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Introduction:

Recently, resistive economics joined the economics literature. One of the main requirements for such economy is self-reliance, due to achieve excellence. Some definitions of resistive economics regard the persistence against sanctions. And other ones emphasize on reinforcement of national economy. First time, in 2005, resistive economics was introduced after the blockade of Ghaza, And in recent years, tighten sanctions against some countries causes to promote this approach and takes into consideration. The goal of resistive economics is to use the internal sources potential against sanctions and restrictions with minimal crisis.

The approach and process of Protecting the national production, labor and capital has different economic, political and social aspects. The main one is resistive economics which could be effective due to the development and uprising of economy’s activities. Resistive Economic can be evaluated as one of the pillars that support the national production which neutralizing sanctions by relying on domestic production. And implementing its principles lead to revolution in the national production.

According to rapidly growth of scientific connections which comes from promotion and usage of online web, we aim to publish an open access journal. Nowadays, regarding many open access journals indexed in Citation Indices and high impact factor of some of them, authors became eager to them.

On the other hand, the open access movement’s attempts to start rising level of scientific journals which includes professional evaluations. This entire increases the attractiveness of participating in the movement.

By using the open access publishing, this journal is looking for promoting discussion about resistive economics. All published papers are peer reviewed and would have acceptable scientific standards and also would reveal the various aspects of resistive economics according to economics literature.
The Words of Managing Editor:

Toroudshomal Research Company According to its missions for protecting and promoting the intellectual heritage of humanities aims to establish annual conferences in order to cover the new and critical humanities Themes. Also we would publish the outcome of these events which are accessible for all researchers to improve the scientific boundaries and to remedy the increasing real-world problems.

So, for the first time, we publish the international journal of resistive economics in five scope Economy under sanctions, Oil and gas economics and management, Military Management and Economics, Green economics and Entrepreneurship. And we are trying to introduce the object of resistive economics’ discussions to international R&D centers and make it popular between economists.

We are pleased with the open access, because:
• It is publicly accessible on the web.
• Readers have right to read, print and share it with others freely.
• In traditional publishing, authors leave many of his/her rights to publishers. But in open access, all rights belong to authors.
• This open access journal is peer reviewed.
• It needs fewer cost and time to accept article.

Mohsen Kelich,
Director of Toroudshomal Research Company
The Words of Economics Editor in Chief:

History of scientific journal in Iran began from 3 decades ago. And so far it has remarkable progress in terms of quantity and quality. Retrospect at journals published in developed countries; we face to Evolution of screening and evaluating of paper and method of publishing which moved from traditional ones to electronic publishing. However, the vision and purpose of authors from publishing papers and publishers’ responsibilities in this scope has been somewhat changed. Maybe part of this improvement could be attributed to legislation which itself is acceptable. Providing access to scientific and scholarly content placed readers in a potential and strategic situation which plays a fundamental role in informing.

The potential Background of resistive economics _like special committees to develop scientific papers, scientific centers against sanctions for compiling new strategic approaches in the economics literature and also scientific journal management method, implementing electronic publishing could be found in the goals of Toroudshomal Research Company as a scientific collection. Open access journal of resistive economics would publish regularly despite of many ups and downs in the International events. In this way we need the Cooperation of professors, teachers and researchers.

We hope to be able to draw bright prospect in this field by benefit from the valuable comments of teachers, students, and researchers and take large steps in this path.

Dr. Pedram Davoudi
Economics Editor in Chief
The Words of Management Editor in Chief:

Sustainable growth and development in general and economic development specifically, is one of the most important and most controversial issues and challenges in the world, and the national aspirations of the people of all nations.

One of the most important effective factors of such a noble aspiration is having an effective and efficient interaction among countries. And resistive economics, sanctions (economic, political, cultural, social), regardless of their causes, are the most important challenges (opportunities and threats) in this field.

Management of sanctions challenges and turns them into good opportunities in different countries and it depends on the function of the effectiveness of three M. Top Management, Middle Management and Operational Management (Malaysia’s new economic architect, Mahatyr M)

Although managers can take many tools to manage the challenges associated with the sanctions that may be applied, but certainly in the role of creativity, innovation and idea creation, the most unique feature of entrepreneurs (economic, political, cultural, social) is undeniable and unmatched.

Talent and creativity, innovation and idea creation found in all humans, but the degree of expression, appearance, and use it in different ways is not based on a specific rule. And conferences are ideal place to hunt for any kind of creativity, innovation and ideas.

Creativities, innovations and ideas targeted and trapped at the journal and opportunities and new solutions will be facing managers and administrators, so that they can use them to create knowledge-based wealth (economic, political, cultural, and social) to manage the different aspects of the sanctions act.

Dr. HassanAli Aghajani
Management Editor in Chief
Aims and Scope:

Themes and Sub-themes

- Military Economics and Management

The economics of war:
- War military expenses
- Background and state of economy prior to war
- Peacekeeping funding
- Recent wars and world economy
- Most military countries and their economy
- Value of economic lost in war
- Defense budget
- Defense subsidy

Military service:
- Relation between Military service and GDP, Entrepreneurship, Unemployment, …
- Troops costs
- The impact of Conscription on economic growth

Military treaty organization:
- North Atlantic Treaty Organization (NATO) and world economy
- Southeast Asian Treaty Organization (SATO) and world economy
- Nuclear Non-proliferation Treaty (NPT) and world economy

Military Markets:
- International arms market
- Global military expenditures
- Arms producing companies
- Arms trade
- Arms race model
- Small arms market
- Global military expenditures
- FDI in military project
- Ratio of military expenses to GDP
- Black market arms
- World arms exporters and imports
- Money laundering in arms market
- Military new technologies and economic growth
Military companies/institution:
- Private military companies/forces (PMCs/PMFs)
- Military labor market
- Joint military projects expenditures or joint Military project costs
- Military pay scale

Military management:
- Human Resource Management
- Management of Financial Resources
- Industrial Management
- Business Management
- Knowledge Management
- Production Management
- Risk Management
- Strategic Management
- Time Management
- Crisis Management

Cyber war and economy:
- Economic infrastructure and cyber war
- International monetary transactions and cyber war
- Economic Information Warfare

Terrorism and world economy:
- Financial flows of terrorist organization
- Expenditure of national & international security
- Terrorism operations and world economy
- September 11, 2001 attack and world economy
- The effect of weapons of mass distruction(biological, chemical, Nuclear, …) on world economy
- History of military-economic thought and theories
- Militaristic Keynesianism
- Golden arches theory
- **Economy under Sanctions**

- Explain the economic conditions of sanctioned countries (China, Libya, India, Cuba, Iran, Iraq, Pakistan, South Africa, Syria, Sudan, Afghanistan, Russia, North Korea, etc.) from the perspective of macro-Economic variables (exports, imports, privatization, inflation, interest rates, exchange rate, GDP, per capital income, economic growth, tax, unemployment, etc.)

- Explain the economic conditions under sanctions from the perspective of micro economic variables (market, consumer, manufacturer, price, utility, and the price elasticity of production, replacement and return of …)

- Economic sanctions and social variables (general health, health, Racism, Poverty, migration, food security, environment, Social Capital, etc.);

- Economic sanctions and international politics and law (human rights, democracy, humanitarian aid, etc.)

- The impact of sanctions on the production and trade of energy (oil, gas, etc.);

- Terms of economic sanctions and international monetary and financial systems;

- The impact of sanctions on banking and international trade;

- Economic sanctions and Doing business, entrepreneurship, SMEs;

- The impact of international sanctions on international organizations and companies, FDI & FPI;

- The Nature and Models of Sanction;

- Sanctions Management;

- Typology of Sanctions;

- Sanctions and Resistive Economics;

- Management of Organizations and Companies In Terms Of Sanctions;

- Reduce the Social and Economic Effects of Sanctions;

- Geneva Agreement and Its Consequences;

- Military Economy;
Oil and Gas Economics and Management

Theories and Concepts:
- Economic Development and oil and gas
- Geoeconomics and oil and gas
- Oil and gas planing

Oil and gas’s demand and supply
- Trade and markets
- Market Forecasting
- Oil and gas pricing
- Consumption of oil and gas product
- The analysis of international energy demand and supply

Alternative Energy sources
- Renewable Energy
- The global climate change and international cooperation on reducing carbon emissions;
- New energy saving technology
- Other sustainable energy
- Ecological economy, circular economy and low-carbon economy;
- New technologies and design for energy efficiency

Investing in oil and gas
- Financing of oil and gas
- Contracts
- Energy Security and Risk Assessment
- Project management and investing
- Investment in related projects such as refineries and petrochemical

Domestic and international Policy making
- Exporter’s policies
- Importer’s policies

International organization
- OPEC
- GPEC
- G20
- Green economics

**Theories and Concepts:**
- Environmental Economics
- Environmental Management
- Green industries
- Welfare Economics
- Development Economics
- Agricultural Economics
- Eco Socialism
- Green tourism
- Eco Feminism And Women’s Economics
- Strengthening economic competitiveness,
- Foreign Direct Investment
- Game Theory

**Structural Questions:**
- privatization
- Good Governance
- Doing Business
- NGO’s
- Consumerism
- Civil Society And Attitudes To Acceptable Economic Activity
- Environmental Management As An Industry
- Taxing
- Off Shoring
- Outsourcing
- Multinationals And Tariff Barriers
- Polluter Pays
- …

**International Institutions and Corporate Activity:**
- Bretton Woods
- EU
- UN
- IMF
- World Bank
- WTO
- UNCTAD
- GATTS
- Sovereign Wealth Fund
- Trading Blocks
- New Protectionism
- International Governance
- Roles And Activity Within Multinationals
- Procurement
- Processes Of Globalization At A Practical Level
- Limiting The Power Of The Multinationals

New Initiatives and Cases, Experience and Applications:
- Green Solutions
- Green intelligence
- Eco Taxes
- Resource Management
- Renewable Energy
- Green Management
- Green building
- New Economic Indicators
- Zero Waste
- Reuse
- Recycle, Repair
- Quality Of Life And Consumerism
- Information Technology and environments

New Paradigms of the Economy:
- Biosphere, Non-Human Species
- Women and Minorities
- Post Agricultural Social And Economic Requirements And Organization
- Planning To Reduce Surplus And Not To Harness It For Power Over Others
- New Fertilizer and environmental effects

Social Justice:
- Less Developed Countries
- Subsistence Economies
- Purchasing Power Parity
- Income Distribution
- **Entrepreneurship**

**Entrepreneurship:**
- Theoretical and Empirical principles about entrepreneurship and value creation
- Entrepreneurship and its role in sustainable development (economic, political, cultural, social)
- Entrepreneurship in various areas of science and technology (With the goal of creating jobs and creating value and wealth).
- The role of entrepreneurship in resistive economics.
- Entrepreneurship, from the perspective of Islam and Quran.
- Green Entrepreneurship.
- Entrepreneurship under sanctions.
- Military Entrepreneurship
- And …….

**Incubator centers and science and technology parks:**
- Theoretical and Empirical principles about Incubator centers and parks
- Specialized clinics for consultation and brokerage firms, operating and maintaining knowledge-based businesses.
- Knowledge -based Businesses (companies) and commercialization of science and technology
- And …….

**Management in the knowledge Based SMEs:**
- Theoretical and empirical principles about knowledge – based SMEs
- Production, financial markets, innovation, legal issues, strategic management, management consulting for SMEs.
- Business clusters
- Green business.
- And …….

**The relationship between universities, industry and society:**
- Theoretical and experimental study on the relationship between universities and industry.
- University and industry mutual expectations (community)
- Community/ Models / Patterns / Frameworks for effective communication between universities and industry
And ………

Third Generation Universities (entrepreneur and value creation):

- Theoretical and Experimental Community on Third Generation Universities.
- The role of universities in society development of (economic, political, cultural, social).
- The role of Third Generation Universities in Resistive Economics
- Academic entrepreneurship and entrepreneurial University – Commercialization of knowledge and academic technology.
- Universities, Colleges, departments, new generations’ courses.
- Programs and entrepreneurial training systems in universities.
- University and industry mutual expectations (community)
- Community/ Models / Patterns / Frameworks for effective communication between universities and industry
- And ……..

Commercialization and academic goods & services sale (education, research and technology):

- Knowledge- based wealth creation (economic, cultural, social and political) in the different academic areas.
- Shops, exhibitions, academic products markets technology (didactic, research and technology),
- Academic products sales and after-sales service chain (supply chain management) (didactic, research and technology),
- Businesses clusters, unions, guilds and organizations which support academic goods and services (didactic, research, technology).
- Models / frameworks / patterns of employment and money making in the various spheres of academic production (education, research, technology and others).
- And ……..

Entrepreneurial relationships with various academic courses:

- Theoretical and Empirical principles about entrepreneurship and academic courses.
- Entrepreneurship, employment and money making in different humanity courses (management, economics, accounting, law, political science, geography, literature, language, religion, theology, jurisprudence and Islamic law, physical education and sports science, etc.).
- Entrepreneurship, employment and money making in various fields of basic sciences (chemistry, physics, biology, mathematics, biochemistry)
- Entrepreneurship, employment and money making in various fields of Agricultural sciences (Agronomy, Horticulture, Soil Science, Landscape, Animal Science, etc.).
- Entrepreneurship, employment and money making from various fields of engineering (Electrical engineering, Civil engineering, Mechanical engineering, Industrial engineering).
Entrepreneurship, employment and money making in various art courses (architecture, urban planning, tourism, restoration and archeology, industrial design, painting, graphic design, clothing design and sewing, cinema, film, theater, acting, script-writing, crafts, art research, public relations.)

Entrepreneurship, employment and money making in various medicine courses (medicine, nursing, physiotherapy, laboratory, dentistry)

Entrepreneurship in defense and military fields and others…..

And ……..

And other freebies in line with the objectives of the conference:

Knowledge Based Economy.

And ……..
Editorial Board:

“Science does NOT know Borders”

The Open Access Journal of Resistive Economics (OAJRE) kindly invites distinguished research scientists (only with PhD) to join in and work on the scientific committees and editorial review boards of the journals and conferences. Membership in the Open Access Journal of Resistive Economics (OAJRE) scientific committees and editorial review boards can open windows of opportunity for your professional growth and development as free-of-charge. Through special scientific committees and editorial review boards, and numerous occasions for scientific exchange with colleagues, journal of resistive economics gives distinguished research scientists the power to enhance their knowledge, skills, and professional options.

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Investigating Socioeconomic Challenges of Iran During Sanctions

Maryam Sha'bani¹, Hojat Mahkoei², Elahe Ghorbani³

ABSTRACT: Socio-economic development and, generally, all aspects of development in a country, is the main and structural component of achieving development goals in very country. Based on its human and territory structure, Iran is recognized as a highly civilized country with a rich government history. Respecting the current status of most countries based on which being developed is considered as a success factor, Iran also tries to follow this path. But, what is governing the political, economic and social sphere is different and challenging. Because of various international sanctions during recent years Iran has faced undesirable socio-economic status associated with a great deal of different challenges influencing employment, inflation and depression, immigration, and marriage. The present paper employs descriptive – analytical methodology to explore economic challenges in Iran leading to more severe situations under sanctions. Findings indicate that an increase in unemployment rate, human capital flight, globalization and challenge with global economy are among the most important effective factors on Iran's socioeconomic status. Results show that Iran has suppressed economic growth, high rates of unemployment and unfavourable demographic components now.


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1. INTRODUCTION

Most law experts believe that over-resolution and unilateral sanctions contradict the UN Charter since governments and nations abandoned their competency in maintaining international peace and security to the Security Council by developing the UN. Hence, unilateral actions of some governments disrupt international general disciplines (Consult, 2012, p.31). International sanctions adopted by the UN against Iran, supported by many powerful countries of the world, have led to unfavourable socioeconomic status of which people are dissatisfied. Indeed, economic sanction represents pressure by the international community on a certain countries or a group of nations. According to international relationships liberalists and respecting interdependencies among actors in different international areas such as economic, cultural, etc., economic sanction impairs significantly the economy of the target nation and this is accompanied by considerable costs including increased prices, more unemployment rate, reduced economic growth rate, decreased national incomes and threatened social welfare (Christopher Hill, 2007:259).

Iranian society possesses unique demographic features. Ethnic – cultural diversification, having young, literal and burgess people against high unemployment rate results in complicated human resources problems and ultimately turns into a main challenge in future years. Around 50% of Iran's population is composed of ethnic groups a significant part of which feel excluded and deprived while having families and relatives abroad. Therefore, globalization increases the pressure on national identity through weakening national governments and intensifying awareness and ethnic groups is also considered as a fundamental challenge for Iranian inclusive identity. Young population activates the generations’ gap, especially because of education and awareness differences, and the procedure is expected to progress in future. Estimations revealed that even with the most successful population control policies, no significant reduction will be achieved in the ratio of below-25-years population. Increased education and public awareness is a main component of national strength; but it is considered as a challenge for the government with minimized opportunities because of inefficient education system and weak coverage of higher education. Moreover, the high rate of unemployment and urbanism should not be neglected. Unemployment increases in cities with enhanced urban population so that 700,000 individuals are annually added to the active and job-seeking population. However, official statistics indicate that employment rate is less than half of the above figure. In 1999, the share of expert human labor among employees of the whole country was only 9.6, which is significantly far from the official standard of 20% (Khalili, 2005). As a developing country and as the 29th biggest economy of the world (Smith, 2011) besides having rich energy resources, Iran is presently facing socioeconomic challenges affecting all levels social life.

Hence, the present situation (sanctions) and mismanagement observed in various sections altogether result in considerable challenges for the economy which is the main component of social capital development. The present paper aims to investigate socioeconomic challenges in Iran the most portions of which may originate from mismanagement leading economic growth to zero and negative rates. Unemployment is dominant and inflation and price increase mainly influence people's purchasing power and degrade their savings.

2. LITERATURE REVIEW

Ziaei Bigdeli, Gholami and Tahmasebi Boldaji (2009) examined the effect of economic sanctions on Iran's mutual business with 30 partners during the period 1973 – 2007 employing generalized attraction model with Panel Data methodology. Results indicate that sanctions have a negative but small influence on Iran's business with its partners.

In a paper titled "Social analysis of human capital flight" Gholipoor and Hesam (2008) investigated the phenomenon of immigration and human capital flight. Using models such as deprivation theory, center – periphery theory and globalization of economy and culture they found that immigration of elites leads to ambiguous aspects, waste of scientific capacities, joining certain political and thinking paths, reinforcement of industrial communities, etc.

Kahraze and Nikpoor (2014) examined the impact of global sanctions on Iran's exports to member countries of three business associations (ECO, OPES, ASEAN) from 1992 to 2013 through business attraction approach based upon attraction model employing Panel Data and OLS method. Results showed that sanction
strategy negatively affects Iran's exports to member countries of OPEC but no significant impact was observed on its exports to ECO and ASEAN member countries.

Derakhshan and Toghiani (2014) used Analytical Hierarchy Process (AHP) method to study the effect of sanctions on Iran and identify scientific and experimental guidelines of standing against the sanctions and prioritize them. Findings suggested that introducing 6 factors (presented by researchers) into economic development plans may lead to a strong construct for Iranian economy to face sanctions. Besides, it is demonstrated that the 6 factors can highly control and limit shocks and fluctuations originating from sanctions and, ultimately, result in political and economic stability.

Alexander (2009) discussed policies and regulations concerning sanctions. He presented a comprehensive history of previous sanctions in the world and their objectives while analyzing them in terms of politics and international law. He also analyzed sanctions on multinational companies and intervention of international institutions.

In a research on available markets for graduates of higher education Soori and Keyhani Hekmat (2005) described job opportunities and unemployment rate faced by individuals graduating from universities and other higher education institutes. Results suggest that unemployment rate of higher education graduates increased considerably from 1997 to 2004.

Ahmadi (2008) performed a research on corruption, discrimination and poverty as main obstacles of development in Iran. He found that challenge against corruption requires national determination, public willingness and severity of government since investigations have shown that administrative corruption in intermediate and lower levels is highly related to corruption in higher levels.

3. THEORETICAL FRAMEWORK

3.1. Population Growth and Its Effect on Socioeconomic Status

Respecting the vital importance of human population growth methods should be developed to predict future population variations and determine its growth rate. One of the simplest ways is to calculate twofold time. In this case, twofold time can be estimated by dividing 70 to annual growth rate (per cent). For example, during 1980s, population of the US had an approximate annual growth of 0.9%. The twofold time of 78 years is achieved by dividing 70 to 0.9. Iran's population growth rate is 1.5. Dividing 70 to 1.5 results in 47 and this is the number of years required for Iranian population to be twofold. Hence, twofold time (the time required for the population to be twofold) is obtained by dividing 70 to growth rate x in a certain year. This figure is used to predict population growth in future (Bootkin and Clair, 2003).

Population growth increases urbanism. An increase in urban population elevates the need to energy. Metropolises play an important role in as main cities in developing countries. With increased urbanism the cities "require huge resources and impose considerable stress in the environment. They also enhance social abnormalities. In 2000, 75% of population of Latin American countries lived in urban areas while this figure was 73 – 77% for European and Northern American countries. Another challenging issue is population distribution in recent decades, i.e. tendency of population to be concentrated in a 100 km distance form beaches, while these regions compose only 22% of residential lands" (Laurie et al, 2007). The study of relations between environmental tensions and globalization and relationships between environmental stresses and these process is currently increasing (Dalby, 2006).

As more people tend to urbanism and immigration from villages to cities and from cities to cities, unemployment and poverty increase. Although it difficult to accurately estimate unemployment and poverty rate in cities of developing countries, 10 to 20% of the population of most poor countries is unemployed. Discussing poverty in African cities Potts (1995) mentions the role of IMF and its structure-mediated plans. He declares that these plans have terminated real income of many African citizens. He believes that urban development has decreased in some African countries. Unemployment is a serious problem resulting in threats such as urban unrest, losing human resources valuable for the economy and social and environmental problems. Potter and Loyd (1998) describe four main characteristics of unemployment in urban areas as follows:
1-In urban areas of developing countries labor increases by 2% annually and this may lead to population growth and immigration to cities;

2-Immigration from rural areas to urban regions imposes excessive pressure on the process adaptation with such problems and ultimately leads to emergence of informal economic section in most cities;

3-There is a close relationship between unemployment level and unequal income distribution;

4-Job opportunities are formed in cities based on their extended role in national and international economy (Hooder, 2007).

Moreover, increased population widens the gap between the rich and the poor. This is while 257 billionaires of the world have incomes equal to those of whole Chinese and Indonesian people. In America, 50% of the lower level people own only 8% of the national wealth while the upper 10% possess 27% of income and 49% of total wealth (Moyer, 2000). Surprisingly, the value of net wealth of 358 richest individuals of the world in 1996 equalled aggregate income of 45% of the poorest individuals of the world, i.e. 2.3 billion people. In 1998, assets of three highest level billionaires of the world were higher than aggregate GDP of all poor countries (Harvey, 2007). According to available statistics, around 2 billion people of the world live in poverty and this means that about one third of world population is poor. Poverty is always associated with unemployment, malnutrition, illiteracy and low level of women, environmental dangers and limited access to social and health care services. In addition, it is closely related to improper population distribution, instable use and unequal distribution of natural resources (land, water, etc.) and serious degradation of the environment. In the field of stable development, economic growth should be a necessary factor of poverty eradication which, in turn, slows population growth and helps rapid achievement of population stabilization (Poorahmad, 2006).

3.2. The United States and economic sanctions against Iran

Imposing economic sanctions is a part of American policies. The US makes use of economic sanctions as a tool to change political behaviour of target countries (Eekhout, 2011:501-502). To change policies of the target country is a main objective of sanction but other goals such as enhancing human rights, fighting against terrorism; preventing dissemination of mass destruction weapons and developing instability aiming at political reform are also considered (Kerver, 2014). A review on the history of economic sanctions reveals that since 1990, following dissolution of the Soviet Union and the end of Cold War, application of economic sanctions has highly increased with American government having the highest share in it. Form the World War I to 1990 (during a period of 75 years) a total number of 115 economic sanction were approved and imposed on various countries which equal an average of 1.5 sanctions annually. But, a sharp increase is observed in number of economic sanction since 1990.

American government has always had the highest share in imposing economic sanctions. In sum, around two third of all global sanctions are imposed by this country. It is noteworthy that the US's share in global economic sanctions increased after dissolution of the Soviet Union and the end of Cold War. During 1918 – 1990 the government was responsible for 77 of 115 economic sanction of the world, i.e. 67% of total sanctions. During the period between 1990 and 1999 the share of the US in global sanctions increased to 92%. Only in the first course of Bill Clinton's presidency imposed 61% economic sanctions on 35 countries with total population of 2.3 billion people (42% of world population) and 790 billion-dollar exports (19% of world exports). Diversified objective of the sanctions included preventing human rights violation (22 cases), fighting against international terrorism (14 cases), non-proliferation of nuclear weapons (9 cases), supporting labor rights (6 cases), sustaining the environment (3 cases) and preventing expansion of domestic struggles and local wars (7 cases).

3.2.1. Economic Sanctions Imposed On Iran By The US

Since the Islamic Revolution of 1978 in Iran the White House has approved and issued 9 Rules and 16 Sentences concerning sanction against it. The sanctions passed through three steps: the first step started in 1979 in response to hostage in American embassy and Iran's support from regional extremist groups and ended in 1995 (Jentleson, 2007:8). The second step was from 1995 to 2006 aiming at weakening Iran by targeting oil and gas industries and preventing Iran from access to missile and nuclear technologies. Finally, the third step was from 2006 to 2010 because of concerns on Iran's nuclear program. The sanctions targeted
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all economic paths of Iran (Ilias, 2010:3). Imposed sanctions of the US on Iran can be classified into 6 main periods each of which has its specific features: 1- hostage period (1979 – 1981); 2- Iran – Iraq war period (1981 – 1988); 3- reconstruction period (1989 – 1992); 4- President Clinton's period, mutual control (1993 – 2001); 5- after September 11th, 2001; 6- Resolution of the Security Council.

The first economic sanction of the US against Iran was issued in 1980 in response to hostage at American embassy. Based on the sanction, the US cancelled the sales contract of hundreds of millions military equipment (a contract signed in the era of Mohammad Reza Pahlavi), forbade selling military equipment to Iran, confiscated around 12 billion dollars assets of Iranian government in the US and forbade all business transactions between the two countries. Moreover, the American government stopped all diplomatic relations with Iran. Consequently, some other countries including European Union and Japan joined the US and forbade selling military equipment and paying loans to Iran while suppressing oil purchase. The sanction was cancelled on January 19th, 1981 following abandonment of American hostages but a considerable portion of Iran's assets was not withdrew because of claims of American companies. Despite sanction cancellation, political and economic relations between the two countries were still affected. With the commencement of Iran – Iraq war, Reagan's government organized a wide range of economic sanctions against Iran the main objective of which was to prevent selling military equipment to Iran and prohibit its success in the war. After the war ended in 1988 and the beginning of reconstruction period, sanctions remained stable but the intellectual atmosphere governing relations between Iran and the US started to improve. Accordingly, along with American actions, based on decision made by the EU in January 2012, European countries cannot have any new oil contract with Iran. On the other hand, there was another sanction called "swift" (bank sanction) imposed on Iran by the EU in March 2012 aiming at prohibiting foreign companies and financial institutes from transacting with (and transferring money to) Iranian central bank or any financial institute (Camallonga and Lismary, 2012:1-5). In next sanctions, the EU prevented any type of financial, insurance and reliability insurance support on investment on import, purchase or transport Iranian petroleum, oil and petrochemical products (Haak and Michael, 2012:1-2).

4. METHODOLOGY

The present research used descriptive – analytical method based on content analysis approach. It should be explained that in descriptive research the researcher seeks the quality of a subject including data collection to answer questions concerning the present status of the case being studied. The present research used this method beside library resources and Internet data to investigate socioeconomic challenges in Iran during sanctions. The challenges have led to deficiencies in different areas in Iran.

5. FINDINGS

5.1. Influences of Population Growth and Immigration in Iran

According to censuses performed in different periods, Iran's population grew from 34 million in 1976 to 75 million in 2011. At present, the government has spent 60 billion dollars of oil changing and instable income on country's current budget to be able to govern and manage the country. Other aspects accompanying population growth include demand for free education, dwelling, health care services, food subsidy, employment, etc. each of which is followed by certain economic consequences. Some consequences of population growth on the environment and national security are as follows:

Iran sold around 720 billion US$ oil in global markets during three decades (1988 – 2008). If the whole amount of this 30-year oil income was invested in a big financial market (e.g. London, New York), now Iran would have an asset of 2 trillion dollars and its annual income was 200 billion dollars. The goal of presenting these figures is to identify structural problems limiting attraction of this national wealth (Rohani, 2011).

Although geographical distribution and spread of population in Iran represents a combination of disharmonic nuclear – point distribution along the country, but cannot give a best help in providing security and comprehensive development.

In terms of homogeneity or heterogeneity and respecting concentrated political, administrative, cultural and economic structure, Iran's population is more considered as a big threat to national security instead of acting
as a factor of cultural enrichment (because of opportunities and appropriate conditions abroad which attract most ethnic groups toward external space). Therefore, this leads to a reduction in country's geopolitical weight. Even, elevated province-to-province immigration which owns a complete center – periphery state does not anticipate a good future for development and national security. Since continuity of this procedure has gathered and concentrated various micro cultures and interests in the center of Iran. In such circumstances, incidence of difference among various cultures in not unlikely.

Existence of Iranian micro-cultures together in the center may lead to sudden motivation of local identities which have not grown due to concentrated political, administrative, cultural and economic structure. Of course, the opposite is also true; i.e. aggregation of various micro-cultures in the center may lead to closer integration of various Iranian groups (Hafeznia et al, 2009).

Table 1: Prediction of Iran's population based on age groups from 2011 to 2021 (unit of thousand individuals)

<table>
<thead>
<tr>
<th>Year</th>
<th>Below 15 years old</th>
<th>15–64 years old</th>
<th>5–6 years old or higher</th>
<th>15–29 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>17880176</td>
<td>53728</td>
<td>3789</td>
<td>25042</td>
</tr>
<tr>
<td>2014</td>
<td>1850017</td>
<td>55626</td>
<td>3966</td>
<td>24222</td>
</tr>
<tr>
<td>2016</td>
<td>18989</td>
<td>56729</td>
<td>4166</td>
<td>20779</td>
</tr>
<tr>
<td>2021</td>
<td>19606</td>
<td>59182</td>
<td>5170</td>
<td>17714</td>
</tr>
</tbody>
</table>

Source: Rohani, 2011

Table 2: Prediction of population growth in Iran until 2050

<table>
<thead>
<tr>
<th>Population of</th>
<th>Population in 2010 (million individuals)</th>
<th>Year 2025</th>
<th>Year 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iran</td>
<td>75078</td>
<td>87134</td>
<td>96975</td>
</tr>
</tbody>
</table>

| | Population estimation | Percentage of change proportionate to 2010 | Population estimation | Percentage of change proportionate to 2010 |
|-------------------------------|------------------------------------------|------------------------|------------------------------------------|
| Iran                          | 75078                                    | 87134                  | 96975                                    |

<table>
<thead>
<tr>
<th></th>
<th>Year 2025</th>
<th>Year 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of change</td>
<td>16.06</td>
<td>29.17</td>
</tr>
</tbody>
</table>

Source: Ghribi, 2011

According to demographic assessments if the age of life expectancy and population growth in Iran are considered to be 75 years and 1.5%, respectively, the population of this country will be 107 million people at the end of 20-year perspective of which 14.7% (i.e. 15,500,000 people) are elders and old people. This means that the old population is going to be threefold during 20 years (2006 – 2026). Based in scientific resources of demography aging phenomenon occurs when 8% of the population are 65 years old or higher or 12% of the population are 60 or higher (Gheysarian, 2009). Respecting employment quality and literacy level, although the population is better than the global average, but the status is not satisfactory as a whole. Among 13 neighbouring countries, Iranian population's literacy level is higher than only 6 countries. As the table shows, population structure is not balanced during few next decades. The chart of Iran's population structure indicates a reduction in active population in a near future. In general, except indications of population quantity, local satisfaction and, consequently, Iranian nationalism and, to some extent, cultural values accepted by people no other dimension (such as geographical distribution of population, its homogeneity or heterogeneity, population construct, employment quality, literacy level and immigration, especially locally) may not have a positive and valuable role in Iran's geopolitical weight, whereas in Iranian political philosophy, people not only play a vital and central role in survival of the country but also are considered as a fully integrated unit (Hafezania et al, 2009).

More than two third of jobs generated since the 1978 Revolution were public sections. More than 80% of university graduates are working in state jobs. Iran is a representative of all regional signs on increased unemployment of semi-educated young people. so scholars and analysts believe that more than half of Iran's population lives in poverty. The growth rate of GDP must be 6.7 to provide for new jobs and entrance of new labor. In this way only unemployment increase can be prevented. Iranian economy still fails to achieve this. These failures should be evaluated with enhancement of food consumption per capita in urban areas, reduction in rural – urban income gaps, an increase in rate of registration in schools, increased literacy
(especially in women), reduced fertilization and decreased children and new-born mortality. Shared poverty is a well-known feature of Iran. During the last decade, income gaps developed for three reasons: emergence of friendship-based capitalism, emergency and cautious reform during presidency of Mr. Rafsanjani, very expensive subsidy system (around 15 – 20% of the GPD) 78% of which belongs to urban areas and multi-priced currency system expanding corruption bases (Bayaman, 2007).

The acceleration of population growth and its reflection in cultural, social and economic construct of communities is a problem faced by many countries including Iran. In national level, population growth increase without any improvement in producing and generating sections may decrease per capita GPD, investment, savings and increase unemployment. All these factors together intensify socioeconomic and, consequently, environmental problems. Disharmonic and rapid growth of the population, irrespective of diversified climatic growth and resources distribution inside the country, is a main element in incidence of problems such as lack of urban services, deficient skeletal per capita, informal and marginal residence, vulnerability of residents in various regions, occurrence of ethnic contradictions and social abnormalities (Zamani, 2009).

Based on a report by WHO (World Health Organization) in 2006, the average life span of men and women in Iran is 68 and 73 years, respectively. Accordingly, the likelihood of death in ages between 15 and 60 is 11% and 18% for women and men, respectively. Of 1000 kids below 5 years of age, 36 ones die. Moreover, from every 1000 infants (new-born) 31 cannot survive. The report states 2 people from every 100,000 die because of AIDS. There is a doctor for every 1100 individuals and 17 hospital beds for every 10,000 people. 77% of Iranian adults are literate and around 89% of children enter elementary school. About 5% of the population makes use of the Internet. According to UNESCO, Iran ranked 136 among 176 countries in terms of illiteracy. Based on the same source, around 8,100,000 individuals are illiterate in Iran (Rezaei, 2008). Other statistics suggest that there are around 9,700,000 illiterate and 10,000,000 slightly-literate individuals in Iran.

Table 3 shows that average real expenditures of every household (with constant costs of 1995) has decreased from 7.24 million Rls in 1998 to 6.50 million Rls in 2006. A comparison on real costs of rural and urban households indicates that during 1988 – 2006 rural families had lower incomes than urban ones and adopted policies helped more increase urban income than rural one. Furthermore, comparing ratio of real costs of every rural family to an urban one during mentioned years reveals that the ratio has reduced from 41.8% in 1988 to 30.8% in 2006 suggesting extended income gap between rural and urban families in those years. The table also shows that expenditure ratio of every rural family to every urban one had a 30 – 50% fluctuation. So that the expenditure (income) difference represents a permanent difference between economic conditions of rural and urban areas which is considered as a main reason of immigration to cities (Rohani, 2011).

