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PATTERNS OF PRIVATE INVESTMENTS IN PALESTINIAN HIGHER EDUCATION: POTENTIAL AND CONSTRAINTS

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Abstract

While the demand for higher education increased sharply between 1995-2005, Palestinian academic institutions (universities and community colleges) continued to suffer from budget deficits., Meanwhile, the role of the private sector in financially supporting the academic institutions is still insignificant. Also, the contribution of the Palestinian National Authority (PNA) to financing higher academic institutions is still inadequate. Currently, public funds paid by the PNA cover less than 10% of the academic institutions' expenditures. In fact, the PNA has made it clear that it looks to academic institution to rely more on private finance. Thus, this study aims to come up with a set of policies required to enhance the capacity of private sector investment in higher education ─ whether partial or total. To accomplish this objective, an econometric model is specified and estimated utilizing primary data. A questionnaire id designed to collect primary data to assess the attitudes of the private sector toward investing in the Palestinian higher education.

The results of this research are of interest to several parties, agencies and institutions, mainly ministries of education and higher education and labor and academic institutions. In particular, the study highlights the patterns of investments that should be applied by the private sector in the Palestinian higher education. It also focuses on the appropriate policy variables that could be employed to stimulate private investments in higher education and to enhance the integration between academic institutions and the private sector.

ملخص

على الرغم من الارتفاع الحاد في الطلب على التعليم العالي في الفترة 1995-2005، ظلت المؤسسات الفلسطينية الأكاديمية (الجامعات والكليات المجتمعية) تعاني من عجز مستمر في ميزانيتها. ومع هذا، ظل دور القطاع الخاص في تمويل المؤسسات الأكاديمية غير ذي بال. كما ظلت المساهمات التي قدمتها السلطة الفلسطينية لدعم هذه المؤسسات غير كافية.

فالتمويل الذي تقدمه السلطة الفلسطينية يمثل أقل من 10 في المئة من نفقات المؤسسات الأكاديمية. و قد أكدت السلطة الفلسطينية على أنها تريد مؤسسات أكاديمية تعتمد بشكل أكبر على تمويل القطاع الخاص. ولذلك تهدف الدارسة إلى الوصول إلى مجموعة من السياسيات اللازمة لرفع مقدرة القطاع الخاص الفلسطيني على الاستثمار بشكل جزئي أو كلي في التعليم العالي؛ وللوصول إلى هذا، يجري تحديد وتقييم نموذج اقتصادي قياسي في ضوء المعلومات الأولية. كما تم صياغة استقصاء للحصول على معلومات أولية لتقييم مواقف القطاع الخاص من الاستثمار في قطاع التعليم العالي الفلسطيني.

وتهم نتائج هذا البحث العديد من الجهات والهيئات والمؤسسات، لا سيما وزارات التعليم والتعليم العالي والعمال والمؤسسات الأكاديمية. وتهتم الدراسة بصفة خاصة بنماذج الاستثمارات التي يجب أن يطبقها القطاع الخاص في قطاع التعليم العالي الفلسطيني؛ كما تركز على البدائل المناسبة التي يمكن استخدامها لتنشيط استثمارات القطاع الخاص في التعليم العالي وتعزيز التكامل بين المؤسسات الأكاديمية والقطاع الخاص.

1. Introduction

During the period 1995-2005, the number of students enrolled in Palestinian higher education institutions (PHEIs), including universities and community colleges had doubled around five times. The rapid increase from 30 thousand in the academic year 1994/1995 to 160 thousand in 2005/2006 made for an annual growth rate of 15% . On the other hand, while 90% of those students attended 11 local universities, only 10% of them seeked education and training at 30 community colleges and vocational institutes. However, the sharp increase in the number of students enrolled at the PHEIs was not matched by the increase in the number of faculties. In particular, the number of faculties rose from 1700 in 1997/1998 to 2700 in 2005/2006 ─ showing a 52% increase and an annual growth rate of 8.6% (Palestinian Statistical Guide of Higher Education).

Concerning the expenditures of PHEIs, current expenditures account for more than 80% of total expenditures. Moreover, salaries and wages absorb 80% of the current expenditures. However, operating and capital expenditures items are usually very limited and depend on donations. This could be attributed to the high degree of inefficiency in collecting fees and tuitions. Yet, fees and tuitions gathered annually by PHIE covered less than 60% of the current expenditures. Therefore, donations, PNA financial assistances and other charitable funds are used to cover the deficits of PHEI (Palestinian Ministry of Higher Education, Financial Strategies of Higher Education, 2000). Naturally, the system of higher education in the West Bank and Gaza Strip (WBGS) has a unique situation, where it could be characterized as follows:

- Most of PHEIs are public institution (non-profit organizations). Eight universities are public, two universities are governmental and only one is private.
- Lecturing comprises around 95% of PHEIs functions. Consequently, scientific research and continuous education account for only 5% of PHEIs operations. As a result, fees and tuitions are the main self-funding resources to the PHEIs.
- The continuous and persistent budget deficit of the PHEIs is the main challenge that threatens their development and expansion. The deficit is approximately 47% of total expenditure.
- There is a mismatch between PHEIs outputs (mainly graduates) and market needs. Thus, it is not surprising to find that unemployment rates among PHEIs graduates exceeds 25%.

