

## Sharp Raise Growth of Creating Science and Commercializing Knowledge and Technology

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### Abstract

Sharp raise growth of creating science is called edition of numerous papers that can't be commercialized in conventions and international accredit magazines and scientists called technology management of edited scientific papers in conventions and magazine, knowledge Based Wealth, if it is in line of commercializing knowledge and technology. The importance of this subject is clear when growth of creating science is in line of commercializing an idea or an innovation and provide one of the requirements of country and trans form to wealth and help universities in playing new roles.

In present paper, After reviewing relevant thematic literature and introducing triple generations of university, knowledge Based wealth and funnel of creating knowledge Based wealth or idea development to product, we have investigated the growth of scientific productions in Iran country and compared.

It with Arabia, Turk countries and other Islamic countries as a member of ISC and also other countries and it was clear that crusade of creating science and software crusade in technology scope is concentration on knowledge and software s of creating wealth from technology not creating international papers, At the end it was concluded that growth of scientific productions should be accompany with creating wealth of them and this important case is possible by using growth centers in universities and knowledge based companies that have key role in creating development of directed knowledge economy that is one of the features of third generation universities.

**KEYWORDS:** sharp growth, science, wealth, knowledge based, technology.

### 1. Introduction

If we know that the index of creating science is edition of numerous scientific papers in conventions and international accredit magazines, In recent decade, edited Iranian papers in conventions and International accredit papers had so much growth and presented statistics wers so high and imaginable that one of the scientists of technology management reminded it as sharp raise growth. Iran scientific productions were more theoretic and less functional and are usually the place of hesitation because don't respect to scientific moral principles.

Creating science is called knowledge based. Wealth if it is in line of commercializing. Produced knowledge and technology and this knowledge will provide the requirements of country and change to wealth (promotion of knowledge, mental wealth, effective use of resources, preserving natural resources and other effective factors in promoting standard and life quality).

The importance of this subject is more clear when the growth of creating science is not in line of creating wealth and...

Commercializing an idle or an innovation is not accompany with success that is the main lost loop in our country, all these attempts and costa will be in effective that growth of creating science, because the growth of creating science will not have more

effect on increase of national wealth and witness claims that Iranian papers are among the lowest rate of references from others and highest rate of reference to themselves. And accompany with huggermugger continuing succession of science to market, effectiveness of creating science will be minimum or reaches to zero and don't create added-value and will not have more effect on permanent development to of country.

In present paper, after reviewing relevant thematic literature and introducing triple generations of university, knowledge based wealth and funnel of creating knowledge based wealth or Idea development to product, we investigate the growth of scientific productions in Iran country and compare it with Arabia, Turk countries and other Islamic countries as a member of ISC also other countries and it is clear that crusade of creating science and software crusade in technology scope, is concentration on knowledge and software's of scientific productions should be accompany with creating wealth of them and this important case is possible by using growth centers in universities and knowledge based companies that have key role in creating development of directed knowledge economy that is one of the features of mentioned third generation universities.

## **2. Triple generations of university**

### **2.1. First generation universities (directed instruction) and second (directed research)**

In primitive life cycle, universities were just doing educational activities for a long time. it means that they are the most primary kind of high education institutions, because all the challenges and distractions in these kind of universities was presenting education without practical vitalization in society and customers of these universities only received a document at the end of term time that was the evidence of their presence in considered university, studies showed that according to two features of internal dynamic of university and scientific structures, two main scientific revolutions occurred till now in the world.

The first revolution and scientific mutation happened in late nineteenth century and in Germany universities that during this period universities look the responsibility of research mission in addition of... educational and teaching mission. Relying on this analysis, they called directed education universities, first generation universities and directed research universities are called second generation universities. That approach them more to commercializing knowledge and market to some extent. But customers of these universities still have more distance with requirements of society and its space.

### **2.2. Third generation universities**

During twentieth century, by occurrence of second scientific revolution based on relying innovation on scientific knowledge, universities look the third mission calling technological innovation in addition of research and education mission. Nowadays universities with third mission are called entrepreneurship and directed society and third generation universities. Third generation universities are entrepreneurship, create value and wealth. Industries development in countries specially in new technological scope like information technology, Nano- technology and bio- technology was debtor of changing such this attitude to university.

Yonesko, in the word view point of high education in 21 century, described new universities in this way. A place in which entrepreneurial skills in high education develops for facilitating the abilities of graduates and for changing to creators of job and employment.