Table 3: Status of relative poverty and income distribution in Iran from 1975 to 2006

<table>
<thead>
<tr>
<th>Year</th>
<th>Income ratio of 10% of rich to 10% of the poor</th>
<th>Gini coefficient</th>
<th>Year</th>
<th>Income ratio of 10% of rich to 10% of the poor</th>
<th>Gini coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1354</td>
<td>33/8</td>
<td>/5020</td>
<td>1370</td>
<td>16/3</td>
<td>/3996</td>
</tr>
<tr>
<td>1355</td>
<td>31/4</td>
<td>/4805</td>
<td>1371</td>
<td>15/9</td>
<td>/3870</td>
</tr>
<tr>
<td>1356</td>
<td>34/7</td>
<td>/4584</td>
<td>1372</td>
<td>16</td>
<td>/3976</td>
</tr>
<tr>
<td>1357</td>
<td>19/6</td>
<td>/4360</td>
<td>1373</td>
<td>15/7</td>
<td>/3993</td>
</tr>
<tr>
<td>1358</td>
<td>26/6</td>
<td>/4618</td>
<td>1374</td>
<td>16/1</td>
<td>/4074</td>
</tr>
<tr>
<td>1359</td>
<td>17/9</td>
<td>/3984</td>
<td>1375</td>
<td>14/5</td>
<td>/3910</td>
</tr>
<tr>
<td>1360</td>
<td>22/2</td>
<td>/4410</td>
<td>1376</td>
<td>15/7</td>
<td>/4029</td>
</tr>
<tr>
<td>1361</td>
<td>33/8</td>
<td>/5020</td>
<td>1377</td>
<td>14/2</td>
<td>/3965</td>
</tr>
<tr>
<td>1362</td>
<td>25/5</td>
<td>/4540</td>
<td>1378</td>
<td>15/4</td>
<td>/4009</td>
</tr>
<tr>
<td>1363</td>
<td>18/5</td>
<td>/4043</td>
<td>1379</td>
<td>15</td>
<td>/3991</td>
</tr>
<tr>
<td>1364</td>
<td>16/1</td>
<td>/3910</td>
<td>1380</td>
<td>14/4</td>
<td>/3985</td>
</tr>
<tr>
<td>1365</td>
<td>17</td>
<td>/3944</td>
<td>1381</td>
<td>16/9</td>
<td>4191</td>
</tr>
<tr>
<td>1366</td>
<td>17/4</td>
<td>/4038</td>
<td>1382</td>
<td>16/2</td>
<td>/4156</td>
</tr>
<tr>
<td>1367</td>
<td>17/3</td>
<td>/4043</td>
<td>1383</td>
<td>14/6</td>
<td>/3996</td>
</tr>
</tbody>
</table>
Table 4: Gross cost of urban and rural households in the years 1385- 1367

<table>
<thead>
<tr>
<th>Year</th>
<th>Urban million Rial(76-100)</th>
<th>Rural million Rial(76-100)</th>
<th>Fixed ratio of rural to urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>1367</td>
<td>Going: 1/8, Fixed: 12/41, Growth: 1/05</td>
<td>Going: 1/05, Fixed: 7/24, Growth: 41/8</td>
<td>41/8</td>
</tr>
<tr>
<td>1370</td>
<td>Going: 3/05, Fixed: 13/65, Growth: 10/7</td>
<td>Going: 1/93, Fixed: 8/62, Growth: 2/88</td>
<td>46/9</td>
</tr>
<tr>
<td>1373</td>
<td>Going: 6/56, Fixed: 14/17, Growth: 0/41</td>
<td>Going: 4, Fixed: 8/64, Growth: -0/91</td>
<td>44/3</td>
</tr>
<tr>
<td>1385</td>
<td>Going: 70/06, Fixed: 20/06, Growth: -0/63</td>
<td>Going: 42/71, Fixed: 6/50, Growth: 1/22</td>
<td>30/8</td>
</tr>
</tbody>
</table>

Source: Rohani, 1390

Table 5: high 20% cost ratio to low 20% cost ratio in Iran’s urban and rural areas During 1385- 1367

<table>
<thead>
<tr>
<th>Year</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decile</td>
<td>1367</td>
<td>1375</td>
</tr>
<tr>
<td>High 20% to low population ratio</td>
<td>32/2 4</td>
<td>13/89</td>
</tr>
</tbody>
</table>

5.2. Brain Drain in Iran

The brain drain phenomenon has been started as a social harm in the mid-twentieth century in Iran; the International Monetary Fund report (IMF) indicates that among the 91 developing countries in the world in terms of brain drain, Iran is the first one(Rohani, 2011). Immigration office of the U.S.A statics show that for over a century (1925- 1820) No Iranian name is registered as an immigrant to America; but from the beginning of 18th century to the beginning of 20th century among the 66,089,431 who has immigrated to the U.S.A from 50 different Countries, 245,407 people were Iranian. According to International Monetary Fund
(IMF) report, Iran, with 105 thousand educated among the elite college educated immigrants in America, after China and India, with 265 thousand and 258 thousand people, is in the third ranking (Fallahi, 2008).

Annually, 150 thousand to 180 thousand Iranians are trying to migrate for different reasons. According to reports, 220 thousand academic people have left Iran for the West in 2000. More than 80 per cent of the winners of Olympiads of the recent years and superiors in entrance exam, have been attracted by foreign universities especially in America and most of them have no idea of returning to the country. In addition, 90 out of 125 of talented people of the country, it means 72 per cent of those who have earned the rank of international Olympiads in recent years are studying at universities in America currently and their return hope to the country is low. Among 4,300 students who have gone abroad to continue their education in the years 1985 until 1994, 12% still have not returned to the country. Also from 1990 to 1998, 151 faculty members have left the country and have not returned yet. In 2000, on average 15 people with master's degrees and 2/3 people with doctorate degrees, have left the country every day. 92% of global Olympics medallists have gone abroad during the past two decades. America's saving educational expenses was about 10 billion and 500 million dollars in this field while Iran has lost $ 38 billion in this regard (brain drain).

According output statistics of passport office in 2008, an average of 15 MSc, 3/2 PhD and totally 5475 persons in BA have left the country every day. If we estimate third World countries Investment with a fixed rate of 1971 and 1972 at least 20 thousand dollars to develop the manpower that will be sent to America, and if we consider the number of experts at least 200 thousand Iranians in America, damage and economic and training costs of these forces, will be estimated about 4 billion dollars.it means our country has lost this amount of capital, economically. (Rohani., 2011) doctor Mohammad Humayun sepehr, the university professor states that: If a country needs a lot of thought forces, it certainly must maintain these assets. Of course, in a country like India where the population is [more than a billion] people, the risk is lower, because different people can be found in different fields among one billion people. In fact, there is enough manpower. But in a country like Iran, with the population of over 75 million people, specialized manpower is needed in all cases and elite Immigration can have catastrophic dimensions. (Fallahi, 2008).

5.2.1. Some Of The Reasons for Brain Drain in Iran

1. Lack of appropriate and efficient research atmosphere in Iran

According to the statistics, Iran only participates in 12 per cent of research activities and papers yearly. As to the statistics declared by the head of national center of medical sciences research, 62.3 per cent of assistant professors, and 71.4 per cent of associate professors of medical sciences do not compile any book, and 20 per cent of associate professors of medical sciences take less than 4 hours a week gathering required information. Furthermore, due to inattention to research findings and inadequacy of enough budget allotment to research centers, therefore, it can be expected to have less efficient research and serious measures.

2. Weakness of economic system and improper use of experts

As to the lack of required and effective investment on different sectors of economy and few job prospects for educated people and generally low economic capacity of the country to for recruitment, a lot of people do not have the opportunity to show their abilities and talents in society. Hence, they should involve in unemployment or start immigration depending on the provision of the conditions.

3. Inability to create new educational conditions for all candidates

In spite of the fact that government took some measures in terms of providing suitable conditions particularly in higher education of the country in the past, capacity of educational system and higher education of the country is in a way that there are some people who cannot take advantage of being involved in education. For example, almost three thousand students are studying in various universities of Emirates in different educational degrees. It is interesting to note that countries such as Armenia, Tajikistan, and Azerbaijan that sent students to Iran for education, some Iranian students applied for these universities for continuing their education.

4. Economic structure and interest management of the country

In the structure of interest economy, those managers who are looking for profit-seeking opportunities consist of a large group of people, while the number of managers who are interested in investment and creating new
job conditions are few. Hence, creative and entrepreneur managers stop working in favour of profit-seeking managers leading to immigration of qualified managers.

5. Unemployment

Iran is one of the youngest countries of the world, that two out of three of its population i.e. 45 million people are under 25 years of age, and each year a large group of people (almost one million) start working in the market and most of them include graduate students. Government has estimated that to overcome unemployment, 750 thousand new job prospects should be provided annually, and it can optimistically prepare 400 thousand job prospects in a year (Rouhani, 2011).

5.3 Poverty and Injustice and Its Role in the Developmental Process of Iran

Development experts unanimously concurred that poverty and injustice are the main obstacles of social and economic development. If initial steps are not taken to eradicate the conditions of poverty and injustice, the developmental process will be stopped and the society will face increasing crisis. Unequal distribution of revenues and wealth in society is an important barrier for comprehensive development to take place. The process of economic programming should be in a way that all people be able to participate in economic competitions based on their own skills and abilities. One of the main responsibilities of the government is to create motivation and provide creativity and innovation for the people of the society. However, it should be noted that equal distribution of revenues can actually result in provision of occupational activities. On the other hand, free supply of services cause demotivation and reduction of people’s activities in society (Rezaei, 2009), and developmental process encounters some problems and challenges. Poverty and injustice cannot inevitably be eradicated if economic growth is completely supported, and this support will not take place if economic limitations are solved, economic liberalization is increased, monopoly and factors of monopolization are removed, corruption (bribery and embezzlement), inefficient allotment of resources, nepotism, weak management, and governmental inefficiency are controlled, population growth is harnessed, domestic investment is encouraged by supporting policies, rules of facilitating domestic investment are prepared and invitation of Iranian investors out of Iran is emphasized, and efficiency in social security system is established. According to the official statistics of 1987, almost 20 million people lived in intense conditions of poverty. As to the housing index, 21.1 million of the country population were too poor, and based on the nutrition index; 22.7 million people (46 per cent of the population) were exposed to food poverty. Moreover, according to the reports of minister of health in 1997 and first half of 1998, 30 per cent of the whole population (21.1 million people) was deprived of food availability. As to the report of the fifth congress of nutrition of Iran in September, 1998, one in four children (nine million) suffers from malnutrition, one in six women (five million) catches anemia caused by iron deficiency, and one in six born babies dies as a result of poverty (Ahmadi, 2009). Poverty and destruction of environment has the following consequences in Iran:


5.4 Domestic Market and Unemployment in Iran

Lack of balance in economic markets is mainly one of the challenges of national security. But, threats caused by labor market imbalance are challenging for national security due to the role of human factor in its supply and demand in relation to other main economic markets including markets of money, investment, and goods. Therefore, solving the problem of unemployment is one of the defined priorities of different countries. According to the statistical center of Iran, it reveals that the unemployment rate of country has been increased from 9.1 to 12.75 per cent during 1990s to 2000s. The concern is intensified with this awareness that young adults and particularly young women and graduates face unemployment. As to the statistics of labor force in 2007, it was revealed that unemployment rate in age group ranging from 20-24 years old equalled 30.2 per cent for urban areas, 25.7 per cent for men, and 45 per cent for women. Regarding the statistics of experts and university graduates, it was also found that employment rate increased from 4 per cent in 1997 to 21.6 per cent in 2005. Based on the report of ILO, ranking of Iran in terms of unemployment rate was announced as 13 among 13 countries in 2007. Due to the significance of this issue and necessity of balancing labor market and reducing unemployment rate as an important challenge in national security of Islamic Republic of Iran, it is required to reflectively look into the market developments. It has been
predicted that during the fifth development plan, active population of country increases with a growth equivalent to 3.3 per cent from 27 million and 218 thousand people in 2012 to 30 million and 962 thousand people in 2015. Hence, labor supply increases from 847 thousand people to one million people during this period. In order to respond to such labor supply, it has been predicted that on average 11.2 per cent of investment will be increased and one million and one hundred new job opportunities will be created in a year (Rouhani, 2012).

Table 6. Labor market developments and growth resources in fifth development plan (Rouhani, 2012)

<table>
<thead>
<tr>
<th>Index</th>
<th>Fifth plan</th>
<th>2008</th>
<th>Average of fifth development plan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012</td>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>Active population (thousand people)</td>
<td>27218</td>
<td>30962</td>
<td>24277</td>
</tr>
<tr>
<td>New labor supply (thousand people)</td>
<td>847</td>
<td>1000</td>
<td>710</td>
</tr>
<tr>
<td>Unemployed population (thousand people)</td>
<td>3212</td>
<td>2167</td>
<td>2598</td>
</tr>
</tbody>
</table>

Table 7. Imbalance in labor market in 2000 (thousand people)

<table>
<thead>
<tr>
<th>Educationa l degree</th>
<th>Labor supply</th>
<th>Labor demand</th>
<th>Number of unemployed</th>
<th>Unemployment rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Illiterate</td>
<td>3783</td>
<td>3616</td>
<td>3465</td>
<td>167</td>
</tr>
<tr>
<td>Pre diploma</td>
<td>9042</td>
<td>8883</td>
<td>8512</td>
<td>159</td>
</tr>
<tr>
<td>Diploma</td>
<td>8784</td>
<td>6449</td>
<td>6371</td>
<td>2135</td>
</tr>
<tr>
<td>Higher education</td>
<td>3440</td>
<td>3286</td>
<td>3148</td>
<td>154</td>
</tr>
<tr>
<td>Higher education</td>
<td>4391</td>
<td>3904</td>
<td>3741</td>
<td>487</td>
</tr>
<tr>
<td>Total</td>
<td>26000</td>
<td>23052</td>
<td>22090</td>
<td>2948</td>
</tr>
</tbody>
</table>

Column 1 is the employment rate based on assessment plan in 2010; column 2 is based on third plan document.

*Demand for the expert according to the option of lower limit (occurrence of structural development) - ** Demand for the expert according to the option of higher limit (knowledge-based economy) (Rouhani, 2012).

Table 8. The role of educational degree in number of the unemployed (Rouhani, 2012)

<table>
<thead>
<tr>
<th>Educational degree</th>
<th>Year</th>
<th>1997</th>
<th>2005</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiterate</td>
<td></td>
<td>19.3</td>
<td>8.7</td>
<td>5.7</td>
</tr>
<tr>
<td>Pre diploma</td>
<td></td>
<td>57.7</td>
<td>8.3</td>
<td>5.4</td>
</tr>
<tr>
<td>Diploma</td>
<td></td>
<td>19.1</td>
<td>61.3</td>
<td>72.4</td>
</tr>
<tr>
<td>Higher education</td>
<td></td>
<td>4</td>
<td>21.6</td>
<td>16.5</td>
</tr>
<tr>
<td>Number of the unemployed (thousand people)</td>
<td>1456</td>
<td>2074</td>
<td>2974</td>
<td></td>
</tr>
</tbody>
</table>
Table 9. Distribution of whole employment to the separation of the expert in different sectors (one thousand people) (Rouhani, 2012)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole unemployment</td>
<td></td>
<td>111035.9</td>
<td>14571.5</td>
<td>16210.7</td>
<td>19527.9</td>
<td>23051.7</td>
</tr>
<tr>
<td>Employed in public sector</td>
<td></td>
<td>3454.5</td>
<td>4257.9</td>
<td>4649</td>
<td>5178.7</td>
<td>5725</td>
</tr>
<tr>
<td>Employed in private sector</td>
<td></td>
<td>7117.4</td>
<td>9794.2</td>
<td>10984</td>
<td>13651.6</td>
<td>16501</td>
</tr>
<tr>
<td>Employment of the expert</td>
<td></td>
<td>497.3</td>
<td>1402.6</td>
<td>1521</td>
<td>2237</td>
<td>3904.8</td>
</tr>
<tr>
<td>Ratio of the expert to whole employed (percent)</td>
<td></td>
<td>4.5</td>
<td>9.6</td>
<td>9.4</td>
<td>11.2</td>
<td>1711.3</td>
</tr>
<tr>
<td>Ratio of the expert to whole employed in public sector (percent)</td>
<td></td>
<td>11.7</td>
<td>26.6</td>
<td>23.1</td>
<td>24.1</td>
<td>2824.1</td>
</tr>
<tr>
<td>Ratio of the expert to whole employed in private sector (percent)</td>
<td></td>
<td>0.1</td>
<td>2.2</td>
<td>3.6</td>
<td>6.4</td>
<td>136.1</td>
</tr>
</tbody>
</table>

Chart 1. Unemployment rate in Iran (Yazdani & Nozari Garmekhani, 2014)

5.5 Iran and Challenge with World Economy

Economic challenges of Iran facing world economy is due to our society inconsistency with the process of globalization in one hand, and lead to dominance of world economy on national and regional policies in the future on the other. Iran’s economy is not compatible with the process of globalization due to government-based economy of country, dominance of traditional attitudes and behaviours, existence of a sort of vacuum or inadequacy in economic thought and management, and insufficiency of suitable legal context to be in line with world economy. Commercial environment of Iran demands development and change. Hence, issues and challenges that the Iranian government is to face in order to attend the world economy include reliance on export products especially raw materials, lack of costing system, low productivity and being incompatible with replacement plans of money and credits with coins and bills (paper money). (Khalili, 2006). There are three approaches to evaluate the economic integration of one country into world economy:

- Evaluation of institution convergence level or harmony among countries
- Focusing on different directions of international processes in comparison with the domestic ones
- Evaluation of integration results based on approaching the prices and services together

Convergence with domestic economic institutions harmony of the country reduces the obstacles of trans-boundary economic process. Because of different reasons in Iran, it has not been highly expected to achieve
optimal conditions. As to the relatedness of performance indices of Iran’s economy to integration with world economy, it should be said that:

1. Ratio of business growth to the growth of gross domestic product in the country is much less than the world economy. One of the reasons is the low value of domestic products trading and reliance on oil industry as the main source of county’s economy. International sanctions intensification and sanction by West played an important role as well.

2. As to the foreign investment, Iran performed too weak. From 1991 to 1996, Iran has annually been able to raise funds up to 47 million dollars, and the country’s foreign investment reached 39.7 million dollars during 1997 to 2001. However, according to this perspective that it is aimed to reach the first place in terms of economy in the area, the annual average of economic index in Iran is very low, considering this fact that for countries like Turkey and Saudi Arabia the indices were 8700 million dollars and 8300 million dollars in the tenth period, respectively.

3. Ranking of Iran in terms of performance index of economic freedom was too low and not less than 112 from 1998 to 2009 so that the ranking of the mentioned index was 168 in 2009. Despite the suitable potential of Iran to succeed in achieving FDI with the ranking of 59 to 61 (from 2005 to 2007), it is revealed that there exists some considerable disorders in terms of political structures of the country.

Iran is facing a sort of dichotomy treatment in the phenomenon of globalization. Because, the young generation is interested in communication and the enlightenment atmosphere dominating the country does not pay attention to their beliefs disregarding the consequences, which finally leads to theorization in one hand. On the other, there is a kind of challenge with traditional and prejudiced overt and covert oppositions of a certain group of people who are supported by some structural components of the country in three dimensions of economy, politics, and culture. Therefore, impulsive and reactive policies and reformative measures seeking change in the above-mentioned dimensions in one hand, and incompatibility of these reforms with the structural features of the country in three areas of economy, politics, and culture on the other, not only caused the loss of interests as a result of being in contact with the world economy and its supporters, but also we are frequently imposed to pay the costs of this structural refusal to be in line with the suggested patterns or the so called imposed features of the world (Rouhani, 2012).

Chart 2. Social and economic challenges of Iran under sanction

- Brain drain in Iran
  1. Lack of appropriate and efficient research atmosphere in Iran
  2. Weakness of economic system and improper use of experts
  3. Inability to create new educational conditions for all candidates
  4. Economic structure and interest management of the country
  5. Unemployment

- Increase of population and immigration in Iran

- Poverty and injustice and their role in the developmental process in Iran

- Iran and challenge with world economy

- Domestic market and unemployment in Iran
6. Discussion and Conclusion

Islamic Republic of Iran, as a regime of cultural-ideological background, faces serious and a lot of challenges with respect to the imperative cultural changes and facing west liberalism globalization. Religious-ideological cultural of Iran is idealistic and it is linked to future, and it has been based in a long historical background as well. If the country’s idealism leads to unattainable wish or fantasy and its historical background causes negligence of future, challenges of this powerful national element will dominate its opportunities. On the other hand, if future is in line with philosophy and thought and future and historical reflection link together, it can hopefully result in promising future leading to take the best of opportunities. Globalization challenges dominated our country since the statesmen’s approach toward it is of ambiguity. Iran is involved in paradoxes dealing with globalization; it aims to internationalize the developments of communications and at the same time worries the marginalization of politics and economy; the country tends to join this phenomenon but it is concerned about its consequences; although it is powerful in productivity and thoughtfulness, it cannot compete with developed countries. These considerations have resulted in a period of anxiety for the country (Khalili, 2006).

In comparison with countries, such as Mexico, Brazil, or even Turkey that it may be close to Iran, it can be revealed that we have been rolling back. Reviewing historical events in Iran, it was in the kingdom if Shah Abbas Safavi I that the country underwent economic developments as it is shown in the following table that comparing the money value of Iran and Britain can acknowledge this sort of development. However, the question is what has happened leading to cessation of this process, and Iran has been considered as a third world country and later as a developing country. Sometimes it has been said that exploitation played an important role, but it is of value to note that there seems to be because of the inefficiency of the kings or leaders of these countries in the past, which, in fact, they did not use their power and thought in its best form and caused misuse of valuable resources of these countries by western countries; if the kings of Qajar and Pahlavi made their best use of the existing resources and did not take cruel actions to kill Amir Kabir or to transfer the power from this person to another, and if appropriate employment of knowledgeable and elite people is made in the present time instead of brain drain since a lot money is spent on education to reach higher education degree, has it been the same situation again?

In Iran, the ratio of household expenses to fixed prices shows living standard and welfare. Because a family that spends more money on the required items according to the fixed price, benefits from more services and products, which demands an exceptional amount of higher income. However, statistical data sampling are not free of any errors. As Table 5 shows, average annual expenditure of each family in urban areas in relation to fixed price of 1997 increased from 12.41 million Rials in 1988 to 20.06 million Rials in 2007, and the average annual growth rate equaled 2.85 per cent. Average annual expenditure of each family has been in fluctuation in different years as families of urban areas faced the reduction of actual cost due to the growth of inflation in 1994 and 1996 in the sense that the actual cost of each urban family had the reduction of -4.02 per cent in 1996. Therefore, if actual cost of each family was considered as an alternative index approaching their actual income, it can be said that the average actual income of each family living in urban areas increased although the rate of its growth was not that remarkable.

The most important challenge Iran is faced with in political-law field is caused by the effect of globalization on the concepts of country-nation and national sovereignty. The consistency of Iran has been dependent on international and regional policies and it is also related to the acceptance of the concept of country-nation. As to the developments caused by globalization, not only have internationals policies been changed, but the modern government is also unable to assume responsibilities as before. Hence, protection of territorial integrity and national sovereignty has faced fundamental challenges in 21st century due to the intensification of important phenomena, such as ethnicity, justice, and gender and the macro-management system of the society in line with current policies could not find appropriate answer for them. Unity and national integration seems to be difficult issues regarding the heterogeneous population of Iran, unbalanced development, and regional disparities. The importance of the above-mentioned issue is doubled concerning incomplete implementation of national integration policy, transition risks, national governments weakening and awareness rising of ethnic groups as a result of globalization, communications revolution, and finally how Iran is to be in relationship with creating an international regime (Khalili, 2006).
In today’s world, the main discourse is based on economics-politics. Economic factor has influenced the whole or most of relationships and processes. A country which participates in this discourse is to face development and is subsequently more well-known and successful. Economic conditions of Iran have not been so desirable because of international sanctions imposed on the country. According to news sources and country officials, economic growth has reached below zero or negative in recent years, in a way that after passing more than one year of the eleventh government, economic growth has had negative value as -2.2; oil sale, which was the main source of revenues, has been low under sanctions; and inflation and increase of commodity prices have also been observed during this period. As to the researchers of the present research, it seems that the existing social-economic challenges are caused by management weakness affecting administrative structure. Concerning sanctions and economic crisis in the country, all people should get ready and country benefits from the existing human resources whereas brain drain is happening in Iran, unemployment increases, and the country is faced with inflation and economic downturn. However, it should be noted that the revenues from oil and gas have been a lot in recent years and even equivalent to the previous decades in which the country encountered no sanction. This extra revenue could somewhat facilitate the sanction conditions. Hence, population status and growth in line with immigration are proposed as major problems, and Iran’s economy is facing the challenge of globalization and world economy.

7. **Practical Suggestions**

Finally, the following suggestions deserve attention:

1. Permanent and strict monitoring of head managers in different levels and more important organizations of the country.

2. Benefitting from knowledgeable people and the elite and the expert in different fields.

3. Preventing from unprofessional comments and implementation of false and unrelated preferences linked to a special group of the society.

4. Attempting to reach cultural development in small cities to lessen the structural impact of thoughtless ethnic decisions, which is sometimes proposed in election.

5. Trying to enforce rules in organizations and preventing form nepotism done by some managers of governmental or non-governmental systems.
REFERENCES:


- Camallonga, José María Viñals & González Lismary Suárez (2012), “New economic sanctions against Iran: oil embargo and freeze of assets”, NEWSLETTER.
- Dalby, Simon, (2006), Security and Environment Linkages Revisited, Publications under 'State of Security and International Studies' are reflective articles that represent the state-of-the-art in the discipline. The views expressed are entirely the author’s own and not that of the Institute of Defence and Strategic Studies.

- Dalby, Simon, (2005), Geopolitics, Grand Strategy and the Bush Doctrine, Institute of Defence and Strategic Studies, Singapore. This Working Paper series presents papers in a preliminary form and serves to stimulate comment and discussion. The views expressed are entirely the author’s own and not that of the Institute of Defence and Strategic Studies, OCTOBER, p. 31.


Analysing the Impact of Economic Strengthening on Economic Liberalization
(A Resistive Economics Approach)

Azad Khanzadi, PhD1 and Samira Heidari2

ABSTRACT: Resistive economics means recognizing the areas of pressure (At the present with many sanctions) and also refer to the consequent attempts to control and deactivate it, and in the ideal situation, to convert such pressures into opportunities. It is evident that the public confidence and participation and also the rational and prudent management are the preconditions for such a matter. Resistive economics reduces dependencies, increases the self-reliance and emphasizes the benefits of local production. The emphasis on self-reliance and advantages of using domestic production will provide the necessary infrastructure for economic liberalization.

Increasing the level of economic liberalization generally leads to increase the levels of total production, economic growth and investment rate, and also reduces unemployment and inflation rate. Therefore, according to the need of establishing requirements and infrastructures for resistive economics in the current situation of Iran, and also regarding the importance of economic liberalization in the economic growth, this paper aims at investigating the impact of economic strengthening on economic liberalization. Then, an econometric model is used in this study for estimating the impact of indices of resistant economy on economic liberalization over the period 1996-2013; the variables used in this model include unemployment rate, labour productivity, GDP growth as an indicator of economic growth, capital productivity and growth of export as indicators of a resistant economy. The results show that unemployment rate has a negative and significant effect on economic liberalization, and labour productivity and economic growth have a positive effect on economic liberalization. Also based on the results of the estimated model, the incremental capital output ratio (ICOR) and export growth have no significant effect on economic liberalization.

KEYWORDS: Resistive economics, resistant economy, Economic liberalization.

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1. INTRODUCTION

Economic studies show that an open economy has better performance than a highly controlled economy. Experiences of successful developed economics show that trade and economic liberalization have played an important role in economic growth (Sharifi Renani, 2013). Also under a more open trade regime, rising demand for unskilled labour could benefit to poor workers by increasing workers real wages, as well as could create more jobs in the formal economy, and reduce poverty in developing countries (Kis-Katos and Sparrow, 2013).

In fact, economic liberalization is a part of the structural adjustment policies that includes a series of measures to reduce state intervention in the financial markets, goods and services, jobs and commercial sectors, and ultimately leaving it to the market mechanism. Economic liberalization policies seek to achieve the goals such as economic growth, full employment of production factors, price stability, balance of payments equilibrium and the promotion of social welfare (Sharifi Renani, 2013). Therefore, economic liberalization is an important factor in increasing aggregate output, employment, welfare, total factor productivity and economic growth (Becker, 2014).

After the imposed war, the structural adjustment policies in Iran were included in the first development plan, and government adapts itself more or less in accordance with the program plans. There were some productions according to the development plan and structural adjustment policies in Iran, but because of duplicative and waste productive units with low technology, achieving an economic and acceptable measurement seemed impossible.

In this case, Sharma and Oczkowski (2000) in their study for Nepal found that although trade policy reform for productivity growth (in countries with the least degree of development) is a necessary condition, it is not sufficient for this matter and other factors such as proper investment and human capital policies should also be considered.

In fact, preparing the infrastructure structural adjustment policies and economic liberalization will not result in only favorable results; it may even have negative effects such as destruction of industries in the country. In this regard, the resistive economy can provide the necessary infrastructure for economic and trade liberalization.

Resistive economy is an economic –management model for resisting the national economy against threats and for making possible actions for breaking the sanctions, and for overcoming the dominated regime. It is progress oriented, productive, extraverted, endogenous, and brings about opportunities (the Commission on Macroeconomics and Trade System Office, 2013). An economy with the attribute of being resistive economy should try to play an effective role in the global economy; in such a way that, each political system wants to enforce sanctions against the country; as a result, the global economy faces the security risks (Tary and Kaviani, 2013).

Therefore, this study aimed to analyze the relationship between economic liberalization and the development of resistive economics.

2. Literature Review

Tayebi et al (2014) in their study have investigated the impact of trade liberalization on productivity, and put this idea that emphasis on trade liberalization has been the fundamental changes in economic policies of the countries in the past decade. However, trade liberalization should have destructive effects such as increasing dumping, but if this liberalization is associated with preparing the infrastructure and healthy competitive environment through improved access to foreign new technologies and by increasing the incentive for innovation, and also improving the quality coming into existence due to competition in world markets, it
would result in increasing productivity increase. An important result of this study is the positive relationship between degrees of economic openness and total factor productivity.

Naserieh and Hosseinipour (2014) in their study show the factors of resistive economy in university and community. Factors including paying attention to entrepreneurship followed by relying on knowledge-based economy, paying attention to knowledge-based firms, consumption management and maximum use of time and resources, is in highest priority in setting this theory in comparison with other factors. Also comparing average degrees in setting resistive economy within society shows that factor of diplomacy system’s motion followed by supporting economic actors, reforming educational system, fast reaction of economic system to enemy’s attacks, crusade lifestyle, fulfilment of public economy, centralized command, economic observing and exact statistics, conservation and reforming publicity system is in highest priority in comparison with other factors.

Also Bajona et al (2010), analyzed the effects of trade liberalization on growth and productivity by using some of the most popular models of international trade, including static Hkchr Ohlin model, Ricardian model with a continuum of goods and new business models such as models of monopolistic competition. Their analysis over the period 1998-2008 for Mexico and 1990-2000 for China concluded that trade liberalization due to increasing product diversity and number of firms, leads to higher real GDP growth rate and increases productivity.

Njikam (2009) by using pre-and post-reform industry-level panel and aggregate national infrastructure data, examines the effect of infrastructures on industry productivity for Cameroon. The results suggested that infrastructure stock index contributed to output growth and boosted productivity in both sub periods, but the post-reform effects were stronger. Infrastructure quality index significantly affected productivity growth only in the post-reform era.

India has one of the most closed trade regimes in Asia, with high levels of tariff and non-tariff barriers respectively. India’s Trade liberalization began in 1991 and extensive changes in its trade regime created consequently. Accordingly, Geng (2008) by using a model of endogenous growth explored effects of trade liberalization on total factor productivity in India. He mentioned that the response to trade reform does not occur immediately, and reforms are needed to react and affect approximately 4-8 years. He also expressed that small industries with low competitive power will not benefit from the liberalization of interest, and liberalization increases productivity in the large industries with high competitive power. As a result, trade liberalization has positive effect on economic performance based on suitable infrastructural and resistive economics is needed for this infrastructure.

3. THEORETICAL FRAMEWORK

Emphasis on economic liberalization and the removal of barriers to the flow of goods, services and capital, and limiting the government intervention in the economy, and moving toward the order of market are the main changes in social and political systems of the countries in the past decade (Tayebi et al., 2014).

Therefore, in the late 1970’s, a major turnaround in economic policies happened in most countries including developed industrial countries and under developed countries, which later known as an economic liberalization.

In fact, this turning point, in developed industrial countries, was a reaction to unintended and harmful consequences of welfare states with good intentions to overcome problems such as poverty, income inequality and lack of proper insurance coverage. It caused an unprecedented expansion of government intervention in the economic area. The situation was worse in under developed economies. In Newly independent countries after World War II, the government heavily was influenced by socialist ideology, and the focused government economy was a tool for developing economy and fighting against the influence of foreign colonists. But, the historical fact show that governmental closed economics and government’s support policies have no outcome but poor economic performance and the persistence of poverty and unemployment (Ghaninejad, 2012).
In this regard, a number of developing countries with efforts in the field of economic liberalization reforms aimed at increasing the role of market and, reducing the barriers to international trade and transferring the capital. In the 1980, the successful experience of South East Asian countries such as Korea, Taiwan and Singapore, in addition to encouraging the scholars and opinion-makers to further exploration of International Economics and Development Economics, led Policy makers and economic agents in other countries to be encouraged to follow and emulate them, and to reconsider their economic policies (Babazadeh, 2007)

The new economic policy (liberalization) includes a series of steps to reduce government control of the financial markets, goods and services, labour and eventually delegate them to the external sector and the market mechanism. These measures include deregulation, reduced government intervention in financial markets and determining the market as the price marker (supply and demand mechanism), removal of subsidies, moving towards a floating or independent currency system or supervised floating currency, and changes in the value of money, the movement towards trade liberalization and the elimination of tariff and nontariff restrictions, facilitating the movement of capital, participation of foreign investors and debt and bank deposit rate deregulation (Abdolkhany, 2007). That trade liberalization is one of the main pillars of economic liberalization (Babazadeh, 2007). Despite the fact that in economic theory, the role of trade openness as an effective means of improving welfare is already emphasized the emergence of new growth theories, mostly starts with the work of Romer (1986) and Lucas (1988). It argued that a country with a greater degree of openness can absorb new technology, which may be spread between the different countries is vulnerable and in the domestic and the external market confronted with the higher competition (Ghochy, 2003). In fact, trade liberalization makes industrial productivity to be improved with more differentiated products and higher quality and lower prices. The welfare surplus of consumers and the level of intra-industry trade will increase in a considerable extent (Mlytz, 2003, Falvy, 1981 and Balassa, 1996).

The overall increase in the level of economic liberalization leads to an increase in total production, economic growth and investment rates, and reduce the unemployment rate and inflation rate (Azarmand, 2004). For example, about the impact of trade liberalization on production growth, “Kawai & Wignaraja (2014)”, “Khan & Qayyum (2006)” and “Cihan & Dutta (2005)” concluded that trade liberalization led to economic growth. And also “Binici et al (2012)” and “Jin Jang (2006)” showed that trade liberalization led to lower inflation.