Yet, cooperation between PHEIs and the private sector is still very limited and restricted. Even the reciprocal relationship between PHEIs and the private sector is very weak. While the private sector lacks well trained and qualified directors and managers, it is expected from private sector to provide funds to support the academic processes and facilities such as labs, libraries, training (El-jafari and Lafi 2004). Such kinds of activities are considered as indirect investment by the private sector to get the following benefits:

- Free or low-cost technical support for research and development.
- Access to university laboratory equipment to recruit researchers.
- Attracting better skills to industries.
- Obtaining information from universities on international developments.

The higher education sector also suffers from inadequate government funding. Therefore, it becomes necessary for the private sector to invest directly and indirectly in expanding and /or establishing new institution (universities and community colleges). In fact, universities in the WBGS have been witnessing deteriorating facilities and a drop in the quality of services provided to students due to the annual decline in operating and capital expenditures. It has been noted that the quality of graduates is enhanced with the reliance of academic institutions on private sector funding. In contract, a greater reliance on public investments leads to a lower quality outputs whether graduates, researchers or consultants.

2. Patterns of Private Investments in Higher Education

This section of the paper looks at the role of the private sector in higher education. Higher education in the WBGS can be categorized into three t groups. Public universities depend mainly on fees and tuition to cover expenditures. Grants and loans are considered as minor sources. In the WBGS, nine of eleven universities are public institution.

The consistently increasing demand for higher education calls for the private sector to diversify investments in the following directions:

a. direct and partial investment includes:

- Expanding and building infrastructure in public and governmental universities.
- Supporting the academic process with facilities such as; libraries, labs, and sport facilities.
- Training, adaptation, and joint academic development programs.
- Grants and scholarships for graduate students abroad (M.A, PhD) mainly in applied sciences.
- Building colleges, university colleges, and infrastructure.
- Introducing programs which are compatible with the market needs.

b. Indirect and partial investment includes:

- Joint investment in research and academic programs.
- Taking advantage from research results, graduates' skills, and continuous education programs.
- Supporting researches and consultancies which strengthen the academic processes through providing libraries and labs for example.

c. Indirect and total investment includes:

- Building spaces to support the applied side of academic programs such as hospitals and factories. Constructing student residential accommodation. This is an area where private sector can invest jointly with academic institutions.
- Over the past few decades, university- industry partnerships have become very prominent on the agenda of higher education policy-making, both at the national and institutional levels. Within the context of knowledge-intensive societies and globalization, governments are increasingly acknowledging the importance of higher education institutions as strategic actors in national and regional economic development, especially given their potential to upgrade the knowledge of the labor force and to contribute to the product and process of innovation through technology transfer (Sanyal, 1998).

In many universities, relations with the private sector used to be the result of a handful of dynamic university staff members that had close links with the industry. As a result, most university-industry initiatives developed bottom-up and in some cases stayed at the level of individual professors without any real tangible benefit to the institution as a whole. In a context of decreasing public funding, universities needs to operate in a more business-like way and to put in place proper strategies, policies and structures. It is anticipated that professors will fully operate to initiate partnerships with the private sector to benefit themselves and institutions as well. In developing new modes of operations to support co-operation with the private sector, universities will not only assist individual staff, but they will also create a more dynamic organizational culture in which this co-operation with the private sector can be more successful and sustainable in the long term. Both the universities and the private sector should have mutual benefits from university-industry partnerships if they are to be successful in the long term.

The most general benefits for universities are in the following areas: improving student and staff skills; expecting training needs and skills; modernizing equipment and changing attitudes and strategies by working in research teams. Enterprise will greatly benefit from the research skills and expertise available in universities and from having a greater choice in recruiting graduates and locating research findings that may be applied to the industrial process etc.(Sanyal, 1998; Wilmoth,2005).

The following are the main benefits that encourage the private sector to invest in higher education institutions:

- There is a need to improve the quality of graduates by preparing them today for tomorrow's markets.
- There is a shortage in high quality training materials and courses, especially in areas of advanced technology, for both enterprises and higher education institutions themselves.
- It is in everyone's interest if higher education institutions increase their capacity to adapt to the changing needs of society in general and the economy in particular.
- There is a need to secure a more effective link between pure and applied research and its applicability to enterprises.

It is obvious that integrating the private sector and higher education institutions requires strategic management to maintain such university-industry partnerships.

