An Investigation of the Bounds Test Approach for Cointegration and Causality between Socio-Economic Indicators and Female Labor Force Participation in Turkey

Hacer Simay Karaalp-Orhan

1.Introduction

Turkish labor market is characterized by a high youth population, low employment rate and low labor force participation rate (LFPR) (especially for women). Female labor force participation rate (FLFP) is an important driver for growth and development. However, there is a major bottleneck in the labor force participation of women in Turkey. FLFPR is decreasing in Turkey, as it was 72% in 1955 (Tansel, 2002, 3), which decreased to 33% in June 2016. Moreover, the FLFPR in rural areas (32.6%) is still higher than that in urban areas (28%) (TURKSTAT, 2016). A significant difference between male and female LFPR is also apparent in Turkey, as male LFPR is 71.6%. In addition, FLFPR in Turkey is quite low by EU–28 and OECD standards. It was 51.8% in EU–28 and 51.5% in OECD countries, in 2014. FLPR in Turkey was 31.5% in 2015 (OECD, 2016).

However, FLFPR is affected by a wide variety of micro-macroeconomic and social factors such as fertility rate, educational attainment, economic development, urbanization, industrialization, employment structure, labor market regulations (social security), economic crises, wages, income and wage inequalities, unemployment rate, marital status, age, being unpaid family worker, household size and assets, salary and economic activities of husband, age of children and the number of dependents. The social and cultural role of women is one of the essential factors that determine FLFPR. The conflict between the traditional roles of women and while working outside is also notable in Turkey. In the economics literature, the effect of fertility rate on FLFPR has been investigated under the scope of two different hypotheses: the 'role incompatibility hypothesis' that posits a negative relationship between fertility rate and FLFPR due to the difficulties women face in balancing the child/elderly care, housework and workload; the second one is the 'societal response hypothesis', which suggests that a positive work-fertility relationship exists (Siah & Lee, 2015, 614-615). The number of children and opportunity cost of childbearing discourage the mothers from seeking a job and participate in the labor market, especially if women have low education and low paid job. On the other hand, a positive relationship is observed between LFP of high-educated (tertiary education) women and fertility rate. High-educated women have high LFP. Moreover, high-educated women can have more children as they are able to afford childcare (Bratti, 2003, 540). Education increases labor force participation in women. While the highest increase in LFPR is observed in the tertiary education graduates, the lowest increase in LFPR was observed in the illiterate women (Ercan et al., 2010; Dayıoğlu & Kırdar, 2010). The FLFPR shows a U-shape during the development process (Tansel, 2012; T.C. Maliye Bakanlığı, 2014). FLFPR is higher in the agricultural economies. In most cases, women are employed as unpaid workers in the family business and provide childcare and carry out agricultural work simultaneously. When income level rises during the structural transformation of countries from agricultural based production to the industrial sectors and the introduction of new technologies occurs, the FLFRP goes down. Women those are employed as an unpaid family workers do not possess the qualifications required by the labor force in the city, and thus remain out of the labor market or get involved in the informal economy. This situation leads a country to the left side of the U-shape. On the other hand, the effect of industrialization and urbanization, migration from rural to urban areas, and the low levels of female education have been noted as the probable causes for the low and declining participation rates of women (Dayıoğlu & Kırdar, 2010, 55-56). In contrast, the economic activities of the countries on the right-side of the U-shape FLFPR are mainly based

on the industrial sector and services. The proportion of agricultural sector in the GDP and employment is lower. An increasing proportion of service sector in the economy leads to an increase in the demand of women labor force. Owing to an increasing education attainment of women and thus working in high wage jobs lead to an increase in FLFPR. Turkey has been experiencing a decreasing FLFPR since 1980s, indicating the left side of U-shape. However, while at present Turkey can be considered to be at the bottom side of the U-shape, in future, it is expected to be at the increasing (right) side of the U-shape (Can & Özer, 2012; Tansel, 2012; T.C. Maliye Bakanlığı, 2014). FLFPR in Turkey is intended to increase by 41% until 2023 (T.C. Maliye Bakanlığı, 2014).

The objective of this study was to employ the bounds test for co-integration and Granger causality tests to investigate the long-run equilibrium relationship and the direction of causality between FLFP and some socio economic indicators such as total fertility rate (TFR), education, GDP per capita, and the urbanization rate for Turkey over the period 1988–2013. This study differs from earlier ones by utilizing the bounds test approach for cointegration to estimate the long-run relationship and Toda & Yamamoto test for causality between the FLFPR and the potential determinants. This paper is organized in the following order: Section 2 presents an overview of the empirical literature on FLFPR and various socio-economic factors. Section 3 defines the data and the empirical model of the study. Section 4 provides econometric methodology, Section 5 presents the results, and the study is concluded in Section 6.

2. Literature Review

The relationship between FLFP and various socio-economic factors has been studied extensively in Turkey by using different empirical methods. For the 67 provinces, Tansel (2002) found the evidence of a U-shape curve in FLFPR for Turkey. According to the findings, while unemployment discouraged the FLFPR, the education had a positive effect in the years of 1980, 1985, and 1990. In the studies of Berber & Yılmaz Eser, 2008; Dayıoğlu & Kırdar, 2010 education, marital status, socio-cultural factors, and urban-rural regions showed significant effects on the FLFPR. Özer & Biçerli, 2003 and 2004; and Dayıoğlu & Kırdar, 2010 noted the effect of marital status, educational attainments, demographic factors, the number of children on the FLFPR in Turkey. By using Logit model analysis Ayvaz Kızılgöl (2012) found the significant effects of education, household income, dependency ratio, ownership of the property and age on the FLFPR for the period of 2002-2008. Furthermore, the results indicate that the number of children reduces the LFP in urban areas while increases in rural areas. For the period of 1988−2009 Kutlar et al. (2012) found a significant relationship between wages, fertility and divorcement and FLFPR over a period of 1988–2009. Kılıç & Öztürk (2014) analyzed the factors that limit the FLFPR in Turkey by using Household Budget Surveys for a period of 2002–2008 via a standard probit model. According to their findings, education, marital status, economic resources, gender perception in society, and the location of residence are the most important factors that affect FLPR. Karpat Çatalbaş (2015) investigated the effects of socio-economic variables and economic crises on the FLFPR according to the 12 regions in the IBSS–1 level for the period 2008–2013 and found that fertility rate, divorce rate, informal employment, economic crisis, and education are the most important factors that affect female workforce. By using Vector Auto Regression (VAR) analysis, Uysal et al. (2016) found that the increase in the university education enrolment rate had some effect on the FLFPR for the period of 1988–2013.

3. Data

The socio-economic factors that affect FLFP in equation (1) are estimated using yearly data from 1988 to 2013. LFPR considers the population age of 15 years and older that is economically active. FLFPR is the percentage of the population that is either employed or unemployed (i.e., either working or actively seeking work). The fertility rate is measured by the total fertility rate, which represents the number of children that would be born to a woman if she were to live to the end of her childbearing years (World Bank, 2016). The educational attainment of women is measured by gross enrolment ratio for tertiary education. GDP per capita according to PPP (US$) is used as a proxy for economic development. The measure for urbanization rate is the ratio of urban population to total population. All data are collected from World Bank WDI (World Development Indicators) (World Bank, 2016) except GDP. GDP per capita was taken from TURKSTAT Economic and Social Indicators 1950–2014. All data were converted to logarithms prior to the analysis.

4. Model and Methodology

In this section, following the empirical literature, the long-run relationship between FLFPR, fertility rate, education, GDP per capita and urbanization in Turkey is established in a linear logarithmic form as follows:

$$FLFPR_t = \gamma_0 TFR_t + \gamma_1 EDU_t + \gamma_2 Y_t + \gamma_3 URBAN_t + \varepsilon_t \quad (1)$$

where $FLFPR_t$ is female labor force participation rate, TFR_t is total fertility rate, EDU_t is the female gross enrolment ratio for tertiary education, Y_t is GDP per capita , $URBAN_t$ is urbanization rate and ε_t is the regression error term. The expected signs for the parameters in equation (1) are as follow: $\gamma_0<0$, $\gamma_1>0$, $\gamma_2<0$, $\gamma_3<0$.

4.1. The bounds testing method

In order to test the stationarity of variables and the integration and the possible cointegration among the variables Augmented Dickey–Fuller (ADF) Dickey & Fuller (1979) and an alternative Phillips–Perron (PP) (1981) unit-root tests were employed. Following the stationarity tests, the bounds test for co-integration within ARDL (the autoregressive distributed lag) modeling approach of Pesaran et al. (2001) was adopted to test whether a long-run relationship exists between economic growth and human capital and labor productivity in Turkey. The bounds testing approach can be applied irrespective of the order of integration of the variables, in this context the regressors can be I(1), I(0) or mutually cointegrated. At first, to implement the bounds test procedure, the following ECM (error correction models) were estimated:

$$\Delta \ln FLFPR_t = \alpha_0 + \sum_{i=1}^{p-1} \alpha_{1i} \Delta \ln FLFPR_{t-i} + \sum_{i=1}^{p-1} \alpha_{2i} \ln TFR_{t-i} + \sum_{i=1}^{p-1} \alpha_{3i} \ln EDU_{t-i} + \sum_{i=1}^{p-1} \alpha_{4i} \Delta \ln Y_{t-i} + \sum_{i=1}^{p-1} \alpha_{5i} \Delta \ln URBAN_{t-1} + \alpha_6 \ln FLFPR_{t-1} + \alpha_7 \ln TFR_{t-1} + \alpha_8 \ln EDU_{t-1} + \alpha_9 \ln Y_{t-1} + \alpha_{10} \ln URBAN_{t-1} + \mu_t \quad (2)$$

Equation (2) can be further transformed to accommodate the one period lagged error correction term (EC_{t-1}) as in equation (3).

$$\Delta \ln FLFPR_t = \alpha_0 + \sum_{i=1}^{p-1} \alpha_{1i} \Delta \ln FLFPR_{t-i} + \sum_{i=1}^{p-1} \alpha_{2i} \ln TFR_{t-i} + \sum_{i=1}^{p-1} \alpha_{3i} \ln EDU_{t-i} + \sum_{i=1}^{p-1} \alpha_{4i} \Delta \ln Y_{t-i} + \sum_{i=1}^{p-1} \alpha_{5i} \Delta \ln URBAN_{t-1} + \lambda EC_{t-1} + \mu_t \quad (3)$$

where Δ is the first difference operator, *ln* is the log of the dependent and independent variables, μ_t is serially independent random error with zero mean and finite covariance matrix, and the deterministic term (a constant) is denoted by α_0. In equation (3), the parameter λ represents the long-run relationship and α_1, α_2, α_3, α_4 and α_5 represent short-run dynamics of the model.

To examine the long-run relationship between the dependent variable *FLFPR* and its determinant, an F-test procedure is followed for the joined significance of the coefficients of the lagged levels of the variables. While the null hypothesis is $H_0: \alpha_6=\alpha_7=\alpha_8=\alpha_9=\alpha_{10}=0$ *(no cointegration)* and the alternative hypothesis is $H_1: \alpha_6 \neq \alpha_7 \neq \alpha_8 \neq \alpha_9 \neq \alpha_{10} \neq 0$ *(cointegration).* If the Null hypothesis is rejected, it indicates the existence of a long-run relationship or cointegration. Pesaran et al. (2001) provided the set of asymptotic critical values where these critical bounds can be applied irrespective of the order of integration of the regressors. These critical values are composed of two sets: lower bounds I(0) and upper bounds I(1). The first set gives the lower bound, which is applicable when all regressors are I(0). The second bound gives the upper bound, which is applicable, when all regressors are I(1) (Akkoyunlu & Siliverstovs, 2014, 3240). If the calculated F-statistic exceeds the upper bound, the null hypothesis of no relationship between dependent variable (*FLFPR)* and independent variables (*TFR, EDU, Y and URBAN)* can be rejected. Conversely, if the F-statistic falls below the lower bound, the null hypothesis of no long-run relationship cannot be rejected. However, if the F-statistic falls within the critical bounds, the outcome of cointegration will be inconclusive. However, according to Narayan (2005), the existing critical values reported in Pesaran et al. (2001) cannot be used for small sample sizes because they are based on large sample sizes for 500 and 1000 observations. Therefore, Narayan (2005) provides a set of critical values for sample sizes ranging from 30 to 80 observations. Therefore, given the relatively small sample size in the present study (43 observations), the hypothesis testing rely on the critical values simulated in Narayan (2005).

4.2. Causality

As a last step, the Granger causality tests was applied to examine the causal linkages between economic growth and human capital and labor productivity. The notion of Granger causality (Granger, 1969; Engle & Granger, 1987) is one of the most commonly and extensively used methods for evaluating the existence and direction of linkages among time series variables within VAR models in economics literature (Pitarakis & Tridimas, 2003). According to Sims et al. (1990) the asymptotic distribution theory cannot be applied for the testing of causality of integrated variables in a level form using the vector autoregressive (VAR) model even if the variables are cointegrated (Clark & Mirza, 2006; Wolde-Rufael, 2007). In this context, an alternative approach that is applied in the level VARs, irrespective of whether the variables are integrated, cointegrated, or not integrated, has been proposed by Toda & Yamamoto (1995). Toda & Yamamoto (1995) introduced, on the basis of augmented *VAR(k)* modeling, a modified Wald test statistic that asymptotically shows chi square (χ^2) distribution, irrespective of the order of integration or cointegration properties of the variables in the model (Wolde-Rufael, 2007, 201). The test has two steps. First, in order to apply Toda & Yamamoto's (1995) modified Wald test statistic, it is essential to determine the true lag length *(k)* and the maximum order of integration *(d_{max})* of the series under consideration. The modified Wald test statistic is valid regardless of whether a series is I(0), I(1) or I(2) non-cointegrated or cointegrated of an arbitrary order. The lag length, k, is obtained in the process of VAR in the levels among the variables

in the system by using different lag length criteria such as AIC, SBC, HQ and LR. Then the unit root testing procedure can be used to identify the order of integration *(d_{max})*. As a second step, a modified Wald test procedure is used to test the *VAR(k)* model for causality. The *VAR(k)* models are estimated by Ordinary Least Squares (OLS) estimation technique.

Unlike the Granger causality test, Toda & Yamamoto's (1995) approach fits to standard vector auto-regression at the levels of the variables, and not at the first difference of the variables (Wolde-Rufael, 2007, 202). Therefore, to undertake Toda & Yamamoto's (1995) version of the Granger non-causality test, the following VAR system is presented:

$$\ln Y_t = \alpha_0 + \sum_{i=1}^{k} \alpha_{1i} \ln Y_{t-i} + \sum_{j=1}^{d\max} \nu_{1j} \ln Y_{t-j} + \sum_{i=1}^{k} \phi_{1i} \ln X_{t-i} + \sum_{j=1}^{d\max} \psi_{1j} \ln X_{t-j} + \lambda_{1t} \quad (3)$$

$$\ln X_t = \beta_0 + \sum_{i=1}^{k} \delta_{1i} \ln Y_{t-i} + \sum_{j=1}^{d\max} \theta_{1j} \ln Y_{t-j} + \sum_{i=1}^{k} \vartheta_{1i} \ln X_{t-i} + \sum_{j=1}^{d\max} \pi_{1j} \ln X_{t-j} + \lambda_{2t} \quad (4)$$

The null hypothesis that the independent variable X_t (*TFR, EDU, Y* and *URBAN*) does not cause dependent variable Y_t (*FLFPR*) can be formulated as follows: $H_0: \phi_1 = \phi_2 = \ldots = \phi_i = 0$. Similarly, in Equation 2, the null hypothesis that Y_t does not cause X_t can be depicted as follows: $H_0 = \delta_1 = \delta_2 = \ldots = 0$.

5. Empirical Results

Table 1 summarizes the ADF and PP unit root testing results for *FLFPR, TFR, EDU, GDP* and *URBAN*. All series are non-stationary (contain a unit root) in their levels but are stationary in their first differences except *TFR* and *URBAN*, which are stationary in their level form. Thus, they are integrated by order one, I(1). Therefore, the long-run relationship between variables can be investigated by using the bounds test for cointegration within the ARDL modeling approach.

Table 1. ADF and PP tests for unit root

ADF				
	Level		**First Difference**	
	τ_μ	τ_η	τ_μ	τ_η
FLFPR	-1.828[0]	-1.368[0]	-5.591[0]*	-6.140[0]*
TFR	-5.193[1]*	-1.727[3]	-2.932[1]***	-5.159[0]*
EDU	0.716[0]	-0.942[0]	-4.224[0]*	-4.264[0]**
GDP	1.493[0]	-0.957[0]	-4.363[0]*	-4.863[0]*
URBAN	0.335[1]	-3.553[3]***	-4.392[0]*	-3.611[0]***
PP				
	Level		**First Difference**	
	τ_μ	τ_η	τ_μ	τ_η
FLFPR	-1.759[2]	-1.175[2]	-5.590[1]*	-7.117[7]*
TFR	-5.743[1]*	-5.582[1]*	-4.915[2]*	-4.694[2]*
EDU	0.721[2]	-0.942[0]	-4.202[2]*	-4.237[2]**
GDP	1.637[2]	-0.957[0]	-4.362[1]*	-4.862[1]*
URBAN	-2.111[2]	-6.820[2]*	-5.739[8]*	-6.351[13]*

Note: All series are at their natural logarithms. τ_μ represents the model with a drift and without trend; τ_η is the most general model with a drift and trend. The optimal lag lengths used in ADF test are indicated within brackets and determined by the AIC. When using PP test, the values in brackets represent Newey-West Bandwidth (as determined by Bartlett Kernel). (*), (**) and (***) indicate that the corresponding coefficient is significant at 1%, 5%, and 10% levels, respectively.

In order to estimate the *FLFPR* equation (1), the ARDL approach of cointegration is used. According to Narayan (2005), the existing critical values reported in Pesaran et al. (2001) cannot be used for a small sample size because they are based on a large sample size. Narayan (2005) proposed a set of critical values for sample sizes ranging from 30 to 80 observations. The calculated F-statistics for the equation 1 is 4.639, which exceeds the upper bound of Pesaran et al. (2001) at 5% (2.86–4.01) and that of Narayan (2005) at 10% (2.752–3.994). In this case, the null hypothesis of no cointegration can be rejected, implying that there exists a long-run relationship or cointegration between *FLFPR* and its determinants.

After establishing the cointegration relationship for equation (1), the next step is to estimate the long-run coefficients of the equation by using the ARDL specification. Since the ARDL specification assumes that the errors are serially uncorrelated, the maximum lag is selected as 1 where no autocorrelation is found in equation 1. The optimum ARDL order suggested by AIC is the order of ARDL (1, 0, 0, 1, 0). The estimated long-run coefficients of ARDL model are given in Table 2.

Table 2. Estimated long-run coefficients using ARDL approach

Regressors	**ARDL(1, 0, 0, 1, 0)**
Constant	9.820 [9.620]***
TFR	-33.412 [-2.407]**
EDU	0.606 [3.269]***
GDP	0.040 [3.062]***
URBAN	-0.133 [-5.756]***

Note: (*), (**) and (***) indicate that the corresponding coefficient is significant at 10%, 5%, and 1% levels, respectively. t-values are given in parenthesis.

The long-run coefficients show that all regressors in the FLFPR equation exhibit the theoretically expected sign and are highly statistically significant. The results indicate the importance of fertility rate in FLFPR in the long-run. Secondly, the education elasticity is found to be 0.60; which indicates that at 1% significance, 1% increase in the tertiary education increases the FLFPR by 0.60%. The measure of GDP per capita is found to be highly significant indicating an increasing trend of FLFPR in Turkey. A highly significant negative effect of urbanization rate on the FLFPR indicates a continuous difference between rural and urban FLFPR. Although Turkey has been in a structural transformation by shrinking the agricultural sector and increasing the share of industry and services, women who migrate from rural area cannot participate in the labor market of cities and sometimes shift to the informal economy.

Table 3. Error correction model

Regressors	**ARDL(1, 0, 0, 1,0)**
Constant	6.239 [3.019]***
D(TFR)	-22.731 [-2.402]**
D(EDU)	0.412 [3.098]*
D(GDP)	-0.032 [-1.947]*
D(URBAN)	-0.090 [-4.407]***
EC_{t-1}	-0.680[-4.901]***
$F_{(1,17)}^{RESET} = 1.028(0.324)$	$F_{(1,22)}^{ARCH(1)} = 0.002(0.957)$
$F_{(6,18)}^{HETERO} = 1.398(0.268)$	$F_{(1,17)}^{AR(1)} = 2.475(0.134)$

Note: t-values are given in parenthesis. (*), (**) and (***) indicate that the corresponding coefficient is significant at 10%, 5%, and 1% levels, respectively.

The signs of the short-run coefficients are consistent with theoretical predictions and are statistically significant. The error correction term (ECT) is significant at 1% level with the expected sign. The significance of the ECT shows causality at least in one direction. The estimated coefficient of ECT (–0.680) indicates that around 7% of the deviation from

equilibrium is eliminated within one year. The model passes the specification tests such as the tests of no residual autocorrelation, no residual ARCH effects, residual normality, and no residual heteroscedasticity and the RESET test for functional form misspecification. The cumulative sum (CUSUM) and the cumulative sum of squares (CUSUM-Q) tests were employed to determine whether the parameters in the models are stable. The results of CUSUM and CUSUM-Q tests are shown in Figure 1. The lines show the boundaries of 5% significance levels. It can be seen in the figure that the parameters are stable, and sum of the squared residuals lies inside the critical bounds of 5% significance.

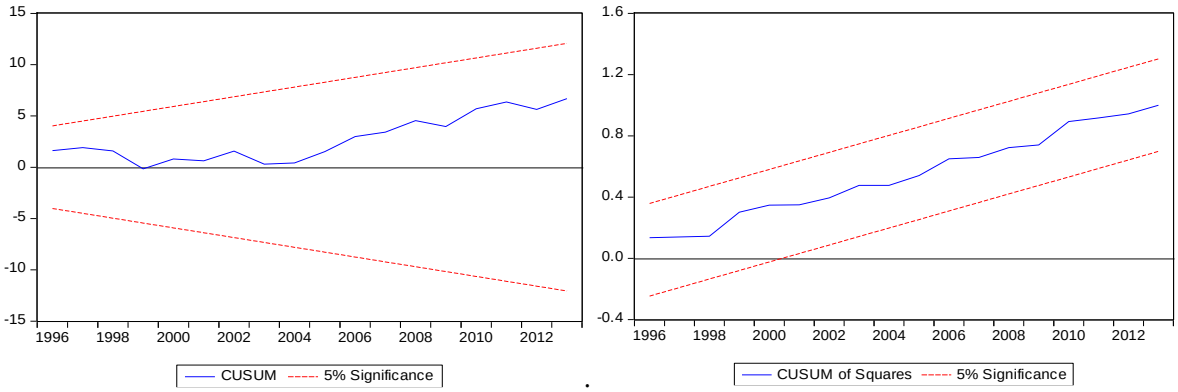

Figure 1. CUSUM and CUSUM-Q test results for coefficient stability

Toda & Yamamoto's (1995) procedure, which employs a modified Wald test, does not require pre-testing for the cointegrating properties of the system and is valid regardless of whether a series is *I(0)*, *I(1)* or *I(2)*, non-cointegrated or cointegrated of an arbitrary order, as long as the order of integration of the process does not exceed the true lag length of the model (Toda & Yamamoto, 1995, 225; Wolde-Rufael, 2007, 202). Therefore, the results of the Toda & Yamamoto (1995) version of the Granger causality test are presented in Table 5.

Table 4. The Results of the Toda & Yamamoto causality test

Null Hypothesis	**χ_p^2 statistic**	**Probability value**	**Decision**
TFR does not granger cause FLPR	61.305	0.000***	Bidirectional Causality
FLFPR does not granger cause TFR	6.409	0.093*	TFR ↔ FLFPR
EDU does not granger cause FLPR	66.810	0.000***	Bidirectional Causality
FLFPR does not granger cause EDU	25.512	0.000***	EDU ↔ FLFPR
GDP does not granger cause FLPR	1003.283	0.060*	Unidirectional Causality GDP → FLFPR
FLFPR does not granger cause GDP	0.303	0.959	No causality
URBAN does not granger cause FLPR	590.196	0.000***	Bidirectional Causality
FLFPR does not granger cause URBAN	10.282	0.016**	URBAN → FLFPR

According to the Toda & Yamamoto causality test results, a strong evidence of causality from TFR, EDU and URBAN to FLFPR was found at the 1% level of significance. On the other hand, TFR, EDU and URBAN cause FLPR in Turkey. In other words, a bidirectional causality is found from TFR, EDU and URBBAN to FLFPR. A unidirectional causality, running from GDP to FLFPR is found at the 10% level of significance. The results imply that LFPR for Turkish women is significantly affected by the traditional socio-economic variables.