However, the desired results of economic liberalization would not happen in developing countries without the infrastructure preparation, for example, in a country with unskilled labour or industry-based structure with low productivity, trade liberalization in the short-term increases wages and poverty, and will raise the unemployment and even destruct country's industries continuously.

Also for economic liberalization and trading efficiency, the government intervention must be reduced in the economy, and government should increase investment in infrastructure and manufacturing to provide a healthy competitive environment (Masood Ahmed, 2010)

In this regard, the resistive economy is a concept that can provide the necessary infrastructure for economic liberalization.

Briefly the economic resistance is a kind of economy that can be noted, in addition to its dynamic interaction with the outside world and the possibilities of free trade economic security is maintained, and fluctuations in the international economic environment and its threats, should have the least adverse effects on macroeconomic variables in long-term trend. Hence an economy certainly needs all of these abilities to make optimal use of its capacity (Tari and Kaviani, 2013).

In fact, the resistive economy is a kind of economy that provides the basis for economic growth and prosperity for a nation even under pressure and sanctions (Arabi, 2013).

There is a realistic look (not the extreme optimism of neoclassical models) to the external world
3.1. Resistive Economics Characteristics for Establishing Economic Liberalization

In the resistive economics, Resistive economics doesn’t assume that the economy can provide all its needs such advanced technologies from other countries. On the other hand, country by expressing its right positions in the international space doesn’t ignore the useful relationships with the external world (Tari and Kaviani, 2013). Therefore the economy tries to diversify all the investments (including human, physical and social) to lessen the negative effects of hostile movements of enemies. Resistive economy in the long run is less dependent on a particular commodity like oil. Although diversification and freedom from an economy based on a sole commodity is a common feature of every developed economy, but the resistive economics accomplished this job more precisely and in a larger area (with regard to strategic industries). Similarly, the implementation of performance-enhancing policies, such as privatization of the economy is done in a precise way for preventing the enemies to use the unemployment in relation to their benefits (ibid).

Resistive Economics index is a parameter that is measured by the strength of an economy. This index is very important, and many countries try to identify their resistance as the main basis of this index (Commission on Macroeconomics and Trade Office, 2013).

The dimensions of this index are presented as follows:

3.1.1. Low Unemployment Rate

Unemployment is extremely costly. Unemployment reduces the actual output relative to potential output; and also it reduces savings and capital formation rate. A country with a high degree of unemployment cannot compete with other countries in the field of production. Job creation should be accomplished according to the realities of the global economy, future developments, according to assuming possible advantages for Iranian economy. Investing in activities using just the government subsidies with import monopolies, and narrowing the circle of importing could be a short-term sedation effects (S. Shokri, 2001).

Many developed countries in economic transition have experienced similar situations and different methods have been used to support employment; which means that, they allowed firms with low power of competition to have dissolved or restructured deal. At the same time after dissolving these firms, for solving the unemployment problems, they have participated in training the human resources and making new job opportunities.

Thus, in these countries, only highly competitive industries have grown because they have been able to adapt themselves with the technological progress and changes in business conditions (Jalali and Motiee Brothers, 2013).

In fact, depending on the degree of competitiveness of firms, trade liberalization can have two consequences as follows:

If a firm has a low competitive power, and has no infrastructure to support all of it, considering the intense international competition is likely to fail. But if the firm has an appropriate degree of competitiveness, through learning and innovation makes the development and increase in new jobs associated with increase efficiency and productivity. In this regard, Xu (2004) argues that, preparing the infrastructure, for example, by increasing internal revenues and declining internal consumption that is to increase investment certainly.

3.1.2. High efficiency, especially that of labor productivity

In recent decades, the overall strategy for economic growth is productivity increase. Productivity indexes are calculated and analyzed by the efficiency of different economic sectors in the use of resources (Mardani, 2004). The main issue enhances productivity in economic, social and political impact communities, such as inflation, increased levels of welfare, increased employment and increased economic competitiveness (Valizadeh Zenour, 2005).
On the other hand, increasing productivity increases the competitiveness of the economy through Productive use of resources and lower production costs, and reducing the level of prices will have a significant role in the economic liberalization.

### 3.1.3. Non-Bipolar Community

Being non-bipolar can be logical in so far it represents the differences of people, and can be a positive factor for more work and efforts. When income inequality is very drastic that the society is divided into rich and poor groups, it causes serious danger to society.

Poverty will prevent full participation in public programs, and the disappointed and poor masses don’t resist against the invasions (Tari and Kaviani, 2013).

### 3.1.4. High Social Capital

Strengthening social capital aims at attracting the public sympathy for raising the national resistance and efforts to promote social justice, equal opportunities, capabilities of the society, with the aim of attracting more people to participate in economic activities (Commission on Macroeconomics and Business Administration, 2013)

Also, an increase in social capital through increased skills and creativity and innovation improves competitive in an economic system.

The literature of Social capital empirically has shown the importance of this kind of investment in human capital education, access to financial development, government policy and action efficiency, innovation, information flow and increase in productivity and achieving the required economic growth (Iyer et al, 2005).

The economy needs to increase the social capital of the resistance.

### 3.1.5. Diversifying the Country's Export Earnings

Countries with high dependence on exports of one or more products are caught in a vicious cycle of being under developed. This Phenomenon can be considered extreme specialization.

Mineral resources, especially oil-exporting countries have great importance. Mineral products, as fluctuations in prices, especially crude oil, will greatly fluctuate on the country's foreign exchange earnings.

In such circumstances, with the loss of foreign exchange earnings, they have to get used to secure the loans and foreign aid; it causes severe dependence and disruption of the economy.

On the other hand, fluctuations in economic growth will be sustained, because experiences have shown that an increase in export earnings during the boom, does not compensate lower income for the decline (Shdyak et al, 2008)

Generally, if a country has various international markets, the producers have greater bargaining power, and reduce the risk of damage to the country's independence (Tari and Kaviani, 2013).

In our country variation in export earnings is meant to develop non-petroleum exports (ibid).

### 3.1.6. High Economic Growth

Economic growth has always been a concern of policymakers. Economic growth means producing more goods and services. Economic growth reduces poverty and may reduce the gap between the individual and society.

If a country satisfies above criteria, it is resistive against external pressure; and sanctions have little effect on the economy of that country. However, it is worth mentioning that the resistance of the economy in the short term does not conflict with economic liberalization.
For example, the increase and diversification of export earnings is an indicator of a resistive economy, because it frees the economy from being dependent on a single product for exporting. This matter can remove the fluctuations and risks of monoculture export. But in the long term, resistive economy by preparing the infrastructure for the liberalization trade and economy will play an important role in liberalization. It can use this liberalization without a risk that threatens the liberalization without prepared infrastructures. Then, the resistive economics can play a great role in universal market, and any threat to it brings about universal threat.

4. INTRODUCING THE MODEL AND ESTIMATION METHOD

In this study, for establishing the requirements of evaluating the effects of economic liberalization on resistive economics, the following model is used:

\[ E_l = \alpha_0 + \alpha_1UN_l + \alpha_2Pr_l + \alpha_3GDPg_l + \alpha_4ICOR_l + \alpha_5Eg_l + \varepsilon_l \] (1)

In which, \( E_l \) (Economic liberalization) represents the index of economic liberalization, \( UN \) for unemployment rate, \( Pr \) for labor productivity index, \( GDPg \) represents growth of GDP (as an indicator of economic growth) in year \( t \), \( ICOR \) is index of capital productivity, and \( Eg \) represents \( \varepsilon \) export growth reflects a disturbing model.

Measuring the degree of openness of the economy quantitatively requires the determination of indicators that are manifestation of the objective economic criteria. In this context, one of the most popular indicators of economic liberalization is the Heritage Foundation's index that is used in the study.

Incremental capital output ratio (ICOR) indicates the proportion of investment in previous periods related to the increased production in later periods. In fact, this index is a measure of the productivity of capital.

ICOR index is estimating investment that is necessary to achieve the target rate of economic growth. It is noteworthy that the rate of increase in capital investment has been calculated with a lag of one year from the assumption that has impacts on production.

To estimate the model, ordinary least squares OLS is used, the selection of variables is used in the model to test for omitted variables and additional done, and finally, because of auto-correlation in the model and for estimating the final model, the method of ARMA is used.

Then, to show structural changes in the pre-ban and post-ban breakpoint Chow test is used. In this test the null hypothesis of equality of functions in the two periods is studied.

5. ESTIMATION OF THE MODEL AND INTERPRETATION OF RESULTS

Table (1) shows the results of estimating model (1). For model specification test, we have used Wald test, and the results of this test indicates that there is no specification error in our model. F-statistics indicate that the function is significant, the coefficient of determination R - squares has a high percentage (0.89), and it is indicating that the independent variables are a good explanation model for the dependent variable.

There are no problems due to anisotropy variance and autocorrelation models and Heteroscedasticity, and the F-statistics and statistics relating to the Durbin - Watson indicate the absence of autocorrelation that is the same variance.
Table 1: Results of model estimation according to ARMA method (1, 1)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>T-computational</th>
<th>Critical value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>42.09330</td>
<td>5.118</td>
<td>0.00</td>
</tr>
<tr>
<td>UN</td>
<td>-1.821871</td>
<td>-4.992</td>
<td>0.00</td>
</tr>
<tr>
<td>Pr</td>
<td>9.055692</td>
<td>4.938</td>
<td>0.00</td>
</tr>
<tr>
<td>GDPg</td>
<td>0.558395</td>
<td>3.156</td>
<td>0.01</td>
</tr>
<tr>
<td>ICOR</td>
<td>-0.022786</td>
<td>-0.460</td>
<td>0.65</td>
</tr>
<tr>
<td>Eg</td>
<td>-0.032869</td>
<td>-1.541</td>
<td>0.15</td>
</tr>
<tr>
<td>AR(1)</td>
<td>0.023884</td>
<td>0.066</td>
<td>0.94</td>
</tr>
<tr>
<td>MA(1)</td>
<td>-0.997324</td>
<td>-5.909</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Test assumptions

<table>
<thead>
<tr>
<th>Type of test</th>
<th>Test statistic</th>
<th>Critical value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specified model</td>
<td>F = 34022.74</td>
<td>0.00</td>
<td>Corrected model</td>
</tr>
<tr>
<td>Overall significant function</td>
<td>F = 10.439</td>
<td>0.00</td>
<td>Significant</td>
</tr>
<tr>
<td>Explanation power</td>
<td>$R^2 = 0.89$</td>
<td>-</td>
<td>High explanation power</td>
</tr>
<tr>
<td>Heterogeneous variance</td>
<td>F = 0.431</td>
<td>0.87</td>
<td>Homogeneous variance</td>
</tr>
<tr>
<td>Autocorrelation</td>
<td>DW = 2.17</td>
<td>-</td>
<td>Non-auto correction</td>
</tr>
<tr>
<td>Normality of the residual</td>
<td>$\chi^2 = 3.794$</td>
<td>0.15</td>
<td>Normal</td>
</tr>
</tbody>
</table>

Source: research findings

Based on the results obtained from estimating the model in Table (1) we can conclude:

Raising the unemployment rate has negative and significant effect on economic liberalization. Increasing the production reduces unemployment and power of international competitiveness. Much unemployment reduces the security of occupation.

Also reduction in labor force productivity, reduces production and quality of products and hence reduce the competitive strength at the international level and it causes the country does not have a chance for economy liberalization. Increasing addiction, and mental illnesses, violence, irregularities are the after-effects of unemployment. It reduces the social capital, and power of resistive economics. In addition, the added-worker hypothesis refers to this point that when unemployment is increased, and the incomes of a family don’t concord with the needs of members, the other members of family other than father and mother participate in a effort for supplying the required income. Even, many of them enter the market when are very young, and leave the school. This problem reduces the literacy, and job professionalism. The non-optimal labor force results less grade of production, products with a low quality, and decreasing the power of competition in an international field. Consequently, the country cannot be ready for liberating its economy.

The effect of labor on economic liberalization has been estimated, the results indicate a positive and significant effect on labor productivity and economic liberalization.

Despite of sanctions and pressure, the growth and prosperity would be possible, if the optimality of the labor and productivity would be increased.

Another result of this study is the effect of economic growth on economic liberalization, which according to the results economic growth has positive and significant effects on economic liberalization.

As noted before, economic growth has a significant role in developing and increasing resistive economy in country. Increasing the economic growth leads to higher levels of income and welfare of the community, and reduces the income gap between the populations. Economic growth is an important economic component that makes the economy resistive, and provides the necessary infrastructure for economic liberalization.
Based on the results, ICOR has no significant effect on economic liberalization. A Comparison of this index in Iran with other countries shows that this index in Iran is often higher than other countries.

However, due to some problems including diversion of financial resources to unproductive activities, issues and problems in public sector investment decisions, delay in completion of the project and the quality of it, in spite of the magnitude of this, it seems that the volume of investment production does not grow relatively; and even reducing relative price of capital in relation to labor force (due to low real rate of interest of local currency in contrast to the real rate of wage on the one hand, and continuous growing direct and direct costs of people on the other hand) caused the increasing of capital in relation to the workforce without use of production capacity, and also caused the limitation of new opportunities for employment. Failure to complete unfinished project has aggravated this situation. This approach is incompatible with the current state of the economy regarding the scarcity of resources and the unemployment rate.

Based on the results, Iran growth of export did not show a significant effect on economic liberalization, which could be derived from the economic weakness in Iran and the economy's dependence product. The oil that could be a pressure tool for us against west turned to a west's pressure tool against Iran. Reducing the dependency on oil doesn’t mean that the oil that should be removed from economics of Iran, but it means to prevent selling the crude oil and prevent the rent for those closely associated with the oil revenues.

Finally, the effect of sanctions is discussed by the Chow structural break test, and its results are stated in Table (2). For this test, we choose 2007 as break year, since the first sanctions in banking, insurance and freight Iran in this year.

Table 2: The Chow breakpoint test

<table>
<thead>
<tr>
<th>Statistics</th>
<th>The statistics value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>4.039</td>
<td>0.05</td>
</tr>
<tr>
<td>Log likelihood ratio</td>
<td>29.110</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: research findings

According to the results of the breakpoint test in Table 2, both F and Log likelihood ratio statistic shows that, a structural break point occurs in 2007 due to sanctions. The sanctions have reduced foreign exchange through exports and imports of goods, services, technology and flows of foreign direct investment which destroyed profitable investment opportunities. Also, by reducing imports, the entry of production into the country decreases, and thus the country will be forced to produce goods, which have no comparative advantages and also have high costs of production.

Sanctions also reduce the exports of domestic industries with competitiveness power by increasing their production costs and consequent increasing inflation. The decline in exports reduces foreign market demands, productivity and increases unemployment. Also more sanctions will decrease innovation and high technologies usage, and so all of these reasons will slow economic growth. Also the sanctions decrease degree of openness of the economy and disrupt the process of economic liberalization. The resistive economics by strengthening the economy (productivity-increasing, reducing unemployment, increasing social capital, diversifying export products, etc.) against pressure and sanctions lessens these effects, and prepares the ground for economic liberalization, and develops opportunities and international economic relations in order to provide sustainable development.

Finally, after the development of domestic economic performance, liberalization can help to promote further economic growth. However, as previously mentioned, even in the short-term, resistive economics does not contradict with economic liberalization (through the increasing and diversification of export earnings).
6. DISCUSSION

Regarding the results and literature review of this study, it can be claimed that there is a bilateral relationship between economic liberalization and productivity, growth, and other economic infrastructures. So resisting and promoting economic infrastructures do the best for economic liberalization, and hence the country can achieve good results and promote its competition power in international markets. The results of economic liberalization in a good condition are total products increasing, economic growth, high investment rate, high employment rate, and low inflation, and hence sustainable growth and development can be achieved.

In this research we analyze the role and effects of strengthening economic on economic liberalization. Most of later studies in this field show that economic liberalization is related to economic dependency, but the results of this study show that if we develop economic infrastructures, then economic liberalization will promote competition power in international markets, and long-run results of this process are sustainable growth and development.

Considering the resistive economic approach, a country can promote its infrastructures; consequently, economic liberalization will have good results in its economic performance and indices.

7. CONCLUSIONS AND RECOMMENDATIONS

A few decades ago, economic liberalization was adopted in order to sustain competitive power in developed countries. In recent years, most of emerging and developing countries move toward economic liberalization to achieve sustainable economic growth. But economic liberalization in these countries should be provided by suitable infrastructures that could be achievable via resistive economics.

According to current economic situation of Iran brought about by economic sanctions, it is important to strength economy to reduce negative effects of sanctions. This model of strengthening economy is known as resistive economic model, and it is vital for economic liberalization.

Increasing the level of economic liberalization generally leads to increased levels of total production, economic growth, and investment rate, and also reduce unemployment and inflation rate. Therefore, according to the need of establishing requirements and infrastructures of resistive economics in the current situation of Iran, and also according to the importance of economic liberalization in economic growth, in this study we investigated the role and effects of economic strengthening on economic liberalization. Therefore, an econometric model was used in this study to estimate the impact of indices of resistant economy on economic liberalization over the period 1996-2013; and the variables used in this model were unemployment rate, labour productivity, GDP growth as an indicator of economic growth, capital productivity and growth of export as indicators of a resistant economy. The results showed that unemployment rate had a negative and significant effect on economic liberalization, and labour productivity and economic growth had a positive effect on economic liberalization. Also based on the results of the estimated model, the incremental capital output ratio (ICOR) and export growth had no significant effect on economic liberalization.

Consequently, we can say that, resistive economics can achieve positive results in long – term, and any country can achieve sustainable growth and development via this model.
REFERENCES:


Passing Through Sanctions by Resistive Economy

Ali Asadi\textsuperscript{1}, Mojtaba Maleki Shahrivar\textsuperscript{2}, S.Meysam Esmaili\textsuperscript{3}

\textbf{ABSTRACT:} Disappointed from its military and cultural strategies and especially the soft war, the aggressive world system resorted to an illegal mechanism to put the Islamic state of Iran under hard pressure due to the economical shortcoming of the country. They imposed restrictive financial and trade unilateral sanctions against Iran. To counteract the sanctions, the supreme leader of the Islamic revolution proposed resistive economy and considered it as a vital goal in changing the direction of the country’s economy.

The aim of this paper is to answer the question and national needs, what is a suitable solution of counteract the sanctions. In this paper using content analysis approach and available resources, economic sanction’s implications and its effectiveness are surveyed in Iran and around the world. Explaining resistive economy and its elements and components is concluded that the main solutions to overcome sanctions and thwart their effects are using a resistive economy plan.

\textbf{KEYWORDS:} Economics, Sanctions, Resistive Economy.

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1. INTRODUCTION

Iran is a country of climate variability with great human and natural resource capacity containing suitable conditions for economic and political development in the region. Furthermore, the Islamic revolution of Iran was one of the most important political events of the twentieth century whose different dimensions have not been recognized properly. The outbreak of this Islamic revolution has created new equations in today’s political and scientific space, which are becoming more sophisticated and are covering more aspects. Obviously, the opponents will resort to all possible techniques to confront this revolutionary approach (Samadzadeh, 2012).

In the present structure of the international system, America can be regarded as a country with hegemonic stability (in technology and advanced economy, supporting military power by political power, and so on), whose behavioral model has gathered a number of homogeneous countries to make use of the benefits which America has supplied for them. In the process of hierarchy of power, a possible danger is that the disharmonic states may challenge the hegemonic country (Gavam, 2001). According to Washington and its allied countries, Iran is the most dangerous country for America. According to them, Iranian policy has always been buffering. They believe that Iran has been the axis of revenge in the Middle East for a long time. Western governments propose that the authorities of IRI have always tried to block anything that the US government planned to do just because it belonged to America (Tayyebi, et al., 2012).

Although Iran has been under political and economic Security Council sanctions for decades, it is able to pass through these sanctions by making use of its plentiful potential resources and employing deliberate political and economic policies (Azadi et al., 2013). It is obvious that our enemies are determined more than before to impose their wills on us to make us draw back from our pertinent rights. Resistance against this evident oppression requires two important principles. Resistive economy is a policy which is proposed by the supreme leader of the Islamic revolution. Resistive economy is an economic system closely related to national coherence. It is coordinated with political and security policies of the state which emphasize on the resistance against destructive measures of the oppressors. It is intended to resist against the economic sanctions and different economic conspiracies of the arrogant enemies and continue its progressive intentions in national, regional, and global dimensions. Resistive economics is an active economy, rather than a passive and dependent one, whose main intention is to make the country endure obstacles and challenges in the way of the country (Asgari, 2012).

2. LITERATURE REVIEW

Katzman (2014) believed By all accounts, a comprehensive nuclear agreement, if reached, will entail significant easing of U.S. and third country sanctions on Iran particularly those sanctions imposed since 2010 that reduce Iran’s oil exports and limit its access to the international financial system. The Administration has said that substantial sanctions relief under a comprehensive deal would be provided, but that comprehensive sanctions relief would be stepwise as Iran fulfills the terms of an agreement. Although it might be able to act on its own authority to suspend most sanctions on Iran, the Administration has said it would work with Congress on long-term sanctions relief in the event of a final nuclear deal. Most observers assess that additional U.S. sanctions are likely to be proposed, and perhaps enacted, if negotiations on a comprehensive settlement break down and Iran expands its nuclear work.

Allen and Lektzian (2014) discussing about the Economic sanctions have been referred to as a blunt instrument that the international community has often wielded without full consideration of the impact that these measures will have on the population of the targeted countries, particularly the weakest elements of society. Case studies of sanctions against Cuba, Iraq, and Yugoslavia have demonstrated the impact that sanctions can have on the availability of food, clean water, and medicine, causing many to conclude that all sanctions have extensive public health consequences. In this article, we examine the generalizability of these conclusions in a quantitative cross-national study of sanctions and their public health effects. Additionally, we compare these effects to those associated with both civil and interstate conflicts as critics have recently suggested that sanctions are not a humane alternative to armed warfare. We find that when sanctions have a large economic effect on the target they can have severe public health consequences. These consequences are
The global recession had a milder impact on the region. The study also shows East Asia as being very heterogeneous, with major differences in the countries’ economic, political, and social realities, more so than in the US and EU. Therefore, the overall picture for the region may not apply to individual economies.

Bazkhaneh et al. (2013) carried out a research to investigate the relationship between culture and resistive economics emphasizing the role of national media. They expressed that the most important factors leading to the formation of resistive economics include insight, attitude, and culture of society which is considered as motivating factor of human activities. In order to fulfill the purpose of resistive economics, the required culture of its appearance should be institutionalized in the society paving the way for all the people of the society to be in line with this purpose. Applying descriptive-analytic methodology, the study highlighted the role of society culture in the progress of resistive economics and the impressive role of national media in this process. Finally, some suggestions for better actions were proposed.

Briguglio and Piccinino (2012) In an article entitled “Growth with Resilience in East Asia and the 2008–2009 Global Recession” assesses why the 2008–2009 global economic recession impacted East Asia less than it did the United States (US) and the European Union (EU). The paper utilizes a “growth-with-resilience” (GWR) index aimed at measuring the extent to which a country can absorb or counteract external shocks and at the same time promote economic growth. The main findings show higher GWR index scores for East Asia compared to those for the EU and the US, which may explain why the global recession had a milder impact on the region. The study also shows East Asia as being very heterogeneous, with major differences in the countries’ economic, political, and social realities, more so than in the US and EU. Therefore, the overall picture for the region may not apply to individual economies.

Abiad, et al (2012) Entitled “The Rising Resilience of Emerging Market and Developing Economies” The article concluded that document the history of emerging market and developing economies (EMDEs’) resilience over the past sixty years, and investigate what factors have been associated with it. We find that their improved performance in recent years is accounted for by both good policies and a lower incidence of external and domestic shocks better policies account for about three-fifths of their improved resilience, while less frequent shocks account for the remainder.

Briguglio at el (2009) In an article entitled “Economic Vulnerability and Resilience: Concepts and Measurements” It began to study the economic vulnerability is defined as the exposure of an economy to exogenous shocks, arising out of economic openness, while economic resilience is defined as the policy-induced ability of an economy to withstand or recover from the effects of such shocks. The paper briefly reviews the work already carried out on economic vulnerability and extends the research towards the development of a conceptual and methodological framework for the definition and measurement of economic resilience. Towards this end, the paper proposes an index of economic resilience gauging the adequacy of policy in four broad areas, namely macroeconomic stability, microeconomic market efficiency, good governance and social development. The analysis of economic resilience explains how small economies can attain a relatively high level of gross domestic product per capita if they adopt appropriate policy stances. In other words, the relatively good economic performance of a number of small states is not because, but in spite of, their small size and inherent economic vulnerability. The results of this study can be used as a tool towards the formulation of policies aimed at overcoming the adverse consequences of economic vulnerability.

Peksen (2009) in his study challenges Does economic coercion increase or decrease government respect for human rights in countries targeted with economic sanctions? If economic sanctions weaken the target regime’s coercive capacity, human rights violations by the government should be less likely. If, on the contrary, sanctions fail to attenuate the coercive capacity of the target elites and create more economic difficulties and political violence among ordinary citizens, the government will likely commit more human rights violations. Focusing on competing views of why sanctions might improve or deteriorate human rights conditions, this article offers an empirical examination of the effect sanctions have on the physical integrity rights of citizens in target countries. Utilizing time-series, cross-national data for the period 1981-2000, the findings suggest that economic sanctions worsen government respect for physical integrity rights, including freedom from disappearances, extra-judicial killings, torture, and political imprisonment. The results also
show that extensive sanctions are more detrimental to human rights than partial/selective sanctions. Economic coercion remains a counterproductive policy tool, even when sanctions are specifically imposed with the goal of improving human rights. Finally, multilateral sanctions have a greater overall negative impact on human rights than unilateral sanctions.

Habibi (2008), believes that, the economic mismanagement and institutional inefficiencies of the Iranian economy have made it more vulnerable to the economic sanctions that have been applied against Iran in recent years. The economist intelligence unit (eiu, 2012), in its report of Western sanctions on Iran asks this important question that: is Iranian economy cracking under pressure? Analyzing Iran’s economy under embargoes concludes that, the sanctions regime against Iran’s oil exports could become a prolonged affair, lasting throughout 2013, and is not guaranteed to lead to the result desired by Western policymakers. GAO (2013)-United States Government Accountability Office- has estimated the impact of sanctions on both of Iran’s crude oil production and its oil export revenues. In this estimation Iran has been compared with peer economies. According to the GAO’s analysis of data from the Energy Information Administration (eia) and International Monetary Fund (IMF), In contrast to its peers, Iran’s oil production and oil export revenues have fallen.

Briguglio(2004) Entitled “The Vulnerability Index and Small Island Developing States a Review of Conceptual and Methodological Issues“ The article concluded that As stated, the Economic Vulnerability Indices produced so far indicate clearly that SIDS tend to be more economically vulnerable than other groups of countries. In the case of the economic and social vulnerability indices, work is still at an early stage of development and there is no conclusive quantitative evidence as to which types of countries are particularly vulnerable. The paper also discussed a number of methodological issues related to the vulnerability index and discussed the strengths and weakness of the index. It was argued that a number of criteria need to be observed when constructing the index, to elicit support for it and to render it operational.

3. THEORETICAL FRAMEWORK

3.1. Sanctions

Before dealing with the sections, it seems necessary to mention that the nature of sanctions, contrary to what some people think in the country, is not legitimate internationally. In addition to the principle of non-intervention as a general rule in international law, and “Acceptance of the Principle of Free Trade” which is agreed upon by almost all classical and liberal economists (which indicate that in both cases the sanctions against Iran are illegitimate), on the basis of article 2, paragraph 8 of Algeria Agreement, 1975, the USA is committed not to intervene in the internal affairs of Iran and not to prevent the flow of trade between Iran and Iraq. This agreement as well as Treaty of Amity and Consular Law, 1955, indicate that America has distorted international law and has misused its military and financial power to harass independent countries and take away the freedom they have earned by so many struggles (Esmali, et al, 2012).

The theory of sanction was first coined by Galtung. He defined sanction as the expression of discontent and prevention of some countries from misbehaving (Galtung, 1967). Chan developed the theory and introduced it as way of communicating messages to make them have similar behavior (Chan, 2000). The term sanction is defined as punishment, penalty, and guarantee (Clawson, 1994). Sanction is regarded as concurrent practice by a group to refute relationship with individuals or group of people to punish them or make them compensate damages. In other words, sanction is for imposing restriction on the commercial and political relationship with the countries that have deviated from international rules (Mitsuru, 2007). Sanction theories are directly related to employment of economic power. According to Zhilpie economic sanction is an intervention in economic relationship with economical purposes (Meron, 1990). The term sanction is an interdisciplinary word. Not only does it involve political economics, but also it encompasses disciplines such as law, sociology, and most important, social psychology (Bearce and Tirone, 2010). Sanctions can generally be divided into the following types, which have been experimented in different countries.
Types of sanctions:

1. Economic sanction
   - 1.1. trade sanctions
   - 1.2. financial sanctions

2. Noneconomic sanctions
   - 2.1. Travel sanctions
   - 2.2. Aviation sanctions
   - 2.3. Military sanctions
   - 2.4. Diplomatic sanctions
   - 2.5. International criminal prosecution

3.1.1. Economic Sanctions

Economic sanctions can be defined from economic and law points of view. Economically, it means punishment or manipulation of the economic relationship and cooperation for political purposes (Lapz, et al., 1997). In law, sanctions include a group of measures performed by one or several international players against a certain country to punish it by depriving it from its values or enforce it to follow values which are important for them, or both types of measures (Baldwin, 1985).

Sanctions have two aspects, declaration and implementation. Sometimes, sanctions are declared against a country without putting them into practice. This is a kind of induced threatening called soft threat (Carstenius,, 2013). Lindsay states that four possible purposes of economic sanctions may include: compliance, destruction, internal behavior change, international behavior changes (Lindsay, 1986).

Economic sanctions are mostly imposed through trade and financial bans. The most important trade bans include: allocation, threatening and blocking exportation and importation, professional discrimination, rejecting further cooperation with target countries, rejection of general tariff advantages, rejection of trade agreements, cutting, stopping and suspending technical and educational help. The most important financials bans include: ban of insurance and financial services, tax on exports, financial and banking restrictions, banning general transportation, blocking foreign properties, restricting oil selling or importing oil products, making trouble in opening letter of credit for the tradesmen of the country and preventing foreign investment (Carter, 2014).

Some people regarded sanctions as diplomatic skills in the far past. As a strategic economic war in the hostile situation of these days, economic sanctions follow a more massive purpose than its traditional concept. Particularly after 1990, it has followed a quite different concept being referred to as the superior policy which can replace military action with lower cost (Lopez and Cortright, 1995). Employment of economic sanctions as a device for the foreign policy of some countries has greatly increased in the recent decades. The mechanism of sanctioning is quite simple; the country which is under sanction (the target country) endures some costs which are imposed by the sanctioning country. Yet, this theory is scarcely put into practice. There is limited evidence indicating that the sanctioned countries have changed their behavior. Experts believe that sanctions communicate messages for the world and deviate some behavior (Petrescu, 2008).

3.1.2. Effectiveness of Sanctions

The issue of sanction raises a question about how much it has been effective where it has been employed. Sanctions are a kind of distortion of the international route for trading. Having reviewed 120 cases of economic sanctions, Hufbauer and Schott, and Elliot (1990) proposed that economic sanctions have been successful in 34 percent of the cases. However, Paibey believes that only 5 percent of the 50 cases he has reviewed were successful. Therefore, the scope of successfullness of economic sanctions extends from 5 to 34 percent which do not indicate a high degree. Hufbaur, Elivet, and Eskat (from the Institute for International Economics) have related the amount of successfullness of economic sanctions to the amount of achievement of the predetermined goals. They believe that sanctions do not affect the target country seriously. On the
other hands, Cartwright and Lopez (2002) state that when a special purpose underlines sanctioning, it can be regarded an effective instrument (Petrescu, 2008).

Special studies have been conducted about the effects of sanctions on Iran. Amoozgar (1997) declares that American sanctions against Iran have had no significant results, because they have made no change in Iranian positions. Clawson has reviewed the absolute effect of American economic sanctions against Iran during 1998-2000, and has found it negative. He has estimated the effects of trade sanctions on Iran as much as $700 to $1300, and the cost effect of these sanctions as much as $800 to $1300 each year. Alikhani (2000) reviewed the effects of sanctions on Iran historically and politically and found out that it has been futile. Asgari, et al (2001) reviewed the issue using attraction model. According to their estimation the effect of sanctions on Iran has been as much as 27 million dollars. Financial sanctions have imposed a cost from 1160 to 1321 million dollars. Behroozifar (2011) has also assessed the effects of unilateral sanctions of America on world trade and energy world market. He believes that in addition to the country under sanction, it has affected the world market and even its conductors as well. Having a look on the history of communication between Iran and America, Ismailia at el (2014) have assessed the effects of trade and fantail boycott separately. They believe that economic boycott has had negative effects on some sections. Yavari and Mohseni (2010) have reviewed the case historically and have concluded that trade and financial sanctions on Iran in 2000 have had some effects on the economy of the country. Using Delphi research method, Fakhari, et al (2013) have conducted similar surveys in the knowledge-based companies and have come to the result that sanctions have caused economic instability by restricting international communication, increasing investment risks, reducing technological imports, and paralyzing bank systems. Ebrahimi, et al (2012) have investigated the effects of sanctions on international commercial contracts and have stated that the unilateral sanctions of America have changed into multilateral sanctions resulting in issuing resolutions by International Atomic Energy Agency decisions.

The investigation held by Institute for International Economics, 115 cases of sanctions from Word War I to 1998 are reviewed, 35 percent of which are evaluated as successful because:

1. Goals were relatively small and unimportant;
2. The target country was much smaller than the sanctioning country having instable political situation.
3. The country under sanction was dependent on the sanctioning countrys.
4. Sanctions were imposed precisely and intensely.
5. The sanctioning country avoided great damage on its country (Kitous,, 2013).

Elliot (theorist in economic sanctioning) proposes some characteristics for effectiveness of sanctions:

1. The less the scope of sanctions is, the more the effectiveness of sanctions will be.
2. Economic sanctions can be more effective when accompanied by political vulnerabilities.
3. The friendlier the relationship between the country under sanctions and sanctioning country are, the more effective the sanctions will be.
4. The more the speed and preciseness of sanctions are, the more its effectiveness will be.
5. The less the costs are for the sanctioning country, the more effective the sanctions will be.

