Financing Higher Education Institutions: Experience of the Jordanian Public Universities

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Abstract

This paper investigates the financing options available to the public Higher Education Institutions (HEIs) in Jordan. By referring to the extant literature as well as to the legislative framework in Jordan, a quantitative research instrument is designed for collecting data over five years (2009-2013) from the financial departments of 10 Jordanian public universities. The results suggest that public universities are significantly dependent on internal sources of finance rather than external ones to back their ongoing operations. On average, 77% of the total revenues of HEIs are generated from tuition fees, whereas governmental subsidies make around 13% of their total revenues. The findings of this study reveal that the administrators at the public HEIs experience fundamental challenges to secure sustainable sources of finance, namely: the limited operational income capacity generated from research, consultation, and teaching activities; the irregularity of the received governmental aid; and exhibiting shallow and modest investment strategies. The study reports significant associations between the universities' size, age and location and their revenue structure. There are implications to the policy makers and regulators in the HE sector since the ramifications of the findings are intense on the HEIs, not only because their advance is pulled back, but also because their survival on the long run is challenged.

Key words: Finance Options; Revenue Structure; Public Sector Accounting; Jordan; Government Subsidy; Public Universities.

1.0 Introduction

Obtaining finance is one of the key challenges facing the higher educational institutions (HEIs) over the globe. Due to the recent infamous financial crisis and economic recession, the problem escalated at the HEIs as the whole sector is experiencing further difficulties in accessing funding opportunities as well as finding financing options (Moladovan*et al.*, 2012). In Jordan, there has been a significant growth in the HE sector during the last three decades. Due to some regional and demographical factors,¹ the numbers of university applicants and enrollment in both undergraduate and postgraduate levels have excessively increased. As a natural response, more HEIs and degree awarding bodies, both state and privately owned, have been founded in order to absorb the growing numbers of applicants.

As in many other countries, HE sector in Jordan faces financing difficulties due to a few reasons, namely: the shortage of public support, the absence of sustainable support from the private sector, the centralization of HE financial management practices including budgeting, and the ambiguity of strategic financing plans (Mah'd and Buckland, 2009; Kanaan, *et al.*, 2011; El-Sheikh *et al.*, 2012). Having said so, it could be argued that the aforementioned factors have negatively influenced the financial management practices within the HEIs, which would accordingly impact institutional resources management.

This paper focuses on the Jordanian public universities and aims at investigating the available financing options for these institutions. More specifically, this paper explores the common practices undertaken by the public universities in order to survive and secure finance to their operational activities. In the same vein, this study sheds light on the public support being provided to the public HEIs through the financial subsides presented by the government.

By achieving the objectives identified above, the current study has several implications to the regulators, practitioners and other stakeholders in the HE sector since it is an attempt to develop a theoretical foundation by answering the following research questions:

¹During the last two decades, Jordan has faced crucial demographical changes, this mainly relates to: natural growth of population and occurrence of three massive waves of refugees (due to the political crises facing the region).

- What are the available financing options for the public universities in Jordan?
- How do the Jordanian public universities classify their sources of income?
- To what extent do the Jordanian public universities rely on the public subsides?
- Are there any associations exist between characteristics of the Jordanian public universities and the revenue structure?

In addition to this introduction, the flow of this paper is divided into four parts as follows: a brief overview of the HE system in Jordan, a review of the extant literature and the legislative financial framework, the research methodology and method which also describes the data collection process, and finally the results of the data analysis along with, conclusion and recommendations for future research.

2.0 An overview of the HE Sector in Jordan

The higher education in Jordan commenced after the country's independence by the establishment of the Teachers House 'Dar Al-Mu'lemeen' in 1958. This institution had maintained a two-year program aiming at preparing qualified teachers to work at the public schools being operated by the Ministry of Education. Afterwards, the Teachers' House has succeeded and replaced by the 'Teachers Institute', which had later been developed for 'Community Colleges' in the 1970s. However, the university-degree-awarding education commenced by the establishment of the University of Jordan in 1962. This was the first public university in Jordan among others founded later whereas the establishment of Al-Ahliyya Amman University, as a licensed private university in 1989 was a significant transition in the HE sector in the country towards permitting the private ownership to take part in the HE sector (MOHE, 2013).