6. Conclusion

The findings confirm the 'role incompatibility response hypothesis', which suggests that there exists negative work-fertility relationship. The results affirm the importance of fertility rate as a major factor in FLFPR in Turkey. The traditional role of women has a significant effect on their LFP decision. The increase of fertility rate affected the FLFPR negatively. Secondly, Women's education (tertiary) clearly has a highly significant position. Their access to higher education increases their participation in labor market. Through the effect of increasing educational attainment of women and increasing proportion of service sector in the economy leads to increase in the LFP of women in Turkey. As development continues, the increasing trend of FLFR (although at a low rate) can be considered as starting of Turkey to be lying at the right side of the U-shape. However, despite of the positive progress of FLFPR in Turkey, a persistent difference can be observed between FLFPR of urban and rural areas. The urbanization negatively affects the FLFPR. Due to the rapid structural transformation of Turkish economy and intense migration from rural area to urban, the industrial sector cannot be able to create enough jobs to meet the labor supply that is created by the dissolution of agriculture sector, especially for the women. Moreover, the results show a noticeable evidence of the causality running from TFR, EDU and URBAN to FLFPR. While a bidirectional causality is found between TFR, EDU and URBAN to FLFPR, a unidirectional causality is apparent from GDP to FLFPR.

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Do not disturb: An investigation of resisting secondary task engagement during intrusions

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1. Introduction

Interruptions at work are a permanent fixture in the modern working world, and are likely to continue for the foreseeable future (Trafton & Monk, 2008). Unfortunately, this development is not without its global consequences. Experts estimate interruptions cost the United States economy $588 billion in 2005 (Spira & Feintuch, 2005). In the early 1980s, more than 15% of nuclear power plant emergency shutdowns were due to interruptions at work (Griffon-Fouco & Ghertman, 1984). In 1998, Dismukes and colleagues found that nearly half of aviation accidents were caused by interruptions at work (Dismukes, Young, & Sumwalt, 1998). However, literature has also demonstrated that interruptions during work can also have positive effects on employee health (e.g., Shieh & Chen, 1997). Jett and George (2003) attribute these differential effects to the different types of interruptions: Intrusions, breaks, distractions, and discrepancies. Intrusions are defined as unplanned cessations in work tasks due to the onset of a secondary demand initiated by a coworker (Lin, Dalal, Fritz & Herzogenrath, 2016).

To date, research has demonstrated the negative effects of intrusions (e.g., Lin, Kain & Fritz, 2013; Zijlstra, Roe, Leonora, & Krediet, 1999), thus, suggestions to minimize the aversive effects of intrusions have become prevalent. For instance, research suggests delaying addressing intrusions until coarse break points (Adamczyk & Bailey, 2004; Monk, Boehm-Davis & Trafton, 2004). Indeed, research generally suggests the deleterious effects of intrusions are partially rooted in the attention switching as a result of intrusions (see Trafton & Monk, 2008). By resisting the pull of intrusions to a temporal point wherein one's attention on their primary task naturally abates, employees are no longer forced to divert their attention away from their primary task to the secondary task. In the present study, we attempt to test the effects resisting intrusions has on employee self-regulatory resources, attentiveness, and fatigue.

1.1 Resisting Intrusions

The Ego Depletion Model (EDM; Baumeister, Bratslavsky, Muraven & Tice, 1998) states that humans have a limited capacity for discretional behavior that does not satiate our desires. Moreover, experimental research suggests that when individuals expend their self-regulatory resources, they have diminished capacity for further self-regulation afterwards, suggesting self-regulation to resemble a limited resource (i.e., *self-regulatory resources*; Muraven & Baumeister, 2000). The Conservation of Resources Theory (COR; Hobfoll, 1989) states that humans experience strain reactions when they consume resources, as is the case when humans regulate their behavior. In the present study we operationalize strain reactions with two variables, attentiveness and fatigue. *Attentiveness* is a state of high activation and low strain, and a combination of feeling alert, attentive, concentrated, and determined, according to Watson and Clark (1994). *Fatigue*, on the other hand, is a state of low activation and high strain, and a combination of feeling sleepy, tired, sluggish and drowsy (Watson & Clark, 1994).

Intrusions, though stress-inducing (see Lin, Kain & Fritz, 2013), may be pleasurable as they are a social experience. Humans inherently crave social contact (Hawkley & Cacioppo, 2010), so much so that humans who experience insufficient meaningful social contact have higher levels of morbidity and mortality (Caspi, Harrington, Moffitt, Milne & Poulton, 2006;

Eaker, Pinsky, & Castelli, 1992; Olsen, Olsen, Gunner-Svensson & Waldstrøm, 1991). Indeed, research typically suggests social contact with coworkers may stimulate individuals and reduce stress (Chockalingam, Sanchez, & Fisher, 1999). Addressing intrusions may be one method through which employees seek and obtain social support. As a result, addressing intrusions when they are immediately presented may be an inherently pleasurable experience. Resisting addressing the secondary tasks of intrusions, thus, deprives employees of an opportunity to socially connect with their coworkers, and may result in decreased self-regulatory resources. As a result, resisting addressing intrusions, will also result in decreased attentiveness and increased fatigue.

Hypothesis 1: Participants who resist addressing intrusions have lower levels of self-regulatory resources compared to participants who do not resist intrusions.

Hypothesis 2: Participants who resist addressing intrusions have lower levels of attentiveness compared to participants who do not resist intrusions.

Hypothesis 3: Participants who resist addressing intrusions have higher levels of fatigue compared to participants who do not resist intrusions.

2. Method

2.1. Sample

27 students were recruited from an English-speaking Eastern European university. The sample was fairly young (M=22.15, SD=1.35), and mostly female (70%). As incentive, at the conclusion of the experiment, three participants were randomly selected and given gift cards to a local bookstore worth approximately €15.

2.2 Procedures

A simple experiment was designed wherein participants were randomly assigned to two groups, and asked to complete a 20-minute data entry task. Data entry involved entering basic information about several peer-reviewed journal articles into a spreadsheet (e.g., author names, number of authors, title, year of publication). During this data entry task, participants were intruded on every 30 seconds with a Skype instant message sent by a confederate. Participants were instructed that this was a colleague working on a similar task when, in fact, it was an experimenter sending messages from an adjacent room. Skype instant messages were scripted such that all participants received the same messages (e.g., "What is your name?" "Where do you find the year for the article?"). Figure 1 represents a screenshot from this task.

Prior to the experiment, participants were randomly assigned to either the *Resist* or the *No Resist* condition. Participants in both conditions were warned that they were going to periodically receive instant messages on Skype, but participants in the *Resist* condition were told, "Your primary focus should be on data entry, *so we ask that you do not respond to this colleague, even though they may message you very frequently*." In comparison, participants in the *No Resist* condition were told "Your primary focus should be on data entry, *but you can reply to the colleague if you wish*."

After completing a 10-minute survey (described below), participants were debriefed, and excused from the laboratory.

2.3. Measures

At the conclusion of the task, participants completed a 10-minute survey, assessing their self-regulatory resources, attentiveness, and fatigue at that moment.

Self-Regulatory Resources. Self-regulatory resources were assessed using the 10-item State Self-Control Capacity Scale (SSCCS; Ciarocco, Twenge, Muraven & Tice, 2012). A sample reverse-scored item from the scale includes, "I would quit any difficult task I was given." High scores on the SSCCS indicate high self-regulatory resources, and low scores on the SSCCS indicate low self-regulatory resources. Participants were asked to indicate their agreement to these items using a Likert scale (1=*Strongly Disagree*; 5=*Strongly Agree*). The coefficient alpha for this scale was .78.

Attentiveness. Attentiveness was assessed using four items from the Positive and Negative Affect Schedule: Expanded Version (PANAS-X; Watson & Clark, 1994). Sample items from this scale include, "alert," and "attentiveness." Participants were asked to indicate the extent to which they felt each item stem using a 5-point scale (1=*Very slightly/Not at all*; 5=*Extremely*). The coefficient alpha for this scale was .78.

Fatigue. Attentiveness was also assessed using four items from the Positive and Negative Affect Schedule: Expanded Version (PANAS-X; Watson & Clark, 1994). Sample items from this scale include, "sleepy," and "tired." Participants were asked to indicate the extent to which they felt each item stem using a 5-point scale (1=*Very slightly/Not at all*; 5=*Extremely*). The coefficient alpha for this scale was .86.

3. Results

Respondents in the resist condition (M=3.08, SD=.529) reported lower levels of self-regulatory resources than participants in the no resistance condition (M=3.52, SD=.368), $t(25)=2.51$, $p<.05$. Similarly, participants in the resist condition (M=2.52, SD=.794) reported lower levels of attentiveness than participants in the no resistance condition (M=3.25, SD=.760), $t(25)=2.45$, $p<.05$. However, there were no differences across the resist (M=2.54, SD=.889), and no resist conditions (M=2.41, SD=.757) in fatigue, $t(25)=-.42$, $p=.68$. These results indicate support for Hypothesis 1 and 2, but not Hypothesis 3. These results have been illustrated in Figure 2.

4. Discussion

Intrusions are a permanent fixture of the modern workplace. Researchers have called for employees to resist addressing intrusions until coarse breakpoints in order to minimize the effects of interruptions on employee productivity. Although this has been demonstrated to improve primary task resumption, the present study assessed the effects of resisting intrusions on employee self-regulatory resources and strain. We found that participants who were instructed to resist intrusions experienced lower levels of self-regulatory resources and attentiveness compared to participants who were allowed to address intrusions. These results corroborate the assumption that addressing intrusions may inherently be pleasurable as they allow employees to interact with their colleagues, and resisting intrusions may consume self-regulatory resources, sapping vital energy from employees. On the other hand, participants from each group did not experience any differences in fatigue. In combination with our previous findings, these results may suggest that intrusions consume self-regulatory resources, but insufficient self-regulatory resources to induce strain. Although additional research is necessary to effectively evaluate the efficacy of this coping strategy, we have offered initial evidence that resisting intrusions may also be detrimental to employees.

4.1 Limitations & Future Research

Like all studies, the conclusions from this study should be interpreted in light of its limitations. First, the present study did not account for individual differences in ability to multi-task (Poposki & Oswald, 2010) or resistance to distraction. Although these constructs may temper the effects of resisting intrusions on study outcomes, to the extent possible, our random assignment of participants to groups should have nullified all pre-existing differences between participants (Hole, 2012). Nevertheless, future research should investigate the moderating effects of multitasking preference or resistance to distraction.

Second, the exclusive use of a student sample may have limited the generalizability of our findings. However, research methodologists have long argued that student samples are not problematic in many instances (Highhouse & Gillespie, 2009; Zhu, Barnes-Farrell, & Dalal, 2015), particularly when we do not expect students to differ from workers in constructs relevant to the study (e.g., self-regulatory resources). However, future research in this area should extend sampling to the recruitment of workers.

Third, the limited sample size may have also limited the generalizability of the study. We acknowledge that our sample size was indeed small; however, it was sufficient statistical power to detect differences in the study groups, suggesting the robustness of the effect resisting intrusions has on self-regulatory resources and attentiveness.

Finally, future research should replicate this study using alternate methodologies. For instance, recent research has demonstrated the efficacy of survey scales in the study of intrusions (e.g., Lin et al., 2016). Future research may study intrusion resistance using observational methods to enhance ecological validity.

4.2. Conclusions

Researchers have recommended employees resist addressing intrusions until they reach coarse breaking points. The present study compares two intrusion coping strategies: Resisting addressing intrusions, and addressing them when desired. We found that participants who were told to resist addressing intrusions experienced lower levels of self-regulatory resources and attentiveness at the conclusion of a 20-minute data entry task, compared to participants who were allowed to address the intrusions at their convenience. These results suggest that the traditional recommendation, resist dealing with intrusions, though effective for primary task resumption, may be deleterious for subsequent self-regulatory resources and attentiveness.

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Figure 1

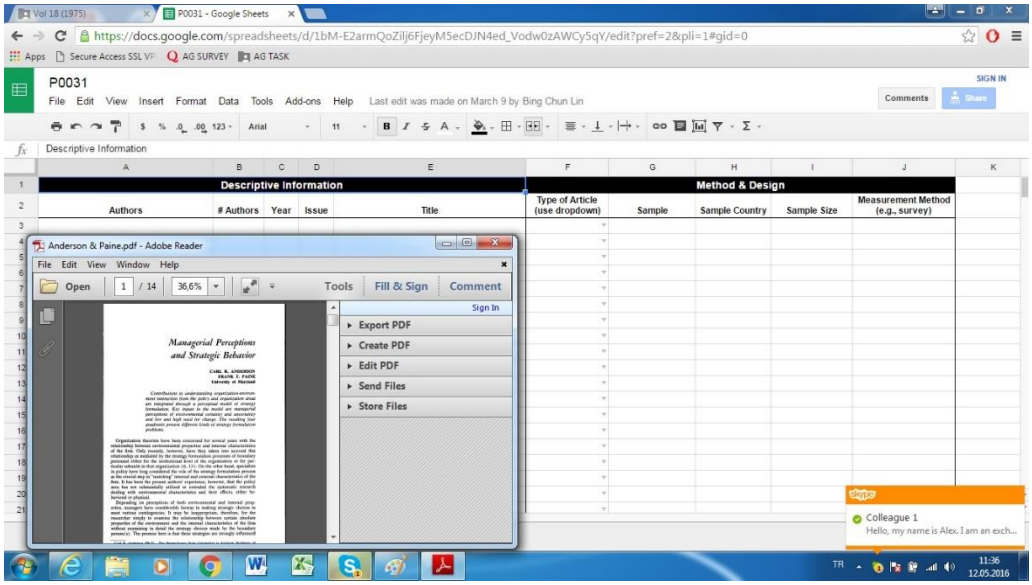

Figure 1. Screen shot of data-entry task with intrusion. Participants were instructed to information about each study onto a spreadsheet while being interrupted by a Skype Instant Message.

Figure 2

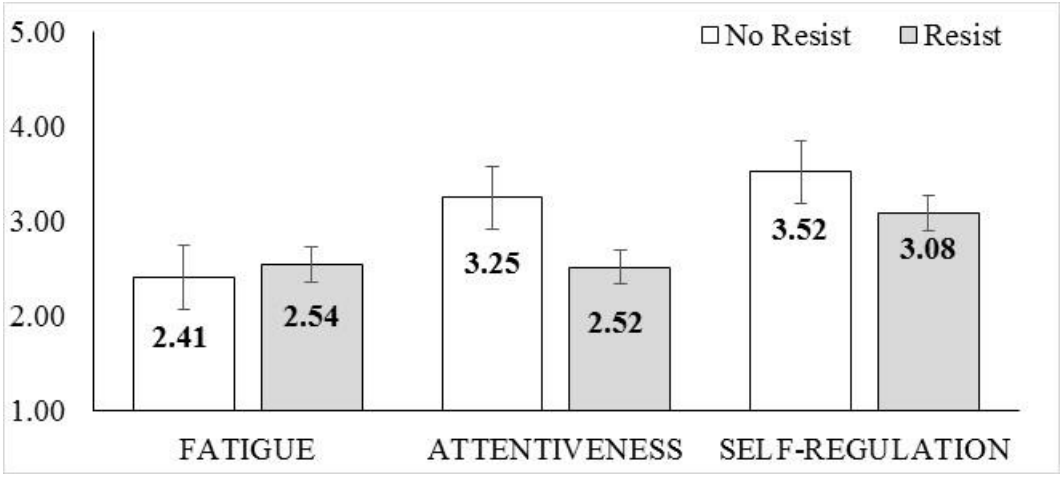

Figure 2. Bar chart depicting mean comparisons of resist and no resist conditions on self-regulatory resources, attentiveness, and fatigue. Respondents in the resist condition (M=3.08, SD=.529) reported lower levels of self-regulatory resources than participants in the no resistance condition (M=3.52, SD=.368), $t(25)=2.51$, $p<.05$. Similarly, participants in the resist condition (M=2.52, SD=.794) reported lower levels of attentiveness than participants in the no resistance condition (M=3.25, SD=.760), $t(25)=2.45$, $p<.05$. However, there were no differences across the resist (M=2.54, SD=.889), and no resist conditions (M=2.41, SD=.757) in fatigue, $t(25)=-.42$, $p=.68$. These results support Hypothesis 1 and 2, but not Hypothesis 3.

The Public Savings' Relation with Borrowing Requirement and Financial Balances After Global Crisis in Turkey

Ahmet Niyazi Ozker

1. Introduction

In the several years prior to 2009, Turkey's financial location engaged in heavy borrowing from foreign private investors, and this fact aimed at to decrease domestic spending that come to mean dealing with domestic economic crisis. As a developing country Turkey's financial savings balances has aimed to equal to the difference between domestic savings and domestic investment spending in the concerned years, which mean to cope with 2009 global financial crisis being taken lessons from previous 2001 economic crisis. In this context, especially the lack of public savings has affected increasingly on the differences of value that come to mean between saving-investment and capital transfers such as the other financial components in Turkey after 2009 (Kalkınma Bakanlığı, 2015).

In Turkey, there are important financial differences among the central government budget that include public savings' limits with the difference of investments-public savings as to how vulnerabilities financial evaluated, which are considered as macroeconomics' locomotive engine power. So, it appears that Turkey has begun to act towards increasingly public savings that are aimed at the financial structural in the scope of the public financial applications and effective national investments since 2009 global crisis. The financial objective in there is that Turkey's saving balance keep to be equal to the difference between domestic saving and domestic investment spending especially after 2009 global financial crisis (Rodrick, 2009).

It is not possible to say that Turkey's saving-investment in the central government budget was not healthy from a growth and stability perspective in the period leading up to the 2009 global financial crisis, but in the spite of that central budget balances have been keeping as the positive effect level in the increasing values that are related to gradually incentive investments from day to day. Also, this fact mean how Turkey became dependent on foreign borrowing, which aimed at the structural growth that cause the more borrowing requirement in the adjusting process to access to foreign capital. In this context the public sector borrowing requirement, as a the proportion of GDP, shed light on having an important location in the public budget that express the other financial items which relation directly public savings, capital transfer and financial case-banking as percent of borrowing. Because, also public sector borrowing requirement may mean the government's budget deficits in the talked of financial items considered deficits that are financed by borrowing funds from the public, usually by the means of government's finance politics. In the borrowing requirement, Turkey has been faced some financial matters among financial balance's measures especially related to government's effect finance politics, and this fact resulted in the declined investment spending that are connected with the 2009 global crisis (Borio & Disyatat, 2011). After 2009 global crisis, public borrowing requirement has taken more an important position for analyzing to public save balances together with investment and foreign debt levels as a important financial indication (Rodrick, 2009). Therefore, it mean that public saves in modern transparent public liabilities inevitably have been considered towards aiming to direct public saves to investments with budget balancessince 2009.

2. The Methodical Approach and The Structural Dimension Related to Global Crisis Process

Since 2009 year that include the global crisis's process and following years to the present years financial balances have been appeared meaningful alterations, which mean different financial formations related to borrowing requirement (Blejer & Cheasty, 2012). Namely, investments' location with its relations with borrowing requirement has been affected via changeable different public saves' limits in the ground of invariable constant capital. In other words, Moreover, this fact expresses national saves including public savings more than is needed to support domestic capital expenditures to keep increasingly national investments in that depend on the levels of public savings. Therefore, the public savings that are related to public investment that include constant capital and stock alterations need to financial feedback via wealth taxes together with expropriation revenues (Campello & Graham & Harvey, 2009).

2.1. The Location of Public Savings Related The Other Macroeconomics Values in Developing Countries

The main goal for us is which level macroeconomic remedies are being expressed to ensure the desired financial ground that constitutes the financial balance dynamics via public saving levels in the financial crises process. In this context financial balances can be considered in two terms being related to public savings' locations in the scope of macroeconomics balances especially for developing countries after 2009. First, this financial fact is related to public savings' limits which mean that taxable public revenues are corresponding household' increasing (or decreasing) savings (Gale, 2014). On the other hand, this approach, as in the Global Financial Crisis of 2008-09 and the spreading crisis in Europe, has produced many questions on the agenda of public savings regarding the medium or long-term response to crises in the scope of macroeconomics balances (Campello & Graham & Harvey, 2009). If the public sectors typically don't need to adjust public savings' behavior immediately in the face of a crisis, this financial phenomenon can result in the inevitable delayed adjustment preferable and attainable to exposure to crises that express increasing tax burden on taxpayers deal with global crisis (Rosen, 2012). This situation comes to mean that global financial crisis connected with public savings politics is unsuccessful remarkably towards to cope financial crisis dynamics that are seen in developing countries related to 2013, below (Tepav, 2016).

Table 1. Public Savings and Their Structural Effects in some Developing

The Troubled Five	Inflation	Current account deficit	Savings	Public debt	Unemployment
Brazil	6.3	3.4	15.8	68.3	5.8
Indonesia	7.3	3.4	31.2	26.2	5.9
South Africa	5.9	6.1	13.2	43	26
India	10.9	4.4	30.6	67.2	
Turkey	7.5	7.5	12.6	36	9.8
The Control Group					
China	2.7	-2.5	51.4	22.9	4.1
Korea	1.4	-4.9	31.4	35.7	3.2
Russia	6.7	-2.9	28.3	14.1	5.7

Table (1) shows public savings related to some macroeconomics indicators in some developing countries that include Turkey for 2013. It is appear that if national savings levels including

public savings values decrease public debt levels take into remarkably increasing period. And also, it is seen that current account deficits were connected with national savings limits including public saving values, public debts with national savings, as a proportion of percent of GDP, manipulated directly current account deficits levels even if there is possible middle level inflation in the same period for 2013. As seen on table (1), unemployment and inflation rates are not fairly affected by public savings in 2013, but also public saving levels express the level of economic developing in these countries.

However, debt ratios related to private investments, as a proportion of GDP, can be considered as an important sign national savings that direct on level of economic development process due to meaningful national saving levels (Mendoza & Quadrini, 2009). And also, after global crises gross national savings' location that is related to debt ratios especially non-financial private sector debts, as a proportion of GDP, are seen on the figure (1) from different viewing points below (Brandywine Global, 2016).

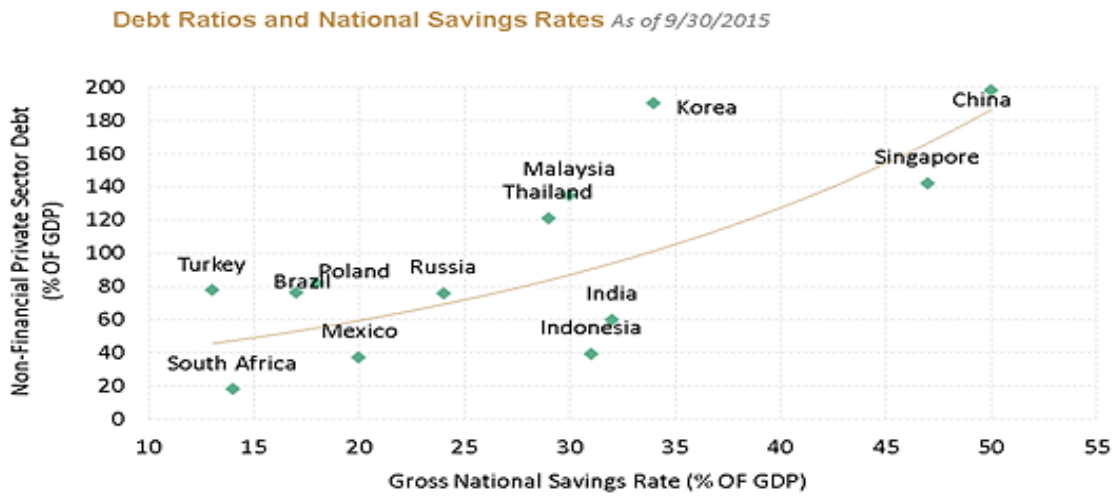

Figure 1. National Savings Location in 2013 After 2009 Financial Global Crisis

Figure (1) expresses national savings that include public savings in some developing countries, but as a view from different opinion relating to developing countries including Turkey. In this context, it appears that national savings including public savings especially increase while GDP's level increases in the considered period as example 2013 year.

Surely, it can be said the national investments increased especially including public investments while equivalent of increased GDP in the same period as 2013 year, which mean that sustainability economic growth in deal with cases where the taxpayer is within time to take the necessary action.

This fact comes to mean that each country priorities national saving policy objectives differently because each has a different national debt ratio, and financial politics' suggestions provide flexibility to implement saving rules in a manner consistent with the policy objectives of the overall tax system and the international legal obligations of the countries concerned for each country (Hays, 2003).