3.2. Difference between Sanctions

According to the empirical researches on sanctions, there are differences between sanctions in terms of the three perspectives presented in table 1.
Table 1. Differences between sanctions

<table>
<thead>
<tr>
<th>Differences</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>purpose</td>
<td>Strategic purpose. <em>In this case strategic interests of a country are in danger. Sanctions replace war here.</em></td>
</tr>
<tr>
<td></td>
<td>Change behavior. <em>In this case sanctions are not comprehensive and do not follow the overthrow of the regime.</em></td>
</tr>
<tr>
<td></td>
<td>Destabilization of the political regime. <em>Here are contradictions between the interests of the sanctioning country with those of the sanctioned.</em></td>
</tr>
<tr>
<td>Addressee</td>
<td>Coercive sanctions. <em>special class of people (elites)</em></td>
</tr>
<tr>
<td></td>
<td>Controlled sanctions. <em>The main purpose is to destabilize and overthrow the regime addressing the common people.</em></td>
</tr>
<tr>
<td></td>
<td>Inclusive sanctions. <em>Causing nationalistic and antiforeigner emotions and makes black markets.</em></td>
</tr>
<tr>
<td></td>
<td>Intelligent sanctions. <em>Military sanctions, blocking government accounts, stopping loans and commercial helps, banning travel of diplomats and athletes with little cost which do not affect people directly.</em></td>
</tr>
<tr>
<td>Method</td>
<td>Primary sanctions. <em>This sanction relates only to the relation between two countries; one country decides to stop trade, financial and services to another country, or decides not to have economic or social relation with it.</em></td>
</tr>
<tr>
<td></td>
<td>Secondary sanctions. <em>In this case the sanctioning country decides not to have relationship with a country as well as all other countries which are related to it.</em></td>
</tr>
</tbody>
</table>


4. RESISTIVE ECONOMY

4.1. Resistive Economy Background

The supreme leader of the Islamic revolution proposed the idea of resistive economy several years ago. Restraining from selling crude oil and movement towards non-petroleum economy, maximum usage of internal products, and not getting frightened from economic sanctions were some points raised by the supreme leader several years before the extension of the sanctions. Yet, the term resistive economy was coined firstly in a meeting with some national entrepreneurs in 2011. The supreme leader said, “We must create a real economy in the country. This is the meaning of entrepreneurship these days. My friends correctly stated that we can bypass the sanctions. I am sure the nation and its authorities will be able to do so. They will make the sanctioning countries, disappointed. This is like what they did politically years ago and realized that they had made a great mistake. Then they had to draw back their claims and come back to us for apology.” Being aware of economic warfare and its objectives from putting Iran under tense pressure, the supreme leader proposed proper plans and models for counteracting these measures. He believes that one of such measures is to follow resistive economy seriously. He emphasized that “resistive economy is not just a slogan. Rather it is a reality that must be fulfilled. The country is taking progressive steps. There are brilliant perspectives open in front of us. It is obvious that such long steps raise some enmities and oppositions in our ways. Some of these enmities are economic, some are political. Some of them are regional and some others are international. Some of them have resulted in the pressure that we are facing these days. Political pressure, sanctions and other deterrents that they have applied are part of their propaganda. Yet, among all these thorns, firm steps are going forward with great motivation and determination. We have decided to go through all these difficulties to reach the ultimate goals. This is the situation of the country now.”
In the following diagram keywords from the speeches of the supreme leader of the Islamic revolution relating to resistive economy are demonstrated to show the state of this notion in his view.

Figure 1- Frequency of resistive economy keywords

4.2. Definition of Resistive Economy
There is no written precise theory for resistive economy in economics. There is no theoretical and scientific background relating to sanctions of the central bank. Hence, resistive economy can be defined in four ways each of which or a combination of all can be regarded as national projects.

Figure 2- Resistive economy approaches

The first definition which is presented in the economic literature declares that resistive economy is parallel economy. It means that as different institutions such as the Islamic Revolutionary Guard Corps, Jihad for Construction, Committee for Relief, and Housing Foundation were established after the victory of the revolution, the same way revolutionary institutions must be established and completed to follow the intentions. According to this theory, the Islamic revolution needs resistive economy and resistive institutions to fulfill it, because the formal organizations cannot manage it. Therefore, parallel institutions are necessary for this purpose.
The second definition involves a type of resistive economy whose main intention is to remedy deficiencies, fill in the gaps, and retrofitting effete and inefficient economic structures and institutes. In the first approach, it is said that the existing institute cannot suffice resistive economy needs; yet, in this type it is tried to do something to adapt the institutes to the needs. The central bank and the trade ministry must identify the weak points of the economic system of the country and redefine themselves according to the new conditions of sanctions and revolutionary needs to be able to have Jihadist performance.

The third type of resistive economy relate to offensive and defensive aspect of resistive economy. Here, it is necessary to find out how and by which devices the enemies attack against the economy of Iran. Resistive economy is achieved when we identify the devices and methods of the enemy and design our strategy accordingly.

The first approach indicates that resistive economy is not just a short-time defensive reaction. Contrary to the previous three approaches which regarded resistive economy as a short-time and defensive reaction, this approach involves a long-term and comprehensive perspective towards Iranian economy. This approach seems to be close to the views of the supreme leader. It is proactive and foreseeing. It intends to reach to an Islamic ideal promoting us to the first rank in the region. This economy is inspiring for the whole world and can pave the way for the Islamic civilization.

All these approaches are related to each other with partial inclusion. Yet, some of them are short-term and some others are long-term. A combination of all these approaches can be considerable.

4.3. Elements and Components of Resistive Economy

Resistive economy contains several elements and components which affect its continuation. Based on the ideas of scholars, some of these components are discussed here.

- Economic Jihad is an important component of resistive economy which means behavioral self-scarification. The theory of “jihadi management” is proposed in this regard which indicates that those who have practiced through Jihad and self-scarification, have been more successful than those who have just worked for benefit (Abdulmaleki, 2011).

- The main characteristics of a resistive economy are its durability under internal and external tensions and restrictions (Khanduzi, 2010). The peak of external pressure is sanction. The internal pressure comes from all factors that pave the way for the fulfillment of external pressure. Internal pressure can be divided into two parts. The first relates to unawareness of the economists whose policymaking is in the same way as of the Western oppressors against Iran. The second part relates to the economic activists who invest and import just consumer goods. The economic necessities and conditions of the country is another problem originated from previous policies which were based on selling crude oil (Derakhshan, 2011).

- Although resistive economy is not equivalent to supportive economy, purposive and continuous intellectual support of the government of some economic activities is an important ingredient of resistive economy. “Even in the ordinary situation, some governments pay great attention to and support national economic activities in order to promote the resistance of national economy against foreign tensions. The USA, which is one of the founders of world trade organization, has breached international regulations and has annoyed other countries. For example, on account of promoting internal production, America banned importing tire from China. China complained about the issue to the World Trade Organization calling it breaching international trade regulations (Rezaei mirgaed, 2014).

- During war crisis (in military or economic wars), there is more need to resistive economy. This is as important as offensive and defensive actions in military wars. This is the defensive and economic aspect of resistive economy (Al Eshagh, 2012).

4.4. Resistive Economy and Sanctions

Resistive economy is an economic system coherent with grand political and security policies of the country designed for resisting the destructive measures of the arrogant regimes such as economic impact, sanctions, and other oppressive measures (Asgari, 2012).
4.5. The necessity of the implementation of resistive economy

Generally, if enemies become aware of the economic situation of the country under sanction, they will be able to inflict more damages making the country more vulnerable. This is an obvious evidence indicating the necessity of resistive economy. Referring to the speeches of the supreme leader, some of these necessities are explained in this section.

1- Managing consumption and preventing consumerism and supporting internal products.

Referring to the importance of modification of the consumption model, the supreme leader said in his speech to the executive officials in 1391 that “management of consumption is one of the essential components of resistive economy.”

2- Emphasizing on national product and consuming it.

The supreme leader of the Islamic revolution in his speech to Mapna Industrial Group said: “The backbone of the resistive economy is national product.” He also stated in an interview in parliamentary election that due to the wrong habits of consuming foreign goods, there is a great responsibility for the national radio and television to propagate the culture of relying on national products. The supreme leader added that this culture requires deep thought and study.

3- Popularization of economy and authorizing private sector based on article 44.

Emphasizing the importance of resistive economy, the supreme leader clarified its principles in 2013. He stated that “resistive economy requires action, one of which is popularization”. He also emphasized in his speech in the holy shrine of Imam Reza in 2014 that “resistive economy is based on people. It is not based on the government, it is popular, relying on people’s will, their investment, and their participation.”

4- Decreasing dependence on petroleum and mono-product economy.

The supreme leader of the Islamic revolution declared that decreasing the dependence on petroleum is one of the requirements of resistive economy which is a 100-year old heredity from the past. He added “one of the most serious problems in our economy is dependence to petroleum”.

5- Programming and movement on the basis of plans and fixation of policies and laws.

According to the saying of the supreme leader, having programs and not changing it unexpectedly are essential parts of resistive economy.

6- Fighting economical and official corruption

In a meeting with the president and cabinet, the supreme leader declared that resistive economy is the only way to pursue the progressive way in the country. He added that economical health and fighting corruption is the fourth indicator of a good government.

7- Empowering knowledge-based companies

The supreme leader of the Islamic revolution announced in his meeting with some researchers and scientific entrepreneurs that “what you are doing in the knowledge-based companies is part of the resistive economy.” In a meeting with young elites, the supreme leader stated that “the necessity of reconstruction of research organizations and improving their agility, having a real and correct perspective about research and knowledge-based companies, and establishment of supporting banks for them are among the priorities of scientific movement according to comprehensive scientific plan of the country.”

8- Low productivity

Evidences indicate that productivity is low both in the field of employment and investment. This, in turn, brings about incorrect usage and dissipation. In this regard, the supreme leader in a meeting with some authorities declared that “serious acute problems such as inflation, unemployment, dependence on crude oil, massive imports, and deficiency in some structures will never come to an end except by developing
appropriate culture, serious attempt of the authorities, high-ranking managers and popular activists. All authorities, including the executive branch, the government, the council and the judiciary branch and all others who are responsible for the economy of the country must work seriously. Nothing will happen without serious determination.”

9- Consideration of entrepreneurship

The supreme leader of the Islamic revolution said in a meeting on entrepreneurship and its relation to resistive economy that “we must propose a real resistive economy in the country. This is what entrepreneurship means today. My friends correctly said that they are able to bypass the sanctions. We will do it and make the enemy disappointed”. The first article in the stated resistive policy relates to “supplying the provisions and activation of all facilities, as well as human and scientific properties towards developing entrepreneurship and estimating the participation of all people in the way for making values and especially by increasing human resource capital through achieving skills of creation, entrepreneurship and experimentation.”

10- Western intentions for passivation of the country toward regional changes and making them give up in negotiation.

Western powers intend to prevent the geopolitical region to become Iranized by secluding Iran and imposing any type of harassment against it. They tried to invite Iran for a preplanned negotiation. The supreme leader clarifies the situation: “Their plot was quite foolish. Facing the tensions, Iran realized that there is no use in negotiation with America.”

11- The role of media in directing people toward resistive economy.

Media is responsible for most of the essential parts of fulfillment of resistive economy by modifying consumers’ culture and socializing it in the society to promote national product.

12- Lack of a strategic creative local attitude and a jihadi comprehensive managerial entrepreneur strategy for economy.

If the notion of “economic Jihad” proposed by the supreme leader will not be considered, the result will be the lack of constant national jihadi attitude. That is why this year is also called the year of “economy and culture with national determination and jihadi management”.

Hence, referring to the aforementioned issues, the fulfillment of resistive economy can be divided into two periods:

1. Short-term period. In this period the administrative affaires of the country including support of national product, management of foreign exchange, consumption management, finest use of time, resources and facilities.

2. Long-term period. In this period the economic system of the country must be modified. It includes issues such as relying on people and authorizing them in economic affairs, resistance of economy against international tensions and sanctions, knowledge-based economy and science, knowledge and knowledge-based companies, decreasing dependence on oil and selling crude oil, and academic justification of resistive economy.

4.6. Requirements of Resistive Economy in Crisis Situation

The following suggestions are presented for the fulfillment of resistive economy:

1- In order to identify the context and situation necessary for the fulfillment of resistive economy, it is necessary to engage in pathology of the country’s economy and the obstacles in the way to achieve it. The first necessity is to establish a centrality for resistive economic activities. The activists of resistive economy need a center for sharing their activities.

2- Activities in this field require monitoring the internal and external economic activities with exact statistics without which economic activities are nonsense. To achieve this, local indicators are necessary in that we need them for the measurement of the vulnerabilities of our economy and that how it can resist the situation and how mush this economic document can tolerate it.
3- The educational system of the country must be revised to cope with resistive economy. The function of an educational system is to train students who fit the necessities of the period. Yet, this is unfortunately not the case in Iran.

4- Extending the theory of resistive economy is a point relating to media and propaganda system. This system must be coherent enough to communicate the theory through formal and informal media in proper packages. This is somehow similar to what responsible institutes did during the imposed war.

5- The possibility of immediate reaction when the enemies launch economic attack. It is important to know how much we can tolerate enemy attacks and how much powerfully we can react against them. How much can people tolerate the situation? We must strengthen our advantages and amend our weaknesses.

6- Playing a distinguished role by the people through propagating the slogan of “we can”.

7- The necessity of supporting and acknowledging economic activists by the government. If the government supports economic activists in ordinary situation, he can expect them to support the country in crisis time. If not so, the government will be left alone in hard conditions, because the activists are not strong enough to give a hand.

5. CONCLUSION

Resistive economy is the only convertor of threat to opportunity. However, it must be noticed that resistive economy is not just economic resistance. Providing security and stability and resistance against foreign economic shocks, economic independence is one of the distinguished indicators of resistive economy. The enemies have tried every kind of devices to fight against Iran. Yet, economic instruments have always been employed along with other devices, and today it is being resorted as the most effective one. However, resistive economy is not restricted to war time and sanctions. Rather, it is a long-term perspective in front of Iranian people. Resistive economy must be regarded as main part of economic system, especially in relation to strategic goods imports and exports. The same way that Iran needs to resort to resistive economy in external economic relations, it is necessary for the country internally to fight against economic and political corruption. Our studies cover Jorjani at el (2013), Meshkat (2013) and Yong, Hajihosseini (2013).

At the end it is important to note that, Iran has done its best to control the negative impacts of sanctions, however, naturally every restriction has some efficacies that no aimed state can control them completely. And Iran is not as exception in this issue.

5.1. Suggestions for Policymaking

1. Elimination of gold and dollar as national monetary backing. Ups and downs of dollar due to different world crises and America’s making use of dollar as a device to press others by releasing dollars without enough backing and changing its value, can damage Iranian economy that uses dollar for foreign exchange.

2. Developing knowledge-based companies. These are industries having advanced technology relying on advanced science which are characterized by huge research costs. According to the classification of The Organization for Economic Co-operation and Development (OECD), these industries include space and air travel transportation, production of chemical, medical, optical, and precise instruments (Kodama, 2007).

3. Supporting small businesses. Schumpeter (1934) believes that entrepreneurship is the driving engine of the economy of progressed and progressing countries. He believes in destructive entrepreneurship by which the traditional methods are damaged (Dianati and Tayyebi, 2011). These days experiment show that important entrepreneurship and advanced technology do not take place in great companies. Adaptation with the market and modern needs cannot be expected from sophisticated companies. Therefore, it is necessary to establish small economic companies to make progress and produce new products (Feizpour, 2008).

4. Development of tourism. Not only does tourism develop cultures, but also it can lay a role in social and economic progress. Having great tourism opportunities, Iran can get rid of mono-product economy by correct programing. Moreover, tourism is a rich industry and can make abundant income for the country.
This is more important for a country with high unemployment, limited exchange resources and mono-product economy.

6. Development of entrepreneurship universities. Third generation universities, i.e. entrepreneurship universities, are not isolated from industries and society. They are intelligently related to the industry and society to identify their needs and fulfill them. These universities are effective in two ways. First, because of their internal change which provide an open space for them. Second, because of their external communication which brings about knowledge-based entrepreneurship.
REFERENCES:


eiu, (2012). “Oil sanctions on Iran: Cracking under pressure?” The Economist Intelligence Unit, A Special Report From the Economist Intelligence Unit.


Lindsay (1986), ” A Comprehensive Dictionary of Political Terms (English-Persian) “, Nashr e Ney, 1384.


Khan duzi, M. (2010), specific references evolution of Humanities Conference: Celebrating the tenth anniversary of the late Professor Seyd monir al dine Husseini Elhashemi Shirazi, Qom, book publishing tomorrow, internal amplification, 186 pages. (In Persia)


Study of the Relationship between Concentration, Skilled Labor and Efficiency Using the Fuzzy Logic Approach in Iranian Manufacturing Industries

Laleh Arbabi¹, Mohammad Nabi Shaihaki Tash ²

ABSTRACT: The central goal of this research is to investigate the relationship between concentration ratio, skilled labour and efficiency in Iranian manufacturing industries. In order to measure the technical efficiency, we use the stochastic frontier analysis (SFA) method and data related to 131 of industries at 4-digit level of ISIC code during 1996-2009. To achieve the aim of study, we develop an analytical framework based on the fuzzy logic. Results suggest that there is a positive relationship between efficiency and skilled labour, while the concentration index has negative impact on industry’s efficiency.

KEYWORDS: concentration index, skilled labor, technical efficiency, fuzzy logic.

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1. INTRODUCTION

According to the statistics from 1988 to 2006, 200 large firms have continuously accounted for about 60 percent of sale and value added of industries. That is, a few firms have had a large part of the market implies that a significant portion of Iranian economic activities have monopolistic structure. During this period, despite emphasize of economic development programs on privatization and increase of competition, it is made no essential change in the structure of Iranian economy. Because, during protracted years the government has dominated on economy and has formed the market situation in interest of state firms and institutions and also via various interferences and governmental allocation of resources and facilities in some markets have contributed to appearance of semi-state or private monopoly (Khodadad Kashi, 2009). Making, simplification and preservation of the competition and setting market structure for transition from this circumstance is effective when we specify the market structure and perform a suitable planning for privatization and combat with monopoly. Market structure, involve an expand spectrum of situation dominant on the market and approaches to the monopoly space proportional to the intensity of deviation from pure competition situation (Shahiki Tash & Nasiri Aghdam, 2011). In order for identification of market structure the structural indicators are generally considered (Khodadad Kashi, 2001). One of the most important structural indicators is concentration (Malekan, 2011) which many researchers use in their empirical works (Khodadad Kashi, 1998:91). This index specifies the share and partial domination of firms and industries on the market (Shahiki Tash, 2003). In other words, in addition to specify the rate of competition or monopoly in the market, analysing this index provides a proper ground for a better understanding of the relationship between market structural and functional elements (Khodadad Kashi, 1998:91), such that the models of Cowling-Waterson (1976), Clark-Davies (1982), Clark-Davies-Waterson (1984), and Kashi (1998) were attempted to investigate the relationship between market structural variables and functional variables based on such an approach. These researchers were showed that the existence of monopolistic/competitive structure causes the appearance of some monopoly/competition- based behaviours and these different behaviors (pricing, research and development, advertising, production, selecting the technology type, barrios to entry and incursion) lead to different economic performance (profitability and returns). In other words, the structure of firms and industries influence their performance. So, study of this relationship is of a high importance because by recognition of the reasons of forming monopolistic power in the markets as well as the reasons of superiority of one or a number of firms or industries, policymakers can diplomatically make decisions about codification of counter-monopoly policies.

On the other hand, achievement to more efficiency would be context of more production. Given the limited resources achievement to more efficiency and production is one of the important goals of any society. The technical efficiency has been defined as acquire the possible maximum production from specific amount of production factors (Karimi, 2002). Technical efficiency may be assessed via the parametric analysis of stochastic frontier or non-parametric method of linear programing. Stochastic frontier analysis has become a well-known instrument in modeling the relationship between input and output quantities and has basically applied for assessing the technical efficiency of firms, provinces, and countries (Kari, 2002). Stochastic frontier analysis was firstly introduced by Ainger et al. (1977), and Meeusen & van den Broeck (1977). The past decade saw a mutation in expansion of parametric methods of assessing technical change, efficiency and productivity using stochastic frontier analysis. In this regard, we may mention the studies of Forsund et al. (1980), Green (1993), and Kumbhakar and Lovell (2000). Other researchers such as Berger and Hannan (1989), Smirlock et al. (1984), Maudos (1998), and Wilson A. Alley (1993) were also shown that the market structure influences the technical efficiency.

The aim of this study is to investigate the relationship between concentration ratio, skilled labor and efficiency in Iranian manufacturing industries. Hence, in this study, we initially measure research variables and then model the impact of these variables on efficiency based on fuzzy logic. Data are collected in the census of Iranian industrial workshops during the period 1996-2009 in a total of 131 four-digit code industries.
2. LITERATURE REVIEW

Market structure is one of the institutional effective factors which its study should be taken into consideration. We review the studies conducted about market structure and performance in Iranian manufacturing industries in two parts of internal and foreign studies.

In a paper entitled “monopoly, competition and concentration in Iranian industrial markets (1988-94)”, Khodadad Kashi (2000) have investigated the competition and monopoly in Iranian industrial markets through the channel of concentration indices. In his research, the industries have been separated based on the classification of ISIC 2-digit codes and variables such as sale, employment, and value added have been used. Also, he has calculated the concentration in terms of different indicators such as four-firm concentration ratio, five-firm concentration ratio, and Herfindhal-Hirschman index. His Findings implied that Iranian industrial markets are strictly concentrated and a high share of value added in the industrial sector is belonging to the monopolistic markets. In addition, a few numbers of Iranian industrial plants are dominant on a significant percentage of industrial markets. Calculation of concentration ratio in terms of different indicators has implied that in Iranian industrial sector and specially in the concentrated industries the large firms have tend to use of capital intensive technology.

In a paper entitled “investigating the technical inefficiency in Iranian industry’s main subsections (panel data approach)”, Farivar (2003) using data of industrial workshops during 1994 to 1999 estimated the stochastic frontier production functions for the industrial sector and its 6 main subsections and calculated the technical inefficiency in each subsections using these functions. The results of estimating stochastic frontier production function using the stochastic effect and via maximizing likelihood logarithm function showed that average technical efficiency in the whole industry level is equal to 0.65. That is, the firms operating in the industry have reached 65% of value added acquirable from used inputs.

Using the stochastic frontier function method, Hakimipour and Kiani (2008) have assessed the technical efficiency and factors affecting it during 1991-2004 for different provinces. Totally, they found that the efficiency of Iranian manufacturing industries has been low and in average has been about 0.37 during the studied period. The provinces of Khozestan and Sistan and Baluchistan have had the highest and lowest efficiency level in industry, respectively. Also, factors such as state ownership of industrial units and intensity of energy consumption have had a negative impact on efficiency. While, with increase of firms size, the efficiency of industries has increased.

Isazadeh and Shaeri (2011) investigated the impact of market structure on efficiency of banking system of Middle East and North African countries during 1995-2008. They firstly computed the efficiency of countries’ banking system using the stochastic frontier function and econometrics methods and then, evaluated the effect of market structure on efficiency using the panel data model. The results of estimating cost Trans log function using Bitis-Coli model and stochastic frontier function showed that the existence banking system in MENA countries has an efficiency level of about 80%. The results are also indicative of the negative and significant effect of market concentration on efficiency of banking system in these countries. In other words, with increase of concentration the cost efficiency of banking industry in Middle East and North African countries decreases.

Using the stochastic frontier function, Yosefi et al. (2012) investigated the technical efficiency of Iranian manufacturing industries and recognized the factors affecting their performance during 1996-2007. The results of Betis and Coli (1995) inefficiency effects model indicated that the average technical efficiency of Iranian manufacturing industries during the studied period was about 0.55. Also, survey of factors affecting the efficiency of manufacturing industries showed that despite the increase of energy intensity as well as industries’ inefficiency, increasing size of manufacturing industries has not reduced the inefficiency level of industries and state ownership of manufacturing industries has had no impact on their inefficiency level.
Gumbau and Maudos (2000) investigated the relationship between profitability, market structure and efficiency in Spain industry. The results of SFA method reject the hypothesis of collusion in Spain industry, because only in one sector the concentration positively affects the profitability.

In a paper entitled “industrial concentration and competition in Malaysian industry”, Bhattacharya (2002) addressed the calculation of concentration and determination of competition in desired industries and analysis of determinant factors in industrial concentration changes for 102 industries of 2-digit code of ISIC during 1986-1996 and using the partial adjustment model and cross sectional analysis and via CR4 concentration index. The results totally are indicative of decrease of concentration level in studied period. Also, the concentration in Malaysian industries is more than other developed countries. The econometrics findings confirmed the significance of the variables of capital intensity, advertising intensity and market size and the theory of concentration dynamics in 10-year period implies a slow and gradual movement of annual adjustment rate of concentration compared to developed countries.

Shaik et al. (2009) investigated the market structure and technical efficiency in American transport industry during 1994-2004. They used SCP approach and SFA method for assessing market structure and technical efficiency, respectively. Their results showed that average stolen properties, average load, debt to total equity, and market structure dramatically influence technical efficiency.

Using SFA method and panel data, Baten et al. (2009) modelled the effects of technical inefficiency in the tea production. They assumed that inefficiency effects are independently distributed as normal distribution and fixed variance, while this is a linear function of observed variables. They found that there is 49% technical inefficiency in the tea production.

From reviewing the studies conducted in desired issue we found that in evaluation of concentration most of them have emphasized on structural indices such as Herfindhal-Hirchman.

3. THEORETICAL FRAMEWORK

3.1. Market Structure

The market structure is among issues considered once investigating industries’ profitability as well as social costs in microeconomics and industrial economics. This concept covers a wide range of conditions prevailing in the market and approaches to the monopoly space in proportion to the severity of the deviation from the condition of pure competition (Shahiki Tash, 2003). In microeconomics analyses the "pure competition" has always expressed the allocative efficiency as well as maximum social benefits. However, the "monopoly" is known by inefficiencies and incidence of social costs. The reason is attributed to the "market power" of monopolist. The purpose of market power is a condition where the firm can increase its prices without losing the bulk of sales. Of course, market power is not just related to the monopoly situation, but in situations where there is more than one firm in the market there is a possibility of using market power for some of them. In such circumstances, it is said that the market faces "imperfect competition".

3.1.1. Market Structure Measurement

Generally, in the empirical studies the concept of concentration used to judge about the market structure. The concentration is an index for measuring the dominance power of a few firms in a field of activity. The purpose of investigating the market concentration is to determine the type of market in terms of competition, monopoly, strong and weak oligopoly. The general form of concentration indexes is as follows:

\[ CI = \sum_{i=1}^{n} S_i W_i \]

Where, CI is the concentration index, \( S_i \) is the market share of firm, \( W_i \) is the weight related to the share of each firm and \( n \) is the total number of firms in the industry. The concentration indexes may be classified...
based on the methods of weighting the market share of firms. More details about each of the concentration indicators are given in table 2.

Table 1: comparison of the concentration indices and their characteristics

<table>
<thead>
<tr>
<th>Index</th>
<th>Computational relationship</th>
<th>Index Weight</th>
<th>Main characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentration ratio of K Superior firm CRₖ</td>
<td>$CR_K = \sum_{i=1}^{K} S_i$</td>
<td>-</td>
<td>1. Simplicity of calculation</td>
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<td></td>
<td></td>
<td></td>
<td>2. The limited required information</td>
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<td></td>
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<td></td>
<td>3. The number of firms in this Index is</td>
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<td></td>
<td></td>
<td></td>
<td>achieved as follows:</td>
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<td></td>
<td></td>
<td></td>
<td>$n_e = \frac{K}{CR_K}$</td>
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<td></td>
<td></td>
<td></td>
<td>4. It is a decreasing function of the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>number of firms in the industry.</td>
</tr>
<tr>
<td>HHI</td>
<td>$HHI = \sum_{i=1}^{n} S_i^2$</td>
<td>$n\subseteq S_i$</td>
<td>1. It is a measure of the cumulative</td>
</tr>
<tr>
<td></td>
<td>$HHI = \frac{1}{n} + n\sigma^2$</td>
<td></td>
<td>concentration.</td>
</tr>
<tr>
<td></td>
<td>$HHI = \bar{S} + \sum_{i=1}^{n} (S_i - \bar{S})^2$</td>
<td></td>
<td>2. Due to the fact that it employ a full</td>
</tr>
<tr>
<td></td>
<td>$HHI = \frac{\zeta^2 + 1}{n}$</td>
<td></td>
<td>information of firms, it often called the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>index with full information</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. This index gives more weight and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>importance to large firms.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Value of the index decreases with</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>increasing number of firms.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5. The number of firms for HHI Index is</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>calculated as follows:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$n_e = \frac{1}{HHI}$</td>
</tr>
</tbody>
</table>

Table 2: Properties of various concentration indices

<table>
<thead>
<tr>
<th>Index</th>
<th>Range</th>
<th>Parameter</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRₖ</td>
<td>$0 &lt; CR_K \leq 1$</td>
<td>No parameter</td>
<td>Only large firms are taken into consideration; the value of K is arbitrary.</td>
</tr>
<tr>
<td>HHI</td>
<td>$\frac{1}{n} \leq HHI \leq 0$</td>
<td>No parameter</td>
<td>All firms are taken into consideration; it is sensitive to the entry of new enterprises.</td>
</tr>
</tbody>
</table>

3.2. Efficiency

According to the S-C-P approach the efficiency is known as one of the functional variables. This economic concept involves a broad range of economic activities at the level of a firm, industry or in the national economy level. In the theoretical arguments, efficiency is evaluated in four dimensions including technical efficiency, allocative efficiency, economic efficiency, and scale efficiency. Table 3 provides some explanations about these dimensions.
Table 3: Efficiency dimensions and related concepts

<table>
<thead>
<tr>
<th>Efficiency types</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical efficiency</td>
<td>Indicates the ability of a firm in maximization of output with respect to specific production factors or, in other words, indicates use of minimum production inputs for producing a given level of output.</td>
</tr>
<tr>
<td>Allocative efficiency</td>
<td>Indicates the ability of firms to use the optimal combination of production factors with respect to their prices so that the production cost is minimized.</td>
</tr>
<tr>
<td>Economic efficiency</td>
<td>Economic efficiency is a combination of technical efficiency and allocative efficiency. In other words, economic efficiency reflects the efficiency in the manner of production and allocation of production factors. Economic efficiency is also called “cost efficiency” because when a firm acts efficiently in terms of cost, the best allocation and the best production way is also occurred.</td>
</tr>
<tr>
<td>Scale efficiency</td>
<td>Access to the MES as the effective efficient point in industries.</td>
</tr>
</tbody>
</table>

Figure (1) provides a comparison between the first three types of efficiency. Suppose that a firm just uses inputs $X_1$ and $X_2$ to produce the output $y$ (this definition has been provided under Farrell’s (1957) constant returns to scale condition.

Figure 1: comparison of technical efficiency, allocative efficiency and economic efficiency

In the figure (1) $SS'$ curve is assumed to be the firm’s isoquant curve the points on which show different combinations of inputs which produce a certain level of output. If the point P is the real situation of firm, its technical efficiency (TE) in this point is:

$$TE = \frac{OQ}{OP}$$

This firm is fully technically efficient when its production is done on the curve $SS'$ (a point like Q). If the production occurs in the right hand side of the curve, the firm will be faced with inefficiency. In a fully efficient firm $OQ=OP$. The more the distance between $OQ$ and $OP$, the less is the technical efficiency.

Regarding allocative efficiency it is necessary that the information related to the production factors (i.e. the characteristics of firm’s isoquant curve ($AA'$)) be known. In this case the firm’s allocative efficiency (AE) in the point P is equal to:
The economic efficiency (EE) may be obtained from product of technical efficiency and allocative efficiency.

\[
AE = \frac{OR}{OQ}
\]

The economic efficiency (EE) may be obtained from product of technical efficiency and allocative efficiency.

\[
EE = \left[ \left( \frac{OR}{OQ} \right) \times \left( \frac{OQ}{OP} \right) \right]
\]

### 3.2.1. Efficiency Measurement Using Maximum Likelihood (Ml) Method

One of the best indicators for assessing an industry’s performance is evolution of frontier efficiency introduced by Battese and Coelli (1995). According to their model, the relation between inputs \((X_{it})\) and outputs \((Q_{it})\) may be estimated using the production function where \(i\) stands for firms and \(t\) stands for years.

So, the production frontier corresponded to the best empirical function is defined as:

\[
Q^f_{it} = f(X_{it}, t)
\]

Where, \(Q^f_{it}\) is potential output level on production frontier in period \(t\) for the firm \(i\) which is a continuous function, strictly increasing and quasi-concave, and \(X_{it}\) is a \(k\)-order vector of inputs.

In order to estimate the stochastic frontier the stochastic term \(v_{it} - u_{it}\) may be included into the model and the production function can be restated as:

\[
Q_{it} = f(X_{it}, t) \exp\{v_{it} - u_{it}\}
\]

Where, \(v_{it} - u_{it}\) is the combined error term, \(v_{it}\) is the stochastic variable indicating the exogenous factors and random shocks and \(u_{it}\) is a random variable indicating the endogenous factors and technical inefficiency which is so-called the technical efficiency error. The \(u_{it}\) is usually larger than or equal to zero and assumed to be independent from stochastic error. As such, in this study, the technical efficiency of industries is measured using the stochastic frontier function based on Battese and Coelli (1995):

\[
Q_{it} = f(x_{it}, \beta) \exp(\varepsilon_{it}) = f(x_{it}, \beta) \exp(\nu_{it} - u_{it})
\]

\[
\varepsilon_{it} = v_{it} - u_{it}
\]

\[
v_{it} \approx iid \ N(o, \sigma^2_v)
\]

\[
u_{it} \approx iid \ N(m_u, \sigma^2_u)
\]

\[
u_{it} \geq 0
\]

\[
m_u = m(Z, \delta) = \delta_0 + \sum_{k=1}^{m} \delta_k Z_{k,it}
\]

In the above model \(f(.)\) is the appropriate functional form, \(y_{it}\) is the output of \(i\)-th unit at time \(t\) and \(x_{it}\) is the vector of production factors for \(i\)-th unit at time \(t\). \(Zs\) are variables affecting the technical inefficiency of each of the units. \(\delta\) is a vector of parameters or coefficients corresponded to mentioned variables and the \(\alpha\) is the vector of main model parameters which have to be estimated. \(u_{it}\) And \(v_{it}\) are the amount of
inefficiency and other statistical disturbances, respectively. \( u_{it} \) has normal distribution interrupted at zero with a mean of \( m_{it} \). Instead of variances \( \sigma_u^2 \) and \( \sigma_v^2 \), in this model two variance parameters of \( \sigma^2 = \sigma_v^2 + \sigma_u^2 \) and \( \gamma = \sigma_u^2 / (\sigma_v^2 + \sigma_u^2) \) are replaced and estimated. Indeed, the parameter \( \gamma \) checks the significance of inefficiency term and its effect on the model. This parameter estimated in the iterative maximization process and takes a value between zero and unit.

