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The phenomena of academic capitalism - Entrepreneurialism in higher education institutions

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The Phenomena of Academic Capitalism

Entrepreneurialism in Higher Education Institutions

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Abstract

The debate over the phenomena of academic capitalism has been brought to the fore since the late years of the previous century following the publication of some major books and ground-breaking research on the matter. This debate has ever since intensified especially when it was apparent that academic capitalism and entrepreneurialism in universities were already becoming the new reality and the only means of survival in the world of higher education. Although the academic capital accumulation activities and entrepreneurialism initiatives inside universities were modestly introduced starting from the late years of the previous century, they are now publically announced, and are seen as the new paradigm of development for universities. The higher education world is cautiously witnessing the rising concerns about what actually happened to universities since the late 1990s, and whether or not academic capitalism and entrepreneurialism were the road to all evil. Universities and researchers have also debated that capital accumulation and entrepreneurial activities can work for the good and for the profit for both the public mission of education and the sustainability of the institution. They justified that by the creation of the hybrid model of universities that run both basic research with acceptable levels of autonomy as well as applied research with acceptable levels of industry-liaison and heteronomy. The closer the industry liaison with universities, the more influence these industries will have on the research agendas and polices, the so called hybrid model promotes a merely knowledge based economy that inevitably changes the nature of research from its native mission searching for the truth to searching for way to enhance industrialism.

1. Introduction

Academic capitalism and entrepreneurialism in universities have been subject to a fierce debate within the academia globally, especially that the public funding has seen major cuts in various countries, and the privatization and commercialization of education were paving their ways into higher education institutions. The question as to whether or not academic capitalism and entrepreneurialism in universities are the road to all evil has, in fact, come to the fore quite recently compared to other major academic issues. As a conceptual idea, academic capitalism and entrepreneurialism in universities have been well-studied and researched by various renowned scholars since the late 1990s. Researchers have been looking at the ways in which academic institutions have accumulated capitals that financed its activities from non-governmental or grants sources. A considerable part of the academia internationally, think that the capital accumulation mission inside large universities has been truly driven by industry agendas, and happened on the expense of many other things such as exploiting faculty in the road to revenue diversification.

The revenue diversification struggles in universities and the new resourcing and financial models have traditionally sought to compensate for the reduction of public/government funding, by either forming partnerships and liaisons with businesses, transferring technology to industries, and/or promoting educational and consultancies services to private sector (Fairweather, 1988). There has been a valid argument that the current changes in the patterns of academic labor are unprecedented, and maybe they are as significant as the changes that occurred in the last quarter of the nineteenth century post the industrial revolution (Slaughter & Leslie, 1999).

This paper shall, in detail, look into the various popular definitions of academic capitalism and entrepreneurism in higher education, while examining the changes in the nature of academic labor and the evolution of entrepreneurialism in some well-known academic institutions that have converted to entrepreneurial universities. It will show case data and analysis of the changing patterns of financing higher education through a global snapshot from various countries that draw from data and analysis of the Organisation for Economic Cooperation and Development (OECD). It shall also display and analyze one key example of the new financing models for higher education institutions inside a leading entrepreneurial university in Egypt, namely the American University in Cairo.

2. Definition of Academic Capitalism and Entrepreneurialism

Academic capitalism and Entrepreneurialism in higher education have seen considerable research work only since the late 1990s, especially after the publishing of two prominent books; one that is called ‘Academic Capitalism’ by S. Slaughter & L. Leslie, and the other one is called ‘Creating Entrepreneurial Universities’ by Burton Clark. These two books have shaped the thoughts of the world on capitalism and entrepreneurialism in higher education being ‘the new paradigm of development’ and the means of survival for not only the universities but the economy too (Filippakou & Williams, 2014). Capitalism and entrepreneurialism have been given various definitions over the past 20 years, the one definition though which may be quite reflective of today’s modern reality of academic labor and the working model inside universities, would be to describe academic capitalism as the connection between three main pillars; science, economy, and innovation policy (Münch, 2016).

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There have been recently quite more tangible instances than ever, which are described in detail later in this paper, for these three interconnected pillars (science, economy, and innovation) to link together in order to help the higher education sector and the community in making more education available to more people, while also advancing the evolution of scientific knowledge and research development. The fear was that the linkage between science, economy and innovation might inevitably require a closer liaison between universities and industries, and here is where the main risk exists, because this university-industry liaison will probably have implications that are not necessarily favorable on the institutional priorities and goal whether it be social, economic, or educational (Fairweather, 1988).