According to the above definition, university is not only the place of leaning a series of mere educations. And also is not the place of only doing research projects in direction of resources economical purposes but in addition of following the above purpose it has more important duty, it means nurturing people and institutions that create business. Graduate of entrepreneurship university is not merely a people with a collection of practical and scientific knowledge's, graduate of entrepreneurship university is not a person who attracted in a productive or sorrier institution after fishing educations and did his or her duty. He or she is considered a real person who is innovator in work space, He or she may be in any place or dignity, and sees new horizons and enters some areas that others didn't see or if they saw it, were not courage to enter them.

entrepreneurship university , present a graduate to society that use his or her knowledge beside usable researches and creates job by using innovation.(Aghajany, Hassn-Ali,1390)

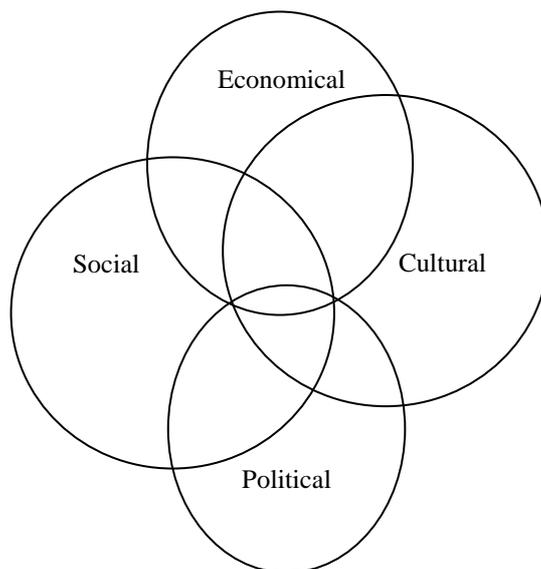
<b>Third generation university</b>	<b>Second scientific revolution</b>	<b>Second generation university</b>	<b>First scientific revolution</b>	<b>First generation university</b>
<b>Creating value Creating wealth</b>	→	<b>Directed-research</b>	→	<b>Directed education</b>

**Diagram 1- evolution of various universities**

### 3. Knowledge Based Wealth

Wealth is a general implication that is used in different thematic areas. Specially, wealth is on economical implication that used based on its view and position. There are different definitions of it. Wealth can be considered as an index of determining economical position of a person that its quality and quality is determinant in classifying economical classes.

In this paper and in university entrepreneurship wealth doesn't mean only economical and physical wealth. Wealth is something more than money and can be social, cultural and political wealth including like, promoting knowledge mental wealth, effective use of resources, preserving natural resources and other effective factors in promoting standard and quality of life. Aghajani, Hassan-Ali, and others(1390).



**Diagram 2: kinds of wealth in third Generation universities and creator of civilization (entrepreneur)**

Economic wealth like producing a product (goods or service) Economical: Mobil and ...

Cultural wealth like producing a product (goods or service) cultural: edition of book or issuing moral beliefs like goodness to others. Being good to others and don't hesitate or be brave so god is kind to you more.

Social wealth like producing a product (goods or service) Social: idea of designing a play or amusing exercise for adults in purpose of preventing from going to addiction.

Political wealth like a product (goods or service) political: idea and thought of freedom from these political exclusions and institutionalization of healthy competition between candidates in elections.

If powerful dignity of leadership proposed crusade of creating science and software crusade it doesn't mean science without action and the world without producing that is interpreted as a bee with out honey in legends, but it means useful and beneficial science. So, we should be careful that tools not mixed with purposes and their limits should be clear. If the purpose of technology is creating wealth, so the crusade of creating science and software crusade in technology domain should be finding better ways for getting wealth from technology. Software crusade in this domain is creating software for optimum management, for finding short way, for getting maximum wealth. Nowadays the requirements of Iran society will be provided not only by creating based science but also by creating productions, services and creating permanent wealth and income. In present situations, the required science of Iran is finding more production ways of added- value and wealth, in a period of time that our country confronts with thousands micro and severe problems or difficulties.

This process of changing science to wealth, requires special means, that one of these means are based knowledge companies that have key role in creating development of directed knowledge economy based knowledge companies are individual or cooperative companies that are established for increasing both science and wealth, development of directed knowledge economy, realization of scientific and

Economical purposes, including deployment and application of invention and innovation and commercializing research results and development in technology domain and with abundant added- value.

Based knowledge companies have special features such as:

Proportion of specialist forces to all employees is more among them.

Universities have more cooperation in their management and leadership.

Technology changes is more than traditional crafts.