In the relation \( Q_{it} = f(x_{it}, \beta) \exp(v_{it} - u_{it}) \) the amount of inefficiency of each of the firms \( u_{it} \), should be separated from the common disturbance term, \( v_{it} \). For this aim the Jandrow et al. (1982) model is used. Jandrow provide a relation for determining the expected value of \( u_{it} \) conditional to the combined disturbance term \( E(u_{it}|e_i = v_i - u_i) \). If \( u_{it} \) has an interrupted normal distribution, this relationship becomes:

\[
E(u_{it}|e_i = v_i - u_i) = \frac{\sigma \lambda}{1 + \lambda^2} \left[ \phi \left( \frac{\varepsilon_i \lambda + \mu}{\sigma} \right) + \Phi \left( \frac{-\varepsilon_i \lambda + \mu}{\lambda} \right) \right]
\]

With \( \lambda = \frac{\sigma_u}{\sigma_v} \) and \( \sigma^2 = \sigma_v^2 + \sigma_u^2 \), \( \lambda = \frac{\sigma_u}{\sigma_v} \) is the degree of asymmetry and non-normality of combined disturbance term, \( \varepsilon_i = v_i - u_i \). Also, \( \phi(.) \) and \( \Phi(.) \) are density function and the standard normal distribution, respectively. We can obtain estimations for \( u_i \) and \( v_i \) using the maximum likelihood (ML) function and estimations of \( \sigma, \lambda, \mu \) and \( \varepsilon_i \) from the following function based on the assumptions on the distribution of \( u_i \) as well as the estimates of parameters of the model \( Q_{it} = f(x_{it}, \beta) \exp(\varepsilon_{it}) \).

\[
\log l(\alpha, \beta, \mu, \lambda, \sigma_u) = \sum_{i=1}^{N} \left\{ -\frac{1}{2} \left[ T \ln 2\pi - \ln 2 + T \ln \sigma^2_{it} + \ln(1 + \lambda T) - 2 \ln \phi \left( \frac{\mu}{\sigma_{it}} \right) \right] \right\}
\]

\[
+ \sum_{i=1}^{N} \left\{ -\frac{1}{2} \left[ \frac{-\lambda}{1 + \lambda T} \left( \sum_{i=1}^{T} \varepsilon_{it} - \mu \right) \right] ^2 + \sum_{i=1}^{T} \left( \frac{\varepsilon_{it} - \mu}{\sigma_{it}} \right) ^2 \right\}
\]

\[
+ \sum_{i=1}^{N} \ln \phi \left( \frac{\lambda}{1 + \lambda T} \left[ \frac{1}{\sigma_{it}} \right] ^2 \sum_{i=1}^{T} (\varepsilon_{it} - \mu) + T \mu \left( 1 - \frac{1}{\lambda} \right) \right) \]

Finally, the amount of technical efficiency of each of the units will be equal to:

\[
TE_i = \exp^{-E[u_i|e_i]}
\]

Given the non-negative value of \( u_{it} \), one can find out from the above relationship that range of technical efficiency of a firm is a value between zero and one.

### 3.3. Introducing Skilled Labour

The fourth variable is related to the skilled labor force (human capital) considering the changes in quality of labor force. Most economists believe that investing in human and spending on job training and labor force
health increases the quality of labor force and has a positive effect on productivity. Acceptance of human capital as a main component in the economic literature is related to early 1960s, when economists tried to offer a convincing explanation for the substantial portion of economic growth which had remained unexplained.

The main idea in the theory of human capital is based on the fact that investment in human resources leads to increase in peoples’ production power and, ultimately, improve economic growth. Of course, historically, investment in human resources leads to increase in economic growth. Smith and the classical economists also emphasized the importance of investing in the skills and expertise of the workforce. Such thoughts caused that in the production function, in addition to labor quantity, the quality of human resources (such as formal education and job training) be also included into the model (Statistical Centre of Iran, 1999).

4. HOW TO MEASURE INDICES

In this section, we present how to measure the concentration coefficient, technical efficiency index and skilled labour coefficient.

4.1. Herfindahl – Hirschman (HHI) Index

Herfindahl – Hirschman (HHI) index is obtained from the sum of squares of market share of all firms in the industry. This index may be measured as follow:

\[ HHI = \sum_{i=1}^{K} S_i^2 \]

\[ S_i = \frac{X_i}{\sum X_i}, \quad i = 1, \ldots, K \]

Where, \( S_i \) is the market share of the \( i \)th firm obtained from the ratio of firm's output to total output in the market; \( X_i \) is the sale of firm \( i \) and \( \sum x_i \) is total sale of industry's firms.

4.2. Technical Efficiency

In order to assess the technical efficiency, in this study the following trans log function is used:

\[
\begin{align*}
\ln Q_{it} & = \alpha_0 + \alpha_L \ln L_{it} + \alpha_K \ln K_{it} + \frac{1}{2} \beta_{LL} (\ln L_{it})^2 + \frac{1}{2} \beta_{KK} (\ln K_{it})^2 + \beta_{LK} (\ln L_{it})(\ln K_{it}) \\
& \quad + \beta_{L} (\ln L_{it}) \mu + \beta_{K} (\ln K_{it}) \mu + \alpha_t t + \frac{1}{2} \beta_{t} t^2 + (v_{it} - u_{it})
\end{align*}
\]

With:

\[
\begin{align*}
v_{it} & \equiv iid \ N(0, \sigma_v^2) \\
u_{it} & \equiv iid \left| N(m_{it}, \sigma_u^2) \right| \\
u_{it} & \geq 0
\end{align*}
\]

Where, \( i \) stands for industry and \( t \) is the studied year. \( Q_{it} \) Is the industry's value added. The variable \( L_{it} \) is the production factors used in the industry. It is notable that the distribution related to "technical inefficiency effects" is a truncation of the nonnegative normal distribution function with components \( N \left( m_{it}, \sigma_u^2 \right) \). In
this study, the technical efficiency level of i-th firm in the year t is obtained based on the estimated Trans log function as the ratio of average production to average potential production as:

\[ TE_i = \frac{E(Q_i^L, L_i, K_i)}{E(Q^L_i, L_i, K_i)} = \exp(-u_i) \]

4.3. Text Coefficient of Skilled Labour

In this research, this index is calculated using the ratio of skilled labour (LL) to total number of labour operating in industry sector (L):

\[ LL - L = \frac{LL}{L} \times 100 \]

Main-body text is to written in fully (left and right) justified 11 pt. Times New Roman font with a 12pt. (paragraph) line spacing following the last line of each paragraph. Do not indent paragraphs.

5. RESEARCH VARIABLES

Table 2 provides the average values for Herfindahl–Hirschman concentration index separated for 131 industries at 4-digit level of ISIC code during 1996-2009.

<table>
<thead>
<tr>
<th>ISIC code</th>
<th>HHI</th>
<th>Group</th>
<th>ISIC code</th>
<th>HHI</th>
<th>Group</th>
<th>ISIC code</th>
<th>HHI</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1512</td>
<td>389.44</td>
<td>non- concentrated</td>
<td>2109</td>
<td>413.42</td>
<td>non- concentrated</td>
<td>2913</td>
<td>1571.38</td>
<td>concentrated</td>
</tr>
<tr>
<td>1514</td>
<td>762.73</td>
<td>non- concentrated</td>
<td>2111</td>
<td>2228.6</td>
<td>highly concentrated</td>
<td>2914</td>
<td>1592.7</td>
<td>concentrated</td>
</tr>
<tr>
<td>1515</td>
<td>202.55</td>
<td>non- concentrated</td>
<td>2212</td>
<td>776.53</td>
<td>non- concentrated</td>
<td>2915</td>
<td>442.80</td>
<td>non- concentrated</td>
</tr>
<tr>
<td>1516</td>
<td>371.71</td>
<td>non- concentrated</td>
<td>2219</td>
<td>5075.6</td>
<td>highly concentrated</td>
<td>2919</td>
<td>585.39</td>
<td>non- concentrated</td>
</tr>
<tr>
<td>1517</td>
<td>629.84</td>
<td>non- concentrated</td>
<td>2221</td>
<td>1804.4</td>
<td>highly concentrated</td>
<td>2921</td>
<td>3776.6</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1518</td>
<td>2768.8</td>
<td>highly concentrated</td>
<td>2222</td>
<td>6566.2</td>
<td>highly concentrated</td>
<td>2922</td>
<td>548.36</td>
<td>non- concentrated</td>
</tr>
<tr>
<td>1519</td>
<td>230.52</td>
<td>non- concentrated</td>
<td>2310</td>
<td>3701.5</td>
<td>highly concentrated</td>
<td>2923</td>
<td>7643.3</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1520</td>
<td>233.03</td>
<td>non- concentrated</td>
<td>2320</td>
<td>1232.01</td>
<td>Concentrated</td>
<td>2924</td>
<td>3943.7</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1531</td>
<td>469.84</td>
<td>non- concentrated</td>
<td>2411</td>
<td>918.89</td>
<td>non- concentrated</td>
<td>2925</td>
<td>501.73</td>
<td>non- concentrated</td>
</tr>
<tr>
<td>1532</td>
<td>1365.1</td>
<td>Concentrated</td>
<td>2412</td>
<td>2629.9</td>
<td>highly concentrated</td>
<td>2926</td>
<td>4000.2</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1533</td>
<td>289.40</td>
<td>non- concentrated</td>
<td>2413</td>
<td>1714.5</td>
<td>Concentrated</td>
<td>2929</td>
<td>929.98</td>
<td>non- concentrated</td>
</tr>
<tr>
<td>1542</td>
<td>354.26</td>
<td>non- concentrated</td>
<td>2421</td>
<td>1557.9</td>
<td>Concentrated</td>
<td>2930</td>
<td>368.09</td>
<td>non- concentrated</td>
</tr>
<tr>
<td>1543</td>
<td>1281.5</td>
<td>Concentrated</td>
<td>2422</td>
<td>246.19</td>
<td>non- concentrated</td>
<td>3000</td>
<td>674.54</td>
<td>non- concentrated</td>
</tr>
<tr>
<td>1544</td>
<td>289.40</td>
<td>non- concentrated</td>
<td>2423</td>
<td>240.70</td>
<td>non- concentrated</td>
<td>3110</td>
<td>1627.03</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1545</td>
<td>213.62</td>
<td>non- concentrated</td>
<td>2424</td>
<td>674.83</td>
<td>non- concentrated</td>
<td>3120</td>
<td>542.64</td>
<td>non- concentrated</td>
</tr>
<tr>
<td>1546</td>
<td>563.09</td>
<td>non- concentrated</td>
<td>2429</td>
<td>515.07</td>
<td>non- concentrated</td>
<td>3130</td>
<td>528.92</td>
<td>non- concentrated</td>
</tr>
<tr>
<td>1547</td>
<td>5194.08</td>
<td>highly concentrated</td>
<td>2430</td>
<td>3471.1</td>
<td>highly concentrated</td>
<td>3140</td>
<td>3143.6</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1548</td>
<td>274.71</td>
<td>non- concentrated</td>
<td>2511</td>
<td>1355.8</td>
<td>Concentrated</td>
<td>3150</td>
<td>1049.6</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1551</td>
<td>2019.05</td>
<td>highly concentrated</td>
<td>2519</td>
<td>433.51</td>
<td>non- concentrated</td>
<td>3190</td>
<td>3998.3</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1555</td>
<td>9038.7</td>
<td>non- concentrated</td>
<td>2520</td>
<td>113.13</td>
<td>non- concentrated</td>
<td>3210</td>
<td>1099.8</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1555</td>
<td>535.87</td>
<td>non- concentrated</td>
<td>2611</td>
<td>628.44</td>
<td>non- concentrated</td>
<td>3220</td>
<td>3073.8</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1556</td>
<td>1240.2</td>
<td>Concentrated</td>
<td>2612</td>
<td>934.31</td>
<td>non- concentrated</td>
<td>3230</td>
<td>1600.1</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1600</td>
<td>7532.4</td>
<td>highly concentrated</td>
<td>2691</td>
<td>404.89</td>
<td>non- concentrated</td>
<td>3311</td>
<td>476.76</td>
<td>non- concentrated</td>
</tr>
<tr>
<td>1711</td>
<td>76.14</td>
<td>non- concentrated</td>
<td>2692</td>
<td>472.83</td>
<td>Concentrated</td>
<td>3312</td>
<td>5536.5</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1712</td>
<td>1424.1</td>
<td>Concentrated</td>
<td>2694</td>
<td>296.29</td>
<td>non- concentrated</td>
<td>3313</td>
<td>5150.05</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1721</td>
<td>668.67</td>
<td>non- concentrated</td>
<td>2695</td>
<td>102.70</td>
<td>non- concentrated</td>
<td>3320</td>
<td>6021.9</td>
<td>non- concentrated</td>
</tr>
<tr>
<td>1723</td>
<td>2748.2</td>
<td>highly concentrated</td>
<td>2696</td>
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<td>3330</td>
<td>3058.9</td>
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</tr>
<tr>
<td>1724</td>
<td>1358.2</td>
<td>Concentrated</td>
<td>2697</td>
<td>62.32</td>
<td>non- concentrated</td>
<td>3410</td>
<td>2089.1</td>
<td>highly concentrated</td>
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<tr>
<td>1725</td>
<td>4635.7</td>
<td>highly concentrated</td>
<td>2698</td>
<td>258.19</td>
<td>non- concentrated</td>
<td>3420</td>
<td>4983.9</td>
<td>highly concentrated</td>
</tr>
<tr>
<td>1726</td>
<td>265.27</td>
<td>non- concentrated</td>
<td>2699</td>
<td>83.72</td>
<td>non- concentrated</td>
<td>3430</td>
<td>193.53</td>
<td>non- concentrated</td>
</tr>
<tr>
<td>1729</td>
<td>2238.03</td>
<td>highly concentrated</td>
<td>2710</td>
<td>1146.5</td>
<td>Concentrated</td>
<td>3511</td>
<td>4018.54</td>
<td>highly concentrated</td>
</tr>
</tbody>
</table>
In a conventional classification of industries according to Herfindahl – Hirschman index, the industries for which the HHI is below 1000 are placed in non-concentrated industries group. The industries in which this index varies from 1000 to 1800 are placed in concentrated industries group, and finally those industries have a HHI over 1800 are placed in highly concentrated industries group. Table 2 suggests that about 50% of industries have an HHI index over 1800 and 50% of industries have an HHI index below 1000. More accurately, 42 of industries are highly concentrated, 23 industries are concentrated, and 65 industries are non-concentrated. This table shows that most of the Iranian manufacturing industries are non-concentrated, such that the industries of "bricks manufacturing", "cutting and shaping and finishing of stone", "preparation and spinning textile fibres", "manufacture of textiles" and "other metallic mineral products not elsewhere classified" have the lowest concentration levels and "Malta and beer manufacturing", "manufacture of metallurgy machinery", "manufacture of tobacco and cigarettes products", "service activities related to printing and manufacture of optical tools" and "the photographic equipment industry" have the highest level of concentration among other manufacturing industries.

Table 3 provides the average technical efficiency scores calculated by the trans log function and using maximum likelihood method. As it mentioned before, the technical efficiency show a firm's ability to maximize the output given the specific amount of factors, or in other words, represents the use of minimum inputs to produce a certain level of output.

### Table 5: Average technical efficiency of Iranian manufacturing industries using SFA method

<table>
<thead>
<tr>
<th>ISIC code</th>
<th>Average efficiency</th>
<th>ISIC code</th>
<th>Average efficiency</th>
<th>ISIC code</th>
<th>Average efficiency</th>
<th>ISIC code</th>
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<td>0.333944</td>
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<td>1551</td>
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<td>0.366522</td>
<td>3691</td>
<td>0.328596</td>
</tr>
</tbody>
</table>
According to this table, the average efficiency of studied industries in the period 1996-2009 is at a low level and equal to 0.42. In total, in the studied period, the industries of "dates cleaning, grading and packaging", "manufacture of motor vehicles", "primary form plastics manufacturing; synthetic rubber manufacturing", "prepared animal feeds manufacturing", "vegetable and animal oils and fats manufacturing", "synthetic fibres manufacturing", "manufacture of radio, television and communication equipment and apparatus" have had relatively a higher technical efficiency than other industries. In contrast, the industries of "manufacture of non-refractory ceramic goods other than for construction", "Textile fiber preparation; textile weaving", "manufacture of pesticides and other agro-chemical products", "finishing of textiles" and "manufacture of bricks" have had lowest technical efficiency scores. Among these, the industries of "manufacture of copper products" with efficiency score of 0.76 and "grain preparing and grinding" with efficiency score of 0.095 have had highest and lowest technical efficiency, respectively. The average efficiency score of most of the industries (52 industries) has varied between 0.40 and 0.50 and only one industry has had average efficiency level over 0.70.

6. MODELLING USING FUZZY LOGIC

To simulate and measure the efficiency and its relationship with concentration index and skilled labor coefficient we use fuzzy logic tool in MATLAB software. In this study, we simulate the amount of technical efficiency for the studied period using Mamdani model for 2 inputs and 1 output under the rule of IF-THEN statement. We perform simulation based on selection of the variable of Herfindahl – Hirschman concentration index (HHI) as the first input at a three levels with the term low for HHI<Me\(^1\), middle for Me<HHI<X and high for HHI>X and selection of the variable of skilled labor coefficient (LL_L) as a second input with three statements of low for LL_L<Me, middle for Me<LL_L<X and high for LL_L>X. The triangular membership functions are used to evaluate the relationship among the three variables of concentration index, the coefficient of skilled labor and technical efficiency. Table 6 provides 9 determined fuzzy rule:

<table>
<thead>
<tr>
<th>Skilled labor</th>
<th>High</th>
<th>Middle</th>
<th>Low</th>
</tr>
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<tbody>
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<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Table 6: Status of technical efficiency in Iranian manufacturing industries based on the concentration index and skilled labor

1 median
2 mean
As an example, if the concentration index is low and the skilled labour is high, then the technical efficiency will be high.

According to the output results, the following rules regarding the concentration index, skilled labor and technical efficiency may be derived:
Table 7: The results obtained based on fuzzy logic output on concentration index, skilled labor, and technical efficiency

<table>
<thead>
<tr>
<th>Concentration Index</th>
<th>Skilled Labor</th>
<th>Technical Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerical range [0 1]</td>
<td>Result</td>
<td>Numerical range [0 90]</td>
</tr>
<tr>
<td>0-0.1157</td>
<td>Low</td>
<td>0-8.2453</td>
</tr>
<tr>
<td>0-0.1157</td>
<td>Low</td>
<td>8.2453-8.9308</td>
</tr>
<tr>
<td>0-0.1157</td>
<td>Low</td>
<td>8.9308-90</td>
</tr>
<tr>
<td>0.1157-0.1961</td>
<td>Medium</td>
<td>0-8.2453</td>
</tr>
<tr>
<td>0.1157-0.1961</td>
<td>Medium</td>
<td>8.2453-8.9308</td>
</tr>
<tr>
<td>0.1157-0.1961</td>
<td>Medium</td>
<td>8.9308-90</td>
</tr>
<tr>
<td>0.1961-1</td>
<td>High</td>
<td>0-8.2453</td>
</tr>
<tr>
<td>0.1961-1</td>
<td>High</td>
<td>8.2453-8.9308</td>
</tr>
<tr>
<td>0.1961-1</td>
<td>High</td>
<td>8.9308-90</td>
</tr>
</tbody>
</table>

Source: Research calculation

7. CONCLUSION

In this study, it was attempted to analyze the market structure using Herfindahl – Hirschman concentration index and also to compute and compare the technical efficiency in Iranian manufacturing industries using the stochastic frontier analysis (SFA) and finally to examine the impact of concentration index (a proxy of market structure) and skilled labor on technical efficiency.

Generally, the results of technical efficiency calculation indicated that the average technical efficiency of these industries during 1996-2009 was at a low level and equal to 0.42. The result of this section is consistent with the findings of Hakimipour and Kiani (2008) indicating that the average technical efficiency of Iranian manufacturing industries has been low during the studied period. In investigation of variables affecting the efficiency, the estimation results indicated that the variables of skilled labour and concentration have had a significant effect on technical efficiency of manufacturing industries. Also, the results of investigating the impact of concentration on technical efficiency showed that the efficiency has a negative and significant relationship with concentration which represents the competition condition of manufacturing industries. In other words, with an increase in the concentration of manufacturing industries, the technical efficiency decreases. In the study of Isazadeh and Shaeri (2011) the impact of concentration on technical efficiency in Iranian manufacturing industries was confirmed. Their findings are also indicative of the existence of a negative significant relationship between concentration index and technical efficiency. The research findings of Bhattacharya (2002) are indicative of decreasing concentration level in studied period. Also, Shaik et al.(2009) show that the market concentration dramatically influences technical efficiency. In addition, there is a positive relationship between skilled labor and technical efficiency; that is, with increase of the number of skilled labor, the technical efficiency increases as well.

Based on this research’s findings we can provide the following recommendations:

1. According to the results, the efficiency increases by increase of the skilled labour. So, the main factor affecting the efficiency of manufacturing industries is the skilled labour. Use of the skilled labor, training and holding continuous operational courses according to the methods of effective utilization of manpower to enhance the efficiency is suggested.

2. The results imply that the higher levels of competition in the market increase the efficiency. So, the concentration has a negative effect on technical efficiency. Hence, given the impact of the market structure on efficiency the governments should seek to increase the level of competition in the market which followed by the increased efficiency in manufacturing industries.
3. Finally, increasing efficiency level and use of its resulting benefits, should be considered as a top priority in order to achieve the long-term objectives of economic growth. But this will require a new attitude and approach and a concerted attempt by various governmental and nongovernmental organizations in this field.
REFERENCES:


Statistical Center of Iran, (1999), The results of surveys of industrial workshops with 10 and more employee.


Analysis of the Impact of Government and Resistive Economy on the Purchase of Iranian Goods

Atefeh Shiravi Khozani¹, Hossein Rezaei Dolatabadi²

ABSTRACT: This study aims to investigate the impact of government and resistive economy on the purchase of Iranian goods. The state of the economy in Iran, particularly the imposed sanctions, highlights the role of the government in the economic cycle. Following the introduction of the concept of resistive economy, the present study attempts to find ways to improve the economy and help domestic manufacturers. This applicative study is based on structural equation modelling. Using literature, a questionnaire was prepared whose validity was confirmed by university experts. The population of this study comprises appliance manufacturers participating in the Isfahan Home Tech exhibition. 110 questionnaires were distributed at random, of which 93 were returned. The collected data were analyzed using Smart PLS 2.0. The findings indicate that both the government and resistive economy have a significant positive impact on the purchase of Iranian goods.

KEYWORDS: Government, Resistive Economy, Iranian Goods.

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1. INTRODUCTION

Policy makers and manufacturers in the country have been trying for years to persuade people to purchase Iranian goods, which can lead to the growth of local industries; decreased unemployment; independence from oil exports; stronger national economy; increased domestic production; and increased ability to cope with external sanctions (Ghafari et al., 2014). In today's world of open markets, products and services can be marketed to customers in almost any country. However, even if those products are superior in terms of quality or price than the products manufactured in the host country, it may not be easy to do business successfully in foreign markets (Nijssen & Douglas, 2004).

Studies show that consumers demonstrate some sort of stereotype patriotic thinking in purchasing products, which forms their beliefs. This type of orientation to the origin of products creates a challenge for international marketers and increases market complexity. As a result, domestic manufacturers will have customer retention opportunities. However, the market is composed of different segments, each of which needs to be treated differently. Unfortunately, a different pattern is observed in Iran, which not only damages domestic industries, but also increases unemployment (Mortazavi et al., 2010; Ghafari et al., 2014).

Currently, policy makers are faced with an important question: Why do Iranian shoppers consider domestic products inferior to their foreign counterparts? Politicians and policy makers are trying to encourage people to buy goods made in Iran. Also, the current economic circumstances in Iran, and the need for a resistive economy, give special importance to the consumption of Iranian over foreign products. In this economy, all involved parties need to focus on the country’s Twenty-Year Perspective. Unfortunately, however, foreign countries such as China and Turkey have a large share in domestic market, which could potentially cause the destruction of the economy. The present study, by increasing the role of government, aims to inspire the culture of purchasing Iranian products and thereby help managers make correct decisions regarding foreign imports. Therefore, this study investigates the relationship between government and resistance economy on the purchase of Iranian goods.

2. LITERATURE REVIEW

Based on previous research which studied the impact of a country’s government on the purchase goods made in that country as well as studies that investigated factors affecting domestic purchase, this study aims to analyze the impact of government and resistive economy on the purchase of Iranian goods. Shimp and Sharma (1987) explained why people would prefer products made in their own country to foreign goods, even if no apparent reason for superiority exists. It is a moral characteristic which makes the consumer prefer domestic goods to imported ones, even despite lower quality (Madhurima Deb, Himadri Roy Chaudhuri). Netmayar & et al., (1991) demonstrated that American and French consumers had negative attitudes towards imported products (John and Brady, 2011). Ghafari (2014) considers subjective norms along with knowledge about and attitude towards sanctions and Iranian products as factors impacting the purchase of Iranian goods (Ghafari et al., 2014). Mortazavi (1391) considers patriotic tendencies and national pride agent as the reason for purchasing domestic goods (Mortazavi et al 2010). Furthermore, numerous other studies have identified many factors leading to desire to buy domestic products. Madhurima Deb Himadri (2012), Chaudhuri (2012) and John Malcolm P Brady (2011) studied the role of government on the purchase of domestic goods. Using their findings, and by adding the concept of resistive economy, we study the relationship between government and resistive economy on the purchase of Iranian goods.

3. THEORETICAL FRAMEWORK

3.1. Government

In recent decades, we have witnessed the rise of the global economy, which can be attributed to monetary stability, less inhibiting policies, improved life standards, relative peace in the world, and advances in the fields of transportation, communications, and information technology. This phenomenon has led to global-scale competition (Leonidou et al., 2007, Heidarzade et al., 2008). Furthermore, customers are exposed to a wide range of imported products every day (Knight, G.A1999, Heidarzade et al., 2008). In light of such
issues, global trade becomes inevitable, which makes strategic planning more complicated (Wood, V.R. & Robertson, K.R, 2000; Heidarzade et al., 2008).

The government plays an important role in economic and social development both as an intermediary and as a facilitator. Providing goods and services requires a strong government with regulations and institutions that can enable growth in the market and improve quality of life (Moshtagh, 2014). Economic theories based on government involvement no longer seem to work: increasing the government’s role will only waste time and resources and lower productivity. Governments need provision, support, and provide platforms for the private sector and start-ups, in particular (Ansari & Ghafarzade, 2008; Akbarzade & Shafizade, 2011). Government initiatives are among the most critical factors that influence the success of resistive economy. The concept of resistive economy, which requires the government to increase its resistance capabilities, was introduced after new international sanctions were imposed on Iran. Extant regulations of social insurance, taxation, etc. do not apply to current circumstances. The legislative and executive branches need to adjust these regulations as soon as possible. The government expects people to help the resistance of the sanctions and in return they demand remove of troublesome banking and customs regulations so that domestic productions can thrive (Ghorbani taze kandi, 2013). Literature indicates a positive relationship between imports and the purchase of foreign goods (Al-Sulaiti & Banker, 1998; Bilkey & Nes 1982; Ghafari et al., 2014). Therefore, governments need to provide alternative products (Al-Sulaiti & Banker1998).

3.2. Resistive Economy

Current economic circumstances, and especially heavy sanctions, have forced the Islamic Republic of Iran to adopt an economic system that can overcome these changes and challenges. In fact, the country's economic life depends on resistance against the numerous political and economic campaigns. In addition to increasing the society’s efficiency, this allows Iran to be a role model and an inspiration in developments throughout the world (Toghraee2014). Resistive economy involves focusing on areas of interest to the enemy, in the present or future, as well as endeavoring to turn weaknesses into opportunities (Ashrafi, 2013). Undoubtedly, resistive economy reduces dependencies and leads to self-reliance. A strategic plan which facilitates and enables the activities of the private sector is a prerequisite to resistive economy. Resistive economy is built upon individual and collective intellectual capital. Therefore, the private sector is an important platform for strengthening the economy and reducing the impact of sanctions (Mahmoudnia, 2014).

Economic sanctions usually act as tools of enforcing foreign policy, justifying that the goal of economic war is to inflict as much economic damage as possible to the target country until that country stops resisting. When individuals or organizations refuse to purchase a particular product, its sales decrease rapidly (Ghafari et al., 2014; Smith, & Li2010). Domestic productions can make the country independent, which can only be achieved if adequate support is provided for factories and small and medium industries. This is an important step in increasing domestic productions. By improving the quality of domestic products, producing more standard goods, increasing awareness in the society, providing the necessary educations and encouraging people to use domestic goods, threats can be turned into an opportunities. In resistive economy, improved domestic production capabilities and better control procedures along with support for manufacturers can lead to independence and an economy built on unity and empathy. Economic experts believe that resistive economy attracts more investments and generates more trade, both domestic and foreign (Taheri, 2012).

3.3. Iranian Goods Purchase

Tendency towards high-quality global brands and products in developing countries is a rule to which Iran is not an exception. Thus, domestic production in developing countries such as Iran should be able to effectively compete with imported products. It is crucial for companies, especially ones that compete in world markets, to understand the factors that influence consumers' purchasing decisions. A common belief is that consumers buy imported products based on their quality. However, in some cases, low-quality domestic products are favored over high-quality foreign products or vice versa (Nguyen et al., 2008; Dehdashti et al., 2010).

The phenomenon in which domestic products are preferred over foreign ones is called economic nationalism; cultural prejudice against imported products; or consumer patriotism (Dehdashti et al., 2010; Shimp and Sharma, 1987), all of which are rooted in social psychological tendencies of patriotism (Shin 1993,
Dehdashti et al., 2010). Consumer patriotism refers to the choice of domestic products over imported ones (Shimp & Sharma, 1987; Shin, 1993; Dehdashti et al., 2010). Using Iranian goods leads to growth in domestic industries, decreased unemployment, reduced exports of crude oil and mineral resources, more powerful national economy and confidence in domestic productions. Furthermore, foreign sanctions can be neutralized. Consumers reserve the right to complete information about the products they purchase, including country of origin (Ghafari et al, 2014). However, consumers need to be warned about the consequences of using foreign products such as unemployment for Iranian youth. The education system in Iran must teach cultural and national identity to young learners. Unfortunately, most of Iranian stationery is imported from abroad, which means Iranians learn to use foreign goods from childhood. The media should restrict advertisements for foreign goods because smuggling of goods is one of the barriers for development in Iran. Every citizen should know that consumption of smuggled goods leads to the unemployment of young Iranians.

Studies show that consumers demonstrate some sort of stereotype patriotic thinking in purchasing products, which forms their beliefs. This type of orientation to the origin of products creates a challenge for international marketers and increases market complexity. As a result, domestic manufacturers will have customer retention opportunities. However, the market is composed of different segments, each of which needs to be treated differently. Unfortunately, a different pattern is observed in Iran, which not only damages domestic industries, but also increases unemployment (Mortazavi et al., 2010; Ghafari et al., 2014).

Theories related to groups suggest that when a group is threatened by an external factor, it becomes more intimate (Rabinz, 2012). If we consider Iran as a large group, despite the usual intra-group conflicts, external threats will only serve to bring them more together. This is important because Iranian consumers are expected to behave differently under sanctions. It is possible that, in order to show support for domestic manufacturers, consumers purchase Iranian products. The literature shows that there is a positive relationship between import and purchase of foreign goods (Al-Sulaiti & Banker 1998; Bilkey & Nes, 1982; Saffu et al., 2010).

### 4. Research Methodology

The populations of the manufacturers of household appliances participating in the exhibition have formed in August 2014. For some reason this industry was selected as research subjects. First, many companies have been active, resulting in the industry's competitive edge in the market. Second, various industrial applications to extensive use in addition to domestic needs and families and in the administrative and commercial use, have been also done. Leading research is objective and the method of data collection is descriptive and correlational based on structural equation modelling. To collect the data, to test hypotheses and a theoretical model of the questionnaire using a five point Likert scoring range is used. Due to time limitations, the study sample was selected randomly from among manufacturers of household appliances. In order to gather data to test hypotheses and theoretical models of questionnaire containing 19 questions was used. The questionnaire used consists of 2 parts: the first part of the demographic questions such as gender, age, education and experience in the company. The second part includes the main research questions. Questionnaires were used to measure variables that researchers have used in their research several times and their validity is confirmed. 110 questionnaires were given to respondents goal, ultimately, 93 usable questionnaires, were returned. Respondents' demographic data has been indicated in Table 1 below.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Gender</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Man (55%)</td>
<td>Woman (45%)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>20-30(32/2%)</td>
<td>30-40(41/9%)</td>
<td>50-40(22/5%)</td>
</tr>
<tr>
<td>Education</td>
<td>Diploma (35/4%)</td>
<td>Diploma (6/4%)</td>
<td>BA (51/6%)</td>
</tr>
<tr>
<td>Experience in the company</td>
<td>1-10(74/2%)</td>
<td>11-20(12/9%)</td>
<td>21-30(12/9%)</td>
</tr>
</tbody>
</table>
5. DATA ANALYSIS

Appearance and content validity of the questionnaire was approved by the institutional authorities. For reliability, Cronbach's alpha was used to, the value of the Government variable obtained 0/64, Resistive economy obtained 0/64 and purchase of Iranian goods obtained 0/67, which showed acceptable reliability tools. It should be noted that the coefficient factor in software-related questions PLS 0/4 higher and no need to remove questions. The average variance extracted (AVE) model variables were greater than 0.5, indicating the acceptability of the research. A combination of factors impacted the reliability of the Government variable obtained 0/77, Resistive economy obtained 0/78 and purchase of Iranian goods obtained 0/90. Value t, calculated, indicating a significant relationship between explicit and implicit in the 95% significance level. It was found that using Locker Fornel and divergent validity is at an acceptable level. A necessary criterion for assessing the structural model coefficient is of determination $R^2$ dependent latent variables. China (1998) $R^2$ values 0/19, 0/33, 0/67, has described moderate and substantial respectively. This value is obtained 0/50 for Iranian Brand variable purchase. To evaluate the adequacy of the model to predict the dependent variable can be used as indicators of $Q^2$. Positive values of Indication is appropriate for Adequacy forecast (Amani et al 2013). $Q^2$ values of endogenous variables depend on Iranian purchase, are obtained 0/32 which is positive and indicates that the adequacy prediction model is appropriate.

Amato, Vynzy and Tin House (2004) argue that the PLS GOF index can serve as indicators of overall fit of the model to assess the validity or quality of the PLS model generally used. This index is between zero and one to values close to a good quality indicator model GOF is equal to the geometric mean average redundancy index and the average coefficient of determination ($R^2$), which is calculated using the following formula. Vtzls et al (2009, p. 187) have introduced three values of 0.01, 0.25 and 0.36, respectively, as the amount of weak, medium and strong for GOF (davariand & rezaZadeh, 2014, p. 98). GOF value calculated for the study to 0.50, indicating a good fit of the model (O'Cass & Weerawardena, 2010).

$$\text{GOF} = \sqrt{\text{communality} \times R^2}$$

5.1. Test Hypotheses

To investigate the hypothesis, the structural equation modelling was used to investigate the structural relationship between the variables. In software PLS two outputs obtained, the first output indicates approval or disapproval of the conceptual model and the second output show the final path analysis model. Model output shows that meaningful path coefficient between variables of resistive economy and buying Iranian goods are 4/36, it is more than 1/96. This indicates the significance of the impact of government on the purchase of Iranian brand is 95%. Analysis output of model show Standardized path coefficient between the government variables and buying Iranian goods is 0/35. This means that the government determined purchases Iranian goods Variations in the amount of 35%.

The second hypothesis suggests that the model output that meaningful path coefficient between variables of Resistive economy and buying Iranian goods are 7/95, it is more than 1/96. This indicates that the significance of the impact of Resistive economy on the purchase of Iranian brand is 95%. Analysis output of model show Standardized path coefficient between the Resistive economy variables and buying Iranian goods is 0/59. This means that the Resistive economy determined Iranian goods purchases Variations in the amount of 59%.

6. DISCUSSION AND CONCLUSION

The purpose of this research is to study the role of the government and resistive economy in the Iranian goods purchase. As mentioned in the literature review, previous studies have examined the relationship between the government and purchase of domestic goods. However, to the best of our knowledge no study has examined the impact of resistive economy on the purchase of domestic brands. This comes as no surprise since resistive economy is a new concept, introduced after heavy sanctions were imposed on Iran recently. The purchase of Iranian goods is not one-dimensional issue. As demonstrated in previous studies, factors such as national pride, age, and income affect the purchase of domestic goods. In this study, we consider the
effect of both the government and resistive economy. The results show that the government and resistive economy have a positive impact on the purchase of Iranian goods. As shown in other papers, the purchase of Iranian goods and imports has a positive effect (Al-Sulaiti and Banker 1998, Bilkey and Nes 1982, Ghafari ashtaini et al 2014).

