The Role of Community Partnership in Financial Supporting for Scientific Research

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Abstract

The scientific research is an effort for solving a problem either it is intellectual, scientific, or conceptual that would be solved through submitting such alternative situations or hypotheses which finally caused added value. This added value will serve many aspects of society either in agriculture productions, manufacture, serving products or even in the knowledge sector through obvious paving scientific ways.

This research focuses on the importance of community partnership for supporting the researches and development in researching institutes for serving their societies through developing its mini as well as medium sizes economical organizations, according to their great role in the national economy. It also focuses on such samples of community partnership and their main obstacles that faced through the scientific research.

Thus, this research depends on a methodology of “Societies development” comes on what are the expenses for scientific research? Here, it is enough to review the expense’s percentage of many developing countries to know the secret. Such as in Sweden, the expenses of scientific researches percentage was (3.013%), in Japan it was (3,013%), in USA it was (2.63%), in China it was (1.97%), and finally in South Africa it was (0.96%). While, unfortunately in Iraq there is no specific budget for scientific research.

Then, such processes have been suggested to encourage the small and medium size organizations to cooperate the researches institutes in development as well as researching sectors. In addition to that, media channels can play a great role in introducing the importance of scientific researches and knowledge and electing such untraditional channels to finance this community through adapting certain strategies of community partnership with private sector.

Keywords: community partnership, finance, financial supporting, scientific research, societies development

1. Introduction

Science is the infrastructure for renaissance, and it is the basement of establishing any contemporary government that can challenge the dynamic threats and translate them into opportunities as well as advantages, more over knowledge society is that society which depends on sciences, scientists, intellectual capitals investment, improving the abilities for innovation, creation, developing and researches with community partnership under the government supervision, hand by hand to achieve the comprehensive human development.

Through this path, it is very important to work on achieving a renaissance through science, knowledge researching and scientists, to pave a bridge between our last ancestors to the novel region to compete other developed countries.

For achieving that, there is a real need for joined –venture between the government and the society in most developed aspects of life, by making a balance between financing the scientific & research activities and mapping the scientific research policies that is suitable for to society needs in that period. Although, there are many Arabian studies in this area but it is still under expectations, and here is a modest contribution where there is a dire need for further studies.

2. Problem of Research

In brief, the problem of research is focusing on community partnership and it's important of supporting the scientific research, and how could the universities and scientific research centers get invest revenues for
researching, and developing especially in technology, local economic development for private sector.

3. The Importance of Research and Its Objectives

The research importance can be illustrated:

1- The scientific research is an arranged process aimed to achieve solutions for selected problems, or answering such questions through using selected scientific methods that cased novel scientific knowledge. The scientific knowledge grow from the interaction between the scientists and the communities, these relations cased high revenues in technical, financial, and human levels, which increased social responsibility of all stakeholders. Meanwhile, this interaction cased a high level of productivity in all aspects of life.

2- During the global economic development, the universities should follow such strategies that allowed the private sector to be an affective partner in financing and supporting the scientific research, especially in academic and researching achievements.

3- Then, marketing these scientific research outcomes and consultation services could play a dynamic role in economic development, in which the community partnership can be considered as an effective tool to support universities as well as scientific research centers in financing their researching activities. In developed countries (as in Iraq) this process could be ideal to serve the society and solve the financing problems.

This research is trying to achieve the following objectives:

1- The Knowledge presentation of scientific research and its essential point, then, contrasting the reality of Iraqi as well as Arabian Universities with other developed ones.

2- Analyzing the features & barriers of the communities between different sectors and universities.

3- Discovering what the needs of both private sector and universities, and what the typical community could be presented.

4- Presenting and analyzing the successful experiences either globally or Arabian ones in managing the community partnership as well as supporting the scientific research.

4. Research Methodology and Approach

This research is trying to answer a group of questions that reflect the research dimensions:

1- What is the reality of scientific research in Iraqi & Arabian countries in contrast with developed ones?

2- What are the threats that both the private sector and universities faced?

3- What are the needs for private sector and universities?

4- What is the ideal joining–venture of both private sector and universities? And what are the community samples accordingly?

5- Could the developed countries and in specific the Arabian countries reached a level of innovation and creating novel production lines to improve all needs?

5. Research Environment

This research talked about many experiences either global or in Arabian countries, it talked about the role of community partnership and their reflections on supporting the scientific research under the conditions of managing the scientific research affectively. In this sense, globally the focusing was on the Chinese and Malaysian experiences, while in Arab region, the research focusing on Egypt and UAE experiences. It essentially demonstrates the innovation managements and investment to establishing a well standing government. These experiences insisting on “know how” either to invest or/and manage the knowledge in a suitable way for achieving the development & prosperity (Jebrin, 2011, p. 234).