The increasing demand on university degrees led to a rapid growth in the number of the HEIs in Jordan in the past fifty years. Eventually, there are (10) public universities and (19) private universities, whereas the number of community colleges has reached to (51). This increase in numbers of universities is accompanied by significant growth in enrolment volumes. As per recent statistics by the Ministry of Higher Education in Jordan, the total number of enrolled students nationwide, at both postgraduate and undergraduate levels, in all universities is around (237,000) students (MOHE, 2013). Roughly, 12% of the grand total (around 28,000) are international students most of them are coming from neighboring countries (MOHE, 2013).

Simultaneous to the boom recognized in the numbers of HEIs and the enrolled students, financial sponsorship available for students has improved as well. There has been 25% increase in the total number of those students who received financial sponsorship from public sources to pursue their university education during the period 2008-2010 (MOP, 2013)². Indeed, the overall changes in the HE sector in Jordan burden the universities with greater responsibilities to achieve their expected goals within their societies. Raising the financial capacity of the HEIs is essential to assist universities in this regard. This paper investigates how the public universities in Jordan could diversify their sources of income in order to be able to respond to the societal, educational and scientific research needs.

3.0 Literature Review

Limited studies have been conducted in the field of financing the HEIs. Nonetheless, the extant literature pays special attention to the financing challenges faced by the HEIs in light of the global financial crisis and its implications on preserving the quality of education (see for example, Akinkugbe, 2000; Kanaan, *et al.*, 2011; Moladovan *et al.*, 2012; UNAM, 2012, 2013).

One study by Akinkugbe (2000), which examines the financial flows within the educational system in Swaziland, focuses on computing the households relative to public contribution of the educational costs. The study reveals that financial resources to the educational system are dependent on the traditional sources (mainly, government, local communities and households). Furthermore, Akinkugbe (2000) finds that non-governmental organizations, private enterprises and corporations as well as foreign aid represent accessible sources of further fund to the educational system. The findings of Akinkugbe (2000) emphasize that the governmental contribution covers up to 83% of the total funds raised at the HE level, yet the households and families' contribution is much higher at pre-university levels. This finding indicates that higher education is "heavily subsidized by the government at the

² During the last few years, various initiatives were released on the national level with an aim to support students who are in a 'real need' for assistance to pursue their studies. Examples of these initiatives include: HM King II Fund for Development and Student's Support Fund (in MOHE).

expense of basic education, bringing about inequality of educational opportunities within the education system" (p. 1074). Akinkugbe (2000) concludes that cost-sharing or cost recovery measures could be employed at the higher education level in order to re-establish the imbalance in the funding mechanism.

Based on a managerial accounting perspective, Mah'd and Buckland (2009) explore the budgeting processes in the Jordanian Private Universities (JPUs). They analyze the procedures of the budgeting process after questioning how participating the administration is when preparing budgets. The authors conducted 19 interviews with the administration at 11 private universities as well as with officers at the Ministry of Higher Education in Jordan. Specifically, the interviews explored the budgeting process, the level of budget participation and the views and perceptions of the budgets' preparers about the governmental budget model. Overall, the government's expectation about the universities' compliance with regulations and the importance of implementing a unique standard for all Jordanian universities are among the key concerns addressed by Mah'd and Buckland (2009).

Their findings indicate that the budgeting practices vary among JPUs. In some private universities, the participative approach for preparing budgets is not consistent given that the administration is centralized. Furthermore, Mah'd and Buckland (2009) suggest that the majority of practitioners and budget prepares are dissatisfied with the governmental budget format, despite their acknowledgement to the importance of budget usage. Nonetheless, these findings reflect the absence of generally accepted practices for budgeting activities of HEIs.