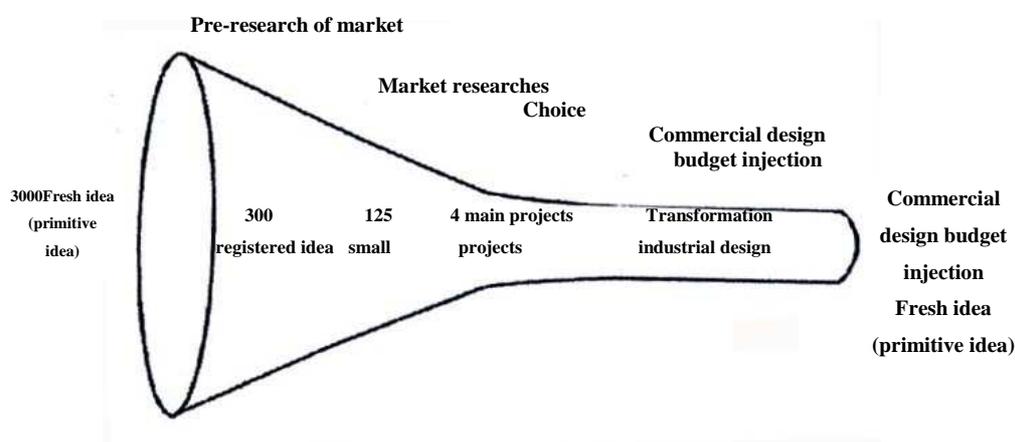
There are more research and development among them.

Industry development is more valiant on technology development not wealth or capital and hardware.

Their competitive privilege is inn oration in technology.

They conquer rapidly new markets.

According to the mentioned features, in based knowledge companies, economical growth and creating employment, will realize proportionate with innovation capacity and subject of knowledge, innovation, skill and continuing learning has the main role.



**Diagram 3- funnel of idea development to new production.**

Primitive idea, only one idea has the situation of commercialization.

Commercializing costs is between 10 to 100 coequal with development and research costs and introducing new technology and the probability of success is very less. Less than 5 percent of new ideas are commercialized success fully even in case of success, commercializing not Occur very fast and as an average, commercializing researches continues six year.

Transformation of science to wealth is possible through configuration of innovation process and also producing and selling new products and in this respect science transforms to value, wealth and finally social welfare.

As powerful dignity of leadership said in 1392 Norooz: Science should transform to technology and technology should transform to product (goods or service). Product should be commercialized and come to (industry) society and produce economical, social, political and cultural wealth for country.

Peter Draker, the great scientist and management jurisprudent says: the best way of predicting future is marking future relying on Draker's initiative and in direction of developing knowledge based wealth, we can startup based knowledge companies and industries that managers, literature and their structural culture consider themselves owing to university and are still interested in having relationship with universities.

Somme of the features of based knowledge companies are such as new ideas (innovation) the ability of commercializing idea and competitiveness that is proportionate with developing economy.

In universities of the world, commercializing their knowledge and technology and creating an effective relation with society (industry) will be pursued in form of centers and structures that are well-known as growth and pre-growth center of companies and creating generative employment and office of relation with industry.

Research and development success should be accompany with commercializing success. In research to production chain, commercializing is the main lost loop in our country.

#### **4. Growth of creating Science:**

##### **4.1. Definitions**

One of the scientist of technology management said that sharp raise growth of creating science for scientists of third world counties specially Iran and Edition of papers in conventions and magazines of the world are more imaginable.

How many percent of these scientific productions transform to wealth or in other words they are commercialized? (promotion of knowledge mental capital, effective use of resources, preserving natural resources and other effective factors in promoting standard and quality of life). Now a days, index of production in country is international papers based on criteria of scientific acceptability in scientific centers of the world. It seems that such this interpretation of science production is in complete and incorrect interpretation of scientific acceptability criteria in west world.

Because acceptability of scientific papers in country that is measured by international criteria can less show the growth of beneficial science production in society this index is not the implicated sign of crusading science production and software consade. Because in most cases, edited papers, never provide the requirements of country. While in recent decade, growth of edited Iranian papers in International accredit magazines, are still expressed as the only fundamental factor.

In recent years following governmental supports, growth of papers was so much that sanis watch magazine remember it as sharp rais growth. So, growth of science production, besides bugger mugger of continuing science chain to market, effectiveness of science production reached to minimum or may be zero and this story repeats, who had done well but had not done good job. In fact the story of our country in science and technology is the story of an old woman who is tired and stopped each step for many years. In these situations, we can't hope that scientific productions deploy to economical and social institutions because these productions was not the result or effect of their requirement and can't create added-value.

If the glaring growth of scientific productions in country in recent years not deploy from universities to economical and social in situations won't have more effect on permanent development of country Iran requires mechanism of transforming technology to wealth more than increasing the number of scientific productions country considered much more capitals for growth and development of science and technology and now requires substructures, software's and knowledge of transforming science and technology to wealth and getting its added value. By this definition, knowledge of commercialization is the main antitypes of software crusade and according to the present situations , is considered as fundamental privilege of technology domain.