3. Literature Review

Over the past three decades, the private sector has taken over the governments in developed countries as well as in developing countries which failed to promote investments in higher education. Educational and economic justifications are the main reasons behind investing in higher education. In many developing countries, universities have found themselves faced with rapidly changing socio-economic conditions and limited access to international experiences that brings along with it ideas and approaches from other institutions and countries in the area of university-industry partnerships.

This issue was reviewed by many researchers, and in the following paragraphs we will present their insights and recommendations. It is anticipated that investment in higher education would promote economic growth through enhancing the human capital's quality and stock and improving the efficiency and effectiveness of the higher education system (Voon, 2001; Doughetry 2004). Several studies have been conducted over the last three decades which consider investment in education similar to investment in physical capital. The greater the proportion of returns to the cost of supplying education, the more the investment will be allocated to higher education. Since higher education significantly increases earnings, the private sector and the individuals are both willing to meet the permanent increases in the demand for higher education.

In 1998 Sanyal discussed source diversification and the role of privatization in financing higher education in the Arab states region. Huge budget deficits, high expenditure and limited returns, forced many governments to changed their patterns of financing higher education ─ from the public to the private sector. Consequently, this study tries to introduce a list of diversified sources of financing higher education which include:

- Religious organizations and business enterprises,
- Variations of tuitions, examination and residential fees,
- Contracts for conducting research, teaching courses and delivering consultations,
- Intellectual property rights (patents and books),
- Commercial activities(printing, bookshops, rental facilities),
- Investment in productive areas, and

- Foreign aid.

Moreover, Sanyal's 1998 study identified different modes of privatizations such as contracting out of public services, vouchers, load shedding, franchising and voluntary service. Finally, it discussed the advantages and disadvantages of privatization in financing higher education.

On the other hand, Cotgreave's 2001study analyzed the links between the higher education sector and the private sector**,** to create an environment for the "knowledge economy" of the 21st Century to conclude that strong links must be forged with the private sector. Equally, the private sector must rise to the challenges of working more closely with universities. The two sides have different cultures, and each must understand the other if they are to succeed in realizing the undoubted benefits of forging strong links. Cotgreave introduced those challenges to balance between "pure" and "applied" research, which conclude that transforming the results of the research into money depends on how to make the UK sciences more attractive to the private sector, and generally into an attractive place to do knowledge-driven business.

The higher education financing council in England designed a booklet on private investment in higher education with the aim to help potential private sector partners assess the risks and rewards of financing income-generating facilities in specific or core facilities such as libraries, teaching and research accommodation in general.

Satti 2006 discussed both the supply and demand sides of educational policies in the GCC countries. She compared the macro and micro views concerning plans, policies and mechanisms implemented to improve skill upgrading through enhancing the educational system, provision of training and transfer of knowledge. The main result of the study was that the improvement of the educational systems in the GCC countries is vital and requires improvement of the quality, supply (investment) and demand (enrolment) sides ─ particularly increasing incentives for tertiary and technical education and private sector investment in education and training.

The resolution adopted by the ETUC Executive Committee in a meeting held in Brussels, October 2005 on Higher Education in a Lifelong Learning Perspective, ETUC stressed that higher education institutions need to be a major players in building competitiveness and promoting the equity and social cohesion among European citizens. The European challenge is to make universities serve citizens and the whole society more broadly. European universities developed more cooperation with the private sector and designed new forms of management, information, consultation and participations

Wilmoth, 2005 addressed eight ways that universities in developed countries can promote private investment in higher education. Despite the expertise that a faculty might bring to the task, universities in developed countries play a very small role in mobilizing investments into higher education and training systems. His suggestions for raising the contribution and making it positive can be summarized into technical assistance, institutional exchange and cooperation and extending winning partnerships. He also stressed on institutional mechanisms such as start up-winning partners, learning platforms, reducing policy constraints, international accreditation and quality assurance.

However, several studies have been reviewed, concentrating on the following aspects:

- Investment in higher education leads to maximizing private and social returns. (Voon,2001; Hall, 2000; Psavharopoulos, 1995).
- The expected impacts of investment in higher education on the labor market (Dougherty and Psavharopoulos, 1977, Gradstein and Justman, 1995 McGuinness, 2003). Investment

in higher education by private sector will enhance integration between University outputs and labor market needs.

- The role of private sector to favor investment in higher education (Edwards, 1975).

4. Objectives

The main purpose of this study is to come up with a set of policies to entice the private sector to invest partially and/or totally in higher education. Therefore, this study has taken into account the areas of investment needed to enhance the capacity of the Palestinian higher education. In fact, the investment decision for the private sector is usually taken after reviewing several sets of criteria.