By employing a political economy framework, Kanaan, et al., (2011) present a critical analysis of the expenditure patterns of the higher education system in Jordan. Specific attention in their study has been given to explore HE system's adequacy, efficiency, and equity to identify its strengths and weaknesses. Kanaan, et al., (2011) argue that the low public expenditure on the higher education sector is a key constraint facing the educational system in Jordan, and thus "leaving households to compensate through private expenditure". In the same context, their study emphasizes that the significant increase in students' volumes has led to unfavorable compromise in quality of education, despite the greater public spending on higher education. However, it is suggested by Kanaan, et al. (2011) that there have been dramatic changes to the accessible financing options to the public HEI, given the gradual decline of public subsidies. This cut in subsidies put greater pressure on the public HEIs to "reconsider their financing mechanisms and become more efficient" when using their cash inflows. Kanaan, et al., (2011), highlighted that a new financing option has emerged, within the Jordanian HE system, through adopting the "Cost-Sharing" mechanisms. This approach was inspired since the introduction of the commercialized private universities in the form of "parallel programs" at the public HEIs. Consequently, much-needed income has been generated, but with negative impact on the societal level³. Kanaan, et al., (2011) provide several suggestions aiming at supporting the HE system in Jordan. These include for example, promoting the culture of charitable endowments (i.e. through a revision of the Islamic Awqaf system) and introducing innovative financial mechanisms to tap private savings "without incurring the hazards of profit maximization".

El-Sheikh *et al.*, (2012) investigated the financing and management related-issues of the higher education sector in Jordan. They designed their research based on a multifunctional method (including: archival documents, observation, and published reports) by taking the Jordanian private universities as their study subjects. The study suggests that there is a growing competition between the private higher education institutions in Jordan, which would eventually motivate researchers as well as the universities' managements to seek much more efficient financing and managerial practices for HEIs. El-Sheikh *et al.*, (2012) argue that the private universities worldwide (including Jordan) rely to a great extent on tuition fees as their key source of income. However, governmental subsidies used to be granted as well to the private universities and this is not the case in Jordan, where the governmental support is usually given to the public universities. The study concludes with a call for adopting an effective budgetary system, which would hypothetically help in improving the efficient use of resources by managements at universities.

³ Kanaan *et al.*, (2011) emphasized that the new financing approach being adopted by HEIs in Jordan, has raised two critical issues. Firstly, students from poor background will find it difficult to enter universities, and secondly, quality of education is constrained since HEIs "must compromise on tasks that are essential but not profitable such as research and development" (p. 23).

In a paper that examines European experience of financing the HE sector, Moladovan *et al.*, (2012) investigate the contemporary issues of relevance to financing of the HE at the macro level. They provide a comprehensive analysis of the long-term challenges that are anticipated to hit the HE in light of the escalating economic recession. By analyzing the public and private expenditure of 27 European countries including Turkey, the results indicate that, on average, the European countries appropriate almost 5% of their GDP as a public expenditure on education between the years 2004 and 2008, whereas only 0.7% of their GDP is the average private expenditure on education⁴. Moladovan *et al.*, (2012) conclude that since the skilled human capital and innovations are the most significant outcomes of the higher education system in Europe, greater funding is required in the future - proposing that at least 2% of the EU's GDP should be spent on HE – so HEIs can maintain their role on the long run.

In a very detailed comparative framework, UNAM⁵ (2012) report contemplates data gathered from four European countries (Austria, Germany, Italy and Spain) and four from the Southern Neighboring Area - SNA (Jordan, Lebanon, Palestine and Syria). In total 35 HEIs participated in the study with an aim to share their internal data with regards to financial and institutional management of their universities. In particular, the report presents how public and private universities from both regions are managing their finances and institutions. The results revealed that despite of differences in education systems, some shared points exist while dissimilarities are also observed. These for instance include: focusing more in research, types and ratio of funding sources, cooperation between university and industry, resources management and controlling, and IT systems which in turn; are presented in a better manner within the EU countries in comparison with SNA countries.