2.2. Discussion on Global Financial Crisis

The important relation level of public savings appear on the ground of borrowing requirement that also steer national investments' level especially in financial crisis process or after this financial phenemeneon process investment after global financial crisis (Shin, 2009). Debt

levels, especially in EU countries, need borrowing requirement in touch with public saving of each country towards investment after global financial crisis (Shin, 2009). Because countries according to the public savings of each country, in the euro area as a whole, the most important motive for savings is the provision for unexpected events which captures the different borrowing levels related to savings motive after 2009 global financial crisis (Crotty, 2008). Figure (2) states European debt ratios that mean public borrowing requirement as a proportion of GDP below (Fxstreet, 2016):

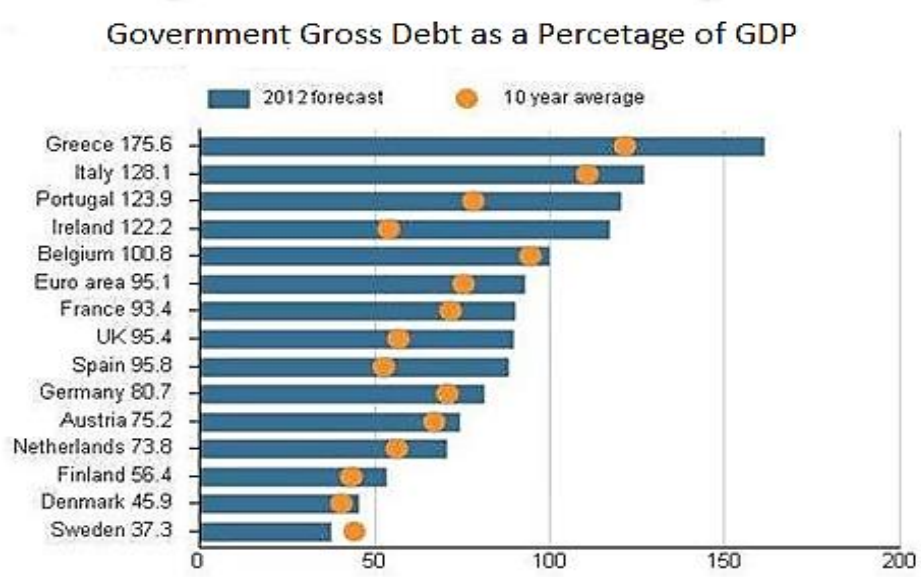

Figure 2. Gross Debt Ratios Related to Borrowing Requirement to GDP

Figure (2) shed light on the borrowing requirement as a proportion of GDP related to public saving ratios, which mean that saving is a factor in influencing the level of investment. If there is an increase in savings, then debt ratios can lend more to firms to finance investment projects. This fact is meaningful as a simple economic model and we can say the level of saving should move in the orbit of debt process as equal the level of investment. In this context, investment in economics is defined as an addition to the capital stock as related to debt ratios to GDP (Moghodam & Canuto, 2010).

As seen on figure (3) below, developed countries in EU have more positive investment signs related to directly national investment due sufficient public savings that include financial enterprises with financial stock supporting towards investments (Fxstreet Analysis, 2016).

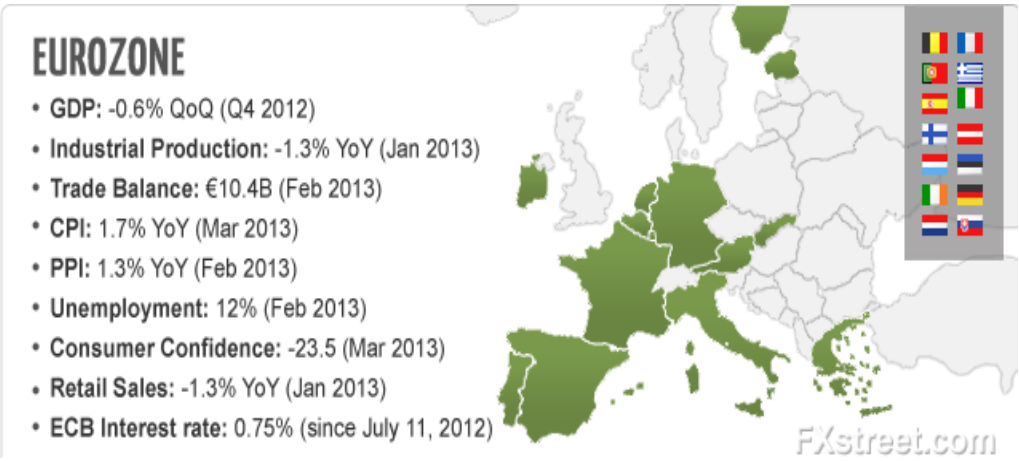

Figure 3. Some Macroeconomic Signs that are Related to Public Savings Levels in Eurozone

This phenomenon results in fact that especially developing countries like Turkey deprive of investment capital stock because of not being sufficient public savings levels. In other words, each country that has the declined debt ratios has also increasing public saving limits which expose to bring out increasing national investment together with more positive macroeconomics indicators. But, countries in Eurozone have been in the declined macroeconomic process due to their public savings within negative values towards economic growth for a long time which are related to national investments after global financial crisis (European Commission, 2009).

3. Structural Approach Aimed at After Global Crisis in Turkey

After global crisis in 2009, Turkey's macroeconomic balances have been not extremely affected via borrowing requirements that define also national savings including public savings until o day. However, it can be said that the credit billfolds of all the financial institutions have been located in more tightly fitting of narrow ground of financial operations in the scope of their own accounts after the same crisis period. In other words, public savings investment balances together with private savings related to private investments have taken a stand in differential reverse level from the each other as national saving rations after 2009 in Turkey (BDDK, 2010).

3.1. The Dimension of Saving-Investment Balances in Turkey After 2007

Public savings, as a proportion of GDP, have seen pretty wavy appearance since 2007, which include global crisis process directly touch with borrowing requirement levels. This financial situation has been also reflected on investment levels with saving-investment difference, which mean declination on the aimed of public saving levels also directing private investments for same years. However, it is not possible to state Turkey has sufficiently public savings that has been aimed since 2007, and also national investment levels have not been in the efficiently from global crisis years to today (BDDK, 2010). Table (2) points at public savings in touch with investments and borrowing requirement levels as a percent of GDP after 2007, which include simultaneously global financial crisis years below (Kalkınma Bakanlıgı, 2015).

Table 2. Public Savings and Investment-Capital Balances in Turkey After Global Financial Crisis

Year	Public Savings/GDP*	Borrowing Requir./GDP*	Investment/GDP*	Savings-Investment Difference/GDP*	Fixed Capital/GDP
2007	2.4	-0.1	-3.9	-1.5	-3.9
2008	1.7	0.0	-4.3	-2.6	-4.1
2009	-0.8	-0.4	-4.4	-5.3	-4.1
2010	1.5	-0.6	-4.1	-2.5	-4.3
2011	3.7	-0.2	-4.1	-0.4	-4.1
2012	2.9	-0.1	-4.4	-1.5	-4.2
2013	3.4	-0.3	-4.9	-1.5	-5.0
2014	3.6	0.2	-4.8	-1.7	-5.1
2015	3.3	-0.1	-4.6	-1.9	-4.9

***(-)** as Financial Surplus

If public savings increases the borrowing requirement become less as mutually financial values after global crisis, and this fact means that investment ratios decrease too. The goal is that unsure the current account deficit equals the capital account surplus as a Keynesian approach, that can state as "Investment = Private Savings + Public Saving + Capital Inflows". But, the levels of fixed capital should not be being not noticed because of the changeable wavy location of public savings after 2007 year. As seen on the table (2), public savings levels was in the most less location and savings-investment differences was also, as a proportion of GDP, the most highly in this same year, but then it has been seen more the balanced whole relation in the later years.

The financial location and its structural relation can be explained in two terms related to the considered years. First, the levels of public savings have not been sufficiently increased after 2007 to today and this phenomenon has resulted in the deviation of national investments that should manipulate positive economic growth. Second, public savings has used for budget deficits, but not towards national investments including also financial incentives, this financial formation has been obstructed to national investments increasing the savings-investment differences as a the undesired fact after 2007 year (Ganioğlu & Yalçın, 2013).

3.2. Determining and Results

As national investments both savings of public and private sector are fairly important with respect to investments, but private sector savings are seen more meaningful than the other in Turkey as real values after 2007 year. Especially private sector saving-investment balances had been seem pretty increasing, while public sector saving-investment values had been decreasing to under zero before global financial crisis in 2001 year (Kaya, 2008). But, both of sectors that have financial saving values with saving-investment balances have seen generally under zero values, and this situation has produced continually in the negative financial limits of public saving-investment balances as a proportion of GDP towards presently financial accounts (Ganioğlu & Yalçın, 2013). The figure (4) shows the location of saving-investment balances for public sector together with private sector including global financial crisis years below (Hurriyet Daly News, 2016).

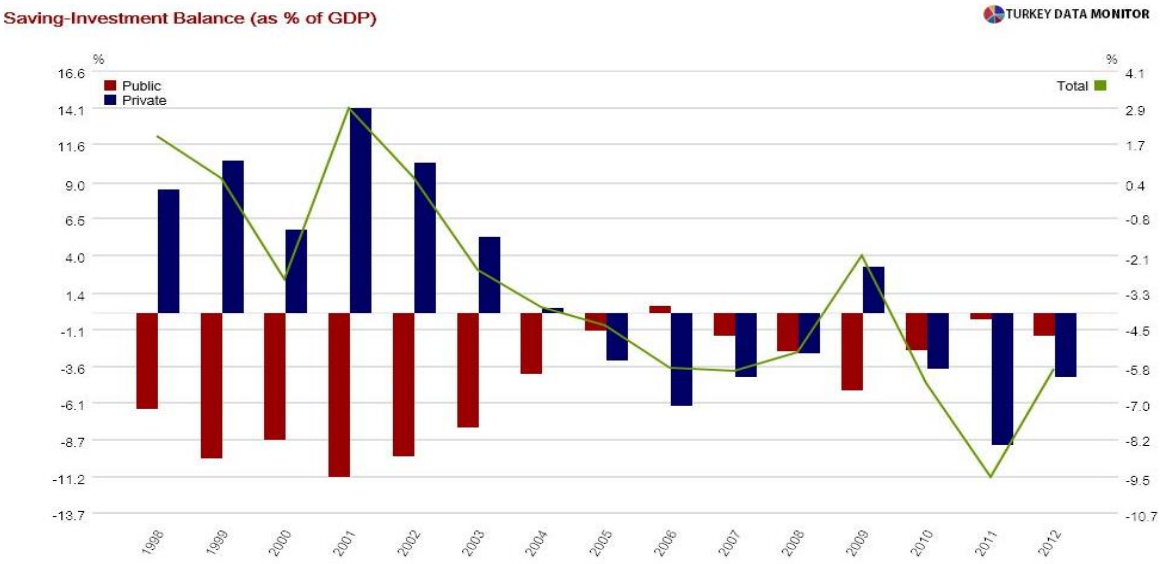

Figure 4. Saving-Investment Balances in Public Sector together with Private Sector

As seen on figure (4) the matter that should be analyzed, the net saving and investment relations do not indicate a fall over time similar to the corresponding gross saving investment coefficients in Turkey. In other words, In other words, the observed figure (4) saving-investment correlation is also important for assessing whether investment income causes a capital outflow that permits the incidence of the private investments via public savings to reach to aimed employment levels (Bölükbaşı & Ertugal, 2013). But, this financial matter is not easy as seen in Turkey due to this difference between the gross and net saving-investment as reality relations are more complex difference between the changes over time in Turkey.

When Turkey shift from differences towards positive to net saving and investment, the pattern of the savings retention coefficients differs even more sharply between public and private sector., and this situation has been considered to get in the current context of comparing long-term differences in national investment rates directed towards saving-investment balances after global crisis years in Turkey. Although we regard this as an ingenious demonstration of how the observed investment-saving relation might in principle be just a real reflection of the missing growth and production factors variables, we do not find it convincing (Bryson & Nelson, 2015).

The real analyses of whether the savings variables are just a meaningful power for the growth and investment variables is whether the inclusion of growth depends on the political stabilization, not only public savings (Ganioğlu & Yalçın, 2013) . Because this financial fact put forth this structural reality in Turkey that is together with public savings' investments have not been sufficient at remove from private sector, but need more private saving levels after global financial crisis years. So, Turkey has needed for more stability national savings that include public savings, but as better private saving levels towards national investments in especially financial institutions after global crisis.

The current public saves' limits note that the improvement of budget institutions in which together with the other financial liabilities that are related to borrowing requirement have been important for Turkey, which avoid the future financial crises similar to the occurred in 2009 as a global financial crisis. Public decision making process should be discuss the policy authority of legislatures often question their ability and competence to influence public savings policy. So, this is the tax case not just for public savings, but also usually states for budgetary decisions to ensure saving-investments balance.

4. Conclusion

Public saving-investment policies should be taken into consideration as aiming at macro public saving with national investment structures in the scope of a national tax policy. To be useful in stimulating public saving has to be transparent, and furthermore an important factor that can increase saving levels or enhance the saving usefulness of a tax review is the structural public extent to the necessary profile needed of saving-investment balances to be a catalyst to public about the tax system. If developing countries aim to reach the desired public saving together with private savings on the ground of national investments like Turkey, these must improve all financial system that include firstly to ensure taxable ability of their countries within appearing meaningful saving-investments balances for especially coping with global financial crises.

As for Turkey public saving-investments balances that are related to public borrowing requirements have been not sufficiently appeared buildup as saving values in 2007 to today financial balances. Especially, it is not possible to talk about national investments' real increasing after global crisis due to respecting the national saving limits, as whole national values, have not been in the desired optimal financial balance location. Recognizing that this might be improved national saving policies should be about the idea of composition tax legislation effects between the political and the technical towards to support national savings especially with private savings in Turkey into bring to balance with public borrowing requirements. In other words, public borrowing requirement should be nourished by both public savings and private savings that were supported from the taxable values ground in order to reach the desired budget financial accumulations after global crisis years. But, in Turkey it require to not forget that this phenomenon is often the more political issues that affect the current financial arrangements as a probably the technical changes especially turned toward private saving-investment balances. In this respect, to be increased public savings with the other national savings have been political issues than financial subject, and the government budget's financial location needed structurally financial reforms to ensure desired national saving-investment after global crisis in Turkey, not only financial incentives.

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Time Series Forecasting With Neural Network And Fuzzy Logic

Hakan Pabuccu

1. Introduction

Artificial intelligence (AI) techniques have been used successfully in many disciplines especially engineering. In recent times, neural networks (NNs) and fuzzy logic (FL) have been used not only in engineering but also in social science especially for economic modelling and forecasting. For that reason, AI techniques have become more important for policy makers to create policy and make analyses for future decisions. Because of the growing interest in AI techniques, we need to examine some specific methods such as NNs and FL for time series forecasting and modelling. The main reasons for increasing interest in these techniques are that modelling the nonlinear relationship between variables successfully is becoming more and more accurate than that of traditional statistical and econometrical models and they do not require any assumptions for the data set. In this study, we present the mathematical structure of NNs and FL and a brief literature review. Afterwards, these techniques are compared with other traditional forecasting techniques. Finally, we examine some recent applications, developments and improvements in NNs and FL applications especially in social science. Additionally, we suggest some areas of further study to researchers.

2. Method

In this study, we examine time series forecasting problems based on real life. There are lots of techniques to analyze time series forecasting problems such as Autoregressive Moving Average (ARMA) (Valipour, Banihabib, & Behbahani, 2013), Autoregressive Integrated Moving Average (ARIMA) (G. P. Zhang, 2003), Vector Autoregressive (VAR) (Schorfheide & Song, 2015 and Chambers, 2005), Vector Error Correction Model (VECM) and Autoregressive Distributed Lag (ARDL) (Bahmani-Oskooee, Halicioglu, & Hegerty, 2016) and it's possible to increase these model samples. The abovementioned techniques are based on statistics and econometrics that require some data assumptions such as normal distribution so as not to have serial error autocorrelation and heteroscedasticity. Additionally, these techniques generally determine the linear relationship between variables. In this study, we provide models that do not require any of the data assumptions mentioned above and determine the nonlinear relationship between variable NNs and FL to forecast real life time series problems.

2.1. Time Series Forecasting

Time series is a compilation of investigation data made successively by the way of time. Examples take place in lots of fields, from economics to engineering. Time series analysis techniques are a very important field of statistics (Chatfield, 2016). There are different structure time series templates: i. Economic and financial time series; ii. Physical time series; iii. Marketing time series; iv. Demographic time series; v. Process control data; vi. Binary process data; vii. Point process data (Sevüktekin & Nargeleçekenler, 2010).

Time series forecasting is a very important field to describe the relationship between variables that have the same time period when data are collected. Descriptive models, by using past observation, can extrapolate the series to the future. Time series models need to have dependent and independent variables so the variable selection methodology is very important in this process to get accurate results.

Time series forecasting models could have linear or nonlinear features. Econometric models like ARMA and ARIMA assume the relationship between variables is linear. These models are not suitable for the nonlinear nature of time series forecasting problems. At this point, nonlinear models like NNs and FL gain importance to determine the nonlinear relationship (L. Wang, Zeng, & Chen, 2015). ARIMA is one of the most important linear models that has statistical properties based on the well-known Box-Jenkins (Box, Jenkins, Gregory, & Ljung, 2016) methodology in the model construction process. ARIMA models are the combination of autoregressive (AR), moving average (MA) and ARMA series that have pre-assumption linear forms evaluated as a disadvantage. So the ARIMA model doesn't represent the nonlinear patterns. Due to the nonlinear nature of the real life problem, linear models are not always satisfactory (G. P. Zhang, 2003).

2.2. Neural Network for Time Series Forecasting

In this section we present a brief description and terminology of NNs and focus on the particular structure of NNs that is the multi-layer feedforward network (MLFN). In recent years, accessibility of data and calculation power have increased. Associated with this, the usage of artificial intelligence techniques has been increased for forecasting objectives (Kourentzes, Barrow, & Crone, 2014). NNs were first used in cognitive science and engineering. In recent years, artificial NNs have become increasingly popular in economics, finance and lots of social science research. The most used areas are economic forecasting (Kaastra & Boyd, 1996), bankruptcy prediction (López Iturriaga & Sanz, 2015), risk rating (Zhu, Xie, Sun, Wang, & Yan, 2016) and time series forecasting (Kardakos et al., 2013) problems.

NNs comprise lots of architecture and consist of elements named neurons that are interconnected to each other (Ardalani-Farsa & Zolfaghari, 2010). NN has an operator that is comprised of basic operator units. These units have a parallel calculation feature, which has a natural desire for storage of empirical data and making it practical for use. It resembles the brain in two respects (Haykin & Network, 2001):

*Data are obtained by the network from its space by using learning rules.

*The connection power between each neuron is used for storage of the obtained knowledge.

2.2.1. Neural Networks Terminology

It can be considered that NNs are a highly abbreviated model of the structure of the biological neuron. NNs consist of: i. Processing unit; ii. Interconnections; iii. Operations; iv. Updates (Yegnanarayana, 2005). NNs have several processing units that are interconnected with each other according to some topology by using interconnections. NNs take a signal from the out world or from the outputs of other processing units. In operation units, the input signal comes to the NN from other units that are connected units from the out world. NNs run by using the weights vector. So when constructing the weight vector network we need to update weights by using samples data. The update procedure is executed as a learning law or learning algorithm. There are two learning procedures to run the NNs. The first is supervised learning and the second unsupervised learning. It's possible to say that there are lots of type of NNs that have supervised or unsupervised learning methods (Öztemel, 2006). The Multi-Layer Perceptron (MLP) model that has supervised learning is the most common network for time series forecasting. MLP is based on a simple perceptron model but to increase the power of learning and extrapolating for accurate results it needs to have hidden layer. When constructing the

model the recommended number of hidden neurons must be the least as soon as possible (Claveria & Torra, 2014).

2.2.2. Multi-Layer Feedforward Network (MLFN)

Since the 1980s, many types of networks have been proposed. The first and most important model is MLP followed by Kohonen's self-organizing map (SOM) and Hopfield networks. Hopfield networks are recurrent and single layer networks where all the process elements are both input and output (Hopfield, 1982). The SOM network was developed by Kohonen and it has been used for classification problems. The SOM network has an advance classification ability of input vector (Kohonen, 1984).

MLP is a network that uses supervised learning and an error backpropagation algorithm. MLP has been performed successfully to solve any real life problem in social science. MLP has three distinctive characteristics (Haykin & Network, 2001):

1. Each neuron has a nonlinear and differentiable activation function in the model structure. The most commonly used nonlinear activation function is logistic function as sigmoidal nonlinearity in eq. 1.

$$y_j = \frac{1}{1+\exp(-v_j)} \quad (1)$$

Here y_j is output of the neuron, v_j is weighted sum of all synaptic inputs with the bias.

2. The network must have one or more hidden layers that help to increase the ability of learning, except input and output layers.

3. The network includes connectivity so any change in this connectivity needs to change synaptic connections or their weights.

While learning the network, outputs are calculated by using samples data. As an accuracy rate first weights are changed. This process take place via any learning algorithm such as backpropagation. After the learning process, it needs to check whether the network learned or not (Öztemel, 2006).There are lots of learning algorithms in NNs learning process. The main point separating these algorithms from each other is the rule of updating weights. Table 1 presents the most common learning algorithms and their rule to change weights (Yegnanarayana, 2005). It's possible to find more information about learning algorithms in Zurada, (1992).

Table 1: Basic learning algorithm and summary information*

Learning rule	Changing weights	Initial weights	Type
Hebbian	$\Delta w_{ij} = \tau f(w_i^T a) a_j$	Zero	Unsupervised
Perceptron	$\Delta w_{ij} = \tau [b_i - sgn(w_i^T a] a_j$	Random	Supervised
Delta	$\Delta w_{ij} = \tau [b_i - f(w_i^T a)] f(w_i^T a) a_j$	Random	Supervised
Widrow-Hoff	$\Delta w_{ij} = \tau [b_i - w_i^T a] a$	Random	Supervised
Correlation	$\Delta w_{ij} = \tau b_i a_j$	Zero	Supervised
Winner-Take-All	$\Delta w_{kj} = \tau (a_j - w_{kj})$	Random	Unsupervised
Outstar	$\Delta w_{jk} = \tau (b - w_{kj})$	Zero	Supervised

*In table 1 τ is the learning rate, b_i the expected output, w_i the weight vector, and a the input vector.

In this study, in addition to the learning algorithm mentioned in Table 1, the generalized delta learning rule back propagation algorithm (BPA) will be explained. BPA is based on the least square error (LSE) method and it's generally for MLP networks. It's possible to explain in two steps: i: Forward calculation; ii: Backward calculation (Çetin, 2011; Öztemel, 2006):

i: Forward calculation: This step begins with submitting the samples from input layers to the network. Incoming signals sent to the hidden layer have no changes ($O_k^i = I_k$). Each neuron in the hidden layer takes the signals by using their weights from each neuron in the input layer and the net input in the hidden layer calculated in eq. 2.

$Net_j^a = \sum_{k=1}^{n} W_{kj} O_k^i$ (2)

The output of *j*. hidden layer calculates by using differentiable activation function like eq. 1.

ii. Backward calculation: Expected outputs and networks outputs are compared to each other and the differences between them are accepted as the error. The purpose of this step is to distribute the error to network weight values and to decrease the error for the next iteration. Error for the neuron *m* calculates $E_m = expected\ outputs - network\ output$.

MLP running procedure can be explained in eight steps.

i. Collect sample.

ii. Identification of the network structure: In this step, the number of input, output and hidden layer neurons is determined. The number of input and output neurons is specific for the problem but the number of hidden layers and hidden layer neurons is determined by the user

iii. Determining learning rate and momentum constant: Learning rate presents the change rate of the weights. If it selects a high value, the network is working around the local optimum, if it selects a low value, learning time increases. The selection of these parameters is specific for the problem structure (Fyfe, 2000).

iv. Determining the initial weights: Table 1 presents the rules.

v. Selecting submitting order for samples: It can select randomly from any of the submitting order rules.

vi. Calculate the outputs of the network.

vii. Calculate the error for each sample.

viii. Changing weights as used in the learning algorithm. (See Table 1).