The objectives of the study have been carried out through employing an econometric model of the demand for private investments in higher education to meet the following specific objectives:

i. Determine the factors behind private sector investments in higher education.

ii. Determine policy variables that could stimulate integration between PHEI and the private sector, concerning investments in higher education.

iii. Identify appropriate forms of investments in higher education carried out by the private sector.

It is obvious that the intervention of the private sector in investing in higher education will produce a high quality of graduates particularly when appropriate technology and equipment are employed in teaching and research. Therefore, the results of this research are of interest to planners of higher education and policy makers in public and private sectors.

5. Methodology and Data Sources

The economic analysis focuses on examining the expected forms of investments in higher education that could be carried out by the private sector in the WBGS. In addition, a model is specified and estimated to determine factors behind the determination of patterns of private investments in higher education. Based on the empirical results, the analysis has been conducted subject to: (1) Restructuring the higher education system according to the investments that should be carried out by th private sector to match changes in the demand for and supply of graduates in the local labor markets. (2) Changing private investments on higher education, based on the following indicators: unemployment, government expenditures and gross national product (GDP). In this regard, investments in higher education, and consequently the outputs of this sector, are treated as demand driven in relation to the needs of graduates, researchers and consultants. This approach is convenient for linking the economic policies with the educational policies.

To estimate the model, primary data have been gathered. A questionnaire has been designed to obtain primary data from selected businessmen in the Palestinian private sector to assess their attitudes toward investment in higher education. The questionnaire covers the following dimensions:

i. Personal data on the businessmen and their establishments.

ii. Areas of cooperation between the private sector and the PHEIs to improve the quality of graduates.

iii. Patterns of investments that businessmen in the private sector have the willingness and /or the ability to implement in the PHEIs.

An empirical analysis of the potential partnerships within the private sector is conducted based on the primary data gathered in 2005 and early 2006. A survey questionnaire was sent to 500 businessmen in the WBGS. Questionnaires were completed by 490 businessmen. In addition, semi-structured interviews were conducted with senior personnel from four PHEIs.

6. The Model

The decision made by a businessman in the private sector who is both willing and able to invest in the higher education institution can be presented by the following model:

6.1 Equations of the Interaction between PHEIs and the Private Sector to Improve the Quality of Graduates

The following equations represent the interaction between the private sector and the PHEIs to improve the performance of an employed graduate. Areas of cooperation between the academic institution and the private sector are presented in Table 1.

$$EXP_{ijr} = f(Aca_{d1}, .., _{dn}; Coo_{p1}, .. _{pm}; Fi_{n1..nz}) \quad (1)$$

Where:

EXP_{ijr} = Financial expenditures allocated by the i^{th} employer in the j^{th} sector to improve the performance of graduates. $_{J1}$= private sector, $_{j2}$= public sector.

Aca_{d1}, …, $_{dn}$ = Academic criteria applied by employers to improve the quality and efficiency of employed graduates.

Fi_{n1},…, $_{nz}$ = Financial support provided by employers to improve the quality and efficiency of employed graduates.

Coo_{p1}, …, $_{pm}$ = Areas of cooperation between private and public sectors and academic institutions other than academic and financial support.

6.2 The Model of the Private Sector Willing and / or Able to Invest in Higher Education Institutions

The following models represent the degree of will and interest in addition to the ability of the private sector to invest in higher education. In general, academic, social and economic variables are the major determinant behind private investments in higher education. They can be presented as follows:

$$Y_i = f(ACDV_i ; SOC_i; ECON_i) \quad (2)$$

Where:

Y_i= The degree of willingness and /or the ability to invest in higher educational institutions; where the value of Y_i ranges from 1-5.

$ACDV_i$= Academic variables expected to have impact on the businessman decision to invest in PHEIs (academic education). They include: diploma, years of schooling, area of specialization, demand for higher education, quality of higher education and outputs of higher education. The value of each variable ranges from 1-5…..

$ECON_i$= The economic factors behind a businessman's decision to invest in higher education. They include: age of the establishment, the economic sector, return of investment and imports of higher education (Palestinian expenditures on higher education abroad).

7. Sample Characteristics

The business sectors' sample distribution given in Table 2 largely conforms to expectations. The sample (N=490) indicates that construction, industry, health and education are the private sectors that are most interested, willing and able to invest in higher education. They account for 65% of the sample respondents. In contrast, agriculture, banking, telecommunication and IT have shown less interest. Only 14% of the sample respondents came from those sectors. However, these indicators need further investigation as it is likely that IT and banking may have more interest to invest in HEIs than was shown.

In Table 3, some 65% of businessmen who held BSc degrees and above will be involved in investing in higher education. These indicators reveal that the private sector is more likely to be engaged in higher education as the businesspeople get higher qualifications.