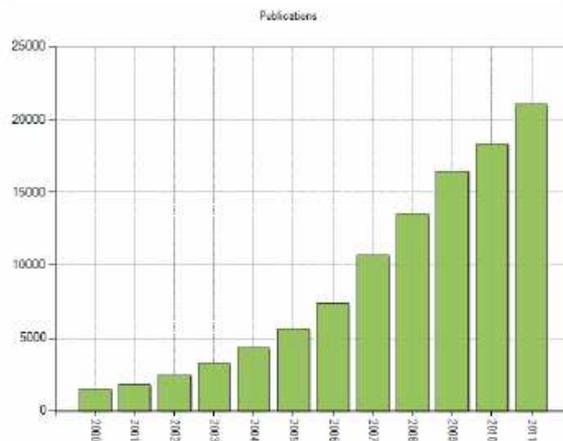
In this section first of all we study the number of issued scientific papers (as production index) in Iran country in comparison with Arabia and Turk countries and in second section we study issued papers of Pakistan and Malaysia in...

Comparison with Iran and finally we refer to some issued of America and Japan countries.

**4.2. Comparison of growth in creating Iran scientific papers with two Arabia and Turk countries**

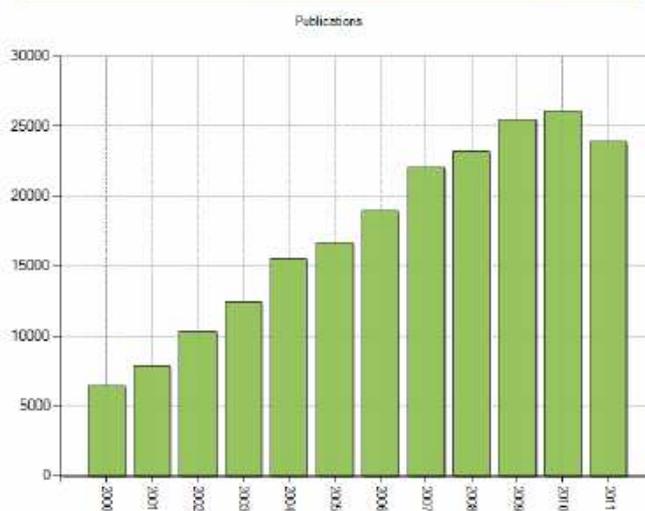
Based on subsumption statistic in ISC site of Iran, Turk and Arabia in 2000 to 2011 derived in from of tables and following diagrams.

COUNTRY	Index Year	Publications	%Total
<a href="#">IRAN</a>	2000	1464	0.10
<a href="#">IRAN</a>	2001	1799	0.20
<a href="#">IRAN</a>	2002	2451	0.20
<a href="#">IRAN</a>	2003	3292	0.30
<a href="#">IRAN</a>	2004	4318	0.30
<a href="#">IRAN</a>	2005	5623	0.40
<a href="#">IRAN</a>	2006	7364	0.50
<a href="#">IRAN</a>	2007	10703	0.70
<a href="#">IRAN</a>	2008	13505	0.80
<a href="#">IRAN</a>	2009	16410	0.90
<a href="#">IRAN</a>	2010	18286	1.10
<a href="#">IRAN</a>	2011	21038	1.40
<a href="#">IRAN</a>	All Years	106253	0.60



**Figure 1 issue of Iran country papers during 2000 to 2011- Table**

COUNTRY	Index Year	Publications	%Total
<a href="#">TURKEY</a>	2000	6428	0.50
<a href="#">TURKEY</a>	2001	7806	0.60
<a href="#">TURKEY</a>	2002	10309	0.80
<a href="#">TURKEY</a>	2003	12446	0.90
<a href="#">TURKEY</a>	2004	15502	1.10
<a href="#">TURKEY</a>	2005	16728	1.10
<a href="#">TURKEY</a>	2006	18955	1.20
<a href="#">TURKEY</a>	2007	22038	1.30
<a href="#">TURKEY</a>	2008	23259	1.40
<a href="#">TURKEY</a>	2009	25446	1.50
<a href="#">TURKEY</a>	2010	26078	1.50
<a href="#">TURKEY</a>	2011	23916	1.60
<a href="#">TURKEY</a>	All Years	208911	1.20