Consequently it could be appropriate to discuss the subject as follows:

Introduction:

Problem of research:

The importance of research and its objectives:

Research methodology and objectives:

Research environment:

First: scientific research portal:
Secondly: The Threats that both of: private sector and universities face:
Third: what do both sectors governmental or private need from each other? And what is the ideal community partnership between the governmental and private sector?
Forth - partnership models between the Private Sector and Universities:
Fifth - Features and Barriers of partnership between different sectors and the Universities:
Sixth – the Successful Experiences in managing the Community Partnership and supporting the scientific Researches:
Seventh: Results & Recommendations:
References


Still Scientists & Researchers have no distinctive definition for scientific research, but there are many, the easiest one refers to every planned activity that aimed for creating novel knowledge relating to what changes are happened around people (Ubaidat, 2007, p. 75). The scientific research aims increasing the human knowledge as well as improving his ability to live in his environment and control it, and at the same time discovering the solutions for any problems in the society (Boisot, 1995, p. 30). So, researches should plan under the government requirements (Qasem, 2007, p. 94).

There is no doubt, these essential points are very important as a guide for investment under such conditions; planning, implanting and assessment by many experts in all aspects of life that can be plan on three stages: short term, medium and long term; or planed according to their aspect of adopting: industrial, developed researches and essential ones.

With reference to the researches role in achieving the economical human development process, industrialized nations are focusing their vision on development and research activities, especially in, infrastructure development, improving the competition conditions in production and marketing through the local or global markets (Atawee, 2008, p. 89).

In general, development & research activities priorities can be divided in to (Al husseni, 2008, p. 171).
1- Strategic Studies and Researches: administrative, economic, political, and legal research could be useful in decision making, governmental administration, and economical institutes.
2- Innovative researches in literature, artists, and humanity research.
3- Medical sciences, engineering, and technological researches.
4-Theoretical applied scientific researches in: mathematics, physics, and chemistry.
5- Industrial and applied researches and those other innovative.

All above mentioned aspects can be considered as a total unit that can caused the improvement of any society in their mentality, cultural and innovative levels of knowledge, through the community partnership in which the scientific research can be the back base for achieving the society objectives that are rapidly developed.

There is no doubt for the importance role of the university, in supporting the society with technology, and scientific researches, especially in Arab home land, because the university has three related dimensions; scientific research, teaching and society serve. Any university should be on the same steps of these dimensions because the university's role is great that certification award, otherwise, the deterioration will be the outcome of that society.

Education and scientific research is not a service process as some believed, but it is a process that should have positive outcomes. Although the universities faced such restricted policies but they need to follow the new technologies that their society needs in all aspects of life, universities should be change their subjects, policies, into a package of training programs, dynamic skills improvement by using novel applied technologies & information of all around the world (Abdul Khaleq, 2007, p. 67).

Now days, (scientific research) is not considered as a theoretical subject, but it is a series of skills and experiences that encourage the society to compete, and sustain the local or global markets by using technologies. Thus, there is no alternative way except scientific research to develop our societies.

Frankly talking, Arabian countries expended on scientific research totally not more than (0.3-0.6%) of GNP,
while in other countries like Sweden (3.3%), Japan (2.7%), USA (2.6%) and in Israel (4.7%), and the number of Arabian scientists and researchers in Arab home land is around (363/per one million), while in USA it is (3359), and (2206) in Israel. In addition, the lack of productivity in which it is yearly around (0.3) research/researcher, which means it is equal to (10%) of developed countries productivity. Never the less, these factors took place because there is no systematic process of publishing and it is costly. Then, the Arabian universities shifted their focusing to certification award only. Moreover, the lack of supporting the scientific research by private sector. For example, in USA, the private sector supporting the expenses of scientific research around (70%), while the universities’ supporting is around (18%) and the government supports is around (12%); and in Japan the private sector supporting is around (88%) and the government supports around (8%), on the contrary side, in Arab home land, the private sector expenses around (10%) and the government expenses around (90%) as shown lately in Table 1 (Cordis, 2009, p. 55).

Unless, participate the scientific research & technological development institutes, the Arabian societies will face many difficulties to compete and sustain under globalization.

Not only that, but the reality of scientific research in Arabian universities is not directed to solve the society's problems, most of teaching staff that achieved researches are focusing on their academic develop only regarding less the development and affiliate their objectives with the national developed plans (Qandliche, 2008, p. 88).