8. The Anticipated Patterns of Private Investments in the Palestinian Higher Education

Private sector is willing to invest in profitable projects such as developing and running departments in the universities, establishing and running dormitories, running training centers, building and running commercial centers and running printing and copying services. From Table 4, the interest of the private sector is mainly linked with projects that generate returns. In contrast, private investments in academic projects to improve the quality of higher education seem to be very limited. In fact, the private sector does not have the will to invest in projects that already exist, such as hospitals and clinics. It is obvious that the private sector seeks investments in commercial projects over establishing private universities and community colleges.

On the other hand, the Palestinian private sector has the ability to invest in commercial projects such as dormitories, commercial centers, printing and copying services. These indicators suggest that the private sector will not be engaged in the construction of learning materials and knowledge production. However, small groups of the private sector will be involved in developing academic programs and institutions. Table (5), shows that establishing hospitals, pharmaceutical factories, new departments, technical and community colleges and private universities are less attractive to private sector investors.

Yet, there has been very little contribution by the private sector to university partnerships in educational terms. Most of the areas of cooperation between managers in the private sector and academic institutions are slack. These confirm that private sector needs certain motivations to enter partnerships with the higher academic institutions.

9. Empirical Results

In this section**,** the empirical results of the estimated equations are presented and discussed. First, the estimated equations concerning the partnership and cooperation between the private sector and HEIs are discussed. Then, the estimated equations of the willingness and ability of the private sector to invest in higher education are analyzed.

Given that primary data utilized to estimate the model, the first consideration for the estimation procedure is the statistical specification of the equations and the selection of the appropriate estimation technique. The specified models are not a system of equations. Each equation contains predetermined variables which are not common to each equation and the disturbances of each equation are not correlated. Therefore, ordinary least squares (OLS) has been used to estimate the model. The use of this estimation procedure for each independent equation provides consistent and unbiased parameter estimates (Griffiths, Hill, and Judge, 1993).

Only significant variables in the estimated equations are presented in Tables (6) to (8). The coefficient estimates with t-test statistic are shown as well as F- test and R^2 to show the degree of significance of each estimated equation. In the equation of each model (1 and 2), most of the explanatory variables are qualitative and the endogenous variables are quantitative. The coefficient estimates measure each explanatory variable's degree or the level of impact with respect to the endogenous variable on one hand and with respect to other explanatory variables in each estimated equation on the other hand.

9.1 The Estimated Equations of the Role of Employers in Improving the Quality of Employed Graduates

In general, the scope of cooperation between businessmen in the private sector and PHEIs is limited to certain aspects. Empirical results presented in Table (6) reveal that the private sector is much more interested in cooperating with PHEIs through designing courses and teaching applied courses. However, the private sector is less interested in providing financial support to the PHEIs. It was clear that private sector is willing to provide a certain limit of financial support to students working on their thesis. Also, part of the private sector is willing to cover tuition fees for senior students, particularly, those who have a potential to be employed in the private sector.

However, the administration of PHEIs should tap the expertise of public and private sector leaders to develop a model for university-industry partnerships. The feedback from employers and employed graduates is required to identify skills and abilities and to integrate graduates into the local job markets. PHEIs – private sectors partnership (PSP) has become an important area to be restructured. In fact, the private sector expects to be granted access to the expertise of university researchers, qualified graduates and to curricula that meet its needs. On the other hand, PHEIs will benefit from PSP financial participation to transfer the knowledge in some specific sectors, where some firms in the private sector are more up-to-date than PHEIs. The relationship between PHEIs and PSP varies according to the type of firms in the private sector. High tech firms look for highly qualified graduates and for cooperation in research. Large traditional firms in both private and public sectors are most appropriate for internship programs, consultation and continuing education.

The empirical results indicate that improving the performance of graduates requires that institutional reforms be taken to bridge the gap between PHEIs outputs and PSP needs. Skills needed by PSP could be obtained through financing PHEIs training in return for a commitment by PSP to recruit graduates.

9.2 The Estimated Model of the Willingness of the Private Sector to Invest in Higher Education

The regression results presented in Table (7) show that academic qualifications such as Intermediate Diploma, BSc., M.A and PhD and the rate of return appear to be the most important factors behind the willingness of the private sector to invest in PHEIs. The coefficient estimates of those variables are highly significant at 0.01 percent level. These results imply that the business people's concern with returns is highly associated with certain level of scientific qualifications. The next in importance is the output of higher education such as graduates and consultations, experiences and quality of higher education. However, area of work, continuous and persistent demand for higher education and the consistency between market needs and outputs of higher education are less important to the private sector to invest in higher education. It is obvious that few factors have impact on the attitudes of the Palestinian businesspeople toward investment in higher education. In this regard, the degree of willingness of the private sector to invest in higher education requires other factors to be increased. Mainly, the Ministry of Education and Higher Education and the university management should raise awareness among businesspeople in the private sector ─ that the private sector can benefit and from such partnerships as much as it would from commercial projects. Investing in human capital directly and indirectly will benefit the private sector. The efficiency and effectiveness of each establishment will be achieved through enhancing the reciprocal relationship between the private sector and HEIs.