**Figure 2** issue of Turk country papers during 2000 to 2011

COUNTRY	Index Year	Publications	%Total
<a href="#">SAUDI ARABIA</a>	2000	1690	0.10
<a href="#">SAUDI ARABIA</a>	2001	1521	0.10
<a href="#">SAUDI ARABIA</a>	2002	1698	0.10
<a href="#">SAUDI ARABIA</a>	2003	1748	0.10
<a href="#">SAUDI ARABIA</a>	2004	1685	0.10
<a href="#">SAUDI ARABIA</a>	2005	1646	0.10
<a href="#">SAUDI ARABIA</a>	2006	1736	0.10
<a href="#">SAUDI ARABIA</a>	2007	1904	0.10
<a href="#">SAUDI ARABIA</a>	2008	2253	0.10
<a href="#">SAUDI ARABIA</a>	2009	2616	0.20
<a href="#">SAUDI ARABIA</a>	2010	3855	0.20
<a href="#">SAUDI ARABIA</a>	2011	5417	0.40
<a href="#">SAUDI ARABIA</a>	All Years	27769	0.20

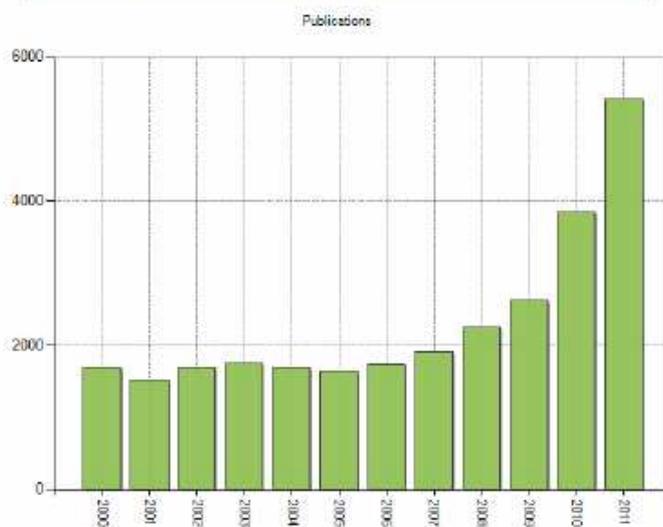


Figure 3 issues of Arabic country papers during 2000 to 2011

as you can observe in 2000, number of issued scientific papers by Iran was 1969, Turkey 628 and Saudi Arabia 1690. It means that number of papers in two countries of Turkey and Arabia was more than Iran, but since 2001, number of Iran scientific papers indicated an increasing trend because of some reasons mentioned before such as supporting government and scientific center from writers with that this trend was more in comparison with Turkey and Arabic in producing and comes closer to Turkey in future years by rapid growth in 2000, Iran and Arabia, both dedicated on percent of all issued paper in the world to them selves as in that year, this criterion for Turkey country was 0.5 percent, rapid growth of producing scientific papers in Iran from 2000 to 2011 indicates that number of these scientific papers increased from 1464 to 21038 and in comparison with all issued papers, it had 0.1 percent to 1.4 percent increase. As during this period number of Arabia country papers increased from 1690 to 5417 and in comparison with all issued papers. In contrast Turkey country in comparison with Iran in 2000 had more paper. Position in producing scientific papers and indicated salient increase but during one decade Iran was more closer to this country by rapid growth in producing papers as in 2000, Turkey country dedicated 0.5 percent of all issued papers to it self with 6428 papers and finally at the end of 2011, increased its share to 1.6 percent of all issued papers with 23916 papers. Although producing paper in Turkey and Arabia countries had growth but growth of producing scientific papers in Iran country in whole criteria was more than these two countries.

As Arabia country during 11 years (from 2000-2011) increased the number of papers from 1690 to 5417. And in comparison with all issued paper had a growth of 0.1 percent to 0.4 percent. It means 0.3 percent growth. Turkey country had an increase in number of papers during this period from 6428 to 23916. And in whole criteria it indicated an increase from 0.5 percent to 1.6 percent.

It means it had only 1.1 percent growth. But Iran had more growth in comparison with two countries from number and also whole percent of issued papers in Iran indicated on increase from 1469 papers in 2000 to 2013 papers, it means 19569 papers. And had an increase from the percent of whole number of issued papers view, from 0.1 percent to 1.4 percent. It means that it had 1.3 percent growth during this period and the rate of growth and number of issued papers, As indicated in diagram and presented tables, had more growth from 2005 to 2011.