On the contrary, the developed countries considered the scientific research as a source of innovation especially for industrial ones, in which they consider it as the best path of development, having novel creative technicians to invest all the natural resources as petrol, gas, water and minerals. This system leads to useful knowledge, science, skills; experts conclude useful out comes all around the world. In this sense and the latest statics report for Bateel Company that published yearly, announced that the global expenses for research & development was more than one trillion $ which means 1.9% of GDP for 2009 (U.S President’s Council of Advisors on Science and Technology, 2010).

Table 1 Serves a list of earliest countries around the world that expense on development & research, either the financing resources are (governmental or industrial) and the implementing took place by (government, industry and universities).

Now a day, USA has the highest level of global expenses on development and research, they expense around 34% of GNP which means (363 billion $), the Asian countries expense around 32% which means (334 billion $), and lately, European countries expense around 26% which means (274 billion $). This statics report showed that most of the development research were directed to industry, and the percentage (45=75%) reflects this policy of those fifteen countries, the government financing is around (30-13%), the universities achieved around (7%) in china and (40%) in Canada. Companies like Toyota, General Motors, and Fizzer took the essential levels globally through their expense on research and development which reflect more than (8) Billion $ for each one. The aspects of global researches recently include; renewable energy, biotechnology, pure water supply, sustainable process, and lower-cost transportation system. In 2009, research conclusions in (672) university and college participate in producing (686) new products in markets, and theses universities achieved around 19,827 discoveries, and gain 622 patented, and sign for 5,109 licenses’ agreements for developed program and discoveries. Table 2 showed the expenses and financing resources and the achieved sponsors.
Table 1. Represents a list of the most consumption (15) countries in the world upon R & D and financing resources with the reflected sectors for 2009

<table>
<thead>
<tr>
<th>No.</th>
<th>Country</th>
<th>Consumption on R&amp;D (US$/ Billion)</th>
<th>GDP%</th>
<th>Industry</th>
<th>Government</th>
<th>Industry</th>
<th>Government</th>
<th>Universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>USA</td>
<td>363</td>
<td>2.6</td>
<td>67</td>
<td>26</td>
<td>72</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>Japan</td>
<td>143</td>
<td>3.3</td>
<td>75</td>
<td>13</td>
<td>78</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>China</td>
<td>100</td>
<td>1.4</td>
<td>75</td>
<td>--</td>
<td>75</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Germany</td>
<td>71</td>
<td>2.5</td>
<td>66</td>
<td>21</td>
<td>69</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>France</td>
<td>44</td>
<td>2.1</td>
<td>49</td>
<td>29</td>
<td>63</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>6</td>
<td>UK</td>
<td>38</td>
<td>1.8</td>
<td>40</td>
<td>23</td>
<td>58</td>
<td>10</td>
<td>27</td>
</tr>
<tr>
<td>7</td>
<td>South Korea</td>
<td>36</td>
<td>3.0</td>
<td>75</td>
<td>--</td>
<td>78</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>8</td>
<td>Canada</td>
<td>25</td>
<td>2.0</td>
<td>45</td>
<td>25</td>
<td>50</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>9</td>
<td>Russia</td>
<td>23</td>
<td>1.1</td>
<td>62</td>
<td>--</td>
<td>61</td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>India</td>
<td>21</td>
<td>0.7</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>11</td>
<td>Italy</td>
<td>20</td>
<td>1.1</td>
<td>48</td>
<td>--</td>
<td>56</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>Brazil</td>
<td>17</td>
<td>0.9</td>
<td>--</td>
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<td>--</td>
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<td>--</td>
</tr>
<tr>
<td>13</td>
<td>Taiwan</td>
<td>15</td>
<td>2.2</td>
<td>70</td>
<td>25</td>
<td>74</td>
<td>11</td>
<td>12</td>
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<td>14</td>
<td>Spain</td>
<td>15</td>
<td>1.1</td>
<td>47</td>
<td>27</td>
<td>51</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>15</td>
<td>Australia</td>
<td>14</td>
<td>1.8</td>
<td>53</td>
<td>22</td>
<td>58</td>
<td>10</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1,124</td>
<td>1.9</td>
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<td>--</td>
</tr>
</tbody>
</table>

Table 2. Represents the research financing resources, and reflected sectors in USA for 2009

<table>
<thead>
<tr>
<th>Financing Resources (US $/ Billion)</th>
<th>The reflected sectors (US$/ Billion)</th>
<th>Federal Government</th>
<th>Industry</th>
<th>Universities</th>
<th>Non Profit Sectors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>39</td>
<td>25</td>
<td>30</td>
<td>5.5</td>
<td>99.0</td>
</tr>
<tr>
<td>Industry</td>
<td></td>
<td>253</td>
<td>3</td>
<td>1.5</td>
<td>257.4</td>
<td></td>
</tr>
<tr>
<td>Universities</td>
<td></td>
<td>--</td>
<td>11</td>
<td>--</td>
<td>--</td>
<td>10.6</td>
</tr>
<tr>
<td>Non Profit Sectors</td>
<td></td>
<td>--</td>
<td>4</td>
<td>9.3</td>
<td>13.1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>39</td>
<td>278</td>
<td>5*</td>
<td>16.4</td>
<td>383.5</td>
</tr>
</tbody>
</table>

*including 3 Billion US$ from Local governments.