We know that governments are responsible for the import of goods and in order to increase purchases of Iranian products the government, must find alternatives to imports (Al-Sulaiti and Banker1998). Resistive economy aims to increase self-sufficiency and self-confidence, which is necessary for the growth and sustainability of industries. Iranian people need to use goods made in their own country. In order to achieve this, the government can make people aware of the consequences and improve domestic business and increase the purchase of Iranian brands.

7. PRACTICAL SUGGESTIONS

The aim of this study is to determine the role of the government and resistive economy on purchase Iranian goods. The results indicate that the government and resistive economy have a positive influence on the Iranian goods purchase. The purchase of Iranian goods is not one-dimensional issue. The present study examined the effects of both the government and resistive economy on the purchase of Iranian goods. Based on our result, the following are recommended: Improving our industries and the instilling culture of purchasing Iranian goods in the country requires government support so that manufacturers are able to produce the best goods with reasonable prices that can compete with foreign counterparts. Furthermore, the government can use the media and seek help reference groups such as religious leaders, athletes, and scholars to encourage people to use Iranian products. Other initiatives include providing warranties for products, free consultations, and educating children about the use of Iranian products. These attempts will eventually lead to a more prosperous country.

The following guidelines are provided for increasing the use of Iranian goods:

1- Changing tax and customs laws: Unfortunately in some cases manufacturers are taxed while mediators pay no taxes. We need to find a way to tax capital and income correctly. Moreover, tariffs for luxury goods and products with similar domestic counterparts must be increased.

2- Personal mission for officials: Authorities in the country need to know that are their role models for people. Leading simple lives, using Iranian goods and avoiding foreign products can reflect their beliefs far better than simply recommending people to do so. All authorities are responsible for creating a culture that values Iranian products.

3- Increasing confidence of the youth: Iranian youths need to believe in themselves. They must be taught that they can achieve what they want.

4- Reducing the exports of crude oil and raw materials: The export of raw materials especially gas and oil needs to be gradually decreased according to a strategic long-term plan. Furthermore, Iranian industries must become independent from foreign countries.

5- Supporting high-quality domestic products that create employment opportunities: Iranians have always been famous for manufacturing high-quality products. Unfortunately, however, some manufacturers have lowered the quality of their products in an attempt to gain short-term profits. The government must support Iranian manufacturers and exporters to make products of better quality.
REFERENCES:


Ansari, mohamadtaghi and ghafarzade, iraj(2008), Comparative study and identify the main barriers to SME support in Iran. "Proceedings of the Ninth National Congress co-injurious and government, academia and industry for national development (In Persian)


Ghorbani taze kandi, saeid,(2013), The government's role in the realization of resistance economy, Issue 72 (In Persian)

Ghafari ashtaini, peyman and mozafari,amin and ale mojtaba Zahra(2014), Changes in consumer behavior following the embargo, Journal of Agricultural Management, No. 24,(In Persian)


Moshtagh, mostafa (2014), the role of government in today's changing world, development (In Persian)

Mortazavi, saeid and kafashpor,azar and arjmandinejad,afagh(2010), The Role of National water interface and the perception of product quality on intention to buy imported goods, Journal of Management Executive, Vol I, Issue 2,(In Persian)


Taheri,gholamhosein,(2012), support domestic production necessary to Resistance economy, Iran's voice magazine, No 11 (In Persian)


Heidarzade, kambiz, zand, hesam, hasanlo Mohammad mehdi, (2008), Assess trends (preference) Customers buy foreign goods in the decision process, modiriat bazargani

dehdashti zohre,ghasemi hasan,seifi abalfazl,(2010), Effect of orientation on consumer purchasing imported goods, Motale-ate Modiriati Behbood va Tahavol No.62, Summer & Autumn 2010

http://eghtesad-moghavemati.blogfa.com/post/6


toghrail,mohamad taghi(1392), Geology meaning Resistive economy,economic magazine number VIII, Mordad 92(in Persian)


Davari, ali ,REzazade arash(2014), Structural Equation Modeling  pls Software. (In Persian)

Azar adel,Gholamzade rasol,Ghanvati mehdi(2013), Modeling the Way- the management structure,smart pls. (In Persian)
Analyzing the United Nations’ Security Council Arms Embargoes against Islamic Republic of Iran

Seyyed Mostafa Kazeroni

ABSTRACT: Following the intensifying of Iran’s nuclear crisis since 2006 onwards, the whole key parts of Iranian industries are subject to United Nations’ Security Council crippling sanctions. One of the main industrial parts of Iran sanctions regime is military and arms industries that were imposed for the first time in course of resolution 1737. Nevertheless, there are three Security Council arms embargoes against Iran, that is to say 1737, 1747 and 1925 among overall six sanctions. In this study, the method for gathering information is descriptive studies that are based on reviewing the most authoritative international instruments like Security Council’s arms embargoes. In the current study, we are looking for analysing firstly, UN Security Councils arms embargoes against Iran and then examining the positive effects and violations of so-called arms embargoes. In addition, we will carry out comparative study of UN Security Council’s arms embargoes regimes between Iran and Iraq and North Korea and ultimately point out the challenges and vacuities of arms embargoes against Iran. The conclusion of current study showed that not only the UN Security Council arms embargoes against Iran didn’t make the arms and military industries with drawing, but also because of the unilateral arms embargoes since the beginning of glorious Islamic Revolution 1979, the arms and military industries had endured the least loss from arms embargoes and these embargoes made arms industries more profitable for Iranians.

KEYWORDS: Arms, Embargo, Iran, Security Council.

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1. INTRODUCTION

Security Council’s arm embargoes against Islamic Republic of Iran is one of the most significant aspects of international sanctions aimed at deterring Iranian young people from obtaining all-round development and independence. The Security Council’s arm embargoes against Islamic Republic of Iran have been imposed due to its peaceful nuclear programme that is acknowledged by IAEA. In this regard, the political profit-seeking of several certain Western powers headed by U.S.A prevails over the international law principles. Security Council’s arm embargoes can be divided mainly in three distinct parts, that is, the arms embargoes itself, sanctions on individual and entities associated with arms production and export parts in Iran. There is No doubt Western governments and their officials know that arms embargoes that imposed whether unilaterally or thorough the United Nation Security Council not only to prevent Iran from achieving the capabilities of so called” nuclear in arms production” but also in pursuit of paralysis of the security and military power as a prelude to regime change and making Iran’s economy vulnerable and the cause of ineffectively of international sanctions whether arms embargoes or otherwise against Islamic Republic of Iran is precisely that point because if the their intention were clarifying and resolving nuclear crisis ,Iran had spared no effort to give a clear response to International Atomic Energy Agency as the only international responsible organization for nuclear energy and if the issue were limited to this, then in 2006 and even before that, nuclear dispute had been settled easily\(^1\). Therefore, some who try to understand the international arms embargoes superficially can’t offer correct and comprehensive view to their readers. Based on the latest report of the Security Council resolution 1929’s panel of experts, (Final Report of the Panel of Experts Established Pursuant to Resolution 1929, 2010) It has been alleged unlawfully and unrealistically that Islamic Republic of Iran has wanted to violate the international arms embargoes thorough two major ways that is illegal arms transformation and trying to obtain and manufacturing the technologies related to nuclear weapons. But it is necessary to recall that Islamic Republic of Iran has clarified its nuclear peaceful programme and there is no doubt that Iran’s nuclear programme is peaceful. Since Iranian army policy especially its ballistic missiles which have been exercised both with solid and liquid fuel with diverse boards that the farthest is Sejjil ballistic missiles which have not been used in any maneuver and haven’t been subject to the Geneva Agreement text between Iran and 5+1 (Garver, 2006). So now, this is a major concern to Arab and Zion states following the breaking down of Iranian arms embargoes. the marked and significant point is Iranian arms’ advances apart from being independent, increase both quality and quantity of these weapons in a way that while increasing the level of armaments now the arms made in Iran are one the most accurate ones in the world that this is proud to every Muslim Iranian. This paper will discuss in four topics, the definition and kinds of Security Council’s arms embargoes, Security Council’s arms embargoes imposition against Iran, comparative analysis of Iran’s arms embargoes with Iraq and North Korea, Iran’s efforts to combat the arms embargoes and their circumventing and finally gaps and challenges to the Security Council’s arms embargoes regime. In this passage, we discuss the necessary topics concerning the Security Council’s arm embargoes against Islamic Republic of Iran. In this regard, first we will take into consideration the definition and kinds of Security Council’s arm embargoes, then types of Security Council’s arm embargoes and the necessities of applying development right, Security Council arms embargoes against Islamic Republic of Iran, the Islamic Republic of Iran measures to combat and circumventing the Security Council arms embargoes, The comparative analysing between the Security Council’s arms embargoes against Iran with North Korea and Iraq and finally the challenges in Security Council’s arm embargoes against Islamic Republic of Iran. there are a variety of national approaches toward Security Council’s arm embargoes against Islamic Republic of Iran i.e. while the western and also some regional powers like Saudi Arabia and Zionist regime strongly support the more strict Security Council’s arm embargoes against Iran, some independent states like North Korea, Russia and China could cooperate with Iranian military and weaponry industries to develop Iran’s capabilities to combat enemies’ pressure. Of course, the most important factor that Iran’s armed force could resist against the paralyzing international arm embargoes is the presence of wise and powerful supreme leadership in the shadow of Islamic teachings that can make Iran’s armed forces be self-sufficient and develop their capabilities toward a military resistive economy and even export major arms and related productions to abroad.

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\(^1\) [http://nationalinterest.org/commentary/are-sanctions-fatwa-iran-6363](http://nationalinterest.org/commentary/are-sanctions-fatwa-iran-6363) Are Sanctions a Fatwa on Iran?, p1.
2. THE SCIENTIFIC RECORDS

The international law on Security Council powers to impose arms embargoes against certain states and groups have had a lot of rise and fall instances. At the same time, a majority of Persian and Latin books in this area concentrate on powers and legality of Security Council’s decision so there isn’t any specific and comprehensive study on Security Council arm embargoes against Islamic Republic of Iran. there are several limited Western studies on Iran’s arm embargoes for example ‘“Armsments, Disarmament and International Security 2008”’ written by Stockholm International Peace Research Institute in 2008. In pages 330-334 the authors want to say that, the fact of Iranian arm forces’ independence toward Western arm industries should be challenged but they don’t refer to this conclusion that the Security Council arm embargoes against Islamic Republic of Iran are illegal and beyond its mandates and authorities because they have endangered Iran’s territorial integrity and political independence by banning weapon export to Iran. In an article subjected ‘The Effectiveness of the Fourth Round of Sanctions against Iran’ written by Reagan Thompson, the author wants to induce his audience to believe that the Security Council sanctions against Iran have been more effective that ever been considered But at the same time, he concludes that it seems that in the banned arms by the Security Council, the Western countries couldn’t attain to their illegal objectives in imposing arm embargoes against Islamic Republic of Iran because since the arm embargoes have been imposed by the Security Council, Iranian armed forces have had the capabilities to produce and develop a majority of banned arms in Iran. in Persian, there are a lot of studies on the Security Council sanctions against Islamic Republic of Iran, but none of them have concentrated specifically on the Security Council’s arm embargoes against Iran. Among them, we can refer to the articles such as” North Korea Nuclear Case and its Influence on Iran’s Nuclear Case’ written by Ali Akbar Rostamiand ”An Analysis of Economical Sanction against Islamic Republic of Iran” written by Arastoo Toohidy.

3. THEORETICAL PRINCIPLES OF SECURITY COUNCIL ARM EMBARGOES

3.1. Definition of Arm Embargo

The arms embargoes as the name implies, are one kind of sanctions that imposed on a variety of arms. The arms embargoes have yet been imposed only on conventional and mass destruction arms. However, with the advent of new weapons such as cyber warfare, UAVs and other new weapons using modern technologies, it can’t be easy to provide a single definition of arms embargo. Arm embargoes generally pursuit one or more following purposes: 1- dissatisfaction utterance with regard to the conduct of a certain government, 2- manitaib impartial position in a continuous conflict, 3-limit the resources available to an international actor that it inflicts other states violently. (http://en.wikipedia.org/wiki/Arms_embargo, 2014). Almost all the Security Council’s sanction regimes since yet also have had the rules regarding arms embargoes except resolution. (Security Council Resolution Special Research Report, 2013) The detector state in applying the arm embargoes on the prohibited weapons is obliged to return the detected arms to the constructor state while having no hostile relationship after

Notifying the Security Council12 The United Nations’ arms embargoes have had experienced numerous changes from the beginning to the present (Lopez and Gerber, 2002). It can be divided into pre-cold war and then, at the end of the cold war the first Security Council’s arm embargoes were in 1964 against the apartheid regime in South Africa and South Rhodesia which were optional arms embargoes, but these optional arms embargoes gradually transformed in to mandatory arms embargoes following the unrecognized South Rhodesia in resolution 253(1968) and in resolution 418(1977) against South Africa (Lowe et al, 2010). Comprehensive arms embargoes against South Rhodesia were a reaction to unilateral declaration of its

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2 Of Course, South Africa had been subject to the Security Council’s arm embargoes for pursuing suspicious nuclear programme. However, in the applying these arm embargoes; furthering respect to the human rights was put together with the negotiations to persuade South African government to give up its nuclear programme. In contrast, this is not the case in the Islamic Republic of Iran’s arm embargoes. For more information see: Lulat, Y. G.-M,” United States Relations with South Africa: A Critical Overview from the Colonial Period to the Present,”Cambridge University Publication, 2008, p166.
independence from the UK while in the case of South Africa, in addition to establishing the apartheid regime, the arms embargoes imposed and enforced due to frequent aggressions into surrounding countries and pursuing nuclear weapon programme. At the end of Cold War, Security Council’s arms embargoes had been imposed against Baath regime following the Iraqi invasion of Kuwait and its program to develop nuclear weapon from 1990 to 2003. At the same time, the former Yugoslavia (1991-1996) and Haiti were subject to Security Council arms embargoes following the present John Bertrand falling from power. However, the distinguishing feature of the Security Council arms embargoes in the current period to the prior of Cold War arm embargoes was that paying into consideration the control and disarmament regimes on one hand and move from comprehensive sanctions to smart sanction on the other hand. This situation clearly has been seen in Security Council arms embargoes against conventional and mass destruction weaponry regime against Iran and North Korea due to alleged nuclear weapon production capability. In addition to the cited difference, we can refer to the banning of export of military goods with dual-usage.

3.2. Types of Arm Embargoes
Study about Security Council’s arm embargoes suggests that this institution have attempted to impose arms embargoes on the either end to the civil wars like Somalia or changing the states’ and targeted groups’ behaviour in certain facets like Islamic Republic of Iran (Brzoska and opez, 2009) mandatory and optional arms embargoes are imposed on article 40 and 41 of the United Nations’ Charter. The difference between these two mechanisms is also in binding or non-binding effects of state compliance with them. The optional Security Council’s arms embargoes may be transformed into mandatory ones. For instance in the arms embargoes against Taliban in 1996 imposed due to sever human rights violation, killing of Iranian diplomats, the opium trafficking and providing sanctuary for Osama Bin Laden, the Security Council asked for all member states to refrain from supplying weapons and ammunitions to the de facto Taliban state in Afghanistan. The arm embargoes against Taliban then converted into mandatory ones under resolution 1332. Other examples of Security Council non-mandatory arm embargoes are against Nagorno Karabakh autonomous region (Azerbaijan), Eretria, Ethiopia and South Africa. Mandatory arms embargoes also can be divided into two series that either imposed on governments such as Islamic Republic of Iran, Lebanon and North Korea or nongovernmental groups such as Al-Qaida and Taliban or associated individuals addressed pursuant to resolution 1390 on January 16, 2002. The Security Council longest ever arm embargoes since today have been against Somalia (Wallenste, 2008).

3.3. Inefficiency of The Security Council’s Arms Embargoes
Inefficiency of The Security Council’s Arms Embargoes is one of the subjects that both opponents and supporters of the Security Council’s arm embargoes have consensus on it. Various reports from the Security Council arms embargoes’ panels of expert report are indicative of that allegation. The most famous example is reflected in the resolution 1970 expert committee report. This report recalls three points in the inefficiency of Security Council arms embargoes against Libya after the sweeping unrest in that country: 1-Security Council arms embargoes against Gaddafi regime along the foreign countries’ supporting of Libyan uprising have no control mechanism to ban illegal arm exporting to Libya. 2-so many of the banned weapons in the arm embargoes have caused the banned arm transferring into the hand of non-international actors such as terrorists or trafficked for waging war outside the Libya (Schmitt and Arimatsu, 2012) deficiency Control in the governmental arsenal of weapons and loss of border control have caused flooding the importation of conventional arms to the Middle East, West Africa and probably the Horn of Africa.

The United Nations member states have taken action to send the state authorities in Libya but in the majority cases, the final users of these imported weapons were unknown. The Security Council arm embargoes can’t even completely prevent the violation of human rights and humanitarian law in the countries under sanctions so that according to the Human Rights Commission Special Reporter on the Human Rights Violations

committed with small and Light Arms, Mrs. Barbra Frey in 2003, while recommending to strengthen the structure and the implement of Security Council arm embargoes, asks for the international community to prevent the persons who accused to violate the human and humanitarian laws, get access to the banned arms (Yearbook of United Nations, 2005). This situation especially in the internal armed conflicts is that the facilitation of the availability of conventional weapons particularly small and light weapons and mines which intensifies the possibility of weakening the legal regime of Security Council’s arms embargoes (Osmieniazyk, 2002). The most obvious instance was indicated in the continuance and even intensification of international and internal armed conflicts in the former Yugoslavia, Sierra Leone and Liberia (Staibano and Wallenstein, 2005). Iran’s position as a member of the NAM has always opposed the Security Council arm embargoes as the most prominent can be visible in Bosnia and Herzegovina. In this regard, the NAM issued a statement:” if the Security Council has not proper ability to intervene to stop the armed conflict and protect the civilian population against repeated Serbian attacks which numerous evidence is for that, then the least expected action it would be to allow them (Bosnians) to defend themselves.”(U.N Doc.S/PV.3247, 1993). This inefficiency causes that in addition to Security Council’s arm embargoes tendency to be more targeted and smart, adjustment measure such as regional and international peacekeeping forces are place on the Security Council agenda which are concurrent with imposing arms embargoes (Tomaschat, 1995). It may be necessary to consider the exceptions on Security Council’s arms embargoes so that certain banned arms can be sent into determined individuals and groups in characterized terms. A proper example is obvious in the Security Council’s arm embargoes against Libya on the basis of resolution 1973 entitled” take all necessary measures to protect civilians in Libya ‘that Western and Arab states could overthrow the Gaddafi regime by invoking this exception to bring banned weapons into the hands of militias and terrorist groups (Liebllich, 2013).

3.4. The Necessities of Applying Development Right in Imposing Security Council Arm Embargoes

The developments in the United Nations activities and authorities especially after the Cold War also influenced the Security Council arms embargoes in such a way that by concentrating on development rights in the United Nations following Vienna Conference in 1990, the development rights effect on Security Council’s arm embargoes was that it is necessary for Security Council to consider pre and in the time of imposing these sanctions all of the economic, cultural, social and civil human rights. However, it seems that the Security Council not only takes action to amplify and support the development right in imposing arm embargoes, but also in some cases, its actions has been in the opposite direction. For instance in action against international terrorism in international community after September 11, 2001, the role of General Assembly’s sixth committee and Security Council have been replaced by the General Assembly’s third committee. It is north worthy that these entities are supposed more based on political interests of global powers than legal entities. These measures, however, have not prevented countries like Switzerland, Germany and Sweden respectively outlining the process Interlaken(1999-2001), Bonn-Berlin(2000-2001) and Stockholm(2001-2003) which seek to review the Security Council’s arm embargoes including states’ necessities to respect the development right; however, these measures failed to reach the intended objects (Fruchart, Holtom, and Wezeman, 2007). However, the Security Council arm embargoes against Islamic Republic of Iran conversely violate the observation of development right although these arm embargo’s drafters have considered that ”are targeted at specific activities, institutions, entities, and individuals related to Iran’s prohibited nuclear and missiles activities, and conventional arms imports and exports. They seek to alter the decision-making calculus of Iran’s leadership, without imposing a burden on its citizens or creating humanitarian hardships. The challenge for member states is to balance the need to target specific activities,

2 Pursuant to this declaration, in 2000 a declaration known as the Millennium Declaration was adopted by the UN General Assembly. In accordance with that instrument, it is necessary to notice eight following objects in every U.N action including the Security Council’s arm embargoes. The declaration stated that the objection performing duration should be until 2015. The eight objection include: 1. Eradicating extreme hunger and poverty, 2. Reach the primary education for all, 3. Promoting sexual equality and popular empowerment, 4. Reducing of child mortality, 5. Improving maternal health, 6. Combating the spread of HIV, malaria and other infectious diseases, 7. Ensuring environmental sustainability, 8. Develop a global partnership for development. For more information see: General Assembly’s Resolution(A/Res/55/2) on United Nations Millennium Declaration “adopted on 8 September 2000. Also, can be found on the following link: http://www.un.org/millennium/declaration/ares552e.htm
entities, and procurement in Iran related to its nuclear and missile programmes, and arm-related exports, while allowing legitimate trade to continue unhindered.” (Friedrichs, 2013).

4. THE STUDY METHODOLOGY

Research Methodology of this paper is based on taking note approach. For conducting an acceptable and valid research in the context of Security Council arm embargoes against Islamic Republic of Iran, it is essential to use existing resources and capabilities ranging from articles and books in both Persian and English. Because the Persian resources on the current subject are very limited, the need to go and take advantage of the English resources multiplied. To enrich the present work it is inevitable that more attempts should be applied to use other methods such as reading the Security Council’s instruments toward arm embargoes and national approaches in arm embargoes practically in Islamic Republic of Iran. It is important to say that the most critical objective in this study is analytical review of the studies concerning Security Council’s arm embargoes against Islamic Republic of Iran. In this regard, the author tries mostly to avoid the descriptive methodology and emphasize more on quality than quantity.

Also in order to keep pace with the latest developments related to the study topic and updated information and findings, the author’s efforts are based on cyber resources as necessary as needed that in this regards, we can refer to several websites:

1- American Society of International Law
   http://www.asil.org

2- The United Nations Organization
   http://www.un.org

5. FINDINGS

The Islamic Republic of Iran’s first efforts to circumventing an Security Council arm embargoes relate to the arm embargoes against Bosnia in Balkan war (Manusama, 2006) on the basis of resolution 713 in 1991 which in the joint logistic Iranian and Turkish warplane’ operations, they provide weaponry defensive support for the protection of defenseless Bosnian Muslim through Tuzla and Zagreb airports1 (Lowe et al, 2010) and then one can refer to conventional weapons’ supplying by Iran including small and light armaments, artillery and armored vehicle from the mid-90s to Sudan despite the Security Council’s arm embargoes. So that, according to some estimate, the Islamic Republic of Iran’s and China’s conventional arm export constituted nearly 90 per cent of all Sudan’s conventional arm import (Shinn and Eisenman, 2012). Iran’s efforts to combat and circumventing the Security Council’s arm embargoes returned to the unfair an unjust space governing this international institution as the Iranian representative stated during 6335th meeting of the Council: “A review of our bitter past memories, together with a close look at how this council still acts today, proves that we are still dealing with a biased and unjust international system that is based on the hegemony of the most powerful.”

5.1. The Reliance on Domestic Weapon Production

The Reliance on Domestic Weapon Production is one of the major Iran’s efforts to combat Security Council’s arms embargoes. However, the Iran’s reliance on domestic capability to produce weapons doesn’t fundamentally relate to the Security Council’s arm embargoes but rather were launched because of the Iraq-Iran war during 80s and the refusal of West and East to provide military equipment to Iran’s armed forces against Iraqi Baathist government in such a way that it could be possible to establish and develop the military

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1 This is the issue even then led to resolution adoption in the United Nation General Assembly in response to a formal request of Bosnian government to remove Security Council’s arm embargoes against it. In the GA Resolution’s paragraph 23, the resolution urged all the member states to contribute to Bosnian government in applying individual or collective self-defense. For more information see:

research and development centers such as the Iran’s defense and armed forces’ logistic ministry independent weaponry production centers (Pierre, 1997). It is necessary to notice that despite western governments’ widespread publicity about the great Iran’s reliance on alien technology and weaponry especially Russian and Chinese allies’ ones, these allegations are totally inaccurate because for example the most recent foreign arm deals between Iran and foreign powers relate to Iran-Russian arm deal worth 5.1 Billion U.S Dollar signed in December 2005 that is a year before the first Security Council’s arm embargoes that included the sale of MIG-29 and SU-24 aircrafts, fast patrol boat, TOR-MI air defense missile system, T-72 Tank and another arm deal signed in mid-2006 on the delivery of six SU-39 combat aircraft and delivery of spare parts for seven SU-25K aircrafts to Iran Air Force during Persian gulf war in 1991-1992. Today, Iran reliance on domestic weapon productions have reached on the level that in September 2006, Iran announced that, it was currently selling arms to more than 57 states which showed 17 per cent growth in defense industries production exports than the previous year. The growth in the subsequent months and years has continued repeatedly to the present in such a way that each year, 15 to 20 per cent has been added to Iranian arm sales to other countries. However, in contrast, according to the U.S Congress’s studies center, the Zionist regime had bought 8.5 billion dollar arms only from United States that clearly shows widespread reliance on foreign weaponry and military productions.

5.2. Cooperation with Allied States and Groups in Weaponry Production

Iran’s reliance on domestic weaponry capabilities doesn’t prevent it from international cooperation with other allied states like Russia, China and North Korea to develop its arm capability on one hand and efforts to circumvention the Security Council’s arms embargoes against Iran on the other hand. Beginning of this strategic partnership didn’t recur to the Security Council’s arm embargoes but rather to the Iraq-Iran war in 80s in such a way that according to several studies, Islamic Republic of Iran sold its oil resources to North Korea for buying about its 90 per cent required armaments. On the other hand, in recent years the military cooperation still has continued that the most obvious technical cooperation between two states are indicative in the medium-range Shahab missile manufacturing that has been developed using the technology of North Korea’s No Dong missile. (Charles, 2006) In contrast, the Western countries especially U.S.A has tried to destruct this military and weaponry cooperation. Among other cases, one can refer to U.S attempts to get Iran’s allies like Russia and China’s satisfaction in order to prevent the export of weapons prohibited under the Security Council’s arm embargoes. (Garver, 2006) For instance, based on the Wikileaks website releases, the U.S Secretary of State issued a statement in the late November 2009 following the Chinese arm exports to Iran through a Malaysian electronic front company: ‘we believe that the transfer of military facilities to entities sanctioned under resolution 1737 is forbidden.’ Along with this, Islamic Republic of Iran has developed its arm assistance to Shiites movements in southern Yemen, Sudan, Syria, Ivory Coast and dozens of other countries where the resistance movement fighting against western regimes in order to establish a governmental system derived from popular vote and will of God or reclaim the occupied territories (the Zionist regime) or the exercise of autonomy (south Yemen) (In this regards, the 1929 resolution’s panel of expert said that: ‘’Thus The majority of inspections of reported incidents of non-compliance by the Panel has expressed concern about the Iran’s transfers of conventional arms and related material, prohibited under resolution 1747(2007), the same prohibition applies to the importation by member states of such items originating in Iran. The Panel notes that most reported incidents of conventional arms-related violations

1 Russia has sold weapons Iran since 1992. However, the peak years for arm deals between Iran and Russia dedicated to 2002 to 2005 which worth 1.7 billion dollar. This mass of arm import placed Iran in third arm importer from Russia in the respected years(2002-2005), for more information see: Goforth, Sean,” xis of Unity: Venezuela, Iran & the Threat to America Potomac Books Inc. (December 2011), p34.
2 http://WWW.FORECASTINTERNATIONAL.COM/NOTABLE/IPS1.PDF, U.N Arms Embargo on Iran Hits Roadblock, p1
3 In this regard, one can also refer to the Iran’s efforts to circumventing the Security Council’s arm embargoes by establishment of front companies, concealment methods in shipping, financial transactions and the transfer of conventional arms and related materials. For more information see: Friedichs, Gordon,(2013)” Smart Security Council? Analyzing the Effectiveness of Targeted Sanctions”, Anchor Academic Publishing p63.
4 http://www.WIKILEAKS.ORG/PLUSD/CABLES/09STATE130917_A.HTML, Malaysian-Based Iranian Front Company Seeks to Purchase Export-Controlled Gyroscopes from Chinese Firm (S) p1.
involve Syria, which has a long relationship with Iran. It is likely that other transfers took place undetected and that other illicit shipments were identified but not reported to the Committee.”(Friedrichs, 2013).

5.3. Prohibiting From Parchin Military Site Visiting

Another dimension of Security Council’s arm embargoes against Iran is its military site visiting. Among the most important explosives and blasting technology research is the center called Meftaz in Parchin military site near Tehran. (Cordesman and Rodhan, 2006) This center has taken action as one of the units of Iran’s Defense ministry research and development of so called ‘self-sufficiency Jihad’. Western governments have had powerful media propagandas about the existence of military nuclear tests there while no scientific evidence has not been presented concerning the veracity of their claims; particularly, Iranian government in all periods has given clear answers about this military center to the IAEA’s uncertainties. (Fayazmanesh, 2008) Under the Geneva interim comprehensive nuclear agreement between Iran and 5+1, the IAEA’s inspectors can invoke the ‘“managed access”’ right under this agreement which means the inspection by governmental allowance and not daily access, to inspect Parchin military site by claim of centrifuge production workshops and centrifuge rotor assembly. However, it seems that the Iranian government has not yet authorized such inspection and visit¹.

5.4. Military Reverse Engineering

Military reverse engineering is another Iran’s efforts to combat and circumventing the Security Council’s arm embargoes. The most famous Iran’s military reverse engineering operation recurred to the Lockheed Martin’s RQ-170 UAV called “Beast of Kandahar” in 2011. Of course, Islamic Republic of Iran formerly has had military reverse engineering at least in phoenix AIM-54C missile that were placed on 270 aircrafts purchased before the victory of Islamic revolution in 1979 in Iran from the United States. From 2005, Iran had had tried to take action military reverse engineering that of courser was successful and led to construction of the Fakkour 90 missiles. Iran also successfully could land two U.S drones, Scan Eagle and RQ-11 which had violated the Iran’s airspace in the Persian Gulf region by military reverse engineering between 2010-2011². Although the U.S authorities have sought to induce publically that Iran’s taking control of U.S drones were accidental and occurred for a technical defect which had manifested during the U.A.V operations in such a way that before landing, all their data has been cleared³ but the real fact is that powerful Iran’s military armed forces especially Iranian Revolutionary Guards’ aerospace forces could successfully land these drones by military reverse engineering. Military reverse engineering in cited Iran’s operations proves the failure of Security Council and unilateral arm embargoes.

5.5. Performing the Great Prophet Maneuvers

One of the Islamic Republic of Iran’s measures to show the inefficiency of UN Security Council’s arm embargoes is performing various maneuvers. Among them are Great Prophet Maneuvers that have been performed in eight levels that the Islamic Republic of Iran has used ballistic missiles like first Shahab missile. For example, the Iran’s Revolution Guard aerospace unit tested successfully first and third Shahab ballistic missiles, Zalzal, Fateh 110 and Thunder with the Persian Gulf anti-warship in 2011 in the 7th stage of Great Prophet maneuver. Furthermore, another important aspect of these maneuvers was active participation of Iranian UAVs. General (In Persian Sardar) Ali Fadavi, the commander of the Islamic Republic Revolutionary Navy Guards unit has said in this regard that: “we have put missiles having more than 270km range on our vessels which are not just usual vessels but very minor, high speed, high manoeuvrability, powerful fire and anti-radar ones … We can hit one hundred per cent of Persian Gulf, Strait of Hormuz, Gulf of Oman from the Iranian coast with coast-to-sea missiles which are completely

¹ Of course, Islamic Republic of Iran reputedly has said that “Iran not only categorically denied any nuclear-related testing at Parchin, but argued that IAEA had not requested such a visit, adding that Iran would cooperate if such a request was made.” For more information see: Fayazmanesh, Sasan, (2008)” The United States and Iran: Sanctions, Wars and the Policy of Dual Containment, Routledge,p 19.
² http://theaviationist.com/2013/09/26/farouk-missile/p1
³ http://theaviationist.com/category/captured-stealth-drone/p3
⁴ https://medium.com/war-is-boring/did-iran-reverse-engineer-a-secret-u-s-drone-ed9dd24dff4a8.p4
⁵ http://fa.alalam.ir/news/346004.p1
domestic.\textsuperscript{1}” The successful launch of theses missiles have been taken into consideration by the resolution 1929’s committee of experts as the major violation of article 9 of resolution 1929. Another point is the accuracy of these missiles in such a way that the satellite pictures can prove that performing such a maneuver has led to this conclusion that the enemies of the Islamic Republic of Iran unleash the illusion to attack the military facilities and more arm embargoes against Iran.\textsuperscript{2}

6. DISCUSSION

The current topic is a subject that has been studied by several researchers in particularly western communities. In an article subjected “The Effectiveness of the Fourth Round of Sanctions against Iran” written by Reagan Thompson, the author wants to induce his audience to believe that the Security Council sanctions against Iran have been more effective that ever been considered. But at the same time, he concludes that it seems that in the banned arms by the Security Council, the Western countries couldn’t attain to their illegal objectives in imposing arm embargoes against Islamic Republic of Iran because since the arm embargoes have been imposed by the Security Council, Iranian armed forces have had the capabilities to produce and develop a majority of banned arms in Iran. In Persian, there are a lot of studies on the Security Council sanctions against Islamic Republic of Iran, but none of them have concentrated specifically on the Security Council’s arm embargoes against Iran.

6.1. Security Council Arms Embargoes against Islamic Republic of Iran

Following the pressure from the Western-Zionist unity against Iran’s peaceful nuclear programme, the Security Council has imposed six resolutions against Iran’s peaceful nuclear programme. The main application of all of the Security Council’s resolutions have been the IAEA’s Board of Governors decision 2006 from Iran to review its nuclear policy including the review on Arak heavy water reactors and adoption of additional protocol.\textsuperscript{1} The first action adopted by Security Council in this regard was a non-binding presidential statement in March 2006. The Security Council’s arm embargoes against Islamic Republic of Iran have been both mandatory and optional ones.

6.1.1. The History of Security Council Arms Embargoes against Islamic Republic Of Iran

The history of international efforts to impose international arms embargoes against Islamic Republic of Iran returned to Iran’s delay to adopt the Security Council resolution 598 that ion pursuance of that, the U.S secretary of state, Mr. Schultz, started negotiation to adopt a resolution proposal that forbidden import and export certain weapons, spare parts and weapon production systems and military services to and from Iran.\textsuperscript{1} these efforts from the U.S part also mainly returned to its hostile policy “operation Staunch” from April 1983 in order to stop Iran from obtaining nuclear weapons. In the following years, this policy tried to make a one-sided war on behalf of Iraq in Iraq-Iran war. However, this resolution proposal was never ratified due to opposition from Russia\textsuperscript{1} and China and some Arab states like Syria (Gibson, 2010). Although, Western

\textsuperscript{1} Also in this regard, one can refer to the statement of Gen. Amir Ali Hajizadeh, the commander of Islamic Revolution Guard’s aerospace unit concerning the missile capacity toward combating the foreign enemy’s attacks. While referring to 35 American bases in the whole Middle East region, he cited: ‘these military sites are all within the reach range of our missiles an also Palestine occupied territories are good targets for us. There are accurate considerations that we can destroy these entire basis at the first minutes of attacks through these military sites and deployment of their missiles’ “for more information see: Gholamrezaie, Ghasem, “The Great Prophet Maneuver: Tremble in Telaviv,” Cultural Keihan Magazine, 2012, volumes 306-307, p60.