### **4.3. Comparing growth of producing Iran scientific papers with two countries of Malaysia and Pakistan**

If want to investigate produced papers in Iran with two other Islamic countries, it means, Pakistan and Malaysia in 2000-2011 based on the number of registered papers in ISC, it will be described as following tables:

COUNTRY	Index Year	Publications	%Total
<a href="#">PAKISTAN</a>	2000	641	0.10
<a href="#">PAKISTAN</a>	2001	696	0.10
<a href="#">PAKISTAN</a>	2002	816	0.10
<a href="#">PAKISTAN</a>	2003	948	0.10
<a href="#">PAKISTAN</a>	2004	1043	0.10
<a href="#">PAKISTAN</a>	2005	1315	0.10
<a href="#">PAKISTAN</a>	2006	1765	0.10
<a href="#">PAKISTAN</a>	2007	2662	0.20
<a href="#">PAKISTAN</a>	2008	3407	0.20
<a href="#">PAKISTAN</a>	2009	3916	0.20
<a href="#">PAKISTAN</a>	2010	4860	0.30
<a href="#">PAKISTAN</a>	2011	5221	0.40
<a href="#">PAKISTAN</a>	All Years	27290	0.20

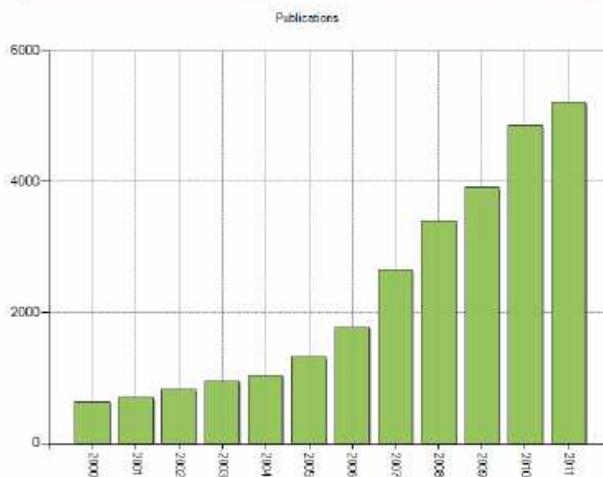
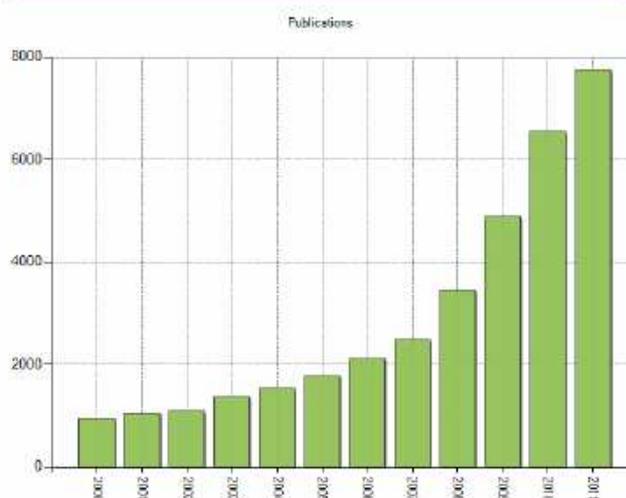


Figure 4 issue of Pakistan country papers during 2000 to 2011.

COUNTRY	Index Year	Publications	%Total
<a href="#">MALAYSIA</a>	2000	952	0.10
<a href="#">MALAYSIA</a>	2001	1045	0.10
<a href="#">MALAYSIA</a>	2002	1086	0.10
<a href="#">MALAYSIA</a>	2003	1372	0.10
<a href="#">MALAYSIA</a>	2004	1525	0.10
<a href="#">MALAYSIA</a>	2005	1786	0.10
<a href="#">MALAYSIA</a>	2006	2116	0.10
<a href="#">MALAYSIA</a>	2007	2485	0.20
<a href="#">MALAYSIA</a>	2008	3453	0.20
<a href="#">MALAYSIA</a>	2009	4880	0.30
<a href="#">MALAYSIA</a>	2010	6541	0.40
<a href="#">MALAYSIA</a>	2011	7741	0.50
<a href="#">MALAYSIA</a>	All Years	34982	0.20



**Figure 5 issue of Malaysia country paper during 2000 to 2011.**

As shown in table, Pakistan country produced 641 scientific papers in 2000 and this trend continued in ascending from to 2011 and number of these papers reached to 5221 and if we want to compare these numbers with whole issued papers in that year, in 2000, about 0/1 percent of issued papers was relevant to Pakistan country and by continuing this increasing trend, number of issued papers of this number in 2011 reached to 0/4 percent. In other words, growth of produced papers. During 11 years was only 0/3 percent relative to whole produced papers. That was insignificant against growth of Iran papers during this period that was 1/3 percent.