7. Secondly: The Threats that Both of: Private Sector and Universities Face

Firstly: Arranged Threats

the most technical, arrangement threat is the absence join between graduated studies and services, production sectors, no data base can be used frequently, none enough electronic libraries that can be used as feedback, more over the lack of intellectual rights and patents on one hand and on the other, the complicity of local registration process and the high cost of global registration that lowered the value of most researches (Amer, 2008, p. 56).

Here, there is a common sense for arousing a question: why most of teaching staff productivity decreased in scientific research aspect? Scientific research institutes play a great role in construction development, and guarantee the success of economic plans, correction as well as assessments. These researches can conclude more scientific research discoveries that effect the of thinking and his sight to the world, and discovering new information, sites which can be translated into methods, technological tools of production, transportation…etc. Thus, scientific research is the development of knowledge, product development, and any lack of scientific research level in industrial or social aspects or others, can cause the lack of development or even how to escape these difficulties. Then, under these considerations there is no way for developing the technologies or improving all aspects even in prosperity or wealth production.

Some researchers notice that the scientific research policies do not select such strategic objectives on either short term, or moderm or long term, and the universities do not include also yearly programs that can be considered as global program but most of research program were done individually or through small groups.

Arabian countries suffer from the lack of human resources who work in scientific research, so the percentage of
those scientist researchers is very low with reference to the population and lower than global percentage that reached to (3000) researchers to every one million of population in developed countries. In addition, the scientists and the absence of communication channels lead to the absence of joined program and usual participation. The different systems caused many difficulties of the centers communication among themselves and universities, thus; all these lead to the insulation and real follow towards the government (Abdul Latif, 2008, p. 78).

There is a reverse suit between the scientists, researchers and the lack of communication, and the lack of information exchanges caused the lack of information exchanges systems, magazines. While the well communication among scientists & specialists caused the prosperity in regional, national and international aspects. This development faced much complicity according to the absence of communication system between scientists; or the lack of training chances, there is no continues training either inside the country or outside. So, isolation caused the lack of gaining information by scientists which lead to his week knowledge and has no ideas about the others achievements especially in publishing the scientific culture through the society (Al Zubaidi, 2009, p. 17).

The ability of communication channels do not depend on the skills of mother tongue or the foreign ones, but it depends on the technics of paragraph structure or on the communication skills in general.

The university is not a physical institute that embraces the scientific research and preparing the scientists and technicians but it is a cultured institute that has national social cultural role to participate in culturing the society, arranging innovation and encouraging others to create, renewed, and authoring in many aspects of scientific research. Moreover, planning and implementing for training courses, festivals that can be arranged through community partnership with social organizations.

For achieving that, it is very important to look again to the human resources and trying to discover the effective ones who are able to continue and communicate with novel technology, prosperity societies, and join global researches to encourage himself and rescue his rights to sustain in this dynamic society.

Secondly: Financial Threats

There is no doubt that scientific research needs finance, and what expense here is not enough for an activity like scientific research; these obstacles either directly or in directly has a great role on the immigration of Arabian minds to other societies to find better chances for researching under certain circumstances. In this sense, in general the expenses of scientific research in Arab Homeland is very week if it is compared with what is expending in developed countries, which means those countries specify more than 3% of their total production to scientific research while in most of Arabian countries it is only around 0,27% (Al Hussini, 2008, p. 47).

Thus, all scientific institutes, universities, industrial institutes, commercial organizations, or social organizations have to work as a one team and always trying to find financial support through community participation, and took the Japan experience as an example to adapt this experience especially in scientific research and high education.

Thirdly: Social Threats

Almost most of Arabian societies are still unable to know the importance of scientific researches, not only that but sometime these societies present non correct information, either because they have no ideas about what is going on, or because they wouldn't like to lose their power.

The weakness of cultural configuration is one of the most essential obstacles because most of Arabian graduated students are weak in knowledge and culture. They only interest in what they are studying for time being regarding less other fields of knowledge, so this leads to their inability to sustain in any field of knowledge. Thus, the educational process becomes only a machine for graduate students (Al Ruba’ai, 2009).