While time series forecasting problems can be solved using any type of NN, there are some specific time series NN models like nonlinear autoregressive with exogenous variable (NARX) or nonlinear autoregressive moving average with exogenous variable (NARMAX). NARX model is recurrent and based on linear ARX model, which is commonly used in time series forecasting. The mathematical structure of the NARX model is presented in eq. 3-4 (Babuška & Verbruggen, 2003)

$y(k+1) = f(x(k))$ (3)

$y(t) = f(y(t-1), y(t-2), \dots, y(t-n_y), u(t-1), u(t-2), \dots, u(t-n_u)$ (4)

NARX network is a kind of recurrent NN that has been successfully used in time series forecasting problems (Gao & Er, 2005). There are differences between recurrent NNs and MLFN. The main difference is that recurrent NNs allow lagged value of variables by using weighted feedback connections by contrast with MLFN. This allows the construction of autoregressive time series models. NARX model is suitable for non-stationary and nonlinear time series because no assumption is needed (Chaudhuri & Ghosh, 2016).

2.3. Fuzzy Logic for Time Series Forecasting

Associated with the transition from general logic system to alternative logic system, this has dominated modern scientific understanding based on uncertainty. Together with this understanding, FL has progressed swiftly (Ross, 2010). It's possible to separate fuzzy logic systems (FLS), as pure fuzzy systems and hybrid fuzzy systems. The systems that are designed using FL show high performance on ill-defined mathematical models, time varying and nonlinear models (Çetin, 2011). FL algorithms can be defined as systems that use linguistic variables and rules. FLs consist of fuzzifier, inference engine, defuzzifier and knowledge base. FLs have been commonly used in expert systems, pattern recognition, time series analysis, data classifications and decision analysis (Jang, Sun, & Mizutani, 1997). Fig 1. Presents an FL System.

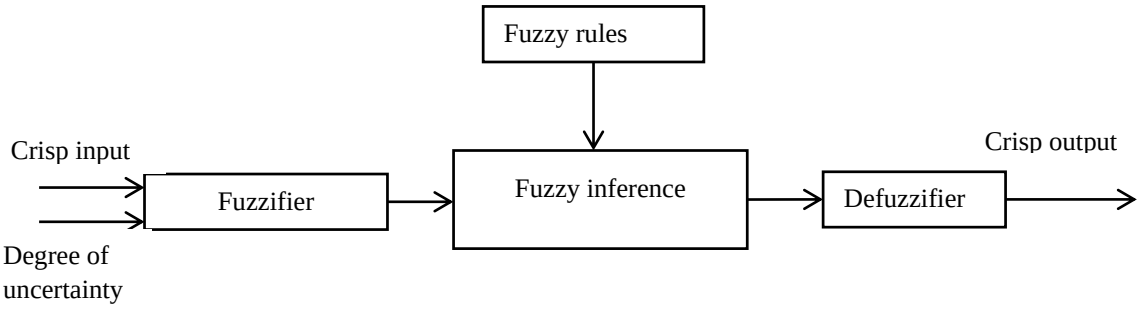

Figure 1. FL System
Source: (Cao, Li, & Liu, 2011)

The most common way to represent uncertainty is to use linguistic variables in AI. For this reason, there are lots of models based on FL such as Mamdani, Sugeno, Larsen and Tsukamoto that model any input-output relationship that includes time series. The Mamdani model enables fuzzy 'if-then' rules for the users. Two different (min-max and max-product) inference mechanisms and in decision phase T-norm (min) and T-conorm (max) operators are used together (Jang et al., 1997). The Sugeno fuzzy model, generally known as the Takagi-Sugeno (Takagi & Sugeno, 1985) fuzzy model, is alleged to build fuzzy rules so as to develop a systematical approach from a given data set. The fuzzy models mentioned above are based on fuzzy 'if (antecedent)-then (consequent)' rules that separate from each other some calculation differences, used product-sum operators, fuzzification-defuzzification methods or membership functions etc. The most commonly used methods are Sugeno and Mamdani fuzzy model in expert systems and data processing (Babuška & Verbruggen, 2003). In this section, we present a brief description of the Takagi-Sugeno fuzzy model.

Takagi-Sugeno Fuzzy Model: In fuzzy models, the antecedent (if part of the rule) and the consequent (then part of the rule) are fuzzy statements in eq. 5.

$$R = IF\ x\ is\ A\ and\ y\ is\ B, THEN\ z\ is\ z = f(x,y) \quad (5)$$

Here $z = f(x,y)$ is a crisp and usually polynomial function. If $f(x,y)$ is constant the system refers to 'zero order Sugeno' model if it is linear function the system refers to 'first order Sugeno' model (Jang et al., 1997). Fig. 3. presents the Sugeno fuzzy model with two inputs and one output. In fuzzy models any membership function can be used. More ınformation can be found in Babuška & Verbruggen (2003) and Ross (2010). In Fig. 2 each rule has a crisp output that is acquired through the defuzzification method weighted average.

3. Neuro Fuzzy (NF) Modelling

The techniques like FL, NNs, Genetic Algorithm and Expert Systems have some specific features. While NNs can learn, FL has an advanced ability to make a decision. The NF approach is based on combining the learning ability of NNs and making a decision of FL like a human (Çetin, 2011). The NF system is a mechanism that has the ability to learn, adapt and process the knowledge simultaneously. Some of commonly used models are Fuzzy Adaptive Learning Control Network (FALCON) (Lin & Lee, 1991), Adaptive Neuro Fuzzy Inference System (ANFIS) (Jang, 1993), Neuro Fuzzy Classification (NEFCLASS) (Nauck, 2001), Fuzzy Inference and Neural Network in Fuzzy Inference Software (FINEST) (Tano, Oyama, & Arnould, 1996). The systems mentioned above have some advantages and disadvantages such as calculation time, significance of rule base and performance level that are used to test model validity (Abraham, 2001). This section doesn't give any information about NF modelling

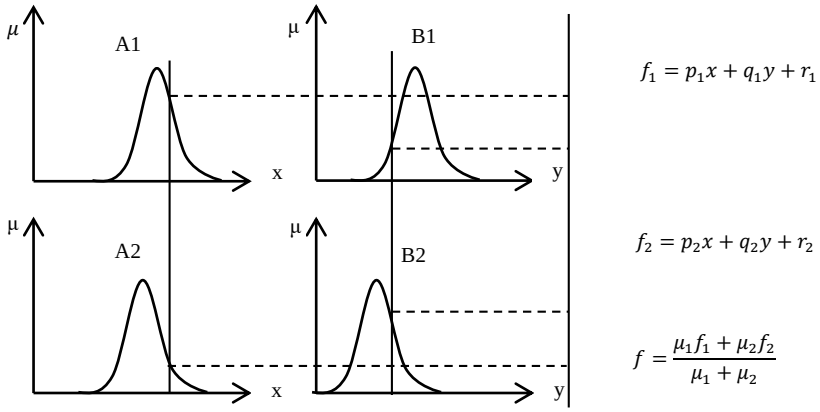

Figure. 2: Sugeno Fuzzy Model
Source: (Jang et al., 1997)

4. Literature Review

This section presents some studies about NNs, FL and NF model applications in time series forecasting.

The study of Kaastra & Boyd (1996) is based on NNs for financial and economic time series forecasting. It presents a guide to constructing a NN forecasting model in time series. It proposes an eight step procedure about parameter-variable selection, determining learning-momentum rate and some argued topics between users. G. Zhang, Patuwo, & Hu (1998) studied forecasting with NNs. The purpose of this study is to: i. Evaluate the published study; ii. Seizing of NNs modelling; iii. Suggest future research. In Karnik & Mendel (1999), to forecast time series the type-2 FL system was used and to gain a better forecast it has been compared with the type-1 FL system. In this study, chaotic time series has been used. Liang & Mendel (2000), presented a study that evaluated the theory and design interval type 2 FL system. The authors proposed a method to calculate the input and antecedent operations for FL systems. G. P. Zhang (2003) proposed a hybrid model by combining NNs and ARIMA models. As a result of the study, a hybrid model can produce more accurate forecasts when compared to ARIMA or NNs models. G. P. Zhang & Qi (2005) studied seasonal and trend time series forecasting with NNs. In this study, they argued the number of limited empirical studies on seasonal time series. NN model and Box-Jenkins seasonal ARIMA model were applied and compared to each other. As a result, NNs are not able to model seasonal and trend time series without any data preprocessing (deseasonalization and detrending). Data preprocessing has reduced the forecasting error dramatically. Gao & Er (2005) applied nonlinear autoregressive moving average with exogenous input model and recurrent-fuzzy NNs in time series forecasting. The proposed methodology can learn complex situations. One more study on type1-2 FL system is Huang & Yu (2005). Type 1 models were utilized for one variable in time series. In this study, the authors proposed a Type 2 fuzzy time series model. They used the dataset collected from the Taiwan stock index. Analysis argued that the Type 2 model had better performance as regards the Type 1 model. Melin, Mancilla, Lopez, & Mendoza (2007) described the application of modular NNs structure to solve complex time series. Several NN models and training algorithms have been used and compared. To test the models, the consumer goods prices real time series data set was used. Because of predicting difficulties and complexities of fluctuation, NN structure was chosen as the forecasting model. W. C. Wang, Chau, Cheng, & Qiu (2009), to develop a forecasting model for monthly discharge time series, have compared several forecasting models including ARMA, NNs and ANFIS. Model performance was, respectively, ANFIS, Genetic Programming and Support Vector Machine. To forecast Mackey-Glass time

series a hybrid model was proposed by Almaraashi & John (2011). Simulated annealing was used to optimize parameters of the Mamdani model rules. The results of the proposed model were compared with the type 1 FL system. Lohani, Kumar, & Singh (2012) analyzed monthly reservoir inflow data using AR, NNs and ANFIS models. To train the ANFIS model data set divided different input vector sets and in all cases the ANFIS model produced more accurate forecasts than the NNs and AR models. Weizhong Yan (2012), with reference to not having any systematic way to determine the parameters of NNs, proposed an automatic NNs model named the generalized regression neural network. The proposed model compared 60 different models worldwide and had the best model award. Donate, Cortez, Sanchez, & de Miguel (2013) proposed a novel hybrid model to forecast time series. The authors studied evolutionary NNs and proposed a weighted model. The proposed model gained competitive results compared to the non-weighted model. A study was made by Kardakos et al. (2013) to forecast electricity generation using ARIMA and NNs. As a result of the study, the authors revealed that to forecast electricity generation both models can be used but NN is preferable. In Valipour et al. (2013) ARMA, ARIMA and dynamic NNs were compared to each other to forecast monthly inflow of a reservoir. As a result root mean square error (RMSE) and mean bias error (MBE) were compared, and one hidden layer with 17 neurons with sigmoid activation function dynamic NN was chosen as the best model. Kourentzes et al. (2014) proposed a mode ensemble operator that is sensitive to outliers and deviation from normal distribution based on kernel density estimation. As a result, the proposed mode operator could be used as an alternative to mean and median operator for time series forecasting applications. L. Wang et al. (2015) proposed a hybrid approach so as not to fall into local minimum dot in time series by using NNs. This novel approach combined the adaptive differential algorithm and back propagation NN. The proposed methodology effectively improved the accuracy of forecasting compared to ARIMA and basic NN. NARX and MLFN as NN tools, generalized autoregressive conditional heteroskedastic (GARCH) and exponential generalized autoregressive conditional heteroskedastic (EGARCH) as econometric tools were applied to forecast exchange rates in Chaudhuri & Ghosh (2016). As a result, NARX and MLFN are the most efficient models at the same level. Optimal distribution of information granularity Sugeno type FL model was used in Lu, Zhang, Pedrycz, Yang, & Liu (2016) by applying to a real life time series dataset.

5. Findings and Discussion

In this study, NNs and FL were examined for the real life time series forecasting problem especially in social science. To achieve this purpose, we investigate and give a brief description and the mathematical structure of the mentioned techniques and a strong literature review composed of the newest and highest quality novel articles was made. As a result of this study, some conclusions were obtained:

*NNs and FL models are convenient for the real life time series forecasting.

*The back propagation NNs model, especially the back propagation learning algorithm, can easily fall into the local minimum dot (L. Wang et al., 2015) and this problem caused non-learned NN. So to improve the network learning performance some recovery can be made for the learning algorithms. This proposal can be used for all networks that use backpropagation learning algorithms.

*In chaotic time series problems NNs models couldn’t present the best performance so to solve this problem the NARX model is more convenient.

* NNs models or FL models are convenient to solve time series problems but the hybrid models such as ANFIS can show better performance. However, this proposal cannot be valid for all-time series problems.

*Statistical, econometrical and mathematical models show better performance when the number of independent variables is the lowest. Therefore the variable selection methodology is very important in forecasting performance. At this point AI techniques can be helpful.

*AI techniques don't need any data or distribution assumption, but if they examine historical data such as time series, data preprocessing such as deseasonalization, detrending or data normalization improve the model performance.

*To determine the parameters of NNs there is no specific approach but some informative techniques are mentioned in the literature.

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Dual Nature Of The Free Market Ideology: The Discourse Of The Minimal State And Free Market Economy: An Assessment On The Axis Of The Karl Polanyi's Great Transformation

Betul Sari

1. Introduction

Especially in the last few decades, many studies were taken place in the international literature about the free market concept. In globalization, free market system and international political economy literature, wide increase started to be seen in reference to the book of Karl Polanyi: The Great Transformation. Those advances bring about some questions such as: *Why there is still so much interest to the Great Transformation? How the book about economic history and anthropology of old times can shed light to even today's economics and market system?* In order to answer these questions, there is a need to look at the today's economic and market transformation since the Second World War. But before that, we will briefly touch on the Polanyi's Great Transformation and the emergence of the market system to better understand the subject.

2. The Great Transformation and Polanyi's Views About the Contradiction of the Minimal State and Free Market Discourse

Polanyi has written the Great Transformation by recognizing the possibility of materialization of the new economic policies and considering their effects on market post the Second World War era. The Great Transformation begins with the sentence *''19th century civilization has collapsed.''* According to Polanyi, it was not right to exclude 19th century's economic relations from its social roots and also market system functioning by its own rules doomed to collapse. In order to explain the collapse of the market system, Polanyi suggested taking reference the history dating back to the pre-capitalist societies and primitive economies and proving the exact linkage between the economic and social relations since prehistoric times. His outlook of any economic system can be considered as a whole and as a historically specific social organization (Cangiani, 2011, 117). According to him, free-market system without any state intervention implies only a *historical impossibility*. He has developed several concepts, including *fictitious commodities* and *embedded economy* that led new directions which largely defined that impossibility (Block, 2003, 275).

Fictitious commodities concept was used to define the role of land, labor and money in economic theory. According to Polanyi, land, labor and money are not true commodities baceuse true commodities are things that are produced for sale on a market (Block, 2003, 281). Their sale, as if true commodities in the market, only brings about the demolition of society. As he expressed:

> *"In regard to labor, land and money such a postulate cannot be upheld. To allow the market mechanism to be sole director of the fate human beings and their natural environment, indeed, even of the amount and use of purchasing power, would result in the demolition of society. For the alleged commodity 'labor power' cannot be shoved about, used indiscriminately, or even left unused without affecting also the human individual who happens to be the bearer of this peculiar commodity. In disposing of a man's labor power the system would, incidentally, dispose of the physical, psychological, and moral entity 'man' attached to tag. Robbed of the protective covering of cultural institutions, human beings would perish from the*

> *effects of social exposure and social dislocation. Nature would be reduced to its elements, neighborhoods and landscapes defiled, rivers polluted, military safety jeopardized, the power to produce food and raw materials destroyed. Finally, the market administration of purchasing power would periodically liquidate business enterprise, for shortages and surfeits of money would prove as disastrous to business as floods and droughts were in primitive society. Undoubtedly, labor, land and money are essential to a market economy. But no society could stand the effects of such a system of crude fictions even for the shortest stretch of time unless its human and natural substance as well as its business organization was protected against the ravges of this satanic mill"* (Polanyi, 2001, 76-77).

Furhermore, embedded economy concept refers to the embeddedness of the economic relations in social relations. However, this case is reversed and market becomes dominant with the emergence of market societies. But still ways have to be found to embed labor, land and money in social relations, because subordinating them to the market mechanism would destroy society; thus free-market economy is just a stark utopia. Market economies always dependent upon the state to manage the supply and demand for the fictitious commodities. If they became independent, the result would only be a crisis of society on the one hand and a crisis of economy on the other (Fraser, 2014, 545). As Polanyi points out:

> *"Our thesis is that the idea of a self-adjusting market implied a stark utopia. Such an institution could not exist for any length of time without annihilating the human and natural substance of society; it would have physically destroyed man and transformed his surroundings into a wilderness"* (Polanyi, 2001, 3).

Those statements of Polanyi refers to the impossibility of the pure free market without system that enables the production and distribution of goods. There are markets in every society. However, this case does not enable to market to seize everything in economies through imperialist manner.

Addition, according to the Polanyi, the dynamics of modern society were conducted by *double movement.*[9] Double movement indicates a dialectical process of marketization and pushes for social protection against that marketization.[10] With another word, the counter-movement has two regulatory principles. First is *economic liberalism*, that's to say the foundation of market functioning according to its own rules which requires laissez faire and the tools of free trade. Second is the *social protection policy*: It aims the protection of people and nature, but also the production order through benefitting from the support of various groups suffering from the devastating effects of market; and using associations and other intervention tools as protective legistative process (Polanyi, 1986, 143). That double movement is vitally important for the protection of the society; however, with the functioning of the market according to its own rules, inconsistent with the market system itself (Polanyi, 2001, 136). As Polanyi stated:

[9] According to Polanyi, the dynamics of modern society were ruled by double movement for over a century. While the market was expanding constantly, it was also met by movement which restricted its expansion in a certain measure.

[10] Double movement includes largely the protective legistative activities of state which weakens the functioning of the market economy according to its own rules. Social laws, factory laws, agricultural tariffs, land laws or supervision of the money supply by Central Bank are the main examples of that. Without them, tension in the social structure might be raised. The collapse of the civilization of 19th century was the result of that growing tensions according to Polanyi.

> *"There was nothing natural about the laissez-faire; free markets could never have come into being merely by allowing things to take their course. Laissez-faire itself was enforced by the state. The 1830s and 1840s saw not only an outburst of legislation repealing restrictive regulations, but also an enormous increase in the administrational bureaucracy able to fulfil the tasks set by the adherents of liberalism. Laissez-faire was not a method to achieve a thing, it was the thing to be achieved."*
>
> *"This paradox of the need for a strong central executive under laissez-faire was topped by another. While laissez-faire economy was the product of deliberate state action, subsequent restrictions on laissez-faire started in a spontaneous way. Laissez-faire was planned; planning was not" (Polanyi, 2001, 145-148).*

Polanyi has putted forward his double movement thesis in an atmosphere which advocates minimal state and the free market and the requirements of market regulation with a growing emphasis. In Great Transformation, the essentialness of the social regulations were emphasized which have had crucial role on alleviation of the social tensions. According to Polanyi, that double movement ensures the progress of the capitalism and its reproduction. Minimal state and free market were advocating on the one hand and the necessity of the state intervention on the other hand for the well functioning of the free market. This case was evaluated as a paradox by Polanyi. Polanyi stated that situation through these words:

> *"Social history in the nineteenth century was thus a result of a double movement: the extension of the market organization in respect to genuine commodities was accompanied by its restriction in respect to fictitious ones. While on the one hand, markets spread all over the face of the globe and the amount of goods involved grew to unbelievable dimensions, on the other hand, a network of meausures and policies was integrated into powerful institutions designed to check the action of the market relative to labor, land and money. A deep-stated movement sprang into being to resist the pernicious effects of a market-controlled economy. Society protected itself against the perils inherent in a self-regulating market system, this was the one comprehensive feature in the history of the age"* (Polanyi, 2001, 80).

Karl Polanyi explained the main reasons of the counter-movement towards the imposition of the self-regulating market. According to him, that imposition originated from the increasing rivalry among states, imperialism, the rise of communism and fascism and two world wars (Hechter, 1981, 418). Polanyi expressed the ascendance of protectionism through that statement:

> *"Less and less could markets be described as autonomous and automatic mechanisms of competing atoms. Economic adjustment became slow and difficult. The self-regulating market was gravely hampered. Eventually, unadjusted price and cost structures prolonged depressions, unadjusted equipment retarded the liquidation of unprofitable investments, unadjusted price and income levels caused social tensions. Nevertheless, the institutional seperation of the political from the economic sphere was constitutive to market society and had to be maintained whatever the tension involved"* (Polanyi, 1944, 218).

In the light of these words, it is possible to understand that the self-regulating market as an economic institution is not crowded out from the centre of society's material reproduction

by limiting self-regulation. Protectionism and state intervention, on whatever scale, can overcome the market utopia (Lacher, 1999, 325).

The main thesis of the Great Transformation based on the collapse of the nineteenth century civilization built by the market mechanism operating according to its own rules and the major transformations occurring with the response of the community. The transformation anticipated by Polanyi has implied that impossibility of the association of the market mechanism functioning with its own rules and human society. Polanyi has connected that transformation to this phenomenon.

3. In the Context of the Theory and Reality, Are Polanyi's Views About Minimal State and Free Market Still Valid In Today's World?

In the 21st century, social, political and economic lives have experienced various upheavals worldwide rooted from many aspects of important events including the First World War, the Soviet Revolution, the Great Depression of 1929[11], fascist waves of the 1930s and the Second World War. World has entered into a certain polarization immediately afterwards the Second World War. On the one hand, there were capitalist countries which largely realized industrial improvement; on the other hand so-called Eastern Bloc countries, largely consisted of the third world countries, tended to pass the socialist system. It was possible to define those countries actors of that polarization.

Roughly until the mid 1970s, through the Keynesian doctrine, state has taken more active role in economies compared to the previous period within the framework of the developmentalist economic policies. Therefore, the welfare state approaches and various social policies has emerged. That period came to an end the oil crises emerged in the 1970s and neoliberal economic policies, showing the effect after 1980s. The wave of globalization and neoliberal economic policies took almost the entire world under influence.

The neo-liberal economic policies based on the market dominance and superiority as known. In this structure, state serves as an organisation that works in coordination with the market. Markets tend to be increasingly dominated to the economies; and states move away from taking place in economy day after day through the policies such as privatization, deregulation, financialization and so on. As can be seen from these tendencies, it is possible to mention about the transformation realizing on the world after 1980s. The transformation foreseen by Polanyi introduced itself with the welfare state approach which came forward afterwards the Second World War. Within the double movement, Polanyi's ideas which imposes the important role to the state in economic activities realized in real terms during the domination of the Keynesian doctrine. Commodity markets in this period were audited by the state, and intervened if necessary. However, Polanyi, fictitious commodities and their markets continued their existence at the same period of the world. Thus, completely transformation have not realized yet.

As previously mentioned, since the neoliberal economic policies have emerged and dominated almost the whole world in the last few decades, especially afterwards the 1980s,

[11] The roots of that crisis were emphasized by Polanyi and showed the impossibility of the association of free market and the minimal state discourses. As he declared: ''Economic liberalism made a supreme bid to restore the self-regulation of the system by eliminating all interventionist policies which interfered the freedom of markets for land, labor and money. It undertook no less than to solve, in an emergency, the secular problem involved in three fundamental principles of free trade, a free labor market, and a freely functioning gold standard. It became, in effect the spearhead of a heroic attempt to restore world trade, remove all avoidable hindrances to the mobility of labor, and reconstruct stable exchanges.'' (See, Polanyi, 2001, 239). With the association of the free market and minimal state approaches, the result became the collapse of the global economy and its direct political outcome, 'the rise of fascism.'

Polanyi's analyses of the free market system have gained importance. Randles (2003, 409-434) determined the main reasons of that case with some international advances. The first, the idea of *laissez-faire* arisen by 1800s and market distribution mechanisms based on logic of the Reagan-Thatcher have started to be accepted very similiar. As a matter of fact, both of them were regarded as utopian beliefs. On the other hand, the rise of the liberalized international capital markets has recalled the Polanyi's analysis about the collapse of the gold standard which was uttered oftenly by the specialists of the international finance regime. Today, the international finance system is witnessing existence of a tendency about going into a financial crises of many regions on world as seen in the late 1990s in East Asia and Latin American countries.

The Great Transformation, predicted by Polanyi, has not realized exactly; however, economic liberalism which is the one part of his double-movement thesis maintains its effect. From this perspective, similiar economic conditions occurred with the collapse of the nineteenth century civilization is coming back on World economic agenda. . Emerging trends after the 1980s have brought about the market mechanism functioning according to its own rules and an economic system dominating the society. The other part of the double-movement, social protectionism, was a natural reaction according to Polanyi and it has installed an active role to the state in economies. With the economic liberalism, activities of the state has lessened. The position of the market system is still mitigating the state's redistribution mechanisms and effectiveness of the state institutions. But, on the other hand, attempts for resistance have risen against bad consequences of the market economy in terms of the nature, industrial activities and people. That double-movemment aiming protection of the society and nature had vital importance, but it was not in a line with market society. Therefore, the pure neoliberal policies started to transform to the different policies under the effects of economic and social problems caused by market-oriented reforms. Those policies includes social responsibility and attempts to asssign large role to public authorities and non-governmental organizations in economic and social policies broadly defined by the term of governance (Jessop, 1999, 343). Features of this new regime are clearly reflected especially on the policy discourses of the World Bank which is spreading the overall approaches of economic development. As Stiglitz (1999, 577-597) pointed out, the development dealing with broader goals requires more tools and actors than before.