The above discussion of the previous studies reveals that little attention by researchers is given to investigate the technical and structural sides of the financing processes at the HEIs, not only at the Jordanian national level, but also at the international level. This study contributes to the extant literature by bridging this gap. Therefore, it brings the technical financing issues to the surface by focusing on the financing options, resources management and budgeting, revenue generating and revenue management. Moreover, this study offers an unprecedented analysis of the HE aiding policy at the national level.

4.0 The Jordanian HE Legislative 'Financial' Framework

Jordan developed a regulatory framework for governance, management and controlling the financial resources of the Jordanian HEIs (both public and private) through different agencies. In this context, there are three active laws that regulate the academic, administrative and operational activities of the HEIs. These include: The Jordanian Universities Law (No. 20/2009); Law of Higher Education and Scientific Research (No. 23/2009); and the University Law, which is enacted for each public university as a stand-alone regulation.

The underlying regulatory framework described above has been revised several times in order to emphasize the autonomy and decentralization of the Jordanian universities, which their administrations have become much more independent in making decisions related to their operational as well as financial activities. With respect to the diversification of universities' income sources, the Jordanian Universities Law (No. 20/2009) identifies the sources of income available for universities whether public or private. More specifically, Article (25) of the aforementioned law dictates that the financial resources of any Jordanian university may consist of the following items:

- Tuition fees,
- Income earned from moveable and immovable funds owned by the university,
- Income earned from teaching, consultations and research activities. This includes income realized from projects and facilities produced by the university's colleges, institutions and centers,
- Donations, gifts and grants. Any amount received under this category should be approved by the Cabinet; if the provider of the grant, donation or gift is from outside Jordan,
- Any other resources of income, and

⁴ Denmark was the biggest contributor of public expenditure on education with 8.43% and 7.75% of GDP in 2004 and 2008 respectively, followed by Cyprus and Sweden. On the other hand, UK was highest country in terms of private expenditure with 1.75% of the GDP in 2007, followed by Cyprus (1.35% in 2008) (Moladovan *et al.*, 2012, p. 941).

⁵ UNAM is an EU-funded three years project under TEMPUS scheme, released on Dec. 2010 with a title: "Promoting the modernization and strengthening of institutional and financial autonomy in Southern Neighbouring Area HEIs". The overall objective of UNAM is to lend specific support to institutional demands for increased efficiency, autonomy and transparency in financial management in partnering Southern Neighboring Area (SNA) HEIs. Various materials and reports were produced by the project (noteworthy: *Good Practices in Higher Education Financial Management*, 2013). For more details, including resources and publications of the project see: http://www.unam-network.net/.

- In addition to the above listed sources, public universities may benefit from governmental subsidies appropriated within the public annual budget.

This structure of income diversification can be used as a framework in order to investigate how public universities classify their sources of income and to what extent do they rely on each of these sources as a finance option.

5.0 Research Methodology, Method, and Sources of the Data

The current study employs the exploratory methodology (Ryan *et al.*, 2002) since it focuses on exploring the trend in financing options adopted by the public HEIs in Jordan. In order to achieve the study objectives, this paper uses a quantitative research instrument designed specifically to collect the necessary data (Appendix 1 exhibits the research instrument employed in the current study).

In terms of the sources of data, this study relies on two primary-sources of data:

- **a.** The financial department at the Ministry of Higher Education and Scientific Research. Data obtained from this source is related to public figures about HE, such as the characteristics of the public HEIs and the amounts of funding that have been given in a form of governmental subsidies.
- **b.** The financial units within the public universities themselves. Thorough focus is given here to collect data about the amounts of income generated through each source of revenue proposed in the research instrument. Specific attention is given to document sources of income disclosed by the public universities on their final annual accounts for the years 2009-2013.