Here, the role that could be followed is very important because we need to implant the sense of being having worker, reader, writer from the childhood, in Arabian countries the scientific research starts only at the fourth year, in which the student does not from where to start and how, they only know how to read their subjects. While the developed countries train their students to work, read; write from their childhood, in which they will be trained enough on how to use the libraries, electronic media to get the novel information till they become well done in their societies.

On the other hand, the process of scientific research and its method for applying should be reshaped again under the supervision of well experts, to encourage students to defense, negotiate in an ideal way, and then participate them in such conferences either locally or globally to reflect the reality of their societies (Al Qara’a, 2009, p. 39).
Moreover, the graduated students achieved their researches not for any ideal goals, they did because they are looking either for marital status, new job position, or even for living purpose, and thus the results will be affected already.

Under these considerations the challenges are very huge and the universities as well as the researching institutes should work through another path either by encouraging the private sector in invests in these researches or supporting the private sector with excellence experts, graduated competences so the benefit will be verse versa for both governmental and private sectors. And the private sector should get his social responsibility towards the universities to serve their Arabian societies by adapting the researches and trying to create suitable environments for these competences (Yaqoot, 2007, p. 16).

Fourthly: Other Challenges

1- Most of universities’ teaching staff faced many challenges to participate in conferences, meetings, or scientific round tables either locally or globally to be closed to other experts, or to communicate with other scientific channels. In addition, there is no positive connect between the teaching staff and the government sectors to exchange the experts, consultants to solve the problems of societies (Khader, 2011, p. 1650). These obstacles caused the failure of some of teaching staff in developing themselves through training courses, improving their skills, in which they become far towards achieving scientific researches or intellectual goals rather than their personal objectives (Uqaily, 2010, p. 270).

2- Teaching staff almost are occupied in teaching, lectures because most of Arabian universities are interested in increasing the capacity of students’ involvement rather than the quality of outcomes. Thus, the teaching staffs have no time for scientific researches or for developing their skills, these points reflect the lack of scientific research quality (Uqaily, 2010, p. 269).

3- Lack of objective arbitrators' decisions, and the long duration of decisions, the lack of connection between some of arbitrators and the researchers improve the gap that caused bad reflection towards achieving researches, studies…etc.

4- The lack of magazines, periodical news caused the difficulty of publishing, and decreasing the knowledge of some researchers, especially in such topics that related to their reality and reflect their societies’ problems which leads to negative path towards development policy.

5- The difficulty of achieving the patent as in other global countries, leads to raise the question “how many either Iraqi or Arabian inventors have patent?” and then using his/her inventories in developing such product lines, or goods etc. moreover, Arabian environment lacks for such specialist solid companies in marketing services that can invest in these researches as well as inventories (Al Hussini, 2008, p. 277).

8. Third: What Do Both Sectors Governmental or Private Need from Each Other? And What Is the Ideal Community Partnership between the Governmental and Private Sector?

A- What do the universities need from the private sector?

1- Financing.

2- Solid information database for private sector institutes.

3- The private sector takes his social responsibility role in participating the universities in serious training courses especially for students during their holidays.

4- Contracting for community agreements for exchanging the knowledge benefit, and experts between both private and governmental employees.

5- Universities need to get the benefit of (ROI) from the researches and the essential investment especially in technology, local economic development.

B- What are the essential requirements that the Universities should submit to the Private sector? (Alexander, 2008)

1- The Universities have great role in achieving scientific researches in all aspects of society in which these researches could be very useful because most universities should depend on three dimensions; Education, Scientific research and serving the society.

2- The quality and efficiency of the graduated students: those output graduated students can be considered as the most effective characters in private sector.

3- Activate the innovational as well as intellectual environment through.
• Mixing the teaching, researching and applications together.
• Be close to other governmental aspects.
• Hold meeting, conferences and workshops to discuss the typical issues.
• Working on creating novel experts especially in such specialists that related to humanity.
• Submitting the available resources to apply.
• Possessing an entrepreneurial spirit, taking the advantages of scientific researches financing.
• Encouraging the novel creative techniques.
• Taking the role of "An effective subordinator" between the government, governorates and the private sector.
• To overcome the negatives, particularly the bureaucracy, and focusing on achieving the individual projects.

C- And what is the ideal community partnership between the governmental and private sector?

As we mentioned before, the community participation is the relationship between two or more for a period of time to achieve certain duties or researches. Frankly speaking, the successful universities are those who work together with their societies and production sectors, in which universities took its role towards teaching and training students to be well experts to their working markets.

Under the global economic developments all around, the universities have to follow certain strategies by enabling the private sector to take his role in financing the scientific researches and the educational process, through involving different experts to achieve the objections (Uqaily, 2010, p. 272).