Addition, the transformation of the Eastern Bloc countries started after 1990s has proved the impossibility of the emergence of the free market spontaneously. The arisen state intervention and particularly enacted legislations in those countries have led to the realization of the free market system. Moreover, the break out of the 2008 crisis has revealed the fact myth and utopian features of the free market. Therefore, state intervention has emerged once again as vital necessesity for the continuation of the economic system. . In order to mitigate the effects of crisis and reduce its spread over the global scale, all proposed and implemented policies are based on the state interventionism and protectionism. In that context, it was not suprising interpretantion of the state intervention to the market after the 2008 crisis as *'Keynesian policies came back.'*[12] (Sarıöz Gökten, 2013, 135).

[12] The global financial crisis of the United States emerged in 2007 was originated from the neoliberal restructing of the markets in past years. At that moment the trigger was the fiasco based on mortgage. Then the mortgage crisis of the United States has earned a global content at the end of September 2008 with the bankruptcy of the US investment bank Lehman Brothers. The collapse of the economic system was prevented by the intense and continuous government intervention. Many Western economies shifted to financial Keynesianism. For example World Bank's 2013 Global Financial Development Report has emphasized largely the necessity of the implementation of the neoliberal policies with a solid state which guarentees a better market discipline (See, Marois, 2012, 208-212).

All of those advances fully compatible with the views of Polanyi. According to him, the free market is by no means a spontaneous order. The way of the free market has been opened, thanks to an enormous increase of the constant, centrally organized and controlled interventionism (Polanyi, 2001: 139-140). In the Great Transformation, *the combustion of the legistative activities, the huge increase of the state's administrative works* were defined just as defined today[13].

In current world, where globalization is presented as an inevitable process, on the one hand while the necessity of the free market system is advocated, on the other hand permanent arrangements are made on behalf of the continuation of this system. These facts must be expressed in order to understand the double-faced nature of the free market ideology. That recalls the views of Karl Polanyi are still keeping their guide nature.

4. In Lieu Of Conclusion

The validity of the idea of Polanyi that there is no natural side of laissez-faire economic liberalism were proved by today's practices. With another words, it is not possible to make minimal state and free market economy discourses simultaneously. State intervention is always essential for the emergence of such an economic nature.

As a matter of fact, government plays an important role since the beginning of the market system. However, the state is not only effectively attend to the foundation of the market system, at the same time the flag of the countermovement was carried by it. In that context, state has played key role both on the functioning of the market and the restriction of the market domain. So, the state has a contradictory mechanism. Polanyi's work still offers one of the most important points in order to understand that contradiction.

World affairs have assessed that the association of free market and the minimal state discourses is impossible. Because self-regulating market as an economic institution is not displaced from the centre of society's. Therefore, protectionism and state intervention can overcome the market utopia (Lacher, 1999, 325). With Polanyi's statement:

> *"Economic history reveals that the emergence of national markets was in no way the result of the gradual and spontaneous emancipation of the economic sphere from governmental control. On the contrary, the market has been the outcome of a conscious and often violent intervention" (Polanyi, 1944, 250).*

Thus, it is possible to understand that the road to the free market only remains open because of state interventionism. In order to realize that fact, one needs to realize the political acts that goes into market making.

In all these contexts, it is possible to state that the Karl Polanyi's views and his book Great Transformation still keeps its validity in putting forward the utopianic feature of the market liberalism with another saying, self-regulating economic system. As a result, it should be stated that The Great Transformation will continue to be an important reference source in order to comprehend the present and the future of the double-faced nature of the free-market ideology.

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[13] According to the Polanyi's ideas, labor, land and money have became like the commodity. These commodities freely bought and sold in the market economy. However, in order to prevent damage of the land and labor the laws were maken. But, in the 19th century the market economy, was not embedded to society too much. Thus land and labor became like a commodity and managed by the self-regulating market conditions (See, Congdon, 1976, 168-169). As for the money's situation Polanyi has considered the application of the gold standard system. Gold standard, has provided the free trade of the money on market. But, the collapse of the gold standard brought about the collapse of the market mechanism (See, Polanyi, 2001, 208-210).

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Interest-Investment Relatıons: Developed And Developıng Country Comparısons Wıth Turkey

Haldun Soydal, Duygu Baysal Kurt, Sema Yaşar

1. Introduction

In traditional literature of economics, it was put forward that low interest rates will encourage the investments (because, in traditional literature of economics, there is a negative i.e inversely proportional relationship between investment and interest rates) and that saving, largely accepted that it was determined by the income level, would not be affected from this. For, in these approaches, saving is dealt with as a dynamic variable. According to this, as a consequence of investment, income increases and, with increase in income, saving rate rises (Demirbaş, 2000, p.81).

According to Keynes, in making investment decisions, two factors become effective: interest and, marginal efficiency of capital. Again, according to Keynes, in the formation of investment decisions, although market interest rates, are taken into consideration, the expectations related to marginal efficiency of capital determines the result of investments. For, Keynes, for a given expectation set, points out interest rates as the main determinative of investment. When a difference occurs between profit expectation, defined by marginal efficiency of capital, and current interest rates, and when this difference is evaluated by the entrepreneur as "satisfying", the decision of investment is made. In short, investment decisions are determined in the dimension of profitability expectation (Fisunoğlu & Köksel Tan, 2009, p.37).

The main point Keynes differentiates from the classical economists is that investment decisions are not only based on the current marginal efficiency of capital but also depends on the expected return of capital in the future. In making the decisions of investment, future expectation plays important role. When the uncertainty of future is considered, Keynes, in making the investment decisions, suggested that a behavioral tendency he called "animal spirits" would play role (Fisunoğlu & Köksel Tan, 2009, p.38).

According to neoclassic approach, that the press on savings releases by interest rates increases the financial instruments, provides financial deepening, and brings effectiveness to the financial sector; on the other hand, fund costs falls, and investments increases. According to approaches criticizing this, interest rate is a factor determining to make a preference between real investments and financial investments and the fact that the return of financial instruments plays a role reducing real investments (Yentürk, 2003, p.10).

In neoclassic approach, McKinnon-Shaw Hypothesis is valid. This hypothesis argues that the developing countries, financially opened to foreign countries, increasing the diversity of financial instruments in economy, and saving and investments, will make a contribution to economic growth (Atamtürk, 2007, p.76).

McKinnon-Shaw Hypothesis accepts savings as a main variable of economic development. In the developing economies, as a main factor limiting the development, it was put forward that the savable and investable funds are insufficient that are necessary to finance instruments, not that the profitable investments are limited. Thus, high interest policies encouraging savings will also encourage the investment and growth (Demirbaş, 2000, p.82).

The effects of financial liberalization policies on macroeconomic structure were first examined by McKinnon and Shaw under the name of the hypothesis of "financial liberalization". The hypothesis mentioned is expressed in the literature as complementarity hypothesis of McKinnon. As McKinnon argued in his complementarity hypothesis, in the policies applied for the aim of liberalization of financial system, interest rates are used as a

maim instrument. Interest rates have two kinds of effects on providing the economic growth. The first of these is that interest rates created on economic growth, with moving from national saving level, while the second one is it created on economic growth, with moving from investments (Hepsağ, 2009, p.64).

According to complementarity hypothesis of McKinnon, increasing real interest rates provides increase in savings of economic units, because increasing real interest rates, an increase occurs in the borrowable funds. On the other hand, together with the increase in savings, an increase is recorded in the existing deposits in banking sector and this increase creates positive effect on investments (physical capital) and economic growth (Hepsağ, 2009, p.65).

According to McKinnon-Shaw hypothesis, the limits imposed on the rates of deposit and credit interest will have negative effects. Limits on nominal interests will reduce the financial depth and negatively affect the growth. It is put forward that interest limits leading to negative or low interest rates will reduce lendable funds and make inefficient the distribution of investment funds that will negatively affect the rate of marginal efficiency (Altıntaş & Arıçay, 2010, p.74).

In this context, the claim of McKinnon- Shaw Hypothesis about private manufacturing industry, the main difficulty on the private investments, are the financial growth of borrowing, not its cost. Under these conditions, the higher interest rates in banking sector attracts the savings of more households and increases the lendable funds. With this result, high investment actualizes. Thus, in contrast to the traditional theory, between private investment and interest rates, there is a positive relationship (Demirbaş, 2000, p.82).

The criticisms toward Mc Kinnon- Shaw Hypothesis can be put in order as follows (Er, 2007, p.13);

- For saving increase to promote investments, it is necessary for economy to act in neoclassic style and the investments remaining from consumptions to be equal to savings. However, the decisions of saving and investments are the decisions made independently from each other.
- Even though theory views the increase of investment as a precondition for increase of saving, it is also possible to increase it by means of modifying the factor rates at the given capital level
- Even if the policies of real interest to be applied increase the savings, transformation of savings into investments may not be enable investments to be made on the most effective and necessary areas.
- Voluntary individual savings forms only one part of savings in the modern economies. Company profits that cannot be distributed with alternative forms of saving (social security and retirement contributions, programs of obligatory savings) are also of the important sorts of saving. Especially in the sample of Japan, it is seen that the company profits that are not distributed play important role in financing the investments.

In the developing countries, it is argued that there is no definite evident regarding that financial liberalization raises the saving tendency. Financial liberalization attempted in the environment, where the income falls confirms the Keynesian theory in the way that saving volume first of all depends on income. In response to this, interest rate affects the composition of saving. The rise of interest rate leads savings to go toward the domestic actives, coming untied from financial markets, organized with the physical and domestic actives. Due to the fact that the effects of income and substitution that works in opposite direction are seen together, it is impossible to make and exact judgement at which direction the net effect of the increase in interest rates on savings will be (Er, 2007, p.14).

Smith (2014) accounts for that the low interest rates leads to deflation and high interest rates to inflation with the concept of Neo-Fisherizm. Fisher equation indicates that nominal interest rate consists of the addition of real interest rate and inflation rate. Setting out from this, without regarding to what FED has done in Neo-Fisherism, it is expressed that in long term, real interest rate will return to real equilibrium value and, in view of this, when FED keeps the real interest rates as low as necessary, in turn, that inflation will fall. As seen, this thought takes place in just opposite side of monetarist thought, because, in monetarist thought, the fact that FED keeps the nominal interest rate at the low level in long term will urge inflation to the tendency of rise takes place.

2.Literature

Baillie and Birmingham (1981), using Box- Jenkins models, for the period of 1960-1978, examined the data of the investment, three series of interest rates and output of East Germany. They concluded that investments were inelastic against nominal and real interest rate. Investments, rather than the government controls monetary policies, even if after operating direct interest rate, are affected with long termed interest rates.

Demirbaş (2000), for the period of 1980-1997, studied the effect of the interest rates in Turkey on the investments. The effect of interest rates on private sector manufacturing industry and total investments of fixed capital of private sector were examined by means of regression analysis. As a result of the analysis it was identified that there was a negative directional relationship between the investments of manufacturing industry of private sector and total fixed capital investments of private sector. It was suggested that the effect of interest rates on the investments were insignificant. It is put forward that this states the private sector investments in Turkey was affected by the factors other than interest rates.

Bo & Sterken (2002), for the firms being in active in Germany, in the period of 1984-195 examined the effect of the fluctuation of interest rate and debts on the investments of firm, using panel-data methods (randomly methods). According to the results, the fluctuation of interest rate and debts have positive effect on the investments of firms. This effect is import for the firms under the debts, rather than the firms having less debt.

Pazarlıoğlu & Gülay (2007), in order to present the relationship of net foreign capital investments made on Turkey with the real interest, dealing with the period covering the first quarter of 1992 and fourth quarter of 2005, applied ARDL boundary test. As a result of analysis, it was found that there was a significant relationship in long term between portfolio investments and three lagged values of the real interest rates and, in addition, that the coefficient of interest rate had a positive sign and was statistically significant.

Öztekin & Erataş (2009), in order to determine the relationship between the portfolio investments in Turkey and real interest, for the period of 1990-2008, applying the method of ARDL, carried out an analysis. When the results of the analysis are evaluated, as the difference between interest rates increases, it was concluded that the portfolio investments coming to Turkey increase.

Albu (2010), in order to study the relationship between interest rate, investment and growth, formed a set of model, being based on statistical data. In order to the effect of investments on the growth and the relationship between interest rate and growth, two partial models were referred to. Lastly, the general model obtained shows the complex dynamics. In addition, it makes it possible to calculate interest rate and the other macroeconomic decisions.

Bader & Malawi (2010), for Jordan economy, tested the effects of real interest rates on investments by the methods of least squares and integrations. The findings revealed that there was a long termed relationship between real interest rates and investments and that an increase of 1 % in interest rates reduced the investments in the rate of 44%.

Yurdakul (2009), in order to reveal the factors accounting for the difference between the effective interest rates of Turkey and USA, conducted an analysis, dividing the years of 1994-2006 into four different periods, by means of Eeagle Granger Two Staged Estimated Method. In analysis, as the variables the difference of interest rates, the general level of prices, gross domestic product, exchange rate, reliability index, international reserve level, foreign trade deficit, and budgetary deficit were used and, as a result of analysis, it was determined that, also in four period, the variable reducing the interest differences was gross domestic product.

Gümüş Kurt, Duru & Güngör (2013), for the period of 2006-2012, in Turley, in order to reveal the relationship between foreign portfolio investments and macroeconomic factors, carried out the various applications. As a result of applications, at the significant level of 5% and 10%, it was identified that there was not any relationship between foreign portfolio investments and interest rates. In addition, at the significant level of 15%, while the variations in foreign portfolio investments affect the interest rates, it was reached the conclusion that the variations in interest rates did not affect the foreign portfolio investments.

Kredler (2013), in the economy of United Kingdom, analyzed the relationship between total investment belonging to six industries and the rates of real interest rates, using feasibility based Bayesian methods for 2001. The results showed that the streams in the rates of real interest accounted for a part of about 2% of the variation occurring on the investment in this sector.

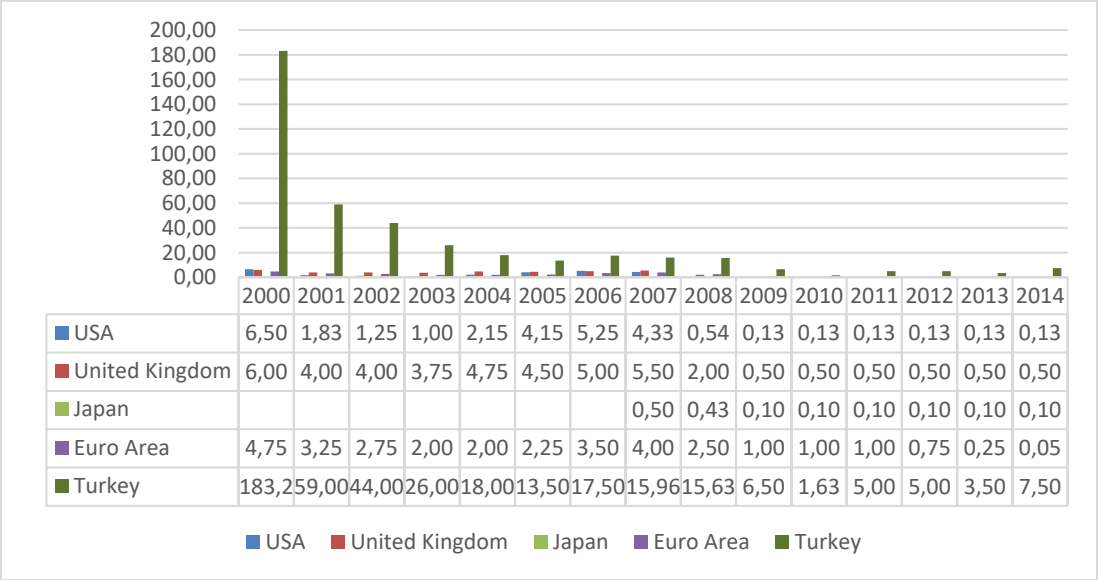
Osundina & Osundina (2014), in the economy of Nigeria, for the period of 1980-2010, analyzed the relationship between interest rates and investment decision, using multiple linear regression model. In testing the relationship between the interest rates and investment decision, a modified Mundell-Flemming model, in which interest rate was dependent variable, and GDP, investment level, public expenditures were descriptive variables, was utilized. The findings showed that, in Nigeria economy, there were no strong empirical evidences between investment decision and interest rate.

3. The Comparison Of The Developed And Developing Countries With Turkey

3.1. Developed Countries -Turkey

As seen in Graph 1, when the developed countries and Turkey are compared in terms of interest rates, in the period of 2000 -2014, it is possible to say that Turkey has high interest rates in respect with the years. It approached to Eurozone with the interest rate of 1.63% in 2010, but in 2011, margin was again opened.

Graph 1: Interest Rate (%)

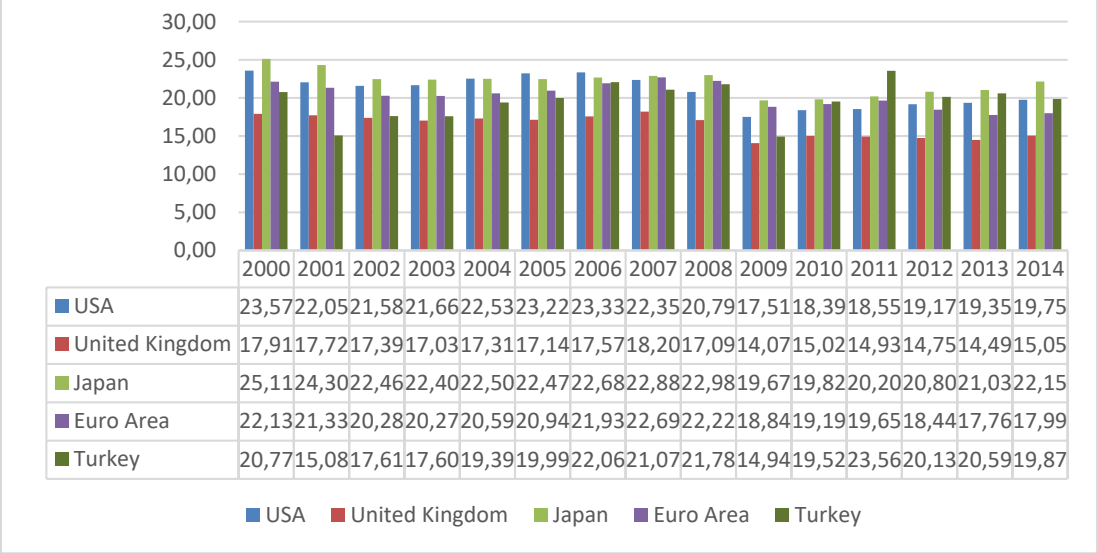


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
USA	6,50	1,83	1,25	1,00	2,15	4,15	5,25	4,33	0,54	0,13	0,13	0,13	0,13	0,13	0,13
United Kingdom	6,00	4,00	4,00	3,75	4,75	4,50	5,00	5,50	2,00	0,50	0,50	0,50	0,50	0,50	0,50
Japan								0,50	0,43	0,10	0,10	0,10	0,10	0,10	0,10
Euro Area	4,75	3,25	2,75	2,00	2,00	2,25	3,50	4,00	2,50	1,00	1,00	1,00	0,75	0,25	0,05
Turkey	183,25	59,00	44,00	26,00	18,00	13,50	17,50	15,96	15,63	6,50	1,63	5,00	5,00	3,50	7,50

Resource: www.imf.org, Accessed:15.04.2015, www.fxstreet.com, Accessed:11.05.2015.

When Graph 2 is examined, it is seen that between Turkey and developed countries there are no very high differences in terms of the rate of total investment to GDP. Moreover, in terms of this rate, it takes place before United Kingdom in the period of 2002 – 2014. In 2011, it is possible to say that Turkey takes place before Japan having the highest rate among the developed countries

Graph 2: The rate of total investment to GDP (%)

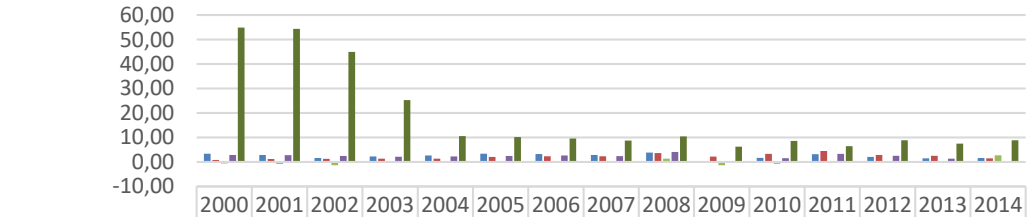


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
USA	23,57	22,05	21,58	21,66	22,53	23,22	23,33	22,35	20,79	17,51	18,39	18,55	19,17	19,35	19,75
United Kingdom	17,91	17,72	17,39	17,03	17,31	17,14	17,57	18,20	17,09	14,07	15,02	14,93	14,75	14,49	15,05
Japan	25,11	24,30	22,46	22,40	22,50	22,47	22,68	22,88	22,98	19,67	19,82	20,20	20,80	21,03	22,15
Euro Area	22,13	21,33	20,28	20,27	20,59	20,94	21,93	22,69	22,22	18,84	19,19	19,65	18,44	17,76	17,99
Turkey	20,77	15,08	17,61	17,60	19,39	19,99	22,06	21,07	21,78	14,94	19,52	23,56	20,13	20,59	19,87

Resource: www.imf.org, Accessed: 15.04.2015.

As seen in Graph 3, although in Turkey, the falls in inflation rates are experienced in respect with years, it is a realty that it could not catch the developed countries. In the developed countries, in 2009, the fall experienced in the inflation rates was also experienced in Turkey.

Graph 3: Inflation Rate (%)



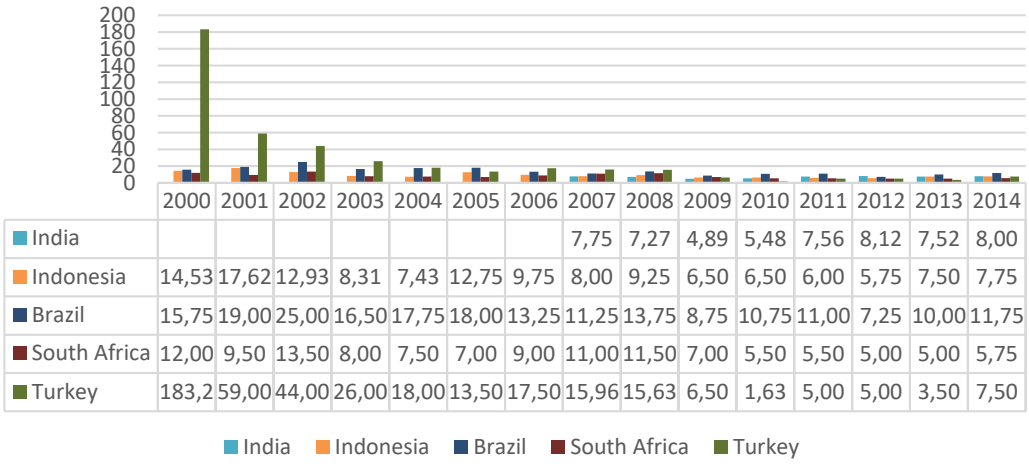
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
USA	3,38	2,83	1,59	2,27	2,68	3,39	3,23	2,85	3,84	-0,36	1,64	3,16	2,07	1,46	1,62
United Kingdom	0,79	1,24	1,26	1,36	1,34	2,05	2,33	2,32	3,61	2,17	3,29	4,48	2,82	2,55	1,46
Japan	-0,65	-0,80	-1,31	0,17	-0,01	-0,27	0,24	0,06	1,37	-1,35	-0,72	-0,28	-0,03	0,36	2,74
Euro Area	2,85	2,79	2,46	2,11	2,23	2,48	2,68	2,37	4,08	0,37	1,53	3,29	2,49	1,37	0,24
Turkey	54,92	54,40	44,96	25,30	10,58	10,14	9,60	8,76	10,44	6,25	8,57	6,47	8,89	7,49	8,85

Resource: www.worldbank.org, Accessed: 15.04.2015

3.2. Developing countries -Turkey

In Graph 4, the interest rates of developing countries are given together. As also seen from graph, the interest rates in Turkey are higher than Indonesia, Brazil, and South Africa for the period of 2000- 2004. In the period of 2009 -2014, the country having the highest interest rate is Brazil. In 2009, in each of developed countries, the falls in interest rates were experienced.