Malaysia country, based on presented tables and diagrams in 2000, produced 952 papers and with increasing trend in number of papers in each year, this number increased to 7741 in 2011. And from growth percent view, in comparison with whole produced papers in year, scientific papers, Malaysia country only had 0/1 percent

issued papers in 2000 that with annual increase, number of these papers increased to 0/5 percent in 2011.

It means that Malaysia country had 0/4 percent growth in comparison with whole during 11 years, that was in significant in comparison with Iran country growth that was 1/3 percent.

#### 4. 4. Comparing growth of producing Iran scientific papers with two countries of America and Japan

If we want to compare Iran with two countries of America and japan from number and growth 2000-2011 ,based on following diagrams and Table, papers of each countries are described as follows in separate years:

COUNTRY	Index Year	Publications	%Total
<a href="#">JAPAN</a>	2000	83730	6.70
<a href="#">JAPAN</a>	2001	82066	6.60
<a href="#">JAPAN</a>	2002	86606	6.70
<a href="#">JAPAN</a>	2003	90311	6.80
<a href="#">JAPAN</a>	2004	91720	6.50
<a href="#">JAPAN</a>	2005	90592	6.10
<a href="#">JAPAN</a>	2006	94039	6.10
<a href="#">JAPAN</a>	2007	91867	5.60
<a href="#">JAPAN</a>	2008	92052	5.40
<a href="#">JAPAN</a>	2009	92339	5.30
<a href="#">JAPAN</a>	2010	87852	5.00
<a href="#">JAPAN</a>	2011	81681	5.60
<a href="#">JAPAN</a>	All Years	1064855	6.00

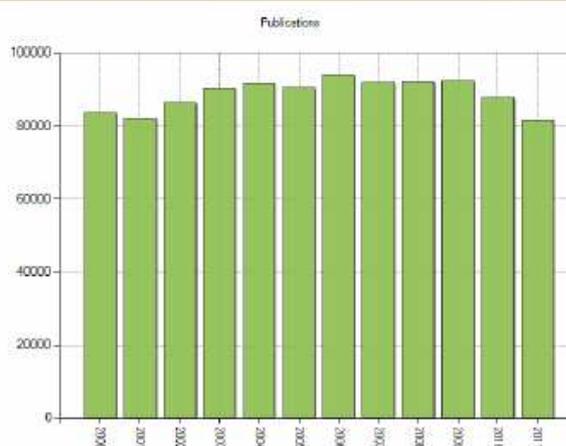
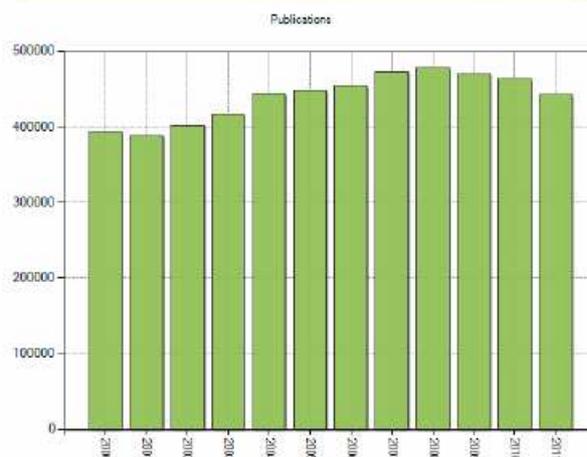


Figure 6 issue of Japan country papers during 2000 to 2011

COUNTRY	Index Year	Publications	%Total
<a href="#">USA</a>	2000	393963	31.30
<a href="#">USA</a>	2001	387826	31.30
<a href="#">USA</a>	2002	401632	31.20
<a href="#">USA</a>	2003	416545	31.40
<a href="#">USA</a>	2004	443894	31.50
<a href="#">USA</a>	2005	447764	30.00
<a href="#">USA</a>	2006	454708	29.30
<a href="#">USA</a>	2007	472086	28.70
<a href="#">USA</a>	2008	477891	27.80
<a href="#">USA</a>	2009	470444	26.80
<a href="#">USA</a>	2010	463734	26.60
<a href="#">USA</a>	2011	442378	30.30
<a href="#">USA</a>	All Years	5272865	29.50



**Figure 7 issue of America country papers during 2000 to 2011**

Based on substitution in formation in ISC site America country in 2000, totally produced 393/963 scientific papers and as a whole dedicated 31/3 percent of all issued papers to it self and as shown in diagram and table, in future years, number of issued papers by that country had fluctuations and the percent of produced papers in America country, in comparison, with all produced papers was considerable that indicates a percent in 2000 descended to 26/6 percent in 2010. Although it ascended again to 30/30 percent in 2011 but number of papers decreased from 463734 to 442378 that is arguable. Japan country, according to industrial situation in 2000, produced 83730 scientific papers and totally dedicated 6/7 percent of produced papers to it self and in future years had some fluctuations from number of papers and percent of comparison with all produced papers view and in 2011 by producing 81681 papers, dedicated only 5/6 percent of all produced papers. To it self and the main part is that in spite of increase in number of papers in more years like 2010, it had decreasing trend from percent view in comparison with all produced papers. That indicates the increase of producing number of papers by other countries.