It is worth indicating here that among the limitations of this research is the difficulty of obtaining data directly from the internal records of the universities. The constraint on the required data is twofold. The weakness of the reporting systems at some universities and the scarcity of the publicly available accounts and financial reports. Moreover, the study sample is exclusive to the public HEIs and the findings may not be generalizable to the privately owned universities.

6.0 Research Results and Discussion

This part of the study presents the research findings and the discussion of the results to help answering the research questions addressed previously. Table 1 below presents results that are related to the first and the second research questions.

In terms of the financing options available for the public universities, the findings indicate that the public universities are adopting several options, which are proposed in the Law (the Jordanian Universities Law, No. 20/2009). Overall, the financing options available for the public universities can be categorized into two main categories:

- **a. Internal Revenue**: this includes the internally generated income and earned from the main activities carried out by the university itself such as tuition fees; income from the university's owned movable and immovable assets; income from other academic activities including consultation, teaching and research provided by the university through its staff to other parties and any other internally generated revenues.
- **b.** External Sources: this category is broad as it includes income representing any consideration that a university receives from another party in a transaction that does not involve a consideration given up. The overwhelming proportion of this category is represented by the governmental aid. The governmental financial support to universities can be in a form of cash subsidies (i.e. cash transfer and payment of the university's loans installments), funding the development of infrastructure, covering budgetary deficit and financing the capital expenditure such as operational equipments and buildings construction. In addition to the public aid, this category may include donations from both local and foreign donors in form of cash or non-cash assets.

Generally, the results reveal that the Jordanian public universities depend, to a great extent, on the internal financing options rather than the external ones. On average, 87% of the income generated by the public universities, over the period of the study, is actually earned from the internal sources. Nonetheless, only 13% of the average total income of public universities is provided by the government in form of public subsidy.

Source of Income	%	Sub Sources/Classification			
Tuition Fees	77.29	Regular; Parallel (JOD vs. US currency); International			
Moveable and Immovable assets	04.79	Students' residential halls; cafeterias; properties rent; Un school fees; staff residential rent			
Teaching, Consultancy and Research Activities	0.979	Health services; consulting; training; short-term courses and degrees; professional programs			
Donations, Gifts and Grants	0.001	Internal; external, cash donation; equipment			
Other Sources of Income	03.96	Charges; interest; employees deductions; investment fund			
Governmental Subsidy	12.98	Gov. cash subsidy; installment payments; additional charges; infrastructure support; students' fund			
Total	100%	_			

Table 1: Financing Options and Revenue Classification for the Jordanian Public Universities*

*Results presented here are based on the information disclosed within the final 'annual accounts' of the targeted universities for the years 2009 – 2013.

With respect to the degree of reliance on each option of financing, the results show that out of four key options available from the internal sources, tuition fees is the most adopted choice with 77% of the total revenue being earned by the universities, whereas only around 4.8% and almost 1% being earned from operating moveable and immovable assets and from teaching, consultation and research activities, respectively. This finding is consistent with El-Sheikh *et al.*, (2012).

In terms of the classification of university revenues, the results suggest that there is a variation in the universities practices when classifying sub sources of the income, despite the presence of 'regulatory-codified' sources explicitly stated by the Universities' Law. This inconsistency in sub-classification could be due to the absence of a unified chart of accounts as well as to the incompatibility of recording and reporting systems within the public universities. Table 1 exhibits the key sources of income and the sub classified sources for the public universities.

Given the fact that tuition fees make the main source of HEIs income, the study results indicate that the Jordanian public universities are less relying on the governmental subsidies, which represent 12.98% of the total acquired revenues. This finding is in contrast with Akinkugbe (2000) and Moladovan *et al.*, (2012). In a similar context, the results reveal that the amounts of subsidies offered by the government, as a percentage of the total HEIs income, do not follow a regular pattern. Nonetheless, they are unpredictable and tend to be declining over the period of the study and fluctuate between 15.1% of the total revenue in 2009 and 13.45% in 2013. Figure 1 demonstrates the distribution of universities income according to its source into internally earned revenues and governmental subsidies for the years from 2009 to 2013.