\textsuperscript{3} For instance, Mr. Shevardnadze, (former)USSR’s minister for foreign affairs cited in response to the U.S need of imposing a comprehensive international arm embargoos pursuant to the Iran’s violation of resolution 598 that “ U.S military hegemony in Persian Gulf is itself in violation of resolution 598 and has led to increasing tensions in whole region” he then suggested that the only way to convince Islamic Republic of Iran to accept resolution 598 would be through diplomatic efforts and particularly the U.N Secretary-General. Of course, the former USSR then changed its policy on the behalf of Iraq and in mid-1981 it put B-Scud missiles in the hands of this murderous regime to attack Iran. At the same time, since the start of Iran-Iraq war, Soviet Union agreed with Iraqi invasion to Iran. The Iraqi Baathist regime could hit Iran especially Tehran in the couple of attacks that in one sample reached 17 times in 24 hours and so, murdered many innocent Iranians. For more information see: Wehrey Frederic et all, (2010)" The Iraq Effect: The Middle East After the Iraq War”, RAND Corporation, p183.

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writers have tried to relate the lack of Security Council’s arms embargoes against Iraq to presence of Cold War and the American hostage spy net in Tehran in 1980(Hume,1994)but the real fact is the Western governments’ fear from Islamic Republic’s influence on their former colonized and exploited territories especially in the Arab region. The United States efforts to impose arms embargoes against Iran have been more prominent than other states and this high lightened the strategic influence of Islamic Republic of Iran in the whole region of Middle East. These efforts especially at the advent of Iraq-Iran war returned to two distinct policies reflected in U.S instruments. The first one is reflected in the U.S national Security Council in January 1984 which suggested the Islamic Republic of Iran is a threat to the United States in the region and world and United States should conduct covert operation including the establishment a pro-West regime in Iran(Tarock,1998) The second instance in indicative in 1989 Central Intelligence Agency report entitled predication of certain national intelligence which was dedicated to perform a U.S inter-agency study of Iran and concluded that United States has limited ability to influence on Iran. The conclusion of these two approaches were integrated in U.S national security council’s draft guidelines in 1984 which provided that the best strategy to influence on Iran is imposing unilateral and multilateral arms embargoes against Iran especially through U.N Security Council1.

6.1.2. The Security Council Arm Embargoes in Resolution 1737

The first Security Council’s arms embargoes against Islamic Republic of Iran in December 2006 was a partial ban on the export of facilities related to the transfer of nuclear weapon including specific technologies that could have military conventional applications. In March 2007, the U.N Security Council approved a new list on forbidden arms export to Iran. The Iranian representative in United Nations responded to this unjust and illegal arm embargoes saying that: “The Security Council today is about to make an unjust and irrational decision on Iran’s peaceful nuclear programme. We all know that the United Nations is expected to be an institution for addressing international problems and defending the rights of its member states in this shrinking world. The Security Council should be inherently and meaningfully a Council for security.”(Security Council Report (S/PV.5848), 2008) This was followed by the Security Council in 2010 by banning a major conventional arm exports to Iran. After the IAEA couldn’t confirm the Iran’s peaceful nuclear programme, the Security Council adopted resolution 1737 in December 2006 that was first binding Council sanction committee notification;4 The sanctions didn’t include conventional arms; nevertheless, it was organized in such a way that covers missiles and other technologies that can have dual-usage of conventional and nuclear applications. The resolution 1737 was adopted for preventing Iran from developing its nuclear peaceful programme and urged all the member states to avoid providing goods and technologies related to advance Iran’s uranium enrichment, nuclear fuel process and nuclear heavy water activities directly and indirectly(Orakhelashvili, 2011), but it adopted a flexible position and taken no accurate account of arms embargoes and instead referred to North Korea’s arms embargoes entitled ‘‘list of banned arms from North Korea’’(Security Council Report(S/2006/815), 2006)

If the member states wanted to transfer the arms related to nuclear weapons and ballistic missile programmes, the observance of four preconditions was necessary:1-The respected weapons were not included in the Iran’s banned arm lists;2-the necessity to observance of specific guidelines;3-The Security Council sanction committee notification;4-IAEA notification. This list entails properties and technologies related to the delivery and production of missile systems including ballistic missile systems, the UAVs and cruise missiles which can carry the armament capacity up to at least 500 kg at 300km range. Many of these banned weapons that have been cited in this list include the technologies and facilities which can be used in production and proliferation of conventional arms especially invasive missiles and aircrafts. Also the resolution affects the Iran’s arm embargoes in three indirect ways:1-The resolution calls for member states to adopt necessary restrictions on the entry of individuals who in one way or another involved in nuclear or missile programmes including banned weapons production;2-Requires the member states to block the assets and other financial and economic resources which owned or controlled in their territories by persons who

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1 Ibid, p223
3 http://www.armscontrol.org/factsheets/Security-Council-Resolutions-on-Iran, UN Security Council Resolutions on Iran, p3
were put in the resolution’s annex.3-The third is one of the most bizarre regulations ever on various types of Security Council arms embargoes and the obvious symbol of what Western governments oppose the scientific advancement of Iranian youths is the member states’ obligations concerning the ban of Iranian youths from acquiring the knowledge in the context of ballistic missile systems. Referring to the appendix reveals the entities and individuals including members, subsidiaries of defense agencies such as defense industry agency and Iran defense aerospace agency which involve in arm production for Iran’s armed forces. In this regard, the resolution seeks to reduce Iran access to abroad technologies for banned arm production.

Resolution imposed two concurrent regulatory mechanisms for controlling the Security Council’s arms embargoes. One of them is 1737 sanction committee of the Security Council that links directly with Iran’s arms embargoes and the other is the IAEA’s Director General who indirectly links with international arms embargoes and should submit a report to IAEA’s Board of Governors on the Iran observance of resolution 1737 after 60 days of its adoption. Accordingly, the 1737 sanction committee first headed by Belgian Johann C Verbakeh-currently Australian Gary Kevin-.Since the adoption of resolution 1737, this committee has had two formal meetings and 19 informal meetings relating to the Security Council’s sanctions against Iran including armaments that in accordance with them, the committee has received 19 notices from member states concerning the transfer or payments of funds in connection with military individuals and entities. Also in this period, the committee has recorded one Iranian military official visit according to paragraph 10 of resolution 1737.Pursuant to resolution 1730, Security Council decided in 2006 that in order to guarantee the rights of individuals and legal entities that are included in its sanction lists, it should be necessary to establish an office in the secretariat of United Nations called ‘Focal Point ‘unless individuals and entities that are entered into sanction lists ,are under resolutions 1267(1999),1333(2000) and 1989(2001)concerning Al-Qaida and Taliban sanctions. In the latter case, the Office of Ombudsperson has the authority to take action to delist these persons5. On these two approaches, two Iranian state-controlled defense agencies demanded the Focal Point to delist them but their requests were objected. Of course, the Islamic Republic of Iran declared against the Security Council’s arm embargoes that it had suspended the implementation of the revised text of IAEA’s General Part of the Safeguards agreement called modified Code 3.1 which were in connection with the provision of basic information on how to adjust the fuel efficiency of nuclear reactors. Instead, it carried out the original code 3.1 which was adopted in 1976 that accordingly, Iran should notify the IAEA 180 days before the entrance of nuclear materials which are received for the first time. Iran also announced that it didn’t allow anymore the inspection of the IR-40 reactor to the IAEA’s inspectors3.

6.1.3. The Security Council Arm Embargoes in Resolution 1747

In March 2007,the Security Council unanimously adopted resolution 1747 in which it imposed arms embargoes on the export of all armaments and related materials to Iran while urged all member states to refrain from purchasing such weaponry from Iran .The resolution called for member states to report the travel ban of Iranian military services to the 1737 sanction committee. In accordance with the resolution 1747, all member states were required to refrain from Iran’s supplying and assistance directly or indirectly in major conventional arm production including battle tanks, armored attack vehicles, large caliber artillery, combat aircrafts, combat helicopters, combat ships, some certain rockets and their projectiles which were included on the list of UN Register of Conventional Arms. Moreover, they were required to refrain from providing financial and technical assistance in the banned contexts which were previously cited. Further, the resolution asked member states to adopt discreet and restriction in providing the arms which are not included in UN Register of Conventional Arms. The combination of these two concepts (discreet and restraint) means that even in those areas where the regime of Security Council’ arm embargoes against Iran failed to impose

1, for more information see: http://www.un.org/en/sc/ombudsperson/

2 Of course, these two institutions i.e. Focal Point and the Office of Ombudsperson have also several common functions. For example, pursuant to Security Council’s resolution 2083 in 2012, the Focal Point was authorized to receive requests for removal of individuals’ and entities’ associated with Al-Qaida sanction lists in the context of travel and financial sanctions. Also, it was authorized under resolution 2161 in 2014 to receive requests in removal of individuals’ sanctions and not entities .In contrast, the Office of Ombudsperson has the authority to receive requests for removal of entities related to Al-Qaida sanction lists. So, practically in the context of terrorism sanctions, these two institutions have nearly common functions. For more information see: http://www.un.org/sc/committees/dfp.shtml

binding prohibitions on certain arms, the member states must be prudent in their arm trades with Iran. A prominent example of such an approach can be seen in some Iranian institutions and entities’ efforts to acquire certain military facilities related to Iran’s missile programme from German arms traders, although these military facilities hadn’t been included in the UN sanction armament trade lists with Iran, the 1737 sanction committee urged these companies to be cautious in trading such an arm to Iran. Due to lack of distinction between discreet instances and prohibited ones, shortly then, the German Customs’ Criminologist Office became competent to consider such cases. Resolution 1747 defines the elimination of all Security Council’s arm embargoes until the Islamic Republic of Iran fully suspend all enrichment and reprocessing activities. After the start of Iran’s comprehensive negotiation with 5+1, Security Council defined such a movement from Iran as” new beginning” (Charron, 2 011) Supervisory mechanisms for monitoring the arms embargoes against Iran in resolution 1747 are also the same as previous sanction(1737). These arms embargoes have increased the list of individuals associated with Iran’s military and weaponry industries and even tried to refrain from providing financial loans to armed forces absolutely.

6.1.4. The Security Council Arm Embargoes in Resolution 1929

On June 9, 2 010, The UN Security Council adopted resolution 1929(albeit not unanimously) despite the nuclear deal among Iran, Brazil and Turkey concerning the low-concentration uranium swap with nuclear reactors’ fuel which can only be used for nuclear peaceful energy and no nuclear weapon production. According to this newest Security Council’s arm embargoes against Iran, additional restrictions on export of arms trades with Iran are provided. These restrictions are so severe that even clearly intervene in Iranian military strategic policies in such a way that Islamic Republic of Iran is prevented from investing in weaponry and ballistic missiles. all member states are repeatedly required to refrain from providing direct or indirect arm supplying and assistance in major conventional arm production and supplying to Iran including battle tanks, armored attack vehicles, large caliber artillery, combat aircrafts, combat helicopters, combat ships, some certain rockets and their projectiles which were included on the list of UN Register of Conventional Arms and also they are prohibited from providing assistance, training, counseling and other support services related to the supply of weapons. However, in contrary to the previous Security Council’s arm embargoes against Iran that have only entailed the list of UN Register of Conventional Arms, the resolution 1929 also includes surface-to-air missile systems and many other small arms and light weapons which have purely military applications. According to this resolution, for the first time from the Security Council’s arm embargoes against Islamic Republic of Iran, an arm embargo monitoring system is promoted to inspection-monitoring system. It means the all UN member states are obliged under resolution 1929 to pursue, inspect and seize the ships that are suspected to transport banned weapons to the final destination of Iran in their territories or within their jurisdictional zones like exclusive economic zone and report it immediately to 1737 sanction committee. Another interesting point is that all member states are obliged to avoid providing in case of transgressive ships’ refuse to cooperate with coastal states, any service such as fuel, mooring or their entrance to their ports even if the crews are sinking. These obligations are clearly beyond the authorities of Security Council adopted by all states in the context of United Nations’ Charter. Also, there are major developments in monitoring systems of Security Council’s arm embargoes that are one symbol of the Security Council’s arm embargoes failure to obtain its main objective and prevent Iran from acquiring peaceful nuclear capabilities. With this regards, the resolution called for UN Secretary-General to establish an eight-expert committee including military and weaponry experts which should help the 1737 sanction committee and also take necessary recommendations to Security Council and member states to adopt more effective measures including in the context of arm embargoes. This committee was the same committee that in the recent case of alleged arms shipment confiscated by Zionist regime confirmed that they were attributable to Iran while announced that the final destination was Sudan not Gaza Strip.

2 http://www.reuters.com/article/2014/06/28/us-iran-sanctions-un-idUSKBN0F300H20140628
6.2. The Comparative Analysis between The Security Council’s Arms Embargoes against Iran with North Korea and Iraq

6.2.1. The Comparative Analysis between The Security Council’s Arms Embargoes against Iran with North Korea

The first comparative analysis is between Iran and North Korea. Although the international community seeks to obtain the similar results from these two Security Council’s arm embargoes; but they are totally different in the context of level and confines because in the absence of nuclear test by the Islamic Republic of Iran, it has been subject to the comprehensive international arm embargoes while the North Korea which publicly acknowledged its intent to possess of nuclear weapons and performing nuclear test, has been subject to more limited and flexible Security Council’s arm embargoes. Of course, these two different levels of arm embargoes have been dated back to the political interests of Security Council’s permanent members than the technical issues (Zahrani and DoolatKhah, 2010). Also, Iran still have been exposed itself to punitive measures in international framework despite the existence of oppressive arm embargoes and have insisted its active membership in the Non-Proliferation of Nuclear Weapon Treaty; however, the North Korea chose to withdraw NPT due to U.S allegations on the basis of pursuing uranium enrichment and in this regard, exempted itself from punitive measures (Choi, 2005).

In order to resolve the North Korea nuclear crisis, the so-called six party talk started nuclear negotiation with North Korea that in addition to North Korea, included U.S.A, South Korea, Japan, China, Russia. The most important result of these negotiations was reached in February 2007 that accordingly North Korea accepted to shut down its nuclear weapons programme in exchange for humanitarian aid. However, the negotiations finally failed in 2009 for the Security Council resolution adoption against North Korea’s ballistic missile programme following its ballistic missile launching into space. for more information see: Buszynski, Leszek,” Negotiating with North Korea: The Six Party Talks and the Nuclear Issue”, Routledge (July 18, 2013), pp57-63.

In addition to the differences set forth in table one, we can remind other following comparative issues about the Security Council’s arm embargoes in Iran and North Korea cases: including in all three resolutions adopted by the Security Council against North Korea, only the first two resolutions related to North Korea’s nuclear tests in 2006 and 2009. However, the third arm embargo against North Korea was adopted due to ballistic missiles launching into space which was banned under previous resolution. In contrast, all the six Iran’s sanctions in Security Council adopted for peaceful nuclear programme. another issue in this point is that all the North Korea’s sanctions in Security Council have been adopted unanimously and under article 41 of UN Charter while this is not the case in Iran’s sanctions i.e. in one hand, in the resolution 1696, the Security Council has adopted sanctions under article 40 of UN Charter and at the other hand, not all Iran’s resolutions in Security Council have been adopted unanimously. for more information see:http://www.armscontrol.org/factsheets/UN-Security-Council-Resolutions-on-North-Korea,p1.
### Table 1

<table>
<thead>
<tr>
<th>The Security Council’s Arm embargoes against North Korea</th>
<th>The Security Council’s Arm embargoes against Islamic Republic of Iran</th>
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<tbody>
<tr>
<td><strong>The Resolution 1695:</strong></td>
<td><strong>The Resolution 1737:</strong></td>
</tr>
<tr>
<td>This resolution which is considered as the first</td>
<td>1- If the member states wanted to transfer the arms related to</td>
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<tr>
<td>Security Council’s arm embargo against North Korea</td>
<td>nuclear weapons and ballistic missile programmes, the observance of</td>
</tr>
<tr>
<td>include following points:</td>
<td>four preconditions was necessary: 1- The respected weapons were</td>
</tr>
<tr>
<td></td>
<td>not included in the Iran’s banned arm lists; 2- the necessity to</td>
</tr>
<tr>
<td>1- Suspension of North Korea’s ballistic missile</td>
<td>observe specific guidelines; 3- The Security Council sanction</td>
</tr>
<tr>
<td>programme and member states’ obligation to avoid</td>
<td>committee notification; 4- IAEA notification</td>
</tr>
<tr>
<td>transferring financial resources to assist the</td>
<td>2- Imposing travel and financial sanctions on individuals and</td>
</tr>
<tr>
<td>ballistic missile and mass destruction weaponry</td>
<td>entities associated with Iran’s nuclear and ballistic missile</td>
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<tr>
<td>programme;</td>
<td>programme.</td>
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<tr>
<td><strong>The Resolution 1718:</strong></td>
<td><strong>Resolution 1747:</strong></td>
</tr>
<tr>
<td>In this resolution, the UN Security Council urged</td>
<td>1- all member states were required to refrain from providing direct</td>
</tr>
<tr>
<td>North Korea and other member states to observe the</td>
<td>or indirect arm supplying and assistance in major conventional arm</td>
</tr>
<tr>
<td>following guidelines:</td>
<td>production and supplying to North Korea including battle tanks,</td>
</tr>
<tr>
<td>1- all member states were required to refrain from</td>
<td>armored attack vehicles, large caliber artillery, combat aircrafts,</td>
</tr>
<tr>
<td>providing direct or indirect arm supplying and</td>
<td>combat helicopters, combat ships, some certain rockets and their</td>
</tr>
<tr>
<td>assistance in major conventional arm production and</td>
<td>projectiles which were included on the list of UN Register of</td>
</tr>
<tr>
<td>supplying to North Korea including battle tanks,</td>
<td>Conventional Arms; the member states also were required to observe</td>
</tr>
<tr>
<td>armored attack vehicles, large caliber artillery,</td>
<td>the aforementioned points by their nationals and other</td>
</tr>
<tr>
<td>combat aircrafts, combat helicopters, combat ships,</td>
<td>legal entities such as ships or airplanes regardless of its origin</td>
</tr>
<tr>
<td>some certain rockets and their projectiles which were</td>
<td>; in accordance with this resolution, the member states were also</td>
</tr>
<tr>
<td>included on the list of UN Register of Conventional</td>
<td>barred from sailing or transferring of any type of arm in large</td>
</tr>
<tr>
<td>Arms; the member states also were required to observe</td>
<td>scale and related nuclear technologies and training in this way</td>
</tr>
<tr>
<td>the aforementioned points by their nationals and other</td>
<td>2- The ban on the sale and transfer of all of items, materials ,</td>
</tr>
<tr>
<td>legal entities such as ships or airplanes regardless</td>
<td>equipment , goods and technologies listed in the documents as s/2006</td>
</tr>
<tr>
<td>of its origin; in accordance with this resolution, the</td>
<td>/814 and s/2006/815 unless within the 14 days of adoption of this</td>
</tr>
<tr>
<td>member states were also barred from sailing or</td>
<td>resolution, the sanction committee alters or supplements the</td>
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<tr>
<td>transferring of any type of arm in large scale and</td>
<td>provisions and inserts them in s/2006/81.</td>
</tr>
<tr>
<td>related nuclear technologies and training in this way</td>
<td>2- Only if the sanction committee allows then it can possible to</td>
</tr>
<tr>
<td>2- The ban on the sale and transfer of all of items,</td>
<td>carry out banned weaponry</td>
</tr>
<tr>
<td>materials , equipment ,goods and technologies listed</td>
<td><strong>Resolution 1929:</strong></td>
</tr>
<tr>
<td>in the documents as s/2006/814 and s/2006/815</td>
<td>1- In contrary to the previous Security</td>
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</table>
Council’s arm embargoes against Iran that have only entailed the list of UN Register of Conventional Arms, the resolution 1929 also includes surface-to-air missile systems and many other small arms and light weapons which have purely military applications;

2-all UN member states are obliged under resolution 1929 to pursue, inspect and seize the ships that are suspected to transport banned weapons to the final destination of Iran in their territories or within their jurisdictional zones like exclusive economic zone and report it immediately to 1737 sanction committee; also all member states are obliged to avoid providing in case of transgressive ships’ refuse to cooperate with coastal states, any service such as fuel, mooring or their entrance to their ports even if the crews are sinking;

3-the resolution called for UN Secretary-General to establish an eight-expert committee including military and weaponry experts which should help the 1737 sanction committee and also take necessary recommendations to Security Council and member states to adopt more effective measures including in the context of arm embargoes.

Resolution 1874:

This resolution has been considered as the last Security Council’s arm embargoes against North Korea yet. The most prominent aspects of this resolution are:

1-on the basis of this resolution, the Security Council’s arm embargoes against North Korea were developed however it didn’t entail light and small weapons although the resolution urged member states to take necessary discreet in transferring such weapons directly or indirectly.

2-The resolution called for all member states to inspect all of the cargoes to the final destination of North Korea even in high seas and if they detect and seize them, destroy them. The resolution also obliged the member states to seize North Korea’s prohibited arms and report immediately to the Security Council in the event of finding these banned weapons in their ports and airports.

3-The resolution obliged the member states to refrain from all logistic measures to assist North Korea in furthering its nuclear programme.
6.2.2: The Comparative Analysis between the Security Council’s Arms Embargoes against Iran with Iraq

The Comparative Analysis between the Security Council’s arms embargoes against Iran with Iraq is one the point that we seek to put into discussion in this passage. We refer to this point on the table 2.

<table>
<thead>
<tr>
<th>The Security Council’s Arm embargoes against Iraq</th>
<th>The Security Council’s Arm embargoes against Islamic Republic of Iran</th>
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<tbody>
<tr>
<td><strong>The Resolution 660:</strong></td>
<td><strong>The Resolution 1737:</strong></td>
</tr>
<tr>
<td>1-This resolution was not imposed due to Iraq’s nuclear weaponry programme but rather a response to the Kuwait occupying by Iraqi Baathist Party.</td>
<td>1-If the member states wanted to transfer the arms related to nuclear weapons and ballistic missile programmes, the observance of four preconditions was necessary:1-The respected weapons were not included in the Iran’s banned arm lists;2-the necessity to observance of specific guidelines;3-The Security Council sanction committee notification;4-IAEA notification</td>
</tr>
<tr>
<td>2-Since the adoption of resolution, i.e. August 6,1990, all individual entities and member states have been banned from exporting any material and items including military and weaponry export to Iraq and occupied Kuwait. Also the resolution has urged all the member states, persons and entities that had been incorporated in their territories to refrain from sending or selling any type of weapons and military goods via their territories;</td>
<td>2-Imposing travel and financial sanctions on individuals and entities associated with Iran’s nuclear and ballistic missile programme.</td>
</tr>
<tr>
<td>3-In this regard, all member states were refrained from giving any type of financial and technical assistance to the prohibited cases of weaponry and military goods.</td>
<td><strong>Resolution 1747:</strong></td>
</tr>
<tr>
<td><strong>The resolution 665:</strong></td>
<td>1-all member states were required to refrain from providing direct or indirect arm supplying and assistance in major conventional arm production and supplying to Iran including battle tanks, armored attack vehicles, large caliber artillery, combat aircrafts, combat helicopters, combat ships, some certain rockets and their projectiles which were included on the list of UN Register of Conventional Arms;</td>
</tr>
<tr>
<td>1-The Security Council implicitly adopted states’ use of force against the vessels and ships carrying arms and military goods to the final destination of Iraq and occupied Kuwait.</td>
<td>2-member states were required to avoid providing financial and technical assistance in the banned contexts in banned Iran’s weaponry and military Industries</td>
</tr>
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<td><strong>The resolution 687:</strong></td>
<td>3- the resolution called for states to take into consideration discreet and restriction in providing the arms not included in UN Register of Conventional Arms;</td>
</tr>
<tr>
<td>1-This resolution was imposed after the end of Iraqi aggression of Kuwait and the first and only Security Council’s arm embargoes against Iraq due to its WMD programmes. However, the Council emphasized the continuation of former Security Council’s arm embargoes against Iraq without adding new weapons to its arm embargo lists;</td>
<td>4-The resolution increased the list of individuals and entities related to Iran’s military and weaponry industries including providing financial loans to Iranian government in these contexts.</td>
</tr>
<tr>
<td>3-The resolution also urged Iraqi government</td>
<td></td>
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</table>
Resolution 1929:

1- in contrary to the previous Security Council’s arm embargoes against Iran that have only entailed the list of UN Register of Conventional Arms, the resolution 1929 also includes surface-to-air missile systems and many other small arms and light weapons which have purely military applications;

2-all UN member states are obliged under resolution 1929 to pursue, inspect and seize the ships that are suspected to transport banned weapons to the final destination of Iran in their territories or within their jurisdictonal zones like exclusive economic zone and report it immediately to 1737 sanction committee; also all member states are obliged to avoid providing in case of transgressed ships’ refuse to cooperate with coastal states, any service such as fuel, mooring or their entrance to their ports even if the crews are sinking;

3-the resolution called for UN Secretary-General to establish an eight-expert committee including military and weaponry experts which should help the 1737 sanction committee and also take necessary recommendations to Security Council and member states to adopt more effective measures including in the context of arm embargoes.

The Resolution 1483:

1-Resolution 1483 which adopted after the fall of Iraqi Baathist regime, emphasized on maintaining the Security Council’s former arm embargoes but it put an exception on these arm embargoes that at the request of new Iraqi government and only for the protection of borders and order maintenance, controlled weapons would be put into the hands of Iraq armed forces. This position recurred in resolution 1546.

7. CONCLUSION

One of the measures that is available to the United Nations’ Security Council to put pressure on states in order to abandon their policy at odds with international peace and security—which in fact is the Security Council five permanent states’ peace and security-, is imposing arm embargoes. From the beginning of the discussion on the effectiveness of Security Council’s arm embargoes against South Africa and South Rhodesia, there have been a lot of arguments and challenges. They focused on a variety of aspects of human rights, humanitarian law; undermine the state’s national security and arm embargoes being beyond the powers of Security Council. The current topic is a subject that has been studied by several researchers in particularly western communities. In an article subjected “The Effectiveness of the Fourth Round of Sanctions against Iran” written by Reagan Thompson, the author wants to induce his audience to believe that the Security Council sanctions against Iran have been more effective that ever been considered But at the same time, he concludes that it seems that in the banned arms by the Security Council, the Western countries couldn’t attain to their illegal objectives in imposing arm embargoes against Islamic Republic of Iran because since the arm embargoes have been imposed by the Security Council, Iranian armed forces have had the capabilities to produce and develop a majority of banned arms in Iran. In Persian, there are a lot of studies on the Security Council sanctions against Islamic Republic of Iran, but none of them have concentrated specifically on the Security Council’s arm embargoes against Iran.

The Security Council’s arm embargoes against Islamic Republic of Iran have been imposed and intensified due to Iran’s nuclear peaceful programme. Three arm embargoes in resolutions 1737, 1747 and 1929 out of six Security Council’s resolutions against Iran have been imposed relating to the Iran’s military and weaponry industries. The arm embargoes which initially included only armaments related to Iran’s nuclear...
and ballistic missile programmes, have been transformed gradually into the most primitive types of conventional weapons that are essentially unrelated to Iran’s nuclear programme. It shows that the Iran’s arm embargoes supportive states in Security Council virtually haven’t sought to resolve Iran’s artificial nuclear crisis as their claims are indicative of it but rather they have looked for a pretext for Iran’s disarm and at least its effective control of all types of weapons and paralyzing Iran’s armed forces to make Iran transformed into the submissive state as the other Middle Eastern states and in proper time, would provide appropriate grounds for Islamic Republic of Iran’s overthrowing. No doubt, because of the wise and powerful supreme leadership like Imam Khamenei, the Islamic Republic of Iran’s auspicious maps have been surely convicted to fail and Iran’s enemies have yet failed to achieve their inhuman goals. However as Imam Khamenei has emphasized on his repeated pronouncements strongly, the Iran’s enemies never miss their imical intents so the Islamic Republic of Iran’s armed forces and weaponry industries must be vigilant and observe Imam Khamenei’s orders permanently so that have the capacity to impose the most devastating loses to the invading enemies in the smallest military threat against Iran. Certainly, one cannot neglect the fact that now Iran’s armed forces and military industries have reached complete self-sufficiency in many aspects of arm research, development and production and even have carried out arm exporting to other countries.

Finally, we dare to say that Iran’s military and weaponry industries have been the only sector which could achieve resistive economy in the shadow of economic sanctions and arm embargoes and bring military economy’s growth and prosperity in Islamic Republic of Iran. So in this regard, the Security Council’s arm embargoes against Islamic Republic of Iran were a great opportunity that Iranian armed forces and military and weaponry industries could highly benefit in order to flourish its military economy.

8. CHALLENGES AND RECOMMENDATIONS IN SECURITY COUNCIL’S ARM EMBARGOES AGAINST ISLAMIC REPUBLIC OF IRAN

As the majority of experts have implied about the inefficiency of Security Council’s arm embargoes against Islamic Republic of Iran, in this part we will seek to find these inefficiency and challenges. The above challenges are the most important ones:

1-Implementing and imposing arm embargoes against Islamic Republic of Iran and other countries have made United Nations more distant from its main objective to resolve international disputes and instead degraded it to an international club of certain western states headed by the United States of America that have sought to expand their illegal colonial and exploitive ambition through Security Council (Tomuschat, 2014) The monopoly of several specific Western states possessing veto power in the Security Council’s arm embargoes against Iran have reached to the level that during the Council’s negotiation on the resolution 1737, Mr. Dumisani Kumalo, the South Africa’s representative in the United Nations and the interim head of Security Council implied that:” It seems that five permanent states having veto right, have paid much more attention than it is sufficient to take consideration for such cases for decision making about this process (arm embargoes against Iran) and the other ten members of Council have suffered greatly from this condition”(Ronen, 2010) This monopoly besides inefficiency of arm embargoes against Iran as Mohammad El-Baradei, the former head of IAEA cited, provides disputes from the beginning between the sanction’s drafters. For example in accordance with the Eurostat’s studies among the E.U’s 27 member states during the first five months of 2008, the mass of export of these countries amounted to 447 billion U.S dollars with increasing 17.8 worth than the same period of previous year (2007). At the same time, the German Stein-Gast company signed a contract worth 110 million Euros in July 2008 to develop Iran’s gas tanks.(Ilias, 2010) Because the financial resources and investment from these projects have been utilized in military and weaponry industries, it represents a hug gap between the sanction imposers. With regard to international developments such as the quadrupling of state membership in the United Nations and also changes in the global political, economic and military hegemony particularly after the Cold War, it is not possible to force independent states like Islamic Republic of Iran to accept the pleasant Western sovereignty approach that the most obvious appearance is reflected in Brazil negative vote in Security Council’s resolution 1929 voting .it means that ten years before this voting, Brazil was also a non-permanent member of Security Council during 1998-1999 and in 138 instance of U.S vetoing including in Iraq, the former Yugoslavia , it supported U.S.A whereas in resolution 1929 and other resolution voting in the new era of membership in the Security Council, Brazil adopted an independent policy despite the U.S and Zionist pressures(Sweig, Bodman and
Wolfensohn, 2011) It seems that the monopoly of several certain western states in Security Council should be lifted and it is necessary to publicize the states’ will in the United Nations’ scene by increasing the membership of Security Council or entrusting this matter to the General Assembly (Rajaie Khorasani, 1997).

2-Although, this challenge about the arm embargoes against Islamic Republic of Iran can’t be acknowledged at least now but it can be possible to say that the Security Council’s emphasizing on arm embargoes against the states that are more arm importers that exporters, is an attempt to cover up crime of Western powers exporting weapons to all of the global regions to wage bloody wars. Therefore, the pattern of imposing Security Council’s arm embargoes should be changed from concentrating on arm importer countries to exporter countries.

3-Unilateral arm embargoes against Islamic Republic of Iran especially from the United States of America is another major challenge because these arm embargoes generally have exceeded the Security Council’s ones and have provided foreign intervention and undermined the Islamic Republic of Iran’s security and sovereignty. This has caused also the ground for the inefficiency of Security Council’s arm embargoes against Islamic Republic of Iran.

4-During the Geneva negotiations ,the 5+1 has never been willing to resolve the artificial Iran’s nuclear crisis by win-win negotiation but rather it has sought to a win-lose negotiation on behalf of itself and this is not the case despite the presence of a wise and excellent supreme leadership like Imam Khamenei. This has also been addressed in recent report of U.S congressional research service:”’ sever sanctions against Iran that their main objective is Iranian energy sector and its capability to access to the international financial system have not reached the level that makes Iranian leaders to compromise with the international community on its nuclear programme’.’”This has caused that in 2013, a group of senior American officials and experts demanded changes in international sanction approaches to Islamic Republic of Iran unilaterally and through Security Council because they believed the imbalance between Security Council sanctions and diplomacy and unilateralism (win-lose game) which had led to the inverse results of primary purposes of international sanctions (including arm embargoes) against Islamic Republic of Iran. Also they suggested that to avoid this unilateralism ,the Obama administration should stop its secret plan to attack Iran particularly through cyber-attacks on Iran’s nuclear facilities and efforts to overthrow Islamic Republic of Iran. It is the Imam Khamenei’s wisdom and prudence that the Western states have been forced to be committed to lift the Security Council’s arm embargoes while acknowledging Iran’s nuclear rights although on the limited size, in the Geneva interim agreement between Iran and 5+1(Haass and Indyk, 2009) Of course, Security Council arm embargoes haven’t been listed on lifting the sanctions in this agreement because the parties only if reach the permanent fixture, can lift the Security Council’ arm embargoes against Islamic Republic of Iran.