Graph 4: Interest rate (%)

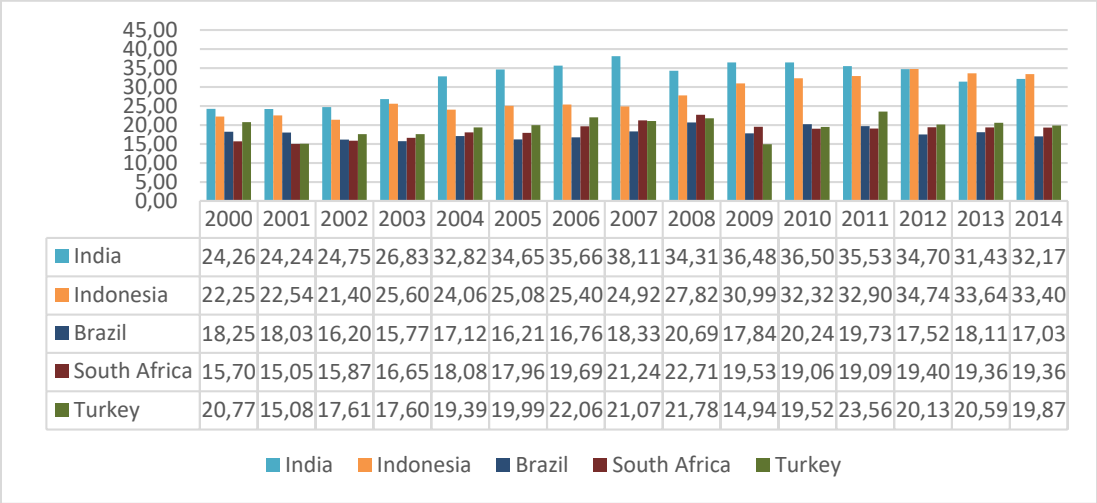


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
India								7,75	7,27	4,89	5,48	7,56	8,12	7,52	8,00
Indonesia	14,53	17,62	12,93	8,31	7,43	12,75	9,75	8,00	9,25	6,50	6,50	6,00	5,75	7,50	7,75
Brazil	15,75	19,00	25,00	16,50	17,75	18,00	13,25	11,25	13,75	8,75	10,75	11,00	7,25	10,00	11,75
South Africa	12,00	9,50	13,50	8,00	7,50	7,00	9,00	11,00	11,50	7,00	5,50	5,50	5,00	5,00	5,75
Turkey	183,2	59,00	44,00	26,00	18,00	13,50	17,50	15,96	15,63	6,50	1,63	5,00	5,00	3,50	7,50

Resource : www.imf.org, Accessed: 15.04.2015, www.fxstreet.com, Accessed: 11.05.2015

In Graph 5, the rate of total investment belonging to the period of 2000-2014 of the developing countries to GDP are shown together. From this rate, the best two countries are South Africa and Indonesia. The investment rates of Brazil, South Africa, and Turkey generally exhibit closeness to each other. In addition, in 2009, except for India and Indonesia, in the other countries, a recession was experienced in terms of this rate.

Graph 5: The of total investment to GDP (%)

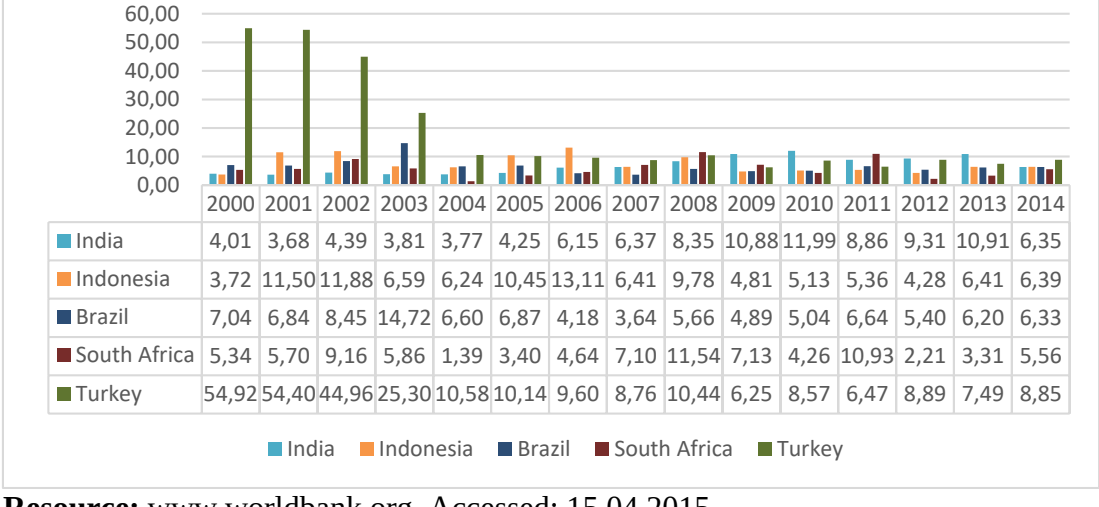


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
India	24,26	24,24	24,75	26,83	32,82	34,65	35,66	38,11	34,31	36,48	36,50	35,53	34,70	31,43	32,17
Indonesia	22,25	22,54	21,40	25,60	24,06	25,08	25,40	24,92	27,82	30,99	32,32	32,90	34,74	33,64	33,40
Brazil	18,25	18,03	16,20	15,77	17,12	16,21	16,76	18,33	20,69	17,84	20,24	19,73	17,52	18,11	17,03
South Africa	15,70	15,05	15,87	16,65	18,08	17,96	19,69	21,24	22,71	19,53	19,06	19,09	19,40	19,36	19,36
Turkey	20,77	15,08	17,61	17,60	19,39	19,99	22,06	21,07	21,78	14,94	19,52	23,56	20,13	20,59	19,87

Resource: www.imf.org, Accessed: 15.04.2015

In Graph 6, inflation rates belonging to the period of 2000- 2004 of developing countries are shown together. In the period of 2000-2004, the country having the highest inflation rate is Turkey. In 2009, except for India, in the other countries, in inflation rates, a fall was experienced.

Graph 6: Inflation rate (%)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
India	4,01	3,68	4,39	3,81	3,77	4,25	6,15	6,37	8,35	10,88	11,99	8,86	9,31	10,91	6,35
Indonesia	3,72	11,50	11,88	6,59	6,24	10,45	13,11	6,41	9,78	4,81	5,13	5,36	4,28	6,41	6,39
Brazil	7,04	6,84	8,45	14,72	6,60	6,87	4,18	3,64	5,66	4,89	5,04	6,64	5,40	6,20	6,33
South Africa	5,34	5,70	9,16	5,86	1,39	3,40	4,64	7,10	11,54	7,13	4,26	10,93	2,21	3,31	5,56
Turkey	54,92	54,40	44,96	25,30	10,58	10,14	9,60	8,76	10,44	6,25	8,57	6,47	8,89	7,49	8,85

Resource: www.worldbank.org, Accessed: 15.04.2015

Conclusion

It is known that there is a relationship between interest rates and investments and that interest rates affect the investments. In the traditional literature of economics, it is argued that there is a negative directional relationship between interest rates and investments. It was argued that the low interest rates would encourage the investments and that saving was not negatively affected from this. According to Keynesian approach, the factors determining the investments are the marginal efficiency of interest and capital. In the formation of investment decisions, although market interest rates are taken into consideration, the results of investments are determined by the expectations related to the marginal efficiency of capital.

Another view related to the the relationship of interest and investment is McKinnon-Shaw Hypothesis. According to this hypothesis, in contrast to the traditional approach, there is a positive directional relationship between interest rates and investment. Increasing the real interest rates provides increase in savings of economic unites. These increases make positive effect on the investments and economic growth.

Neo-Fisherism approach examined the relationship between interest rate and inflation and it put forward that low interest rate led to deflation and high interest rate to inflation.

In this study, the developed and developed countries were individually examined, considering the data of interest rate, investment, and inflation. As the developed countries, the data of Eurozone, Japan, and United Kingdom. We can say that, in these countries, a fall occurred in the rates of the interest, investment, and inflation rates in the periods of crises and, in post-crisis years. In these developed countries we deal with, in general, it is possible to say that interest rates and investments are in a relationship in the same direction. That is, in the periods, when interest rates increase, in investments, an increase i is seen. When we examine these countries in terms of inflation, after crisis, in 2009, we have seen that sharp decreases occurred in all countries. As seen in the relationship between interest rates and investment, it is also to say that there is a relationship in the same direction between investment and inflation.

As the developing countries, in terms of Turkey, Brazil, India, Indonesia, and South Africa, the relationship between interest rate, investments and inflation was examined. In respect with the countries we discuss, it is possible to say that interest rates range at the higher levels than the interest rates of the developed countries. When we examine these countries in terms of investment, we can say that investments are not seriously affected from the crisis; especially, in terms of India and Indonesia;, that there are increases at the levels of investments in the crisis periods; but in Brazil Africa, and especially in Turkey, that investment are affected from crisis; and later that they enter a recovery process. When we regard to the inflations rates, in general, in these countries, it is possible to say that inflation rate is high and, that it showed increase in the crisis periods

When we compare Turkey to the developed countries, although it is at the high levels in terms of interest rates, in 2010, it approached the interest rates of Eurozone; but in the next years, it opened the gap again. When we regard from investment point of view, there are no very serious differences between the developed countries and Turkey. Moreover, in some periods, Turkey has higher investment rates higher than United Kingdom and Japan. Finally, when we examine in terms of inflation, we can say that in Turkey, inflation rates are higher; although some falls are experienced in respect with years, that it cannot catch the developed countries.

When we make a comparison between the developed countries and Turkey, it is possible to say that in the early 2000s, the inflation and interest rates are higher compared to the other developing countries; that in the next years, the gap is gradually closed and almost arrives to the same levels; but, in terms of inflation, that Turkey generally has the higher rates. When we compare in terms of investment rates, in India and Indonesia, we can say that the investment rates in India and Indonesia are relatively higher than in the investment rates in Turkey, Brazil, and South Africa, while the investment rates of Turkey, Brazil, and South Africa are almost at the same level.

As a conclusion, we have seen that in the developed countries, there is an inflation or deflation problem near zero: While the inflation rates in US and United Kingdom are at the level of 1.5% and in Eurozone at 0.2%, in Japan, they are at the negative level. Therefore, central banks of these countries determined the policy interest rates at the levels near zero. Especially following 2008 financial crisis, due to the fact that they enter the recessions, the central banks of developed counties, in order to be able to get over this process, lowered the

interest rates at the record levels. We see that as a result of the phenomena such as that the interest rates are at the low level, reliability, and stability, they are at the high levels.

In the developing countries having the problem of high inflation, central banks, raising the interest rates, increase the cost of reaching money and, depending on this, they want to reduce the monetary supply in economy and increase its value and thus to reduce inflation rate.. As also seen from the data of the developing countries we discuss, inflation rates ate at quite high level. Depending on this, policy interest rates, determined by central bank are also quite high, compared to the developed countries. When we examine the investment rates and compare them with the developed countries, although the interest rates are high, we see that investment rates are high. When we also evaluate the developed countries among themselves, we can say that India and Indonesia differentiate from the other developing countries.

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The Effects of the Antecedents on Export Performance: A Study on Turkish Olive Oil

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1. Introduction

Small and medium-sized businesses (SMEs) have started to internationalize in their operations more and more (Dhanaraj & Beamish, 2003). It is critical for companies to enhance their export performance to be competitive in today's global market place. This is also a way of assured continuous growth and survival in the international market especially for developing countries by improving trade balances with enhancing profitability besides providing employment (Adu-Gyamfi & Korneliussen, 2013). Researchers have pointed out various descriptive models and performance with the increasing exports in the global economy over the past four decades.

The average growth rate of Turkey in 2011 had been 8.5% which is the case of Europe's fastest growing economy. Turkey's economy recorded 3.0% growth in 2015 and is expected to grow 2.9% in 2016. According to the data of TIM (Turkish Exporters Assembly), Turkey's export in 2015 was recorded as 143.7 billion dollars, 10.2% decrease compared to a year ago. Top 5 countries export made in 2015 were Germany, England, Iraq, Italy and Switzerland, respectively. (TIM, 2016). The presence of olive tree is estimated to reach approximately 170 million with recent plantations. This figure means olive and olive oil are one of the ten most important products of Turkey Agricultural Economics (EIB, 2016). The contribution of olive oil to total exports seems unsteady in spite of its importance.

The objective of this study to investigate the impact of the antecedents of olive oil export performance. In particular, this paper explores empirically the effect of marketing strategies, innovation, export stimulus and barriers as antecedents on export performance. These antecedents are picked since managers can influence their organizations and public authorities based on the obtained facts. This study addresses the gap in olive oil export and contributes to olive oil literature by examining the antecedents of SMEs export performance operating in emerging markets.

2. Turkish Olive Oil

Turkish olive oil export was realized 14,856 tons with US$ 66 million revenue in the season of 2014/2015. These figures were 26,343 tons of olive oil as quantity and US$ 99 million as revenue in the previous season 2013/2014. Turkish olive oil in 2014/2015 season was exported total 119 countries and 5 free zones in Turkey. The USA, Saudi Arabia, Japan, Iraq and Iran in terms of value were become the top export countries for Turkish olive oil (EIB, 2016). Olive oil production is expected to close to reach a considerable quantity with ongoing plantations made in recent years. According to the national vision for the year of 2023, olive and olive oil sector aims US$ 3.8 billion of export. The continuous and sustainable creation of export opportunities to capture this aim is of great importance.

Table 1 represents the production, consumption and export quantities with export value and export mean value of Turkish olive oil for the last six years. Turkish olive oil 2012/2013 season can be evaluated as an anomaly in these figures. The main reason of this record level of export could mainly depend on the lower production (almost half as per a year earlier) in the EU countries. More specifically, while 2012/2013 season has a record level of export, its mean value ($/KG) is the lowest figure. This means Turkish olive oil sector could not benefit from the production shortage in main producer countries. On the other hand, these fluctuations on olive oil export are significantly important for the future of this product and need to be revealed the facts behind it for the sustainable and steady development of the sector and the country.

Table 1. Turkish olive oil figures

Crop Year	Production (1000 Ton)	Consumption (1000 Ton)	Export (1000 Ton)	Export Value (Million US$)	Export Mean Value ($/KG)
2010/2011	160.0	131.0	11.7	49.2	4.19
2011/2012	191.0	150.0	19.2	64.7	3.37
2012/2013	195.0	150.0	92.1	292.8	3.18
2013/2014	135.0	105.0	26.3	99.3	3.77
2014/2015	170.0	146.5	14.8	66.2	4.46
2015/2016*	143.0	124.0	4.0	20.6	5.15

Source: IOC, 2016. & EIB, 2016 *provisional

3. Literature Review and Hypotheses

3.1. Export Performance

Export performance is defined as the engine of a country's economic growth in one side and is also important for firm's competitiveness in other side (Zou et al., 1998). But, it is observed that different approaches are used in its measure since export performance is not conceptualize and practised homogeneously. Literature examines export performance in three ways. (Navarro-García et al. 2015; Rose et al. 2002; Sousa 2004; Zou et al. 1998). In the first, export performance is evaluated by means of a multidimensional concept, where quantitative measures (sales, profitability, growth, etc.) and qualitative measures (perceived success, satisfaction, objective achievement, etc.). In the second, a long term is used instead of short-term with a specific time period in assessing export performance (Lages & Montgomery, 2004). In the third, performance perception of the management (such as management satisfaction of export performance) is reflected in assessment measures (Lages & Montgomery, 2004).

3.2. Marketing Strategies

The impact of export marketing strategy on the export performance has been studied extensively especially with the initial stage of globalization in the literature. Export marketing strategy includes the decision on product, price, promotion and distribution to make them standard or harmonization with the requirements of their export markets (Cavusgil & Zou, 1994; Douglas & Craig, 1989). Katsikeas et al. (2000) signify the marketing mix prepared for export business as the key importance for the success. While export marketing strategy and performance relationship are observed to be taken care importantly (Lee, & Griffith, 2004; Tang et al., 2007), numerous studies indicate that export performance is a result of the effectiveness of the marketing strategy (Cavusgil & Zou, 1994; Lee & Griffith, 2004). Studies also emphasize that SMEs marketing strategy emerges a positive relationship between variables and export performance (Cavusgil & Zou, 1994; Leonidou et al., 2002). According to the literature, marketing strategies have a positive influence on export performance. The hypothesis is formulated as follow for the olive oil sector.
H1: Marketing strategy positively affects export performance.

3.3. Innovation

Innovation has been one of the most important factors for business developments in last decades. This factor has a positive impact on export performance (Maurel, 2009). Larson (1992) points out that long term business relationship causes to a better performance, strategic integration and data exchange and improvements in innovation and quality, all of them results with positive economic outcomes. Research and development (R&D) intensity is a commonly

used indicator of innovation, but there are other activities that refer to innovation in SMEs. Sterlacchini (1999) studied on the Italian SMEs having non intensive R&D sectors and he founded positive influence of innovation activities on export i.e. spending for design, engineering, pre-production development. Woods and Kaplan (2005) confirm the importance of innovation for the companies facing fierce competition in entering the international markets. Maurel (2009) points out that innovation with the others such as business partnerships, a greater size and an effective export commitment are highly related with export performance in the French wine industry. According to the literature, innovation has a positive influence on export performance. The hypothesis is formulated as follow for the olive oil sector.
H2: Innovation positively affects export performance.

3.4. Export Stimulus

Export stimulus resides in the earlier periods of internationalisation (Johnston & Czinkota, 1982). Proactive stimulus is required for expanding foreign operations by aggressive behaviour; reactive stimulus represents a passive reaction to the changing market conditions (Katsikeas et al., 1996). A positive relationship between proactive stimulus and export performance is proposed and the opposite for reactive stimulus. (Johnston & Czinkota, 1982). Mostly researchers are agree with the finding that export stimulus with the other factors has a direct influence on export performance (Mavrogiannis et al., 2008). The hypothesis is formulated as follow for the olive oil sector based on the literature.
H3: Export stimulus positively affects export performance.

3.5. Barriers

Several studies identified a number of internal and external barriers blocking the companies in their start or improve export activities (Leonidou 1995a, b). These are classified in four groups namely internal, external, operational and information barriers (Katsikeas & Morgan 1994). Internal barriers cover product and enterprise related barriers whereas external ones are related to industry, market and macro environment variables (Tesfom & Clemens, 2006; Cavusgil & Zou, 1994). Trade barriers have indirect negative relationship with export performance. Exports barriers could adversely affect the export performance (Kahiya, 2013). But, according to Madsen (1989), the export market with high barriers can generate higher growth only for businesses with stable exports to these markets. On the other hand, trade barriers do not affect export attitude, behaviour and performance in a meaningful way (Gripsrud, 1990). Referring to the literature, barriers are significant on export performance. The following hypothesis can be formulated for Turkish olive oil export.
H4: Barriers negatively affect export performance.

The proposed model for the research is as follows. Marketing strategy, innovation, export stimulus and barriers have a significant influence on export performance. The methodology was used in order to test the conceptual model.

4. Methodology

Valid and reliable scales were used in the research from the previous studies. In measuring export marketing strategy the scale with eleven items was adapted from Cavusgil and Zou (1994), Lee and Griffith, (2004), Sohail and Alashban (2009). The scale for innovation was referred to Maurel (2009) which includes four items. Export stimulus scale with nine items was developed based on the research of Mavrogiannis et al (2008). The scales with five items of

Altintas et al. (2007) were used to measure export barriers. Mavrogiannis et al (2008) subjective export performance scale with nine items was used to measure export performance. 7-point Likert was preferred in scales denoting as 1-Strongly disagree and 7- Strongly agree, 1-Not important and 7- Important. After preparing the questionnaire, pre-measure with 5 people was taken to test how the respondents understood the questions. The replies were found satisfactory. Then prepared survey was e-mailed to the respondents in early March 2016. All research data were collected from olive oil exporters. The exporters list was obtained from the web site of Aegean Exporters Union, Turkey. Total number of the exporter company was 216. Top or medium level managers of these organizations were requested to fill out the online questionnaire. 43 firms participated in the survey, but 40 of them were found eligible for analysis. Although sample size was small, 18.5% rate of return for online survey was accepted as satisfactory because PLS structural equation modelling can cope well with especially small sample sizes (Hair et al., 2012; Lee, 1994). So, the research model was analysed by using SmartPLS structural equation modelling tool.

5. Results

PLS-SEM basically evaluates the measurement model and measures the coefficients of the structural model (Hair et al., 2014).

5.1. The Measurement Model Results

It is important to determine the reliability and validity of the latent variables for completing the structural model. Item reliability and composite reliability results must be satisfactory. In addition, convergent validity and discriminant validity are also checked in examining the structural model when conducting a PLS-SEM. PLS performs two analyses of measurement (outer) model and structural (inner) model. Measurement model analysis discovers the overall psychometric properties of the scales used to measure the model's variables, and structural (inner) model analysis discovers the relationships among the variables (Chengalur-Smith et al., 2012).

In order to find the item reliability, the square of each outer loadings are calculated. The resulting coefficient of 0.70 or above is often preferred. But 0.40 and above for exploratory research are also acceptable (Hulland, 1999). In the study, factor loading below 0.70 of the items were dropped from analysis. Then, the model was accepted as reliable with the factor loading value of higher than 0.70.

Traditionally, Cronbach's Alpha is used to measure the reliability of internal consistency. Previous literature suggests the use of the composite reliability instead of Cronbach's Alpha (Bagozza and Yi, 1988; Hair et al., 2012). But, Cronbach's Alpha is also evidence for composite reliability and the values over 0.60 are sufficient. Composite reliabilities and Cronbach's Alfa values for all structures in our model were found well above 0.80.

The AVE value of each latent variable are used to check the convergent validity. The convergent validity of the model is confirmed as all the AVE values have acceptable aforementioned threshold of over 0.50. Convergent validity of all structures was found satisfactory with the results of item reliabilities, composite reliabilities and AVE values. Table 2 gives the values of the measurement model.

Table 2. The assessment of measurement model

Latent Variable	Items	Factor Loading	Item Reliability	Cronbach's Alpha	Composite Reliability	AVE
Barriers (BR)	BR1	0.910	0.828	0.722	0.877	0.780
	BR2	0.856	0.733			
Innovation (IN)	IN1	0.866	0.750	0.850	0.907	0.765
	IN2	0.902	0.814			
	IN3	0.856	0.733			
Export Stimulus (ES)	ES7	0.890	0.792	0.756	0.891	0.804
	ES8	0.903	0.815			
Export Performance (PF)	PF1	0.851	0.724	0.824	0.884	0.656
	PF3	0.740	0.548			
	PF6	0.806	0.650			
	PF7	0.839	0.704			
Marketing Strategy (MS)	MS1	0.785	0.616	0.863	0.901	0.646
	MS3	0.756	0.572			
	MS4	0.742	0.551			
	MS5	0.867	0.752			
	MS10	0.860	0.740			

In addition to that, two tests are used for discriminant validity. First is the Fornell and Larcker (1981) analysis. Table 3 demonstrates Fornell-Larcker criterion analysis for checking discriminant validity of the model. The each figure in bold showing the AVE's square root in the diagonal is greater than the off-diagonal figures in its corresponding row and column. These results confirm the discriminant validity of the scales in the study.

Table 3. Fornell-Larcker Criterion Analysis for Checking Discriminant Validity

Latent Variable Correlations (LVC)					Discriminant validity met? (Square root of AVE > LVC?) ↓
	BR	**IN**	**ES**	**PF**	**MS**	
BR	**0.883**					Yes
IN	0.353	**0.875**				Yes
ES	-0.270	-0.368	**0.897**			Yes
PF	-0.404	-0.511	0.627	**0.810**		Yes
MS	0.772	0.413	-0.215	-0.707	**0.804**	Yes

Second is the comparison of item loadings with cross loadings. All construct item loadings must be more than the loadings of the other structures (Gefen & Straub, 2003). Table 4 demonstrates that each bold factor loadings are higher than other cross loadings. As a result, the structures are of sufficient discriminant validity.