In the efforts to thoroughly understand the phenomena of academic capitalism, and what exactly the impact it might have on the evolution of scientific knowledge and research development, there is the remarkable 2-modes distinction that was first introduced by Gibbons in 1994. Gibbons proposed two ‘modes’ for the trading of scientific knowledge with the capitalist enterprises allowing the accumulation of capitals inside the universities. Mode 1 describes the case where the application of basic research findings are transferred to the industry without prior alignment between both parties, which is more supporting the research autonomy and the independence of knowledge production and development inside universities. In mode 2, however, there is this unity between applied research that is developed as a result of collaboration between universities and industries. That is where the effectiveness of scientific autonomy is lessening, while the power of heteronomy magnifies with the growing domination of knowledge based political economy and hegemony of neoliberalism over education (Münch, 2016).

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It is clearly understandable that in mode 1 there might be no intended collaboration or interference from the industry in the research policy and agenda of a given higher education institution, unlike in mode2 where the research might be driven by the industry since the university is aligning its research policies and agenda to the industry demands. The two modes of capital accumulation will inevitably result in institutional conflicts of interest that is ruled by the power of knowledge based and capitalist economy. There might still be a principal of research autonomy, but the majority of the research development will move en route for the logic of power and heteronomy of neoliberal economy.

The term ‘Academic Capitalism’ usually connotes completely negative attributes in academia, who believe that it happened on the expense of many other things among which the exploitation of faculty comes first, the raising power and influence of senior administrators being part of the institutions’ human capital, and last but not least the changing of institutional mindset from a merely educational and research institution to a new entrepreneurial-led entity. The defense to that by those who support knowledge capitalism over knowledge communism, would be to describe academic capitalism and entrepreneurialism in universities as a ‘unique hybrid’ model that ties the scientific knowledge production to the overall economic growth (Münch, 2016).

It is possible that academic capitalism and entrepreneurialism have become the new reality of the world of higher education. On the many accounts and explanations that have been brought to the research of the matter, there remain a vital question, which have not yet been answered; whether or not the move of capitalism and entrepreneurialism of higher education institutions is in fact being fueled from inside.

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The impression to the externals who observe the matter are that there is a secret force that is actually pushing this move forward within the academia, with no regard to how faculty are collectively considering it, in fact the number of faculty who would abandon a full teaching year to engage in private funded research projects is increasing with time. In all reality of a capitalist world, would faculty be really content (although being exploited) with the results of commercializing their research outcome for their own personal gains.

In today's modern institutions, it has become very common to see prominent representative of the industry being appointed as members of the advisory boards of these schools. Moreover, there is now a separate industrial advisory board for engineering and business schools that vote for major changes and policies and drive the change from inside. This means that these people may somehow influence and direct the research agenda for their best interest. To the surprise of many, it is also very normal now to see an appointment of faculty members who are pioneers in the industry and have had no tangible academic track apart from obtaining PhDs. On the other side the industry representatives, who face constant allegations that they are exploiting and maybe badly influencing universities, are telling the world that academia have had a monopoly on scientific knowledge. Though it is possible that universities and researchers have already been controlling scientific knowledge for hundreds of years, the remedy to that doesn't surely lie in giving the industry the upper hand over knowledge production. Nowadays large manufactures such as Nestle, Pfizer, Bayer and many others have already built their very own advanced research facilities and managed to recruit the best academic staff worldwide, so the monopoly of knowledge seems to be mobilizing from universities to large corporates in less obvious ways than university-industry liaisons.

3. The Hybrid Model and Entrepreneurial Universities

In his book 'The Coming of Post-Industrial Society' Bell anticipated that universities will become a major part of the new paradigm of development for the entire society, and that knowledge was going to become more critical in the post industrial revolution economy. In the new knowledge based economy, he expected that universities would take precedence over the industry and enterprises which allows for the new model of hybrid universities (Bell 1973).