Relations between universities and researchers’ financing took many samples or models, as in figure no.: (1), which reflects isolated partnership between universities and manufactures (Cordis, 2009, p. 54), while figure no.: (2) showed the federal model like USA, in which there is joint bilateral relations among universities, federal government and manufacturing sector. While, the model no.: (3) showed the interaction among the three sectors, which can be considered as an ideal model, here university, can take its role to be entrepreneur in the partnership between the government and the private sector. Thus, the path will be paved in a parallel; the universities will support the innovation, creativity, and novel field of knowledge, and the manufacturing supports the educational subjects, and training courses, while; the government will support the mini projects, and encouraging the novel investments as well as supporting the researching partnership among companies, universities, and national labs especially in achieving the national competitive advantages.

![Figure 1. Samples for relationships between the financing sectors and achieving ones for R & D](image)

9. Forth-Partnership Models between the Private Sector and Universities:

The partnership models can be classified as: (Yaqoot, 2007, pp. 21-22).
A. Supported researches: most used models, the private sector financing the scientific researches to solve certain problem either for its benefit or for society benefit.

B. Contracted researches: those done researches to serve the private sector through certain activities.

C. Consultancy services: by part-time loaning some of teaching staff as experts or consultants, and getting the benefits of labs, manufactures, data of the universities (Khuder, 2011, p. 1657).

D. Solidarity: many companies or organizations worked together with the university to finance and support a scientific research that serving a common issue.

E. Authorization: under this process, the private sector takes the advantage of the intellectuality of this product by paying for it to the university.

F. Establishing Companies: this model took place during the high risk of investors, especially during the initial steps of adapting such technique, thus the university entered as a strategic partner.

G. Cooperative Teaching: such economic companies participate the universities in training the students during their holidays under certain training skills, here, the benefit will be verse versa.

H. Grants and contributions that specialized for “researching chair”, private sector submits them to universities to serve common objectives in direct way (Al Muhandes, 2009: 34).

10. Fifth-Features and Barriers of Partnership between Different Sectors and the Universities

The researching partnership has many features especially it is considered as intellectual assets, on the contrary the private sector which presented by companies and organizations have many features (Irena, 2007, pp. 55-57):

1- The community partnership between the scientific research centers in universities and society can create benefits for teaching staff to achieve the practical section of their researches as well as for private sector through exchanging & transferring the academic experts, skills, scientific knowledge to their society, then achieving the economic, scientific, technical prosperity in any society (Ukasha, 2009, p. 19).

2- The partnership creates a good chance for teaching staff to re-new their abilities and skills through the interaction with private sectors, they will reflect the novel knowledge and experts to their students yearly under the conditions of the market requirements. Moreover, the private sector enhancing the universities to be more systematic in their projects, and have the sense of change according to scientific development and verse versa (Bshoor, 2009, p. 77).

3- The community partnership between universities and private sector in all its aspects can create more revenues for universities through training courses, developing the products, services according to the society needs.

While the Barriers of the community partnership between Universities and Private sectors are:

The absence of selected techniques between D&R centers and production sectors caused the weaknesses of the interaction between them both.

In general, all references marked that there is a gap between universities and the private sector, which can be classified in to three dimensions; Barriers related to Universities, Barriers related to private sector, and general Barriers (Munfekhy, 2011, p. 47).

A- Barriers related to Universities (Abdul Lateef, 2008, p. 84),

- Universities are interested in teaching fields more than the surrounded environment problems.
- Universities depend on teaching process more than training process for graduated students.
- The teaching package interested in theoretical aspects more than on those practical that related to the reality in which these packages are old enough and not for the region needs.
- The lack of developing process for these programs and subjects
- The universities became more isolated, far from the private sector changes.
- There are no specific programs or plans for researching centers in universities that can serve the private sector needs.
- Teaching staff depending only on teaching students regarding less the researching activities, in which the percentage of researching activity is less than (5%), this fact affects the work on researching and most employees become far from scientific research.
The lack of researching data in universities that can be used for R&D.

The absence of cooperation and interaction between the scientific researches themselves that caused duplication and waste of time and effort.

**B- Barriers related to the private sector (Uqaily, 2010, p. 276).**

- The private sector has many negative remarks concerning the universities; they believe that universities are far from any interest in scientific researches.
- Most private business sectors are interested in short term studies & researches to solve certain problems or to change samples or items, regarding less the long term studies & researches which can be more innovated or patent to invest them in the future.
- The lack of interest by upper administrative management in R & D.
- Most private sectors depend on importing the technology, rather than applying researches to improve the technology.
- The private sectors are Lack in awareness and perception in the benefit of R & D activities.
- Unavailability of physical and intellectual supports to encourage the R & D.
- The financing limitation for R & D.
- Most private sectors treated their information with high level of privacy, which cased bad effect for R & D.