Table 4. Factor loadings (bolded) and cross loadings

	BR	**IN**	**ES**	**PF**	**MS**
BR1	**0.910**	0.358	-0.364	-0.392	0.721
BR2	**0.856**	0.257	-0.083	-0.315	0.639
IN1	0.399	**0.866**	-0.371	-0.335	0.394
IN2	0.485	**0.902**	-0.389	-0.534	0.434
IN3	0.024	**0.856**	-0.204	-0.431	0.249
ES7	-0.379	-0.105	**0.890**	0.544	-0.325
ES8	-0.113	-0.542	**0.903**	0.579	-0.068
PF1	-0.407	-0.416	0.574	**0.851**	-0.651
PF3	-0.274	-0.431	0.628	**0.740**	-0.467
PF6	-0.421	-0.327	0.508	**0.806**	-0.617
PF7	-0.186	-0.486	0.297	**0.839**	-0.544
MS1	0.773	0.155	-0.163	-0.525	**0.785**
MS3	0.444	0.208	-0.007	-0.461	**0.756**
MS4	0.350	0.233	-0.029	-0.560	**0.742**
MS5	0.656	0.532	-0.351	-0.710	**0.867**
MS10	0.873	0.455	-0.242	-0.536	**0.860**

5.2. The Structural Model Results

Path coefficients or Stdβs are indicators of the model's prediction ability. They also indicate the strength of direct relationship between constructs. Bootstrapping is used for estimating the precision of the PLS estimates and supporting the causal order between constructs. Three path coefficients are significant at the 0.000 level, and one is insignificant, with unexpected sign directions.

Table 5 demonstrates T statistics results with Stdβ values of all path coefficients. According to the test results of T statistics, the following effects were found on export performance. Barriers have a significant influence (β = 0.496, p = 0.000) on export performance. Innovation has not a significant influence (β = -0.110, p = 0.208) on export performance. Export stimulus have a significant influence (β = 0.520, p = 0.000) on export performance and marketing strategy has a significant influence (β = -0.933, p = 0.000) on export performance. Marketing strategy, export stimulus and barriers strongly explain 84.1% variances in export performance.

Table 5. T-statistics for path coefficients

	Stdβ	**Sample Mean**	**Standard Deviation**	**T Statistics**	**p values**
BR→PF	0.496	0.497	0.110	4.498	0.000
IN→PF	-0.110	-0.106	0.087	1.260	0.208
ES→PF	0.520	0.521	0.082	6.324	0.000
MS→PF	-0.933	-0.952	0.112	8.336	0.000

These results indicate the revised model formed as follows. Figure 1 shows the results of the structural model with effects.

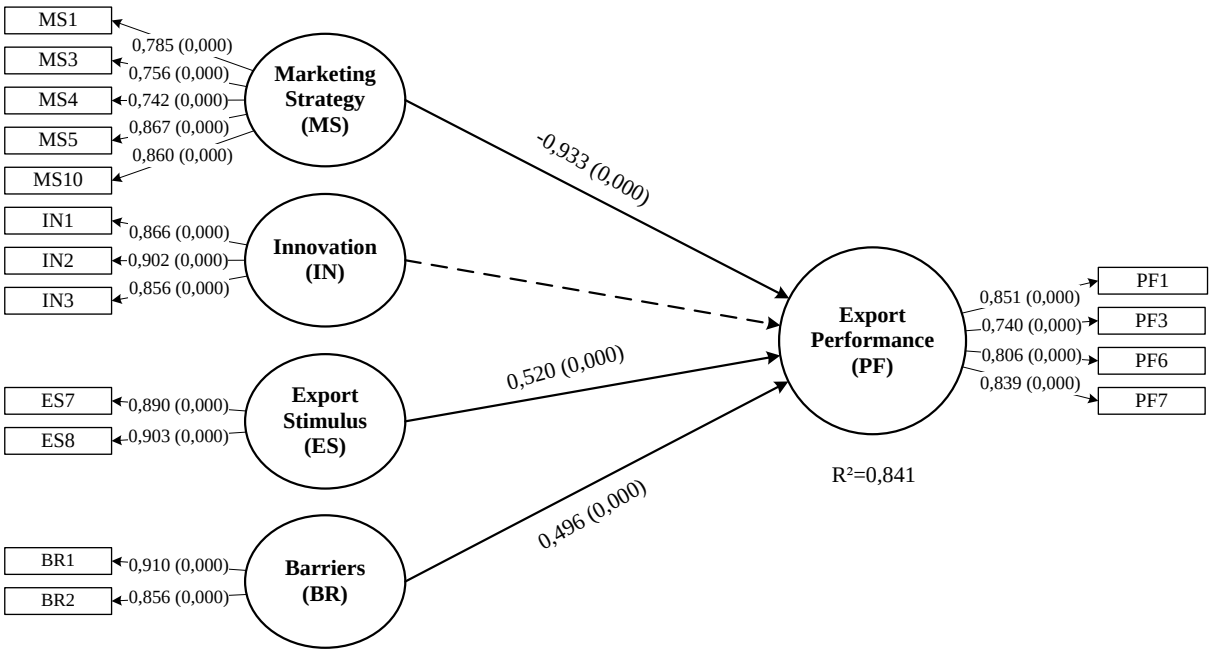

Figure 2. The results of structural model

6. Discussion

Table 6 shows the summary of the hypotheses and the results of the revised model below.

Table 6. Hypotheses conclusions

Hypotheses	Findings	Conclusion
H1: Marketing strategy positively affects export performance.	t=8.336; p=0.000	Supported
H2: Innovation positively affects export performance.	t=1.260; p=0.208	Not Supported
H3: Export stimulus positively affects export performance.	t=6.324; p=0.000	Supported
H4: Barriers negatively affect export performance.	t=4.498; p=0.000	Supported

6.1. Findings

The study explores the influence of the antecedents namely marketing strategy, innovation, export stimulus and barriers on olive oil export performance. As suggested by numerous studies (Cavusgil & Zou, 1994; Lee & Griffith, 2004) export performance is a result of the effectiveness of the marketing strategy, the result is in coherent with the literature. Export marketing strategy was found significant on olive oil export. But the sign is unexpectedly negative. The main reason of this might be the fluctuation of production quantity. Olive oil is an agricultural product, so production figures heavily are shaped by weather and climate conditions. Another setback in olive farming is the periodicity effect which means one year is good another year is bad because of the inherent of olive trees. The difference in production quantities of every two years are seen especially in the countries farming traditionally. Another point is that exporters take necessary steps in their export marketing efforts, but the performance results are not satisfied as they lose control in the case of lacking enough crops. When the crop is not good enough because of periodicity, Turkish olive oil prices lose competiveness in the world so that export performance is significantly affected. In addition to that, according to the regulations, olive oil is not allowed to import for exporters to re-export. This is also identified as another disadvantage for marketing strategy.

The hypothesis of innovation positively affects export performance was not statistically supported. This finding is not in coherent with the literature (Maurel, 2009); Larson, 1992). Both product and process innovations are among the main kinds of innovations. Sterlacchini (1999) and Remaud (2006) explain the importance of innovation in wine sector. As olive oil and wine sectors are almost similar to each other, monitoring the innovations in wine sector could be a good benchmarking point for olive oil manufacturers.

Export stimulus was found significantly effective on export performance. This finding is in coherent with the literature. Export stimulus in the earlier periods of internationalisation (Johnston & Czinkota, 1982) is required for aggressive expanding foreign operations but also reactive stimulus is necessary for a passive reaction to the changing market conditions (Katsikeas et al., 1996). Export incentives can be a major driving force for international operations since SMEs always suffer from lack of enough financial support. Turkish government gives some subsidy for olive oil farmers and exporters but they are very limited and not enough when compared with EU. This topic can be extensively investigated with further research.

Barriers were also found statistically significant on export performance but unexpectedly opposite direction sign. Literature defines different type of barriers on export performance. These are internal, external, operational and information barriers (Katsikeas & Morgan 1994; Cavusgil & Zou, 1994). All these barriers should be examined extensively in order to better understand these results. This finding is partly in coherent with the literature.

Consequently, marketing strategy, export stimulus and barriers except innovation have an effect on export performance in olive oil sector. As it is pointed out that olive oil production quantity by years can influence olive oil export. When the crop is not good enough, olive oil

prices increase in domestic market and Turkey lose competitiveness in international market. Managing these fluctuations in macro environment is not easy for SMEs as they need substantial subsidy from the government.

The problems come from the past, but authorities work on the main setback of the production quantity. Turkey promotes new olive tree plantations to reach the target of being the second biggest olive oil producer in the world. This strategic step is especially essential, first, to grow up healthier generation by consuming more olive oil, second, to obtain revenues from it both by exporting and by importing less other vegetable oils as Turkey is already a net importer in vegetable oil category. Researcher may also investigate this and the other antecedents.

Olive oil is a very popular in developed countries due to being healthier and Mediterranean life style. On the other hand, olive oil is a specific product and has a limited production quantity. Almost 96% of olive oil is produced in Mediterranean region in the world. Although the product has a lot of inherent advantage, unfortunately country of image is an essential factor in export marketing. Turkey totally should invest on its country image to sustain and overcome the instability of its export. Region of image in addition to country of image is also important factors in olive oil marketing. These are also suggested as among the research topics.

6.2. Limitations

Although literature defines so many factors effective on export performance, the study covers only four antecedents. The antecedents were limited due to the lack of respondents for the sake of validity and reliability of the research.

7. Appendix – Scale Items

Marketing Strategy (MS) ***(1=Not important – 7=Very important)***
MS1. Is defining target export markets directly important for you?
MS2. Is adaptation before export market entry important for you?
MS3. Is adaptation after export market entry important for you?
MS4. Is using local languages in pack labels important for you?
MS5. Is adapting product positioning strategy important for you?
MS6. Is adapting packages important for you?
MS7. Is adapting product promotion approaches important for you?
MS8. Is providing support to export distributors important for you?
MS9. Is providing training to the foreign distributors important for you?
MS10. Is providing promotional support to the foreign distributors important for you?
MS11. Are very competitive prices important for you?
Innovation (IN) ***(1=Not innovative – 7=Very innovative)***
IN1. How do you rate your olive oil making innovation?
IN2. How do you rate your storing, warehousing and processing innovation?
IN3. How do you rate your pack and packaging innovation?
IN4. How do you rate your olive oil selling and marketing innovation?
Export Stimulus (ES) ***(1 = Not important, 7 = Very important)***
ES1. Are decreasing domestic sales important for you?
ES2. Are saturated domestic markets important for you?
ES3. Is excess production capacity important for you?
ES4. Is managerial willingness to commit resources for exports important for you?
ES5. Is company's strategy to reduce risk important for you?

ES6. Are state development programmes for export important for you?
ES7. Is getting financial incentives of state's export development important for you?
ES8. Are favourable exchange rates supporting export important for you?
ES9. Is favourable international climate for export important for you?

Barriers (BR) ***(1 = Not important, 7 = Very important)***

BR1. Are different foreign customer habits/attitudes important for you?
BR2. Are meeting the export product quality standards important for you?
BR3. Are unfamiliar foreign business practices important for you?
BR4. Is slow collection of payments from abroad important for you?
BR5. Is foreign currency risk important for you?

Export performance (EP) ***(1 = Not satisfied, 7 = Very satisfied)***

EP1. Are you satisfied with your export market share?
EP2. Are you satisfied with your export market growth?
EP3. Are you satisfied with your export sales value?
EP4. Are you satisfied with your export sales value growth?
EP5. Are you satisfied with your export sales volume?
EP6. Are you satisfied with your export sales volume growth?
EP7. Are you satisfied with your export profitability?
EP8. Are you satisfied with your export profitability growth?
EP9. Are you satisfied with your new country market penetration?

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The Financial Performance of Ceramic Industry Companies Listed in Borsa Istanbul: An Application of Grey Relational Analysis

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1. Introduction

Even though ceramic industry originated in Turkey centuries ago, trade-based production started in 1960s. With respect to quality, diversity and level of production, plated products, sanitary products, ornaments, technical ceramics and refractor products are the most important sub-sectors of the industry. Ceramic and its sub-sectors constitute an important manufacturing industry of Turkey. In ceramic and ceramic-related industries, Turkey comes among the first top ten players in the world. This measure holds for both production and export. Nevertheless, among many of the companies only a limited number of ones are publicly traded in Borsa Istanbul. While some can be categorized under small and medium enterprise (SME), the majority of the rest are smaller businesses and home ateliers. Though usually come up with their weaknesses, SMEs' strength of flexible and dynamic nature appears to be a major advantage to gain benefit especially in countries like Turkey whose businesses mainly depend on SMEs.

Measuring financial performance has been continuing to be a subject of a number of studies in the literature. Depending on chosen criteria or limitations, like industry-specific factors or data availability, studies apply different methodologies. Multiple attribute decision making (MADM) is one of these methodologies. The main objective in multiple attribute decision making process is to provide decision maker with the best tool to choose among conflicting alternatives, options, policies, actions or candidates. For the purpose, there are a number of MADM techniques. In this study, as one of these techniques, grey relational analysis (GRA) is applied to analyze the financial performance of ceramic industry firms listed in Borsa Istanbul by using their selected financial ratios.

The main focus of this paper is to empirically rank the firms based on their financial performance reflected by the financial ratios. By doing this, we aim to propose GRA as not the only analysis but a supporting one to others in investors' decision making process. The sample, covering the period of 2010-2015, consists of the data set for three publicly traded ceramic companies. This study differs from the previous literature as it is first, to our best of knowledge, in examining the Turkish ceramic firms' financial ratios by GRA. Results of the study are expected to help ceramic firms to take necessary operational steps towards improving efficiency as well as to provide investors with useful insights in making investment decisions. The rest of the paper is organized as follows: the second section presents a review of related literature. Data and methodology is provided in the third section. The fourth section contains empirical findings, and the paper completes with conclusions.

2. Literature Review

Despite that ratios are sometimes regarded as instable across different industries and time periods, they also appear to be indispensable. Thus, financial ratios are commonly used for modelling purposes both by practitioners and researchers and are considered at least a starting point for analysis. Business firms are surrounded by a number of interested parties such as shareholders, management, personnel, customers, suppliers, competitors, regulatory agencies, and academics. These all have their own unique interest hence views in applying financial statement analysis in their evaluations. In spite of the fact that the past of financial analysis dates fairly back, the use of financial ratios is quite new, owing to the advances in the

accessibility of financial data that become readily available by digital technology. The technology has also provided modern data processing techniques and statistical packages to ease and speed up data handling procedure.

Horrigan (1983) suggests that financial ratio research should be more interested in the role of the financial ratios themselves than in ‘‘the nature of the ratios’ components or to the ratios’ incidental role as data size deflators’’. Based on Horrigan’s critique, Salmi and Martikainen (1994) interpret that the validity of financial ratio analysis should be determined by its usefulness to the decision making process of the different interested parties such as owners, management, creditors and personnel.

The research on the functional form of financial ratios has been characterized by theoretical discussions about the ratio format in financial ratio analysis and empirical testing of the ratio model. McDonald and Morris (1984, 1985) provide the first extensive empirical studies on the statistical validity of the financial ratio methodology. Although they find support in favor of financial ratio analysis for comparisons within industry groups, the same is not valid for comparisons between different industries.

The main goal of the grey system theory is to investigate the condition of systems in which there are uncertainty and data limitations. The theory aims to achieve this by first helping to construct relational analysis and models, then using forecasting and decision-making techniques (Hsieh et al., 2006). As Lin et al. (2004) point out this methodology is applied on a variety of areas such as social issues, economics, industry, agriculture, energy, transportation, medical science, biology, geology and education. Over the years, the theory has gained popularity and been increasingly applied in a number of researches in the literature.

In one of these studies, Hsu and Wen (2000) produce an aviation web design. In conducting this, they apply GRA in order to develop a series of models that provide forecasting airline city-pair passenger traffic, designing a network of airline routes and determining flight frequencies on individual routes. In their results, they underline the feasibility, practical application and flexibility of the models for airlines’ decision making process. On the other hand, Palanikumar et al. (2006) use GRA in multiple performance optimization of operating parameters in processing the material called as glass fiber-reinforced polymer (GFRP).

With respect to related literature in Turkey, Çakmak et al. (2012) apply GRA to explore the most commonly-faced malfunctions in vitrify industry firms. Baş and Çakmak (2012) use GRA along with logistic regression and factor analysis to investigate financial failures over a sample of 17 firms which experienced financial failures in the past. The researchers report that the ranking list with the highest percentage is provided by the logistic regression conducted on GRA’s selection of financial ratios.

The literature also contains studies on performance evaluations. For example, Ecer (2013) investigate the financial performance of 11 private commercial banks in Turkey. The study uses CAMELS technique to analyze banks over 12 ratios under four distinct categories of financial performance. Moreover, Peker and Baki (2011) measure the performance of three insurance firms with biggest market share by using ratios. Demireli (2010) searches three Turkish state banks’ performance by TOPSIS application while Bektaş and Tuna (2013) determine the financial performance ranking of 11 firms listed in Borsa Istanbul under prospective businesses category. They apply GRA on selected six ratios.

3. Data and Methodology

Grey system theory was developed by the mathematician Ju-Long Deng in 1982. The theory focuses on the direction of relationship between two or more variables that are based on unknown (Feng-Wang, 2000). According to Üstünışık (2007), the theory is especially useful when there is limited or discrete data set or, too large or incomplete data set. The application of

the theory is suggested on solving problems that do not fit any distribution in multi-variable statistics and that cannot be modelled due to unknown.

As a product of gray system theory, GRA is considered suitable for solving complex problems between multiple factors and variables. Thanks to grey relational rank optimization, GRA is capable of providing solutions for complex relationships between multi-performance characteristics hence commonly used on the issue (Athawale and Chakraborty, 2011). Chen and Ting (2002) underline that GRA's computation is simple and it is suitable for conducting analysis on limited data sets. Therefore, these constitute important advantages of GRA applications.

In this study, by employing GRA methodology, we analyze the financial performance of three ceramic companies listed in Borsa Istanbul. The financial ratios are constructed by using firms' financial reports that are gathered from Public Disclosure Platform. The sample covers the period of 2010-2015. Table 1 provides summary information on several studies of GRA literature and the financial ratios they apply.

Table 1. Financial ratios used in GRA Literature

Study	**Industry**	**Financial Ratios Applied**
Feng-Wang (2000)	Airline	Liquidity, Financial Leverage, Fly Equipment Efficiency, Asset Efficiency, Profitability
Wang vd. (2004)	Airline	Labor Productivity, Airport Service Quality, Passenger Service Quality, Fire Service Quality
Wu vd. (2005)	Airline	Liquidity, Financial Leverage, Profitability
Ho-Wu (2006)	Banking	Liquidity, Financial Leverage, Profitability, Stock Performance
Chang (2006)	Banking	Liquidity, Capital Structure, Profitability, Growth
Yuan (2007)	Banking	Current Ratio, Acid-Test Ratio, Short-Term Borrowing Ratio, Inventory Turnover Ratio, Net Profit Ratio

(Source: Peker and Baki, 2011)

4. Empirical Findings

The findings of the analysis are reported following the GRA application steps provided below.

- Deciding on financial ratios,
- Setting decision matrices,
- Preparing reference series and comparison matrices,
- Implementing normalization procedures and developing normalization matrices,
- Developing absolute table,
- Establishing grey relational coefficient matrices,
- Computing degrees of relation and determining ranks.

The analysis is conducted on generally accepted financial ratios of liquidity, debt utilization, asset utilization and profitability. A list of these ratios along with their formulations is provided in Table 2 below.

Table 2. Ratios Used in the Analysis

Ratio Group	Ratio	Code	Formulation
Liquidity	Current Ratio	F1	Current assets/Short-term debt
	Quick Ratio	F2	(Current assets-Inventories)/Short-term debt
Asset Utilization	Inventory Turnover	F3	Cost of goods sold/Average inventories
	Fixed Asset Turnover	F4	Revenues/Fixed assets
	Total Asset Turnover	F5	Revenues/Total assets
Debt Utilization	Debt Ratio	F6	Total debt/Total assets
	Total Asset/Equity Ratio	F7	Total assets/Equity
	Times Interest Earned	F8	(EBIT+Interest expenses)/Interest expenses
Profitability	Net Profit Margin	F9	Net income/Revenues
	Return on Equity	F10	Net income/Equity
	Return on Asset	F11	Net income/Total assets

Using financial reports of the firms, the ratios are calculated. Following this, the ratios are used in constructing the decision matrices in the next step. The decision matrices are provided in Table 3 below.

Table 3. Decision Matrices

	Liquidity		**Asset Utilization**			**Debt Utilization**			**Profitability**		
Firms	**F1**	**F2**	**F3**	**F4**	**F5**	**F6**	**F7**	**F8**	**F9**	**F10**	**F11**
Ege	2.29	1.62	3.73	2.46	0.90	0.34	1.53	24.10	0.12	0.17	0.14
Kutahya	3.15	1.73	2.33	3.48	1.01	0.26	1.37	8.92	0.08	0.12	0.08
Usak	0.98	0.77	2.57	1.22	0.53	0.67	3.10	1.08	0.00	0.01	0.00

In the third phase of the GRA approach, the comparison matrices are gathered. At this stage, a line called ‘‘reference line’’ is added to table 2. The reference line is produced by adding the cell with maximum value for the ratios of F1, F2, F3, F4, F5, F8, F9, F10, F11, while the cell with minimum value for the ratios of F6 and F7. The comparison matrices are presented in Table 4 below. As can be seen from the table, with respect to the both liquidity ratios, fixed asset turnover, total asset turnover, debt ratio and total asset to equity ratios Kutahya Porselen outperforms the other two. On the other hand, compared to other two firms, Ege Seramik shows a better performance on inventory turnover, times interest earned and, all three of profitability ratios.

Table 4. Comparison Matrices

	F1	**F2**	**F3**	**F4**	**F5**	**F6**	**F7**	**F8**	**F9**	**F10**	**F11**
References	**3.15**	**1.73**	**3.73**	**3.48**	**1.01**	**0.26**	**1.37**	**24.10**	**0.12**	**0.17**	**0.14**
Ege	2.29	1.62	3.73	2.46	0.90	0.34	1.53	24.10	0.12	0.17	0.14
Kutahya	3.15	1.73	2.33	3.48	1.01	0.26	1.37	8.92	0.08	0.12	0.08
Usak	0.98	0.77	2.57	1.22	0.53	0.67	3.10	1.08	0.00	0.01	0.00

In normalizing the series, during the normalization process of GRA, below three equations are used for utility maximization, cost minimization and, optimal selection purposes respectively. To serve the purpose, equation 1 is applied in normalizing the series of liquidity, asset utilization and profitability ratios. Equation 1 is also used for the series of times interest earned ratio while equation 2 is employed in normalizing the series of debt and total asset to equity ratios.

$$x_i^* = \frac{x_i(j) - \min x_i(j)}{\max x_i(j) - \min x_i(j)} \quad (1)$$

$$x_i^* = \frac{\max x_i(j) - x_i(j)}{\max x_i(j) - \min x_i(j)} \quad (2)$$

$$x_i^* = \frac{|x_i(j) - x_{0b}(j)|}{\max x_i(j) - x_{0b}(j)} \quad (3)$$

The results of the computations are reported in Table 5 below. As can be seen in the table, the normalization figures take the values between 0 and 1.

Table 5. Normalization Matrices

	F1	**F2**	**F3**	**F4**	**F5**	**F6**	**F7**	**F8**	**F9**	**F10**	**F11**
References	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ege	0.60	0.89	1.00	0.55	0.78	0.79	0.90	1.00	1.00	1.00	1.00
Kutahya	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.34	0.63	0.70	0.55
Usak	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Absolute value table is prepared by using the equation 4 below. During this process, absolute value differences, which are the reference figures of comparison values, are taken into consideration.

$$\Delta_{0i}(j) = |x_0^*(j) - x_i^*(j)| \quad (4)$$

i=1,2,…,m , J=1,2,…,n

Table 6. Absolute Value Table

	F1	**F2**	**F3**	**F4**	**F5**	**F6**	**F7**	**F8**	**F9**	**F10**	**F11**
Ege	0.40	0.11	0.00	0.45	0.22	0.21	0.10	0.00	0.00	0.00	0.00
Kutahya	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.66	0.37	0.30	0.45
Usak	1.00	1.00	0.83	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Equation 5 is employed in reaching grey relational coefficient matrices. The analysis is conducted based on the assumption that the significance level of financial ratios weighs equally. In addition, the value of differentiation coefficient (ζ) is 0.5.

$$\gamma_{0i}(j) = \frac{\Delta_{min} + \zeta\Delta_{max}}{\Delta_{0i}(j) + \zeta\Delta_{max}} \quad (5)$$

The grey relational coefficients matrices are shown in Table 7 below.