9.3 The Estimated Model of the Ability of the Private Sector to Invest in Higher Education

Table (8) indicates that there are similarities between the willingness and the ability of the private sector to invest in higher education. Businesspeople are mainly concerned with the rate of return as the major determinant to invest in higher education. Further, BSc and Ph.D qualifications and experiences are the major attractions behind integrating the private sector with tertiary education. However, the interaction between private sector and HEIs is still very limited. Therefore, other factors should be investigated. For example, funding of both applied and basic has remained over the past decades.

10. Policy Implications

The empirical results of this study indicate that private investments could play a crucial role in integrating the private sector with the higher education sector. Therefore, university management should search for businesspeople who acquire certain skills, abilities and academic qualifications that represent the necessary conditions to actually provide funding to HEIs. Although the employers base their decisions when recruiting graduates on competitive factors, they admit that private investments should be devoted to improving the quality of graduates. Therefore, it is not surprising to find out that the quality of graduates depends mainly on how much computer and language skills, training and experience gained before and after graduation. In fact, cooperation between the private sector and HEIs focuses on improving the quality of graduates through providing those skills and competencies to graduates. In contrast, it has been found that unqualified graduates are employed, particularly, in the public sector, and in occupations irrelevant to their fields of study offered by private sector.

In this regard, several measures and regulations should be taken by the private sector on one hand, and by the HEIs on the other hand.They are outlined below:

1. The scope of cooperation between HEIs and private sector needs to be developed and expanded. Consequently, the quality of graduates should be determined based on the capacity of the HEIs and the needs of the private sector. A well- functioning labor market requires that employers in the private sector should signal their skill needs in a clear, specific and credible manner. It is expected that the participation of the employers in the design of HEIs curriculum will be paralleled by an increased financial support. Furthermore, employers must be willing to finance the implementation of their suggestions regarding the content of academic programs.
2. Also, the HEIs are called upon to restructure the academic programs through applying student loan policies. It is obvious that a student who receives loans to cover his /her tuitions, fees and other expenses will choose only his/ her field of study that is in high demand by the labor market to enable him /her to clear his / her loans. Consequently, disciplines and academic programs that are not highly demanded by the labor market will be closed. It is expected that applying this policy requires the availability of necessary and sufficient conditions. The student loan system should be applied in a restricted manner. A student will not apply for or be granted loans unless his /her field of study is highly demanded by the labor market. On the other hand, university management should discuss its plans with the private sector to nourish its willingness and ability to invest in higher education. In fact, each academic institution is interested in a certain type of private investment to be carried out directly or indirectly, totally or partially.
3. The establishment of rehabilitation and training programs that have the potential to provide skills and competencies to new graduates. It has been concluded that an increase in unemployment rates among graduates is attributed to deficiencies in computer, management and language skills in addition to lack of experience.

Currently, a number of regional countries, such as Saudi Arabia, United Arab Emirates, Kuwait, Jordan and Egypt have established programs and institutes to integrate new graduates in the labor markets after they've acquire new skills and competencies. Therefore, establishing such kinds of institutions and centers ─ to train and rehabilitate new graduates in the WBGS ─ will narrow the gap between the supply of and demand for new graduates. As a result, it is expected that the waiting period for new graduates to integrate into the labor market, particularly in the private sector, will be minimized.

11. Conclusion

This paper provides evidence that there is a gap between the interests of the private sector and HEIs in the WBGS. The empirical results of the estimated model indicate that the interest of the private sector to invest in HEIs is still very limited to certain types and is subject to the rate of return. In addition, areas of cooperation between HEIs and the private sector to improve the quality of graduates through providing graduates with language acquisition, computer skills, experience and training are the main factors behind absorbing graduates by private organizations. However, uncompetitive factors such as political affiliation, favoritism and personal contacts substantially play a major role in hiring graduates in the public sector. Therefore, it was not surprising to find that graduates from local HEIs who lacked a number of necessary skills are deprived from entering the job markets, particularly, when such tough criteria are applied in employing graduates seeking jobs in the private sector.

In order to narrow the gap between the supply of and demand for new graduates in the local markets, a number of measures must be taken by the private sector and HEIs. Concerning the responsibilities of the private sector, the abundance of higher education graduates will enable the WBGS to specialize in producing commodities and services that depend mainly on skilled and educated laborers. Consequently, the academic process in the WBGS HEIs should utilize certain inputs to produce outputs such as graduates, research and consultations to meet the needs of the private sector. Therefore, several areas of cooperation between the private sector and the HEIs should be applied by both sides to improve the quality of graduates. Further, certain types of investments should be carried out by the private sector in the HEIs. Consequently, increasing collaboration between private sector and HEIs will bring creative engine to the knowledge economy.