**C- General Barriers (Khuder, 2011, p. 1659).**

- There are no known communication channels to join both private sector and researching centers with universities.
- The high cost of achieving researches as well as its tools and equipment.

11. Sixth—the Successful Experiences in Managing the Community Partnership and Supporting the Scientific Researches

**A- Global experiences**

**1- China Experience**

China is an ideal sample in its believing and adopting the community Partnership. The China’s government insisted from 1993 on the role of scientific researches, improving the innovation culture, economic development creativity, to encourage the society and achieving the prosperity to its population. Adopting new strategy under the logo “Raising China through Science, Technology and knowledge”, and select certain objectives to be done by 2010. They doubled their efforts on improving the scientific researches, scientific & practical literacy, developing the intellectual capitals, establishing and encouraging the innovation and creativity systems in many aspects of knowledge. Moreover, they have an essential object toward establishing infrastructure under the idea of “encouraging the researching process in sciences and technology to serve the national infrastructure process”, which leads to have great China though adopting the strategic mythology "Building promote population who have an ideal strategic talents”. Thus, China could be a good guide for Arabian societies to follow and get the benefits of their policies to sustain and develop especially in innovation for production and marketing (Ministry of Science & Technology of The People, China, 2007).

**2- Malaysia Experience**

Till the latest years of 1900s, Malaysian society was still an agricultural society characterized as law rates either in economic or intellectual development. In that time Malaysian government adopted a national strategy to rebuild their economic which depended on knowledge, developing the Malaysian technical capabilities, establishing scientific researches institutes and practical training organizations, opening the Malaysian markets for global investments. These policies lead to increase the GDP to (84.6) Billion / US $ in the year 2007 and reflected (6%) increased rather than 2006. While the manufacturing products increased to reach (188.76 Billion US $) in 2007, and reflected (10.5%) increased rather than 2006. This means that the individual GDP is also increased into (3.3% / per year).

Malaysian government followed the strategy of K- economy, under the mission of Ministry of intellectual development and Ministry of Sciences as mentioned "achieving the technology compete and marketing the researches results, supporting the industry, solving technology and consultancy through an efficient management that used its intellectual investments correctly.” , thus, Malaysian government can pave the way to its population to have the prosperity so as developed countries within a typical duration of time (Economic report, 2006-2007).
B- Arabian Experiences

1- Egypt Experience

Egypt considered as the biggest country in the Arab Home Land, it has a great history in culture, knowledge, and sciences, but the population density, lack of financial resources, and the wars caused the Poverty, unemployment, illiteracy that caused many barriers in the developing process. Despite of that, Egypt has the biggest number of researchers in Arabian countries. Egypt has an active industrial sector (Al- Hussini, 2008: 227). Egypt occupied globally number (112) in the human development remark and number (13) as Arabian country, thus; Egypt has (57%) percentage of Arabian researchers and it spent around (30%) of GDP on R & D, while this percentage reflects (12%) of total GDP in Arabian countries. Egypt spent around (0.24%) for R & D of GDP, and the number of researcher is (493)/ per one million, and the registered patents are (1210).

Egypt recognized from a long period of time, that there is no way rather than investments to create technologies to b far from poverty, unemployment, illiteracy. Egypt depends on its national scientists, engineers, and innovators to product new goods, and creating more fields of knowledge. Egypt has around (68) researching institutes in many scientific, social, political, historical fields of knowledge, classified into (45) governmental institutes, and (15) private ones, and the rest financing by either Egyptian or foreign, all these institutes are supervised by Ministry of Scientific research & Technology.

Egyptian government suggested a national plan to Ministry of scientific research with the Academy of scientific research and technology in Cairo and participate the other governmental ministries to support the scientific research and scientific activities in Egypt. Thus, this plan caused the increasing of patents and scientific papers to be (1210) yearly paper and patent. But, this mark is still less than the standard level, if we contrast them with Japan which has (417000) paper and patents yearly, or India (9000) paper and patents per year, or even Israel which has (5800) paper and patents per year. These papers and patents are directed to many ministries, to follow and to get the benefit of them like, ministries of Oil, Agriculture, Industry, Higher Education, and ministry of Education (Human Development report, 2007-2008).