1 Katzman, Kenneth, ‘’ Iran Sanctions’’, United States’ Congressional Research Service, June 26, 2014,p5.also can be found on the following link: http://fas.org/sgp/crs/mideast/RS20871.pdf
REFERENCES:

Blamby, Alex G (2007), "The Safe Societies and neighbors" translated into Persian by Mahmoud Yazdan Fam, Tehran, Centre for Strategic Center. (In Persian)


Brecher, Michael, (2003), "the Crisis in global policy: The Rise and Fall of Crisis" translated into Persian by Mir Fardin Quraishi, Tehran, Centre for Strategic Center. (In Persian)


General Assembly’s Resolution(A/Res/55/2) on” United Nations Millennium Declaration” adopted on 8 September 2000.also can be found on the following link: http://www.un.org/millennium/declaration/ares552e.htm

Gibson, Bryan R., (2010),", Covert Relationship: American Foreign Policy, Intelligence, and the Iran. Praeger publisher


Goforth, Sean," xis of Unity: Venezuela, Iran & the Threat to America Potomac Books Inc. (December 2011),p34.
Haass, Richard N.; Indyk, Martin S.,(2009)”” Restoring the Balance: A Middle East Strategy for the Next President””, Brookings Institution Press,


http://www.armscontrol.org/factsheets/Security-Council-Resolutions-on-Iran, UN Security Council Resolutions on Iran,p3

http://www.wikileaks.org/plusd/cables/09STATE130917_a.html, Malaysian-Based Iranian front company seeks to purchase export-controlled gyroscopes from Chinese firm


http://theaviationist.com/2013/09/26/farouk-missile/,p1

http://theaviationist.com/category/captured-stealth-drone/,P3

https://medium.com/war-is-boring/did-iran-reverse-engineer-a-secret-u-s-drone-ed9dd24dffa8,p4

http://fa.alalam.ir/news/346004,p1

http://www.reuters.com/article/2014/06/28/us-iran-sanctions-un-idUSKBN 0F3 00 H 20140628


http://theaviationist.com/2013/09/26/farouk-missile/,p1

http://theaviationist.com/category/captured-stealth-drone/,P3

https://medium.com/war-is-boring/did-iran-reverse-engineer-a-secret-u-s-drone-ed9dd24dffa8,p4


http://www.un.org/millennium/declaration/ares552e.htm


http://nationalinterest.org/commentary/are-sanctions-fatwa-iran-6363 Are Sanctions a Fatwa on Iran?

http://en.wikipedia.org/wiki/Arms_embargo

http://www.reuters.com/article/2014/06/28/us-iran-sanctions-un-idUSKBN 0F3 00 H 20 140628

Hume, Cameron R,(1994)”” The United Nations, Iran, and Iraq: How Peacemaking Changed””, Indiana University Press;


Khor, Cook Pang (2005), "Globalization and South”, translated into Persian by Ahmad Saai, Tehran, Qoomes. (In Persian)


Lieblich, Eliav,(2013) ” International Law and Civil Wars: Intervention and Consent”, Routledge,


Raustiala, K., (2000), ”Sovereignty and Multilateralism, 1 Chicago Journal of International Law, pp 398- 421


Report of the Security Council (1 August 2006-31 July 2007),

Robertson, Jeffery (2004), ”The Crimes against Humanity ‘translated into Persian by the Islamic Razavi Sciences University, Mashhad, The Islamic Razavi Sciences University Publishing. (In Persian)
Rogers, Anthony and Mallreb, Paul (2003), "Armed Conflicts’ Practical Rules”, translated into Persian by national committee on Red Cross, Tehran, Amir Kabir Publishing. (In Persian)

Ronen, Yaël, (2010) " The Iran Nuclear Issue”, Hart,


Staibano, Carina; Wallensteen, Peter ;(2005)” International Sanctions: Between Wars and Words”, Routledge; New Ed edition

Stockholm International Peace Research Institute, Armaments, Disarmament and International Security 2008,


United Nations Security Council Resolution 1737 Adopted by the Security Council at its 5612th meeting, on 23 December 2006


Wehrey Frederic et all, (2010)’” The Iraq Effect: The Middle East After the Iraq War”, RAND Corporation,

Wallenste, Peter, (2008), ” Save the Arms Embargo”, The Joan B Kroc Institute for International Peace Studies’ Policy Brief, University of Nortdom, No.14,


Zahrani,Mostafa,(Winter 2010),”’The Sanction against Islamic Republic of Iran: the War Alternative or the Principal Constituent of deterrence ‘”,Foreign Policy Quarterly, volume 8,pp47-78.(In Persian)

Zahrani,Mostafa and Doolat Khah,Zahra(Summer 2009),”’The Comparison between imposed Sanctions against Iran and North Korea in Security Council, Rahbord Quarterly, volume 55,pp 143-144. (In Persian)
How to Publish Research Results Relating to the Pollution of the Caspian Sea Through Mass-Circulation Newspapers

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ABSTRACT: In today's world, mass media plays a great role to convey information, new knowledge and exchanging thoughts and ideas on the development of human culture and civilization. Nowadays the mass-circulation newspapers have a great importance in increasing awareness and understanding of societies due to the wide distribution at the national level, reasonable price, quick and being up-to-date compared to other media. This study has attempted to evaluate the quantitative and qualitative comparison of the published results of research related to the pollution of the Caspian Sea through Iran and jam–jam newspapers in the 2010 to 2012. Caspian Sea is a sea of opportunities and challenges, and its role in shaping the ecological landscape of its surrounding lands for several decades has been identified due to human environmental hazards that threaten the planet. In this research data have been analyzed qualitatively (commentary) and on the basis of available documents in mass-circulation newspapers like jam and Iran. The results indicate that emissions related to the Caspian Sea during the coverage of the two mentioned papers were different, the reported style is also different as the highest frequency in the Iran and Jam newspaper related to pollution in the Caspian Sea in the news was 65/07% and 91/37% and the lowest frequency in an interview part was 7/09% and 3/44%. This indicates that the Iran newspaper has better performance than Jam-e–Jam, especially in its news about showing Pollution in the Caspian Sea.

KEYWORDS: Mass Media, Iran and Jam-e-Jam Newspapers, Pollution Of The Caspian Sea.

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1. INTRODUCTION

The Caspian Sea is a sea of opportunities and challenges, and its role has been identified and investigated in shaping ecological appearance of its surrounding landscape, in the last few decades considering hazards which have threaten the environment of the planet. Although all waters and other areas of the world are one ecological unit but due to historical circumstances and geographical location, Caspian Sea is an ecological unit in addition to the two above-mentioned functions (Fazeli, 2011).

A new theory of international law in the international community is emerging about the environment that it is the concept of "shared environment", that shows earth is the inseparable environment that all the elements are correlated and damages to the environment and the responsibility of government are not exclusively confined to the national borders and territorial sovereignty. Collapse of the Soviet Union and the emergence of new littoral states on the Caspian Sea caused the pollution of Caspian Sea by various pollutants. Susceptibility of the Caspian environment, depending on the enclosed environment and accumulation of various pollutants, faced the Caspian Sea with ecological crisis. After the collapse of the Soviet Union, as evidence showed the distant future, Acceleration of some coastal states to stop the economic exploitation of the sea caused variety of marine life and migratory birds will be threatened with extinction and the Caspian Sea will be destroyed. Deterioration and extinction of aquatic animals were found in the Caspian Sea since 1990, which Has attracted the international attention the environmental protection and the prevention of these problems and damages to coastal ecosystems (Arpanahi, 2007). Recognition of emission factors affecting the marine environment is the valuable and essential first step towards improving and restoring the ecosystem. External factors affecting marine environment, are including human sewage, industrial effluents, fertilizers and pesticides. The affecting factors about marine environment are including exploration and exploitation of oil resources in the Caspian Sea, maritime transport and fishing activities. Due to the value of the marine environment and its associated problems some opportunities can be created and improved which are necessary to learn the values, attitudes and skills for protecting the marine environment to increase the public awareness and curiosity about the marine environment to provide their active participation in solving environmental problems in marine (Dhimaen, 2003).

In today’s world, with the advancement of technology people are being bombarded with messages every day, in general communication, communicating with any person particularly, it means sending message to a group of people is one of the most popular ways for communicating. today the media has some differences in terms of form and content and have created the appropriate ways to communicate this method, mass communication has been undergone by rapid transformation with the development of digital technology and the rapid transformation, but still the public communication media has a special place, due to the success of media relations directly affect the success of human relationships (Motamed nejat, 2013). Among the written mass media such as newspaper as one of the major institutions of society with the influence on The thinking and ideas and other aspects of human life and by creating social and political reality for the people, despite the development of electronic information and communications technologies, newspaper is one of the most important communication media in today's world that continue to raise the awareness of society. Newspapers are capable of covering a wide range of people from their information just because of some items such as cheapness, abundant, accurate quotes, news, brevity and simplicity, variety of content and language and because of the acceptance by the people, it can be a good activity for transferring the knowledge into the minds of the people and restoration and correction relations and available conditions in the community. Informing people of the latest events inside and outside the country that caused to contributes to coordination, consultation and cooperation between the government and people about considering the common position is to protect national interests and beliefs. Raising the awareness of population in terms of political, social, economic, scientific, literary, theological, historical, and ecological relationships between people and set the correct behavior can be the main tasks of media. The data from this media type is more stable visual media, such as radio and television audio. "Rahmani" believes that functions of the newspaper are providing informational, predicative and analytical needs of public which accelerates
information flow in society and increase the awareness of the people about problems of our society and finally leads to the changes in social, cultural, political and social environment. Look deeper into what happened in the past decades in the field of environment; In particular Agenda 21 that was named "the twenty one century to protect the environment", reveals the Critical importance of media in education, and of course some of these opportunities (Ramezani, 2012).

Considering the above, the purpose of this study is dissemination the results of research on the pollution of the Caspian Sea through numerous newspapers (Iran and jam) in the 89 to 91 in three sections (news, interview, essay questions). Newspapers in various forms, particularly the cover and recurring theme through the headlines and photographs can highlight events and issues of interest including environmental issues related to pollution of the Caspian Sea and shape the knowledge and understanding of the people about the events of the world. By investigating Iran and Jam e Jam newspapers we attempted to answer the following questions:

1) How is the frequency of News of newspaper "Iran and Jam e Jam" about pollution in the Caspian Sea”?
2) Which one of the above papers reflected the event's environmental performance and greater role?
3) How were the notes and analysis of the main newspapers in three sections (news, articles and interviews)?
4) How was the direction of newspapers about subjects? (Positive and negative)

2. LITERATURE REVIEW

According to research and studies, Bigdelli and Farashbandi (2006) began to study the comparative quantitative comparison of the two main components involved in political information with using the method of content analysis and citation analysis in national newspaper Aftab-e Yazd and keyhan in July 2006. Results showed that both newspaper Aftab-e Yazd and kyhan have different types of coverage, scope and subject matter, sources cited, according to news persons, the quantity of political information and its distribution are different on weekdays. Aftab-e Yazd focuses more on domestic issues and criticizing the government's plan while keyhan focuses on the foreign policy of Iran, and other countries (Bigdeli, 2006).

Malek Afzali and colleagues (2009) began to assess the related health research findings published in widely circulated newspapers in 2005, In this study, 696 were evaluated health-related articles that A quarter of them were research articles. The average number of articles in per prescription was 8.3. Source of most of these articles are journalists and national news agencies. Most of these articles were in science and technology and more than 70% of the articles in the news and in more than 50% by presenting health information they have provided people’s safeguard and enhance public health and 70% of research papers have been implemented in developed countries and population comprised most of the audience (Malek Afzali, 2009). Baraei (2010) has assessed the environmental challenges and solutions of Caspian Sea, the results showed that Caspian Seas because of being closed is located at greater risk than the other Seas. And Oil expanded activities has been enhanced after the collapse of the Soviet Union. Chemical and petroleum contaminants play an important role about the pollution of the sea. Various environmental factors have been threaten Caspian Sea region that somehow each of them can cause erosion that eventually exploit of the sea are taken away from everyone or make it expensive. Oil pollution in the Caspian Sea, pollution from land-based sources, and ... are major sources of marine pollution (Baraee, 2010).

Whitley (2001) in collaboration with the University of Essex analyzed the eight popular newspapers of Great Britain in the period May to June 2001, to examine changes in the electoral behavior of Great Britain. Their way was sectional and it was through direct referral to resources that were extracted and examined 2643 articles, editorials and notes relating to the election of Great Britain's newspapers, this survey showed that ecological factors, dependence upon society and minority groups living in areas related to Great Britain (including Scotland and Northern Ireland) were effective in electoral behavior and choices by individuals as well as publishing reviewed papers (Whitley, 2001).

Aziz Abasi et al (2010) in research on oil pollution, studied the level of weathering, biodegradation of hydrocarbons in the sediments of Caspian Sea in the province of Golestan and Mazandaran, the results showed that concentrations of petroleum hydrocarbons condition and Aromatic hydrocarbons (n-Alkanes) normal alkanes, (TPH) indicate the contamination of surface sediments in the east and (PAHs) Polycyclic low-to-moderate infections of the central and western parts of the study's area. Developed Criteria
investigation in the region in relation to the degradation of hydrocarbons indicates remnants of weathered oil existence, high bio-degradable and stale observed hydrocarbon, in the majority of studies this is evidence of the former and ancient sources of these pollutants in the above area (Abasi, 2010).

3. THEORETICAL FRAMEWORK

The Caspian Sea is the largest closed world's body of water. 126 species and subspecies of fish live in the Caspian Sea and Caspian seal is the only marine mammals in the region. The main source of pollution in the north Caspian is the industrial and urban waste streams that contain lots of Wolgast. In addition, there are several natural springs in the South Caspian oil that are estimated one million tons of oil products accede to the sea which resulted in several districts severely sediments contaminated by petroleum hydrocarbons. Phytoplankton diversity has declined in most parts of the Caspian Sea. Large patches of oil on the sea and thousands of hectares of soil contaminated by oil leaking from abandoned wells are the only part of the Caspian Sea, which must stand with contaminants. In addition there is large non-homebred Pollution from various industries; especially the chemical industry, mining, agriculture and household waste. These Pollution have the negative effects of oil pollution, serious impacts on human welfare and wildlife area. The type and severity of infection should be selected from the analysis of data acquired. These data provide evidence of accumulation of pollutants. According to the recent research, due to failure to comply with environmental standards each year about 150 to 200 tons of oil pours into the sea during the offshore exploration of oil reserves, the Caspian littoral states. According to experts, despite the fact that Iran has no role in oil contamination, turning of the Caspian Sea leads to contamination transfer to the Iran coast (Kazemi, 2007).

3.1. Definition and Classification of Pollutants

Pollution means transferring of substances or energy into the environment by humans directly or indirectly that bring harmful effects for marine environment by creating a risk to biological resources, human health risk, barriers related to marine activities including fishing, sea water and reduce the damage caused by the use of recreational resources (Khayat, 2013).

Focus of infection can be categorized in two groups:

1) Infection with a specific source is a kind of pollution which its origin is traceable and preventable, such as disposal materials from factories (industrial effluents).

2) Another form of contamination is unknown contamination source that the origin of it is being scattered and tracking and controlling this type of pollution is difficult, such as agricultural runoff.

3) Pollution from land-based sources

This kind of pollution is because of urban, agricultural and industrial resources which are fixed or mobile and their waste reaches the marine environment through groundwater and surface water or air, and offshore resources is including fixed or mobile installations that their activities are causing marine pollution. There are many coastal urban centers that untreated wastewater discharged into the sea and it is causing various infections, these centers have often identified contamination. Pollution from land based sources are including wastewater treatment plants, industrial wastewater rich mines of lead, barium, lead zinc beneficiation plant, as well; Elite barite factories, water and waste heat power plants, desalination plant waste, agricultural waste and pesticides which have entered the sea via rivers, livestock waste, Urban and domestic effluents (Maderfaresh, 2007).

Knowing the emissions factors affecting the marine environment is essential and valuable in the first step toward recovery of an ecosystem. External factors affecting the offshore marine environment are including human sewage, industrial effluents, fertilizers and pesticides. the most important factors are exploration and exploitation of oil resources in the Caspian Sea, maritime transport and fishing activities on the marine environment. Environmental protection, protection of the environment, both natural and human emissions is required to detect and identify contaminants and sources that can be harnessed impacts and solutions. so The August 12 called on the Caspian Sea world. Although the convention on the conservation of the environment of the Caspian Sea (Tehran convention) was adopted by five neighboring and they are obliged to comply
with its provisions but the spread of contamination determined that states parties do not perform this convention. In areas such as the Caspian Sea, in which the economic benefits are achieved through natural and mineral resources, environmental protection process has a low priority and we should prevent the loss of this great source of divine and animal species by expansion of research on the sea and its biological and ecological issues (Nazari, 2009).

Figure 1. Contaminated parts of the Caspian Sea

certainly Pollution control measures are not always base on a rational basis, sometimes the corrective action has been done before knowing it is harmful or beneficial and now public attention is aroused and may persist on the issue that should be done to reform, and industry or government had to accept it, unless the activities are seen just as active, such activities may be safe, but they are expensive and it is the waste of resources that could be used for other purposes. Otherwise irrational pollution control efforts may be counterproductive awareness of the risk of marine pollution creates this insight that nothing should be discharged into the sea. But this is not the only solution and just transfers the problem of waste disposal. Great care should be taken for ensuring about solving a problem that it does not create other worse environmental problems. If waste disposal is done in accordance with the consideration of environmental significance, it is necessary to determine the proper discharge of waste that is resulting in minimal environmental damage; some of these methods include efforts to control the pollution of the sea. The most obvious effective method to control the pollution and conservation of the marine environment in seas is media. Since most of the people pay attention to mass media public and they spent some of their time to read, see or hear the reflected news and information; so, media and mass communication is the fastest, safest, best available and most influential tool for environmental protection, culture, education and enlightening the public. Media can be one of the most important strategies for environmental protection and it plays an important role in culture and institutionalizing a culture of preservation of the marine environment act. Due to communication devices and enhanced communications more and more importance of mass media has been seen in human life every day. More information means more power especially in the field of ecology problems, so people need to survive more information. Mass media as the pervasive media can have effective function in teaching and conveying information, behavior patterns and environmental preservation. These results support the theory of "Charles Vlasvl 1" they believed that the media can have a function of 1) environmental monitoring which refers to collecting and distributing information about the events surrounding environment, both inside and outside a particular community. This is somewhat like what is generally considered as the management and conducting the news. 2) Environmental correlation here involves interpreting information and advice on how to behave in response to these events. To some extent this activity is known as editing or political advertising and also a social heritage transmitted from generation to generation: Lasswell says "culture transmission depends on transferring of knowledge, values and social norms from one generation to another or from one group to the newcomers’. This is generally known as an educational activity. Wright added entertainment to these three functional categories which refers to communicative acts performed for entertainment and recreation (Severin, 2003).
About the impact of media, Mac Kvayl (2009) believed that deliberately or inadvertently media may cause changes, cause the formal change, facilitate change and does not change or change the barrier (MAC Kvayl, 2009).

Media has the ability to understand the movement of people and society to society. Media will help to create a social consensus with reducing the complexity of communication between people, Authorities and people to people. As Luhmann says, creating social consensus requires reduction of complexity and diversity restriction (Lazar, 2001).

When we speak about media communication it means that any relationship with organizations and individuals that are acting as that agency and tools that are needed to inform. For someone who works in the field of human relations any relationship that is created by the media is an ideal opportunity. So now newspapers and other publications are positive way to communicate the media than other people if we look at this issue in reverse any mistake in the relationship with the press will cause irreparable harm. Press is a media that print every day and it is available to the audience. Newspapers have devoted more than any other media the time of people to themselves and have an extraordinary ability to maintain the stability or otherwise of changes dominant values of society, and therefore, individuals and groups choose the written media for promoting the intellectual and social thought, their personal and collective ideas and values, to achieve their goal; press know that whatever comes to writing and the audience have them in the high number, become more sustainable. Newspapers are capable just because of cheapness, abundant, accurate quotes, news, brevity and simplicity, variety of content and language. It covers a wide range of information society and because of acceptance by people can be a good method for knowledge transfer and restoration of the mind and can correct existing customer relationships in society. However, this popularity was due initially to two causes: first, newspapers in those days were the only mass media in the country, which transfer the accurate news of the interior and foreign affairs. Although due to the poor condition of transport, these papers in some areas have a delay with several days and sometimes several weeks to reach readers, yet this led to a major advance in speed and accuracy of broadcasting. The other reason for acceptance of the newspapers were simple psychological literature that understanding its contents may be made easy by those less educated or even illiterate. Illiterates who were the majority of our people were informed in this way newspapers’ information that literate people gathered in the center of the coffee shops and they read the news thus, both literate and illiterate understood the provisions of newspaper. The role of the press was fixed as a useful medium, abundant and cheap, with the rise of social and political consciousness of the people, and increase the willingness of people to read newspapers institution. If you know the coordinated and unified presence in the political and social scene as a sign of high culture and national consciousness and political awareness, then we can say that this particular press has the direct relation to freedom, diversity, number and even circulation of the newspapers. Newspapers since the beginning have the important and effective role in the occurrence of major developments and public.

4. METHODOLOGY

The study was a cross-sectional study and the library method has been used. Data collection was carried out with using direct reference sources.

4.1. Statistical Methods

In this study statistical methods have been used (for abundance and distribution).

4.2. The Study Population

The population of the study of Jam-e Jam and Iran newspapers was selected for distribution in the country and the number of readers. These newspapers were examined 286 numbers of Jam-e Jam newspapers and 284 numbers of Iran newspapers in the years 2010 to 2012.

First of all notes were taken from the information contained in the surveyed papers. The results were analyzed using SPSS software. For this study, information like release date, report style (such as news reports, interviews and articles), content insertion page have been inserted.

The independent variables consist of Iran newspaper and Jam-e Jam newspaper and dependent variable is the content associated with pollution in the Caspian Sea. News reporting and news mean a report on current
events which is adjusted according to the conventional manner. Interviews and report mean various content that are set free from the form of news and are followed with descriptions and dialogue. The article is a note based on the analysis and interpretation of a particular subject and expresses the opinion of the author.

5. RESULTS

The results are presented in tables and graphs, to compare the dissemination of research results related to the pollution of the Caspian Sea through numerous newspapers (Iran- Jam-e Jam) in 2010 to 2012 over three years. Results indicate that Jam-e Jam newspaper 63 article and Iran newspapers 58 article have been published about pollution in the Caspian Sea. In 2012 both of the newspapers presented the same data about pollution in the Caspian Sea (see above). Pollution in the Caspian Sea have reflected more news in 2011 the proportion of daily Jam-e Jam newspaper. In 2010, the Jam-e Jam newspaper had further reflection than Iran newspaper about the Caspian Sea pollution. The following tables show the available research on pollution in the Caspian Sea through numerous newspapers (Iran and Jam-e Jam) in years 2010 to 2012.

Table 1: Performance of Jam-e Jam newspaper in 2010 in three categories of newspaper article and interviews

<table>
<thead>
<tr>
<th>The Jam-e Jam newspaper in the news in 2010</th>
<th>Mar</th>
<th>Feb</th>
<th>Jan</th>
<th>Des</th>
<th>Nov</th>
<th>Oct</th>
<th>Sep</th>
<th>Aug</th>
<th>Jul</th>
<th>Jun</th>
<th>May</th>
<th>Apr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>14</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
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<tr>
<td>month</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>Caspian Sea</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Jam-e Jam newspaper in the article 2010</th>
<th>Mar</th>
<th>Feb</th>
<th>Jan</th>
<th>Des</th>
<th>Nov</th>
<th>Oct</th>
<th>Sep</th>
<th>Aug</th>
<th>Jul</th>
<th>Jun</th>
<th>May</th>
<th>Apr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>month</td>
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<td></td>
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<tr>
<td>Caspian Sea</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Jam-e Jam newspaper in the interview in 2010</th>
<th>Mar</th>
<th>Feb</th>
<th>Jan</th>
<th>Des</th>
<th>Nov</th>
<th>Oct</th>
<th>Sep</th>
<th>Aug</th>
<th>Jul</th>
<th>Jun</th>
<th>May</th>
<th>Apr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>month</td>
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</tr>
<tr>
<td>Caspian Sea</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Most articles published in Jam-e Jam newspaper in the news in 2010 were in August, and about article were in April, September, October, November, January, February and about interview were in September, Figure 1 shows the maximum and minimum daily performance of Jam-e Jam newspaper in three sections (news, article and interviews) in the Caspian Sea pollution in 2010.

Figure 1: shows the maximum and minimum daily performance of jam-e- jam in 2010 in three sections (news, articles and interviews)
Table 2: Performance of Jam-e Jam newspaper in 2011

<table>
<thead>
<tr>
<th></th>
<th>Mar</th>
<th>Feb</th>
<th>Jan</th>
<th>Des</th>
<th>Nov</th>
<th>Oct</th>
<th>Sep</th>
<th>Aug</th>
<th>Jul</th>
<th>Jun</th>
<th>May</th>
<th>Apr</th>
<th>month</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Jam-e Jam newspaper in the news in 2011</strong></td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>Caspian Sea</td>
</tr>
<tr>
<td><strong>The Jam-e Jam newspaper in the article 2011</strong></td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>The Jam-e Jam newspaper in the interview in 2011</strong></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Caspian Sea</td>
</tr>
</tbody>
</table>

Most articles published in Jam-e Jam newspaper in the news in 2011 were in May, and about article were in April, May and August and about interview were in November. Figure 2 shows the maximum and minimum daily performance of Jam-e Jam newspaper in three sections (news, article and interviews) in the Caspian Sea pollution in 2011.

![Figure 2](image)

Figure 2: shows the maximum and minimum daily performance of jam-e-jam in 2011 in three sections (news, articles and interviews)

Table 3: Performance of Jam-e Jam newspaper in 2012

<table>
<thead>
<tr>
<th></th>
<th>Mar</th>
<th>Feb</th>
<th>Jan</th>
<th>Dec</th>
<th>Nov</th>
<th>Oct</th>
<th>Sep</th>
<th>Aug</th>
<th>Jul</th>
<th>Jun</th>
<th>May</th>
<th>Apr</th>
<th>month</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Jam-e Jam newspaper in the news in 2012</strong></td>
<td>16</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>The Jam-e Jam newspaper in the article 2012</strong></td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>
Most articles published in Jam-e Jam newspaper in the news in 2012 were in January and about article were in May and about interview were in April and December. Figure 3 shows the maximum and minimum daily performance of Jam-e Jam newspaper in three sections (news, article and interviews) in the Caspian Sea pollution in 2012.

![Graph showing performance](image)

Figure 3: shows the maximum and minimum daily performance in jam-e-jam in 2012 in three sections (news, articles and interviews)

### Table 4: Performance of Iran newspaper in 2010

<table>
<thead>
<tr>
<th>The Jam-e Jam newspaper in the interview in 2012</th>
<th>Caspian Sea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Mar</td>
</tr>
<tr>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Most articles published in Iran newspaper in the news in 2010 were in June and August and about article were in April and about interview were in April. Figure 4 shows the maximum and minimum daily performance of Iran newspaper in three sections (news, article and interviews) in the Caspian Sea pollution in 2010.

<table>
<thead>
<tr>
<th>The Iran newspaper in the news in 2010</th>
<th>Caspian Sea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Mar</td>
</tr>
<tr>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Iran newspaper in the article 2010</th>
<th>Caspian Sea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Mar</td>
</tr>
<tr>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Iran newspaper in the interview in 2010</th>
<th>Caspian Sea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Mar</td>
</tr>
<tr>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Figure 4 shows the maximum and minimum daily yield of 2012 in the three sections (news, articles and interviews).

Table 5: Performance of Iran newspaper in 2011

<table>
<thead>
<tr>
<th>The Iran newspaper in the news in 2011</th>
<th>month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Mar</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Iran newspaper in the article 2011</th>
<th>month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Mar</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Iran newspaper in the interview in 2011</th>
<th>month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Mar</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Most articles published in Iran newspaper in the news in 2011 were in August and about article were in August and March and about interview were in February. Figure 5 shows the maximum and minimum daily performance of Iran newspaper in three sections (news, article and interviews) in the Caspian Sea pollution in 2011.
Figure 5 shows the maximum and minimum daily yield of 2011 in the three sections (news, articles and interview).

Table 6: Performance of Iran newspaper in 2011

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Mar</th>
<th>Feb</th>
<th>Jan</th>
<th>Dec</th>
<th>Nov</th>
<th>Oct</th>
<th>Sep</th>
<th>Aug</th>
<th>Jul</th>
<th>Jun</th>
<th>May</th>
<th>Apr</th>
<th>month</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Iran newspaper in the news in 2012</td>
<td>27</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>Caspian Sea</td>
</tr>
<tr>
<td>The Iran newspaper in the article 2012</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Caspian Sea</td>
</tr>
<tr>
<td>The Iran newspaper in the interview in 2012</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Caspian Sea</td>
</tr>
</tbody>
</table>

Most articles published in Iran newspaper in the news in 2011 were in September and about article and interview we do not have any information. Figure 6 shows the maximum and minimum daily performance of Iran newspaper in three sections (news, article and interviews) in the Caspian Sea pollution in 2011.
Figure 6: shows the performance of daily maximum and minimum of 2011 in three sections (news, articles and interviews)

Table 7: The number and frequency content of the Iran and Jam-e Jam newspaper

<table>
<thead>
<tr>
<th>Jam-e Jam newspaper</th>
<th>Iran newspaper</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Caspian Sea</strong></td>
<td><strong>Caspian Sea</strong></td>
</tr>
<tr>
<td>Abundance</td>
<td>Number</td>
</tr>
<tr>
<td>65.07%</td>
<td>41</td>
</tr>
<tr>
<td>07.9%</td>
<td>5</td>
</tr>
<tr>
<td>26.9%</td>
<td>17</td>
</tr>
<tr>
<td>100%</td>
<td>63</td>
</tr>
</tbody>
</table>

Contamination of the Caspian Sea was contained in the pages such as society, country, community, conversation and last page of Jam-e Jam newspaper and in Iran newspaper is contained in the pages such as the social pages, Persia, Home, biosphere, community, and social events. In Jam-e Jam newspaper 5/61% of the contents were in the Iran page and in Iran newspaper 38% of the contents were in social page and 23/8% of the contents were in Biosphere page.

Table 8: the way of inclusion of pollution in the Caspian Sea in Jam-e Jam newspaper pages

<table>
<thead>
<tr>
<th>Caspian Sea</th>
<th>Capian Sea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abundance</td>
<td>Number</td>
</tr>
<tr>
<td>65.07%</td>
<td>41</td>
</tr>
<tr>
<td>07.9%</td>
<td>5</td>
</tr>
<tr>
<td>26.9%</td>
<td>17</td>
</tr>
<tr>
<td>100%</td>
<td>63</td>
</tr>
</tbody>
</table>

Table 9: the way of inclusion of pollution in the Caspian Sea in Iran newspaper pages

<table>
<thead>
<tr>
<th>Caspian Sea</th>
<th>Capian Sea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abundance</td>
<td>Number</td>
</tr>
<tr>
<td>91.37%</td>
<td>54</td>
</tr>
<tr>
<td>3.44%</td>
<td>2</td>
</tr>
<tr>
<td>5.17%</td>
<td>2</td>
</tr>
<tr>
<td>100%</td>
<td>58</td>
</tr>
</tbody>
</table>
5. CONCLUSIONS

Several environmental factors have been targeted Caspian Sea, each of them could cause erosion that the utilization of marine resources will be taken away from all or make them so expensive. Some of these factors are related and lead to some steps that finally, it can interfere to the purposes and interests of the countries in this field and prevent their realization.

Humans have constituted a small part of world history, but it has the great and immediate threat to the Caspian ecosystem. Nature can defend itself against a certain level of contamination. But environmental disaster begins when human activity increases the rate of infection and at the same time prevents the natural cleansing processes. The positive reaction was shown with Reflection in the 60s with the news media and the public on environmental degradation, and the environmental movement was established. On the other hand, the relationship between law and the media is not hidden from anyone. Environmental experts pay attention to the positive and negative effects of these policies either in long or short term because the environment is important and related to the today's society’s modern activities and so because of this, they are discussed and considered. Modern democracies law and the media significantly act as two important structural elements in the past thirty years, Environmental analysis has become essential to form domestic policies and international states and environmental analysts are analysing complexities and changes of the world. They are trying to achieve environmental sustainability with the media to discuss the law and its long-term goal. In any case, the sensitivity of public opinion may be raised by the media. Due to the huge impact that the media has in the information age and direct effect on public opinion, environmental experts are trying to focus the attention of the media, especially the newspapers to the environment. It seems that media's analysis of environment plays a vital role in environmental governance; therefore, the most rational thing to do is that for the maintenance of national resources more attention should be paid to the media. Undoubtedly, due to several limitations of governments to safeguard the various components of the environment (soil, water, air, forests, grasslands, wildlife flora, fauna, wildlife, aquatic) and in last years, various media and NGO, helped the government in order to keep their resources and prevent further damage. The Caspian Sea is a sea of opportunities and challenges. Knowing emission factors affecting the marine environment is the first essential and valuable step toward recovery of an ecosystem. 130 rivers water is poured into the Caspian Sea and pollutes water of the Caspian Sea, which are the largest source of pollution. Uncontrolled sand harvesting and pollution from domestic, urban and industrial sewage are two important factors in degrading river basin of the Caspian Sea. Annually, 122,350 tons of oil pollution, 304 tons of cadmium and 34 tons of plumb enter into the Caspian Sea. Most oil pollution of the sea creates by northern neighbours that due to slope of the Caspian pollution comes towards Iran. Consumption management of toxins and use of biological control methods and consolidated Management of pesticides, weeds and diseases caused achievement of an important step towards sustainable agriculture and consequently drastic reduction of environmental pollution, especially water harvesting for agricultural farms. However, implementation of management to protect rivers and amendments dealing with caviar smugglers, are some strategies for solving problems in the department. In the framework of the annual meeting of five Caspian neighbours agreements were signed based on the principle of exploiting sea resources (sea-bed resources) and some protocols were defined and implemented for monitoring and evaluating the adherence of members. The purpose of this study was to evaluate and compare the quality and quantity of published material relating to the pollution of the Caspian Sea by Jam-e Jam newspaper from 2010 to 2012. The results of this study suggest that the coverage of the two newspapers was different about emissions related to the Caspian Sea and also the some
differences can be seen in the style of reporting that the maximum frequency recorded in Jam-e Jam and Iran newspapers about pollution of the Caspian Sea was 65/07% and 91/37% in the News and the lowest frequency was 7.9% and 3/44% in the interview. This indicates that Iran newspaper had better performance than Jam-e Jam newspaper especially in the news part, about pollution in the Caspian Sea that reflects the relatively positive performance of presented papers. Results show that both newspapers do not pay the suitable attention about pollution in the Caspian Sea, the results of this study that conducted by Bigdelli and Farashbandi (2006) and Baraee (2010) are somewhat compatible. It seems that Journalists and media analysts should be aware of environmental information; this can be useful with starting of classes, workshops with the help of university professors and enlighten reporters. Generally journalists need to have the necessary motivations to work in specific areas. Regardless of the issues and problems that journalists face with, the main motivation in this case is knowledge of the mission and role of environmental reporter or analyst to maintain health and enhance people's quality of life in the media. In the other words if this group be aware of the importance and sensitivity of his work in the society, the greatest incentive to move towards the preservation of the environment will be created. Creating a communication mechanism between the producers and consumers of knowledge by the media and prioritizing the environment and pollution especially seas are some strategies that can solve this problem to some extent.
REFERENCES:


Khaniki, Hadi., (2007), mass culture and new media in Tehran, news program, Wednesday, Persian date Khordad 21 93. (In Persian)


Fazeli, Mahmoud .(2011). The impact of environmental pollutants on basin of the Caspian Sea, Fifth National Congress of the environmental crisis and improvement . Islamic Azad University ,Science and Research Branch, Khoozetan. (In Persian)

Kazemi, Mohammad. (2007), biological resources of the Caspian Sea Convention Environment, Central Eurasia Studies, Center for International Studies, Faculty of Law and Political Science, First, No. 1, Winter and Spring. (In Persian)


Modarfash, Mohammad Taqi (2007), pesticide residues of environmental pollutants and strategy to deal with them. Journal of the green plant. No. 63.(in persian.)

Nayebi, Hooshang. and Aghaz, Mohammad hasan (2009), Culture and media, The role of media’s policies in the cultural development, Cultural Engineering Journal, Vol. III, No. 31 and 32, Mordad and Shahrivar 88. (In Persian)