Table 7. Grey Relational Coefficients Matrices

	F1	**F2**	**F3**	**F4**	**F5**	**F6**	**F7**	**F8**	**F9**	**F10**	**F11**
Ege	0.56	0.82	1.00	0.52	0.69	0.70	0.84	1.00	1.00	1.00	1.00
Kutahya	1.00	1.00	0.33	1.00	1.00	1.00	1.00	0.43	0.58	0.62	0.53
Usak	0.33	0.33	0.38	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33

In order to provide the degrees of relationship, the last step reflects the results of equations 6. Again, the rationale behind this is the assumption that the significance level of financial ratios weighs equally.

$$\Gamma_{0i} = \frac{1}{n}\sum_{j=1}^{n} \gamma_{0i}(j) \quad , \quad i = 1,2,\dots,m \qquad (6)$$

The results of the analysis are presented in Table 8 below.

Table 8. GRA Ranking Results

	F1	**F2**	**F3**	**F4**	**F5**	**F6**	**F7**	**F8**	**F9**	**F10**	**F11**	Γ_{0i}	**Rank**
Ege	0.56	0.82	1.00	0.52	0.69	0.70	0.84	1.00	1.00	1.00	1.00	0.83073	1
Kutahya	1.00	1.00	0.33	1.00	1.00	1.00	1.00	0.43	0.58	0.62	0.53	0.77209	2
Usak	0.33	0.33	0.38	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33726	3

5. Conclusions

Ceramic and its sub-sectors is a major manufacturing industry of Turkey. With respect to ceramic and ceramic-related industries, Turkey is named among top ten players around the world. This holds for both production and export measures. However, among many of the companies only three are publicly traded in Borsa Istanbul.

In general, financial ratios are used with caution. Nevertheless, they also seem to be indispensable. Hence, they are commonly implemented in modelling both by practitioners and researchers and are considered at least a starting point of analysis. Financial performance measurement has been continuing to be a subject of numerous studies in the literature. Based on preferred criteria or limitations, like industry-specific factors or data availability, studies apply different methodologies. Multiple attribute decision making (MADM) is one of these methodologies. In this study, as one of these techniques, grey relational analysis (GRA) is applied for analyzing the financial performance of ceramic industry firms listed in Borsa Istanbul.

The aim of this paper is to empirically rank the firms based on their financial performance reflected by the financial ratios. The sample, covering the period of 2010-2015, consists of the data set for three publicly traded ceramic companies. To our best of knowledge, the study is first to examine the Turkish ceramic firms' financial ratios by GRA. The results reveal that "Ege Seramik" appears to be the best in financial performance. Results of the study are expected to help ceramic firms to take necessary operational steps towards improving their financial performance as well as to provide investors with useful insights in making investment decisions. In order to improve the robustness of these findings, application of different approaches may be a subject of further research.

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Management Innovation to Contextual Performance: The Mediating Role of Job Satisfaction

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1. Introduction

Management innovation is defined as a specific form of organizational change where there is a radical differentiation in management activities of an established organization in terms of practices, processes, techniques, or structure (Birkinshaw, Hamel, & Mol, 2008). The term management innovation has been designated via various other similar terms such as managerial innovation, organizational innovation, administrative innovation, and social innovation among others (Damanpour, 2014). A predecessor of the contemporary management innovation, the term managerial innovation has first been used by Kimberly (1981) to denote changes in the process of decision making. The author defined managerial innovation as "*any program, product or technique which represents a significant departure from the state of the art at the time it first appears, and which affects the nature, location, quantity or quality of information that is available in the decision-making process*" (p. 86). The term organizational innovation has initially been used in economics literature in reference to the social and disembodied technical changes in *i.e*. skills, ideas and know-how of organizational members rather than physical and embodied technical changes in *i.e.* new machines and products (Damanpour & Aravind, 2012). Similarly, administrative innovation has been conceptualized in sociology and management literature to imply new policies regarding indirect work activities such as personnel selection, resource allocation, task structuring etc. in contrast to technical innovation in primary work activities such as products, and processes (Damanpour & Evan, 1984). According to organizational researchers, the non-technological organizational changes prompted by management innovation usually act as preconditions for subsequent technological innovations, and sustainable firm performance and growth could only be achieved through the ability to introduce brand new management practices (Volberda, Van Den Bosch, & Heij, 2013; Damanpour & Aravind, 2012). Management innovations are purported to offer a convenient psychological climate and culture of creativity and change whereby technological innovations are encouraged (Lam, 2005), and competitive advantage is achieved (Damanpour, 2014).
Management innovation is alleged to have various consequences (Birkinshaw et al, 2008). Damanpour (2014) notes in his footnotes on precedents, antecedents, measurement and typologies of management innovation that management innovations have a complex nature both in terms of implementation and use as well the assessment of outcomes. Due to the ambiguities regarding the link between management innovation and outcomes, the introduction, adoption, and adaptation of innovative management practices provide substantial challenges. Given the scarcity of empirical evidence, this study attempts to investigate various outcomes of management innovation, and specifically explore the role of job satisfaction in the relationship between management innovation and contextual performance in the specific context of Turkish organizational life.

2. Literature Review

2.1 Management Innovation

Most studies of innovation have followed a "technological imperative" reckoning that innovation occurs through research and development efforts, particularly in the manufacturing sector (Damanpour & Aravind, 2012). Since Schumpeter's seminal work on innovation, various

types of innovation (*i.e.* product, service, process) spanning various levels of analysis (*i.e*. individual, firm, industry) have been extensively researched. Yet, management innovation has received comparatively less attention, resulting in a limited number of empirical studies on theoretical underpinnings, and potential antecedents of the concept. Birkinshaw and colleagues (2008) defined management innovation as a particular type of change implying a fundamental shift in management practices of an established organization in the context of structure, processes, products, technologies, codes of conduct, and etc. Mol and Birkinshaw (2009) described management innovation as "*the introduction of management practices that are new to the firm with the intention to enhance firm performance*" (p. 6). Using and extending the definition of innovation put forth by Jones (2013), we propose a more comprehensive definition of management innovation as follows; Management innovation refers to a course of action by which an organization uses its skills and resources to develop new management strategies, structures, processes, activity systems and practices in order to better meet the needs of its employees and other stakeholders, to accomplish organizational mission, and hence to increase organizational performance. The importance of new management practices for companies has long been acknowledged given the benefits that accrue through outcomes such as productivity, increased customer retention, and firm performance (Mol & Birkinshaw, 2009).

Why and how does management innovation occur? Institutional theory (DiMaggio & Powell, 1983) links the emergence of new practices to the need for gaining legitimacy by imitating the moves and actions of heavyweight players in the environment. According to the behavioral theory of the firm (March & Simon, 1958), companies adopt new practices in order to bridge the performance gap with their peers. From a resource-based theory of the firm perspective, management innovation could be linked to the accumulation of large stocks of organizational resources such as human capital or management knowledge that could be allocated to a search for alternative practices, structure, processes or technology (Mol & Birkinshaw, 2009). Some others and indeed critics of new management practices associate management innovation with fads and fashions, whereas some others claim that management innovation is intended to enhance organizational reputation rather than financial performance (Staw & Epstein, 2000). Birkinshaw and Mol (2006) attempted to shed light on the underlying mechanisms of management innovation process and to discover how it emerges in an organization, and to identify its distinctiveness from mainstream technological innovation. In addition to a set of steps and problems considerably similar to those of technological innovation (such as creativity, uncertainty, change, conflict, resistance etc.), they found management innovation to be accompanied by two distinct characteristics; first, it is often through external agents such as academics and consultants that the idea for management innovation emerges and is advanced; and second, as management innovation involves tacit and uncodified knowledge, ideas, and processes that are hard to implement and evaluate, it takes more time to measure the effects and determine its success than concrete technological innovation. Based on their evaluation of eleven case studies and interviews with pioneers of management innovation, Mol and Birkinshaw (2009) created a model of management innovation comprising of four stages, namely a) dissatisfaction with the status quo, b) inspiration from other sources, c) invention, and d) internal and external validation. This model of management innovation hints that the process is generally gradual and evolutionary, rather than revolutionary.

Prior research on the relationship between innovation and performance have proven to be inconclusive due mostly to the inadequacy of measurement methods (Tidd, 2001). The empirical evidence on the relationships between various types of innovation and firm performance have also been limited in number and extent (Jin, Hewitt-Dundas, & Thompson 2004). Mol and Birkinshaw (2009) found a positive correlation between the introduction of new management practices and future firm performance in the form of productivity growth, yet they cautioned against interpreting their result as indicative of an invariable evidence for

management innovation and positive performance outcomes relationship. According to OECD Oslo Manual (2005), organizational innovations could contribute to improved firm performance through lower rates of administrative and transaction costs, increased workplace satisfaction and a respective rise in labor productivity, attainment of various intangible assets such as unwritten knowledge or lower costs of supplies. Ettlie (1988) evidenced that the use of appropriate forms of management innovation in U.S manufacturing firms increased the effectiveness of technological innovation. Evangelista and Vezzani (2010) found joint implementation of technological and non-technological innovations to be a source of competitive advantage for both manufacturing and service organizations.

2.2 Contextual Performance

Contextual performance refers to extra-role and discretionary employee behavior that contribute to the well-being of an organization and that are beyond formal role specifications written in job descriptions. Contextual performance cements the psychosocial core of an organization and facilitates more effective task completion and organizational goal accomplishment (Borman & Motowidlo, 1993). Contextual performance comprises of peripheral activities that indirectly contribute to core organizational activities. Individuals with higher levels of contextual performance are more likely to take greater responsibility beyond their formal task requirements, to take more initiative in completing a work or helping a coworker, to work for longer hours, to protect others' interests in the organization, to help creating and reinforcing a positive climate in the organization and hence enhancing overall organizational performance. As a function of job dedication and interpersonal facilitation, contextual performance contributes to various organizational outcomes and is influenced by a bunch of organizational factors. Gürbüz and Sığrı (2012) found job satisfaction, affective commitment, and procedural justice to be significant predictors of contextual performance on a sample of defense sector employees. Yıldız (2016) found that when the level of self-esteem was high, the negative effect of the abusive supervision on contextual performance loses validity. Hurtz and Donovan (2000)'s meta-analysis found conscientiousness, agreeableness and emotional stability to be significant predictors of contextual performance. Similarly, a low power distance culture, a collectivistic culture that is characterized by closely knit social structures, a high-quality leader-member exchange, and empowerment as well as a transformational leadership style have been found to be influential on contextual performance (Reilly & Aronson, 2012). In return, contextual performance is found to enhance employee and organizational productivity in a number of ways, *i.e.* through interpersonal support that facilitates the transfer of knowledge and experience and through employee compliance that helps to reduce the time and energy spent on close monitoring (Podsakoff & MacKenzie, 1997). Within the framework of social exchange theory, research suggested that people tend to positively contribute to their organization through support and extra work when they are satisfied with their job and perceive what they take equals to what they give. We contend that management innovations implemented by the organization and top management will contribute *per se* to employees' contextual performance as these innovations are basically better means of goal attainment, and aim at enabling and expediting organizational effectiveness and performance. When employees experience constructive practices from their organization in the form of management innovations, they tend to positively reciprocate based on the spillover effect of job satisfaction towards contextual performance. An organizational and managerial commitment to improve working conditions boost feelings of self-worth, value and hence satisfaction with the job, and reflect on organizationally desirable contextual behaviors.

Hypothesis 1: Management innovation will be positively related to contextual performance.

2.3 Job Satisfaction

Job satisfaction is defined as an affective state of pleasantness with and nurturing positive feelings towards one's job. Job satisfaction occurs through an evaluation of and comparison between personal expectations and occupational outcomes. It is commonly believed that job satisfaction is a function of an individual's contentment with internal factors (such as individual need for achievement, access to resources for personal development) and external factors (such as physical facilities, promotion opportunities) (Hackman & Oldham, 1975). Positive feelings towards a job is associated with positive organizational outcomes such as higher levels of commitment, productivity, attendance, and performance. Several studies found contextual performance to be positively correlated with job satisfaction (Edwards, Bell, Arthur, & Decuir, 2008). Organ and Ryan (1995)'s meta-analytic study found a significantly high correlation between job satisfaction and contextual performance. Specifically, affective events theory (Weiss & Cropanzano, 1996) suggests that certain contingent factors at the workplace lead to the emergence of certain emotions, and these affective states contribute to the formation of specific attitudes such as satisfaction. Positive experiences at the workplace are expected to stimulate positive outcomes whereas negative feelings and emotions are expected to lead to negative attitudes such as an intention to leave. In this context, management innovations are expected to prime employees' affective states, which is in turn expected to reflect on their positive evaluations of their job, and subsequent levels of higher contextual performance. This link could also be explained by self-concept theory. Self-concept is a dynamic, complex, organized and learnt system shaped through interactions and experience within the organization (Pierce, Gardner, Cummings & Dunham, 2016). Employees are expected to have a developed sense of self-concept based on the positive experience stimulated by management innovations (Lampert, 1990). This positive experience at work then spills over to employee affectivity and results in satisfaction with the job (Widmer, Semmer, Kälin, Jacobshagen, & Meier, 2012). In sum, contextual performance could be enhanced through the transfer of these favorable attitudes.

Hypothesis 2: Job satisfaction will mediate the relationship between management innovation and contextual performance.

3. Method

In the following part of the study, detailed information about the sample population, data collection instruments, validity and reliability, and findings and results of hypotheses tests and further statistical analyses are presented.

3.1 Sample and Procedure

Data for this study were collected from 166 full-time professional employees in Turkey through convenience sampling and survey method. According to frequency analysis, the number of male (50%) and female (50%) participants is equally distributed. Most of the participants (55%) are aged 18-31 years, and 49% of the respondents have an undergraduate degree. A relatively large number of respondents (73%) have 1 to 5 years of work experience.

3.2 Measures

Management innovation is measured through 6-item Management Innovation Scale adapted into Turkish by Kalay and Öztürk (2016) from the works of Vaccaro and colleagues (2012),

and Nieves and Segarra-Cipres (2015). Job satisfaction is operationalized through the 5-item Job Satisfaction Scale developed by Hackman and Oldham (1975) and adapted into Turkish by Şeşen (2010). Contextual performance is measured by Borman and Motowidlo (1993)'s 5-item scale which has been adapted into Turkish context by Karakurum (2005). All responses are provided on a 5-point Likert scale (1-Totally agree, 5-Totally disagree). The study also uses four control variables which are sex, age, education, and experience.

3.3 Validity and Reliability

The construct validity of the scales was tested through confirmatory factor analysis with IBM SPSS Amos software package program. In our study, the fit indices for the overall CFA are x^2 = 132.71; df = 97, x^2/df = 1.37; GFI = 0.91; CFI = 0.98; TLI = 0.97; RMSEA = 0.047; and SRMR = 0.06. The results of overall CFA suggest excellent fit.

The Cronbach's alpha reliability scores for the measures of this study are α=.92, α=.89, and α=.82 for management innovation, job satisfaction, and contextual performance respectively. These findings provide evidence for validity and reliability of the scales of the current study (Hair, Black, Babin & Anderson, 2010).

3.4 Data Analysis

Data were analyzed through IBM SPSS Statistics 21.0 software package program and through the PROCESS macro developed by Hayes (2013a). The sampling distribution of the mean fulfills the homogeneity of variance and normality assumption. In order to test for multicollinearity and to detect multivariate outliers, the squared Mahalanobis distances were calculated and 9 observations were removed from the data set. Harman's (1979) single factor test was conducted to identify common method variance. The correlations among research variables were tested through Pearson correlation analysis, and the proposed regression and mediation models were tested via bootstrapping and hierarchical regression analysis.

4. Findings

4.1 Descriptive statistics and correlations

Mean scores, standard deviations and correlations among research variables are shown in Table 1. Correlation analysis demonstrates significantly positive correlations between management innovation and contextual performance, between management innovation and job satisfaction, and finally between job satisfaction and contextual performance.

Table 1. Correlations, means, and standard deviations

Variables	Mean	S.D.	1	2	3	4	5	6	7
1.Sex	–	–	1						
2.Age	–	–	-.32**	1					
3.Education	–	–	.06	-.05	1				
4.Experience	–	–	-.23**	.56**	-.08	1			
5.Management innovation	3.27	1.10	-.09	.01	-.05	-.06	***(.69)***		
6.Job satisfaction	3.79	.88	-.04	.03	-.19*	.05	.27**	***(.60)***	
7.Contextual performance	4.08	.72	.06	.08	-.22**	.03	.31**	.37**	***(.56)***

Notes: *n=166; *p<0.05; **p<0.01. 1 = male, 2 = female; Diagonal values are average variance extracted (AVE) values.*

4.2 Common method variance

This research is based on self-report data, which is likely to introduce common method variance (Podsakoff, Mackenzie, Podsakoff, & Lee, 2003). Common method variance could artificially inflate the inter-correlations among the variables of a study due to a use of same method or source. Harman's (1979) single-factor test was used to evaluate the possibility of common method variance and three factors emerged accounting for 65.91% of the overall variance of which the first factor explains 27.18%. This finding implies that a) a single factor or a general factor does not emerge from the factor analysis, (b) one general factor does not account for the majority of the covariance among the variables, and c) a substantial amount of common method variance is not present for the current data. Regardless of its source of data, this study does not introduce a systematic error variance (Harman, 1979).

4.3. Tests of hypotheses

The mediation effect is tested through the general four-step approach proposed by Baron and Kenny (1986) by using the IBM SPSS 21.0. According to the model, the unstandardized regression coefficients pertaining to the effect of management innovation on contextual performance in the first step (path c) and on job satisfaction in the second step (path a) are significantly positive. In the third step, the effect of job satisfaction on contextual performance is also significant (path b). Observing significant relationships from step 1 through step 3, we proceed to step 4. In the fourth step (path c') we test for the indirect effect of management innovation on contextual performance after controlling for job satisfaction. According to unstandardized regression coefficient, the effect of management innovation on contextual performance is reduced, which confirms the partial mediation effect. These coefficients are shown in Table 2 as standardized beta coefficients (β). To analyze the significance of the observed mediation effect, Sobel's (1982) test is conducted using SOBEL macro developed by Preacher and Hayes (2004a; 2004b). The result of the Sobel's test supports the significant mediation effect. In line with these findings, H1 and H2 are confirmed.

Table 2. The results of simple linear and hierarchical regression analyses

Variables	Job satisfaction		Contextual performance		
	Model 1	Model 2	Model 3	Model 4	Model 5
Control variables					
Sex	-.03	.00	.11	.14	.14
Age	-.01	-.02	.12	.11	.11
Education	-.19*	-.17*	-.22**	-.20**	-.16
Experience	.03	.06	-.03	-.01	-.01
Management innovation		.26***		.31***	.23**
Job satisfaction					.29***
R^2	.038	.105	.063	.155	.228
ΔR^2	.038	.067	.063	.092	.073
F	1.596	3.755**	2.693*	5,872***	7.841***
ΔF	1.596	11.955***	2.693*	17,483***	15.098***
	D-W = 1.633		*D-W* = 1.871		

Notes: *The values shown in Table 2 are standardized β coefficients. n = 166; *p<0.05, **p<0.01,***p<0.001*

Given the sample size of the study comprising of 166 participants, the mediated effect was re-tested through bootstrapping based on 5000 iterations by using the PROCESS macro. Bootstrapping is a method of resampling that facilitates a more powerful analysis of the data particularly from small samples without imposing an assumption of normality of the sampling distribution (Hayes, 2013b). The upper and lower limits for confidence intervals (CIs) do not include zero (0) which means that the null hypothesis claiming that the indirect effect is zero is

rejected within 95% level of confidence. Thus, there is a significant indirect effect of management innovation on contextual performance through job satisfaction (*ab* = 0.06, BCa (bias-corrected and accelerated confidence intervals) [0.02, 0.10]). The mediator variable job satisfaction could account for one fourth of the total effect (path c), P_M = .28. In conclusion, the findings of the study prove that job satisfaction partially mediate the relationship between management innovation and contextual performance (see Table 3). Figure 1 shows the path diagrams for the mediation model.

Table 3. Indirect effects of management innovation on contextual performance

Path	Management innovation → job satisfaction → contextual performance
Bootstrap-indirect effect	0.06
Standard error	0.02
Lower limit 95% CI	0.02
Upper limit 95% CI	0.10

Notes: *n = 166. Adjusted R^2 = 0.19, F = 14.82, p<0.001. CIs are bias-corrected based on 5.000 bootstrap samples.*

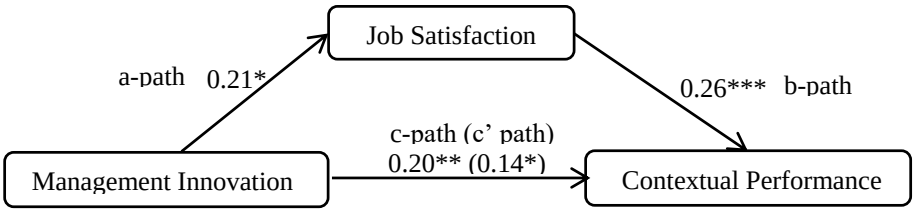

Figure 1: Model summary with *b* coefficients

5. Discussion and Conclusion

Innovations in managerial echelons and management practices pose a great challenge and opportunity for organizations as they could promote sustainable and continuous organizational growth, better-than-average profits, sustainable competitive advantage and accomplishment of organizational goals. The literature on innovation has mostly emphasized the technological imperative. Thus, the research on management innovation has mostly lagged behind those on technology innovation. Yet, competitive advantage occurs when organizations invent and combine a set of new approaches to produce and reproduce collective effort that incorporates creativity, passion and initiative-that is when they are able to advance the boundaries of individual and collective gain (Hamel & Breen, 2007). If management strategies, processes, structure and practices could be redesigned in a way to create superior value for the organization, this could lead to other types of innovation beyond technology. Management innovations could advance an organization's overall mission of strategic value creation beyond competitors particularly for small to medium-sized enterprises. That is because organizational structure and size might affect individual behavior and could hamper the development and improvement of innovation. As organizations grow in size, decision making processes slow down and decisions should be made through established channels in tall hierarchies. The more bureaucratic and complex an organization becomes, the more conservative and risk-averse its people are likely to become. This way, individuals who are the ablest and the most enthusiastic to take risks, and the most creative and passionate are discouraged (Jones, 2013). Management innovation, however, contributes to an equal distribution of power across the organization and makes everyone equally responsible for organizational problems so that management is able to reach unique information that is not likely to be achieved through formal communication channels. As a result, there is a positive synergy brought about by the efforts to make management more effective.

The proliferation and integration of those efforts that play a key role in the effectiveness of management could also promote positive job attitudes and performance outcomes. The promotive work atmosphere and positive psychological environment induced by management innovations in the workplace could enhance employee productivity, and encourage greater and more positive expectations from work. In other words, the positive affective state and feelings of contentment, that is job satisfaction could increase employees' intention to engage in extra-role and discretionary behavior. Organizations are hence well-prepared for the extraordinary opportunities on the horizon, which is the primary goal of management innovation. Through management innovation, a humane organization that emphasizes the well-being of employees is created and both the organization and employees benefit from this emphasis on people (Hamel & Breen, 2007). In this context, this study attempted to operationalize a novel research model for the mediating effects of management innovations and employee job satisfaction on subsequent levels of employee contextual performance. The findings of the study confirm the research hypotheses on the positive correlations between management innovation and contextual performance, as well as the mediating role of job satisfaction in this relationship. To our knowledge, this is the first and only study to test these relationships.

Of the four types of innovation (product/service, operational, strategy and management innovation), management innovations are the ones associated with the greatest chance of competitive advantage, the most long-term oriented and the most strategically significant. It is surprising that such a significant type of innovation has received such little attention in the relevant literature. Hamel and Breen (2007) noted that it is the model of management, not the business model or the functioning practices that limit an organization's performance.

The findings of our study could be used to draw some practical implications. First of all, management innovation requires the collective effort of all organizational members. To that end, organizations could benefit from capitalizing on the voluntary efforts of those who volitionally support relevant changes. These volunteers and their endeavor should be endorsed and encouraged through an allocation of necessary resources. Later, management innovations should be made everyone's business and responsibility, and a continuous endeavor. At this stage, it is particularly significant to remember that all employees are individuals with a creative potential. Creative people already practice their creativity in some specific area, and the point is to direct their creativity towards the accomplishment of organizational goals. Lastly, those innovate ideas put forth by employees should be implemented in an incremental pattern along with the practices of the past so that strategic renewal is accelerated. Once these practical implications are put to practice, a crowd of employees motivated to do their best will emerge; employees will be committed to their job by feeling as part of a team, and this commitment will result in positive attitudes such as satisfaction and positive organizational behavior such as contextual performance (Hamel & Breen, 2007; Yıldız & Yıldız, 2015).

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