2- United Arab Emirates UAE

Gulf Cooperation Council (GCC) depends on educational, comprehensive policy; it gets the benefits of accumulated overflowing of Oil returning as well as from trade. UAE & Qatar are the earliest gulf counties which insisting on the role of foreign scientific research institutes, and opening many independent national institutes for scientific researches. UAE spent on scientific research around (0.4%) of GDP, around (10.2%) of it considered as high technological level exporters.

UAE adopts a specific national strategy for scientific research called "the scientific research 2020", which means it is a series of fifty plans that aimed for using modern techniques in scientific research and activates the innovational and creative knowledge and stimulates the sustainable teaching. Many agreements took place between the High Technical Institutes and Researching & Innovation center, to train many researching groups in the global companies either they are students, teachers and researchers.

In 2003, UAE established the “Specific Teaching Organization” and “Knowledge Village” in an Internet city Dubai, to receive the global universities, training centers, institutes and organizations to benefit from these scientific services in this technological city. And establishing (23) institutes for scientific research, high teaching, and non-governmental training centers that authorized from Ministry of High Teaching (Human Development report, 2007-2008). Moreover, there is another city called “Masder which means resource in Arabic” in Abu Dhabi, it is an institute of sciences and technologies that has community partnership with MIT, in 2009, this institute started to receive students who were seeker in sciences, engineering, watering and environment as well as in information technology. In previous 2007, Dubai governor established an institute for human development, science development and knowledge infrastructure in Arab Home Land to support the adults and financing the scientific scholarships and researchers as well as studies to improve the Arabian countries level to be near to those developed countries to be exporting countries of knowledge and to eliminate the knowledge gap among the global countries.

During the first conference for “Masder” institute that hold on Oct. 2007, they announced for great project to support the scientific research and establishing the business portfolios in universities as well as establishing project to build knowledge societies. Never the less, this project will improve the quality of Arabian “knowledge workshops” (Al Hussini, 2008, p. 247).

The above mentioned experiences are good models for community partnership management and supporting the scientific researches as well as the sustainability of competitive advantages to achieve the excellent performance
to be studied in more depth and trying to get the benefits from them accordingly and realizing that the scientific research is the ideal way to get the prosperity, development, through the community partnership, the scientific research process will be more effective and efficient. The university strategies should be more flexible to pave the way for private sector to be an effective partnership in financing the scientific research.

12. Results & Recommendations

A. Results

1. To finalize the knowledge society elements, it is very important to create a wide phase of thinking, researching, competing, and innovating to preface a suitable environment to discover the hidden talents in our societies, and pushing them to be smart and ideal through adopting policies that consecrate on developed techniques; supporting by modern scientific institute systems as well as encouraging the smart adults to be near to the global activities.

2. Scientific research change needs to search for how to invest rather than how to consume, this needs to adopt certain strategies in all universities according to its specialists, financial or intellectual abilities, then transferring the vision & mission of universities into productive university.

3. According to productive university, the production activities investment required news authorizations to join the researching & studying institutes with the production channels to market their ideas, themes, services, and researches either through governmental levels or private ones.

4. Joining the scientific researches with the society problems & needs required wide efforts to convince the society to accept the ideas of change through using media channels for that.

5. Reshaping the dining council in all universities, colleges, and institutes by involving the private sector as consultants and working on rebuilding the council into cooperative groups among researching institutes and universities then marketing these researches and technical consultants.

6. Following the novel organizing means to market the scientific research results such as: organizing exhibitions for university products, using novel scientific Medias, then activate the partnership that empowered the scientific research.

7. Activating the governmental role in developing the financing resources, and investing in scientific research to increase the consumption percentage on scientific research from (0.5%) to (2.5%) of national products.

B. Recommendations

1. Establishing an institutes focusing on the community partnership in universities, and joining the universities in their policies to serve the society, increasing its competencies, training abilities, and the center should work on improving the university employees performance through many training programs, such as:
   - Improving the concept of community between the university and the society.
   - Designing the developmental program through lectures, workshops, round table meetings to support the cultural, social and economic development for the society population.
   - Meeting needs for adopting studies, applied researches for all aspects of society.
   - Presenting training and cultural courses in human development and administrative development.

2. Focusing on quality and competency in the academic, cultural and scientific society performance, and following new developed systems in scientific research.

3. Community establishment with scientific and international researching councils to empower the abilities of self-development of university academic staffs.

4. Notifying the production organizations and centers with the yearly activities.

5. Developing the teaching staff in all universities and researching institutes through a national plan to improve their skills, and knowledge.

6. Participate the teaching staff and the researcher into presenting novel strategies and researching plans, meanwhile, participate the end users in the scientific research results directly.

7. This modest search is a bid for illustrating the Arabian Universities reality, in which it could be a base for other researchers to start from to raise for relevant model of how to compete and sustain through the community partnership.
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