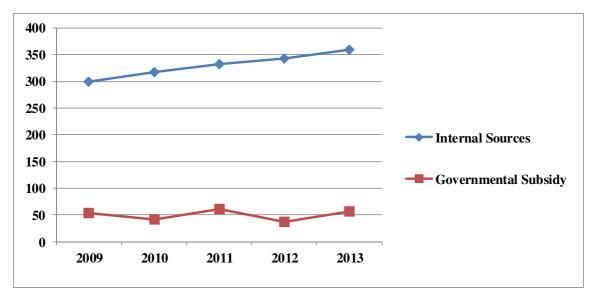


Figure 1: Income from Internal Sources vs. Governmental Subsidy for the Jordanian Public Universities during 2009 – 2013 (in million JOD)

Moreover, this research reveals that the governmental subsidies are not allocated to universities based on a predetermined set of criteria. Therefore, the governmental subsidization policy confuses the universities' financial administrators since it limits their strategic planning potential. In fact, the results presented in this paper indicate that more than a half of the total governmental subsidies provided during 2009 – 2013 were given only to three universities. The top three benefited universities are located in least developed areas and recruiting fewer numbers of enrolled students when compared to universities located in the biggest cities. The uneven allocation of governmental subsidies raise concerns about the roles, whether educational or developmental, expected by the HEIs within their societies. Salmi (1991) argues that countries usually implement financial strategies to mobilize, allocate and utilize resources in a more effective and innovative way and this applies on the HE sector, but focusing exclusively on the financial aspects is generally not sufficient.

Having said that the governmental subsidy is essential for some public universities, yet the total amount of annual allocated HE's subsidies within the public budget does not exceed (0.17) % of Jordan's GDP in 2012. This is too low if compared with a threshold of 2% of the GDP as proposed for the EU (Moladovan *et al.*, 2012).

Further to the above indicated results, the study finally examines correlations between specific characteristics of the investigated public universities and the financing options (internal vs. external sources). As indicted earlier, the diversification of the sources of income for public universities is hypothetically expected to be influenced by size, age, and location of the educational institution. Consistent with the anticipated relations, our statistical analysis reveals that there are significant associations between the characteristics of the public universities and their income structure. Table 2 reports the results of the correlation tests that examine associations between universities characteristics the size, age, and location of ever public university and its income structure.

Correlation – Variables	Coefficients (Symmetric, Directional)	Value	Approx. Sig.
Size vs. Revenue Structure	Eta (η)	.843	-
Age vs. Revenue Structure	Eta (η)	.516	-
Location vs. Revenue Structure	Cramer's V	.816	.000

1 able 2: Summary of the Correlation 1	: Summary of the Correlation Test	S
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n=50

The above reported results indicate that there are significant associations exist between size (measured by total number of enrolled students) and location of the public university and the revenue structure. This is supported by the obtained values of Eta (η) and Cramer's V coefficients [.843 and .816 respectively]. The descriptive analysis is consistent with this finding since larger universities and those closer to the major cities are much more

dependent on internal sources of revenue, whereas smaller universities and those located in rural areas struggle in generating revenues from internal sources, thus governmental subsidy is their ultimate alternative to cover their financial deficit. In addition, the results indicate that there is a positive association between age of the public universities and the revenue structure (η = .516). This result suggests that despite their existence for decades, some universities still struggling to create self-funding mechanisms, and this is evident by their reliance on public subsidies.