References

Adrian Ziderman (1973). Rate of Return on Investment in Education: Recent Results for Britain, *The Journal of Human Resources,* vol.8, no. 1.

Bron,W.(2001). Sources of Funds and Quality Effects

Burquel N.(2001). Guidelines for Action: Implementing Strategies for University –Industry Partnerships, UNESCO.

Clive R. Belfield C. & H. Levin (2002). Education Privatization: Causes, Consequences and Planning Implications, UNESCO, International Institute for Education, Paris.

Commission of the European Communities (2002). Investing Efficiency in Education and Training: An imperative for Europe.

Cotgreve, P.(2001). Forging Stronger Links Between the Higher Education Sector and Private Sector, a paper presented at Capita Conference , England.

Dougherty, C. & G. Psacharopoulos (2004). Measuring the Cost of Misallocation of Investment in Education, *The Journal of Human Resources,* vol.12, no.4.

Edwards, E. (1975). Investment in Education in Developing Nations: Policy Responses where Private and Social Signals Conflict, *World Development* vol.3, no.1.

El-Jafai. M & AL-Ardah. N (2002). Financing Palestinian University Education, Prospects for Movement, MAS, Ramallah, Palestine.

El-Jafai. M & Lafi. D (2004). Matching Higher Education Graduates with Market Needs in the West Bank and Gaza Strip, MAS, Ramallah, Palestine.

Ferber, M. and W. McMahon (1979). Women's Expected Earnings and Their Investment In Higher Education, *Journal of Human Resources,* vol.14, no.3

Ging, L. (2002). Asymmetric Information and Private Higher Education in Developing Countries: The Case of Malaysia, Centre for Europe – Asia, Business Research.

Griffiths, W.R., Hill and G.Juge (1993). Learning and Practicing Econometrics, Jon-Wiley sons.

Hall, J. (2000). Investment in Education: Private and Public Returns, Published by join Economic Committee, India.

Higher Education Funding Council for England (2004). Private Investment in Higher Education

Justman, M. and M. Gradutein (1995). Competitive Investment in Higher Education the Need for public Coordination, Economic Letters, 47

McGuinness, S. (2003). University Quality and Labour Market Outcomes, *Applied Economics,* p.35.

McMaham, W. (1981). Expected Returns to Investment in Higher Education, *Journal of Human Resources,* vol.16, no.2

Mcmahon W. & Boediono (1992). Universal Basic Education : An Overall Strategy of Investment Priorities for Economic Growth, *Economies of Education Review,* vol.11, no.2, pp. 137-151.

Mortenson, T.(2002). Higher Education as Private and Social Investment, Key Bank Financing Conference, Orlando, Florido.

Palestinian Ministry of Higher Education: Statistical Abstract of Higher Education.

Psacharopoulos, G. (1995). The Profitability of Investment in Education: Concepts and Methods, Working Paper published by Human Capital Development and Operations Policy.

Sanyal, B(1998). Diversification of Sources and the Role of Privatization in Financing of Higher Education in the Arab World

Satti,S (2006). Education, Training and Skill Development Policies in the Gulf Countries, paper presented in the 12th Annual Conference of the ERF, Cairo, Egypt.

Sharvashidze, G (2002). Private Higher Education in Georgia: Main Tendencies, Georgia.

The Private Universities (Establishment and Regulation) Bill (1995). Government of India, Department of Education. www. education. nic. in

The World Bank & The Ministry of Higher Education (2002). The Strategy of financing Higher Education in Palestine.

UNESCO Institute for Statistics (2002). Financing Education-Investments and Returns: Analysis of the World Education Indicators.

Voon. P. (2001). Measuring Social Returns to Higher Education Investments in Hong Kong: Production Function Approach, *Economics of Education Review,* pp. 503-510.

Wilmoth, D (2005). Promoting Private Investments in Higher Education and Lifelong Learning in Developing Countries.

Table 1: Areas of Cooperation between Employers in Both Private and Public and Academic Institution to Improve the Quality of Graduates

Academic	Financial	Training
✧ Reviewing and developing curriculum. ✧ Teaching applied courses. ✧ Designing academic programs. ✧ Joint research ✧ Designing applied courses	✧ Supporting master thesis and research. ✧ Support training programs. ✧ Support teaching equipments, appliances, libraries and labs.	✧ Hosting graduates for short –term training. ✧ Hosting faculty members for sabbatical leave and/or share term visiting.