## 5. Findings, Discussion and conclusion

### 5.1. Findings:

<b>Iran:</b>	number scientific papers (as index of science production) in 2000 was equal with 1464 papers and only 0/1 percent of all issued papers relate to Iran but by rapid growth of scientific papers in 2011, this number increased to 21038 papers and Iran dedicated 1/4 percent of all issued papers to it self.
<b>Iran &amp; Arabia</b>	number of scientific papers in 2000 was equal with 1690 papers that was more relative to Iran since 2001 Iran could anticipate from Arabia by producing more papers and finally Arabia in 2011 could dedicate only 0/4 percent of all issued papers to itself by producing 5417 papers .
<b>Iran &amp; Turk</b>	number of Turk scientific papers since 2000 was more than Iran and had more paper position by producing 6428 papers and 0/5 percent of all issued papers. Although in future years number of Turk country papers increased but its growth was less than Iran in comparison with whole percent of issued paper
<b>Iran &amp; Pakistan</b>	number of Pakistan country scientific papers in 2000 was equal with 641 papers and to 2011 this number increased to 5221 papers and increased from 0/1 percent to 0/4 percent from percent of whole issued papers view that was less than Iran
<b>Iran &amp; Malaysia</b>	number of Malaysia country scientific papers in 2000 was equal with 952 that by increasing trend this papers in 2011 and increased from 0/1 percent to 0/5 percent of whole issued Iran had lower order.
<b>Iran &amp; America &amp; Japan</b>	Although number of papers in these two countries was more than Iran in 2000 even had fluctuations during 11 years but the importance is that in comparison with whole issued papers both countries had descending trend to 2011.

### 5.2. Discussion

As you observe since 2000 to 2011, Iran country had salient growth as index of science production, in countries from number of papers view and from criteria view with whole percent of produced papers. AS in 2011, dedicated 1/4 percent of whole issued papers to it self by producing 21038 papers, while during this year Arabia country by producing 5417 papers and Pakistan by producing 5221 papers and Malaysia by producing 7741 papers respectively dedicated only 0/4-0/4 and 0/5 percent of whole issued papers to themselves.

Turk country, Although it is considered as a competitor of Iran in producing science, in 2011 increased its share to 1/6 percent of whole issued papers by producing 23916. In this year Iran country with 1/4 percent of whole issued papers, had a growth equal with 1/3 percent in comparison with 2000 that in this respect is more than Turk because Iran promoted from 0/1 percent in 2000 to 1/4 percent in 2011 in comparison with whole issued papers., but Turk position increased from 0/5 percent in 2000 to 1/6 percent in 2011.

America and Japan countries, Although have more distance with Iran from number of papers view and have more papers, but they have not growth from percent of papers view in comparison with whole issued papers and had descending trend.

### 5.3. Conclusion

As mentioned, Iran had more growth in producing science since 2000 to 2011 and in comparison with Arabia, Turk, Pakistan, Malaysia and even Japan and America had more growth.

Passing through first and second generation universities is important in science production and is imaginable too. Universities should pass through educational and research missions stage and transform to third generation universities that take the mission of technological innovation and are entrepreneur, directed society, creator of value and wealth.

In other words using science production can't be useful but the quality of produced knowledge and its usability for others is very important (both in industry and technology domain and in knowledge and science domain) so, our scientific productions should be in direction of creating business and commercializing knowledge and technology.

It means that they should be for getting wealth from technology. (Economical, cultural, Social, Political) because now a days the requirement of our country is not merely producing based science but should be a company with producing products, services and creating permanent wealth and in come and commercializing knowledge and technology should be dominant as a culture in growth centers in universities with specialist forces and universities that cooperate with management and leadership, provide operational grounds for entrepreneurship and creating generative employment in from of start up small and medium businesses (SME) and can help commercializing knowledge and technology and provide today requirements of society that are economical growth and creating employment and causing development of industry by reliant on technology development.

### 6. For future researches

- Comparative study of science production and knowledge based wealth between Iran country and America and Japan countries.
- Comparative study of science production and knowledge based wealth between Iran country and Pakistan and Malaysia countries.
- Relation between science production and creating knowledge based wealth.
- Third generation universities and its role in commercializing knowledge and technology.

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