7.0 Conclusion and Recommendations

Different trends can be identified in the endeavors of Jordanian public universities to finance their operations. This paper investigates the available financing options to this sector in Jordan and concludes that the public universities are dependent on their internal earned income - specifically tuition fees - as their main source of finance. In addition, governmental subsidies make the second largest source of finance especially to the capital expenditures of the public universities' activities. However, the public subsidization is still lower than the minimum standard levels recommended internationally. The study finds that government favors those universities in less developed areas with the public subsidies. Based on a group of associations exist between characteristics of the HEIs and their revenue structure, it could be argued that universities in such small cities are in more need for the public aid for several reasons such as their remoteness from the urban areas, their unattractiveness as educational destinations to students, size and capabilities, and the difficulty of attracting skilled human capital to join their academic and administrative personnel.

In general, poor financing options are observed, especially to that finance raised from research, teaching and consultation offered to clients other than the universities' own students as well as income from donations and grants. This could be a serious indication to weaknesses in the strategic vision of the public universities, let alone the lack of 'revenue-generating' research projects. The findings of the paper could be a ringing bell to the public HEIs so they consider stronger and more viable partnerships with private sector, which barely exist given the very few and limited donations and grants actually awarded by businesses to the public universities.

Finally, the current research could provide a foundation for further studies focusing on financing problems in the higher education sector. Future studies may emphasize on the anticipated relationships among financing options, detailed revenue structuring, and 'share-costing' approach of finance (see Kanaan *et al.*, 2011) and other characteristics of the HEIs [e.g. size, public vs. private, identity of HEI (humanities vs. scientific), and levels of the educational programs (undergraduate vs. postgraduate]. Furthermore, critical issues such as the public subsidization policy need to be further examined in order to establish a basis for the policy makers to enable them to propose national criteria for subsidies' allocation between HEIs.

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Appendix 1: The Research Instrument

A- Characteristics of the HEI

A.1 Name of the HEI:	Case No.:
A.2 Institution Identity (type): Scientific Literary	Comprehensive
A.3 Location (district): North Central	South
A.4 Age of the HEI (years): 01-15 16-30 31	-45 and above
A.5 Size (Total number of students): 1-10'999 11'000-21'9	99 22'000 and more

B- Revenue Structure (Narrative)

Source of Income	Sub Sources
Tuition Fees	
Moveable and Immovable Funds	
Teaching, Consultancy and Research Activities	
Donations, Gifts and Grants	
Other Sources of Income	
Governmental Aid (including collected charges)	

C- Operational Performance

Indicator		Year/ (000) JOD				
mucator	2009 (1)	2010 (2)	2011 (3)	2012 (4)	2013 (5)	
B.1 Students number						
B.2 Financial (Revenue Sources) *						
Tuition Fees						
Income from Moveable and Immovable Funds						
Income from Teaching, Consultancy and Research Activities						
Donations, Gifts and Grants						
Other sources of income						
Governmental Aid (including collected charges)						

*To be filled from the final annual accounts of the institution.

Appendix 2: The Jordanian Public Universities

Name/Acronym	Year Founded	Total Enrolled Students*
The University of Jordan (JU)	1962	37'980
Yarmouk University (YU)	1976	35'029
Mutah University (MU)	1981	18'519
The Jordan University for Science and Technology (JUST)	1986	22'898
Al al-Bayt University (AABU)	1992	14'954
The Hashemite University (HU)	1995	27'048
Al-Balqa' Applied University (BAU)	1997	33'360
Al-Hussein Bin Talal University (AHU)	1999	8'653
The German-Jordanian University (GJU)	2005	2'990
Tafila Technical University (TTU)	2005	6'211

Sources: Ministry of Higher Education and Scientific Research (MOHE), the Statistical Division, <u>http://www.mohe.gov.jo/Statistics/tabid/69/language/ar-JO/Default.aspx</u>, Date of retrieval 1st/Nov./2013. The Higher Education Accreditation Commission, The Accredited Public Universities, Jordan, 2013. <u>http://www.heac.org.jo/Heac/Default.aspx?lng=1&ID=109</u>, Date of retrieval 1st/Nov./2013.

*These numbers include all students enrolled in all degrees and programs in the Jordanian public universities for the academic year 2012/2013.