Table 2: Distribution of Business Sectors Who Are Willing/or Have the Ability to Invest in Higher Education

Sectors	West Bank and Gaza Strip
Agriculture and Food Processing	3
Industry	15
Construction	10
Education	22
Health	18
Banking	7
Telecom	2
IT	2
Services	21

Table (4) Patterns of Investment that private sector has willing to carry out in PHEIs. , in percentages

No.	Item		
		Yes	No
1.	Private University	10	90
2.	Establishing and Running new Faculty	20	80
3.	Establishing Technical Community College	25	75
4.	Developing and Running Faculties.	25	75
5.	Developing and Running new Departments.	30	70
6.	Establishing new Departments.	15	85
7.	Establishing Hospital.	08	92
8.	Establishing Pharmaceutical Factory.	12	88
9.	Establishing and Running Dormitories.	35	65
10.	Fitness and training Facilities	22	78
11.	Training and Rehabilitation.	25	75
12.	Training Centers for Graduates.	35	65
13.	Medical Clinics.	20	80
14.	Commercial Centers.	40	60
15.	Technical College in the University.	5	95
16.	Printing and Copying Services.	30	70

Table (5) Patterns of Investment that private sector has the Ability to carry out in PHEIs. in Percentages

No.	**Item**		
		Yes	**No**
1.	Private University	05	95
2.	Establishing and Running new Faculty	10	90
3.	Establishing Technical Community College	15	85
4.	Developing and Running Faculties.	10	90
5.	Developing and Running new Departments.	10	90
6.	Establishing new Departments.	05	95
7.	Establishing Hospital.	8	92
8.	Establishing Pharmaceutical Factory.	3	97
9.	Establishing and Running Dormitories.	20	80
10.	Fitness and training Facilities	10	90
11.	Training and Rehabilitation.	10	90
12.	Training Centers for Graduates.	15	85
13.	Medical Clinics.	10	90
14.	Commercial Centers.	22	78
15.	Technical College in the University.	4	96
16.	Printing and Copying Services.	28	72

Table (6): The Estimated Demand Equations of the Role of Employers in Improving the Performance of Employed Graduate

Indicators	West Bank	Gaza Strip
	Private Sector	Private Sector
Field of study needed to be adjusted and adopted.	0.0202 (1.61)	0.0202 1.(54)
Cooperation and willing in designing academic programs.	0.02524 (1.52)	0.0220 (1.47)
Teaching applied courses at HEI.	0.0251 (1.44)	0.020 (1.51)
Support financially student in graduate studies to work on master thesis.	0.02292 (1.57)	0.01833 (1.55)
Training senior students	0.02838 (1.35)	0.0233 (1.27)
Designing applied courses	0.0116 (1.40)	0.087 (1.43)
Supporting teaching facilities	0.0303 (1.36)	0.0261 (1.32)
R^2 F	0.35 4.5	0.54 3.4

Table 7: The Estimated Equation of the Private Sector's Willingness to Invest in Higher Education

Independent Variables	**Coefficient Estimates**	**SEE**	Note
Constant	6.26	0.205	*
Qualification	----	---	
Intermediate Diploma and Less	0.005	.004	***
B.sc	0.076	0.023	*
M.A	0.099	0.015	*
Ph.D	0.12	0.043	*
Area of work	0.061	0.05	***
Rate of Return	0.27	0.109	*
Demand for Higher Education	0.083	0.073	***
HEIs Outputs	----	-----	
Graduates	0.064	0.032	**
Research	0.053	0.045	***
Consultations	0.023	0.013	***
Experiences in cooperation Between the private sector and Higher Education X	0.006	0.004	**
Accumulation of Experiences in Cooperation Between the Private Sector and Higher Education X2	0.03	0.02	**
Quality of Education	0.103	0.05	**
The Consistency Between the Market Needs and HEIs Outputs	0.007	0.005	***
R2	0.37	-----	----
F-test	13.76		

* Significant at 1% level
** Significant at 5% level
*** Significant at 10**%** level

Table 8: The Estimated Equation of the Private Sector's Ability to Invest in Higher Education

Independent Variables	**Coefficient Estimates**	**SEE**	Note
Constant	9.671	0.112	*
Qualification	_____	------	
Intermediate Diploma and Less	0.004	0.005	***
B.sc	0.068	0.0233	*
M.A	0.08	0.05	**
Ph.D	0.10	0.002	*
Area of work	0.009	0.002	*
Rate of Return	0.207	0.05	*
Demand for Higher Education	0.077	0.023	*
HEIs Outputs			
Graduates	0.104	0.06	*
Research	0.032	0.016	*
Consultations	0.123	0.04	*
Experiences in cooperation Between the private sector and Higher Education X	0.019	0.006	*
Accumulation of Experiences in Cooperation Between the Private Sector and Higher Education X2	0 .005	0.004	***
Quality of Education	0.054	0.049	
The Consistency Between the Market Needs and HEIs Outputs	0.102	0.08	
R2	0.48	------	------
F-test	18.5		

* Significant at 1% level
** Significant at 5% level
*** Significant at 10**%** level