The terms such as 'Hybrid' and 'entrepreneurial' universities have appeared at first in the late 1990s following the publication of the 'Academic Capitalism' and 'Creating Entrepreneurial Universities' books which are addressing the issue of academic capitalism and entrepreneurialism in higher education with an open mind. The term 'entrepreneurial' was first introduced by Burton Clark who studied two UK universities that actively changed their 'organizational posture' and have converted into entrepreneurial universities (Clark, 1998). The term later started to become largely common to define institutions that operate with a deliberate effort to lean towards becoming an academic/education enterprise. The term 'hybrid' served largely as an acceptable justification for the changing nature of higher education institutions that adopted an entrepreneurial model while keeping with the core research based work to a limited extent. The period between 1980s and 1990s signified a historic 'growth in industry-university liaison' as described by Fairweather (1988). In the UK alone, two universities were predominantly becoming entrepreneurial universities; the University of Warwick and Nottingham University. These two universities have made courageous moves into aggressively enterprising research and education while keeping consistently good ranking among top UK universities (Clark, 1998).

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Warwick University, being a relatively new university that was established in 1965, had set an early policy from the inception to diversify income through liaison and collaborate with local industries. This worked well until the 1970 when students and staff groups were formed inside the university to oppose this policy. In the 1980s, the UK government applied a 10% reduction in public funding, then Warwick later revamped its enterprise thinking and managed to achieve a 12% increase in projected income in 1982 (Clark, 1998). In 2010 the university managed to secure 65% of its income from non-traditional sources other than the UK grants, which was seen as a massive increase in diversified income compared to 29% in 1970 (Williams, 2012). It seemed to the globally higher education community in general, and to the UK in particular, that Warwick' income generating policies were quite successful. Warwick has ever since managed to keep a place for itself in the UK's top ten universities which implies their well to keep the quality of education at a high standard despite the changing nature of the institution (Filippakou & Williams, 2014). A similar case in the Nottingham University, which has been able to secure nearly 70% of its income from non-core grants of the UK government that is now supplying less than 30% of the total university revenues. The grand 70% comprises 30% from student fees, and nearly 40% divided equally between research contracts and the selling of educational and constancy services, renting facilities…etc. This mainstream of entrepreneurialism started at Nottingham in the 1980s and has continued to present. It is considered to be one of the early adopters of commercializing research in the UK with its GBP 2Million fund for patents and patent applications (Filippakou & Williams, 2014). Nottingham has paved the way with its bold and brave initiatives in the road to revenue diversification preceding any other university in the western world.

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In the US, a quite recent model of entrepreneurialism has emerged at the John Hopkins University. It is a key example of a hybrid model of entrepreneurial university that is united with the industry (although for a good cause). John Hopkins University, through its recent and massive fundraising campaign 'Raising to the Challenge', raised funds equal to $3.71 billion from 225,000 donors in 4 years, and it is foreseen to reach the $5 billion by June 2018. John Hopkins University' fundraising campaign perhaps made the most recent and empirical application of mode 2 of Gibbons' distinctions of capital accumulation in universities. This envisioned capital accumulation process, whether or not it is driven by a great objective to offer more education to more people, has possibly driven the institutional priority of one of the world's largest higher education institutions. The university research agenda was clearly aligned to meet the medicine industry particular demands that were of great interest to quarter a million donors. It was in fact demonstrated in the JHU President's outline of the campaign results, who stated the scientific achievements that were made possible because of this enormous fundraising. It included advancing the research for fight against cancer, and the establishment of various research and medical facilities inside the university (JHU Hub 2016). Not only that JHU started new initiatives in the road to revenue diversification, it also attempted to prove to the world that capital accumulation can work for the good and for the profit. There are many more examples of leading entrepreneurial universities that managed to secure considerable portions of their revenues from non-traditional sources, some very famous names can be seen on the list, among which in the UK there is Cambridge University, and Oxford University. In the US there is Harvard and UC Berkeley. The list goes on and so does the debate for the merit of academic capitalism and entrepreneurialism.

4. Revenue Diversification and New Structure in Universities

"We will not be able to generate sufficient resources to preserve our university if we do not find ways to defend the importance of both our public and our intellectual mission. We must not be preoccupied by internal quarrels or lose our resolve. We must find new ways to tell our story, while exemplifying the extent to which a public institution still inspires trust as well as commitment."

– Chancellor Nicholas B. Dirks, University of California-Berkeley, Inaugural Address (2013).

At UC Berkeley, one of the finest engineering schools in the world, and as its 10th Chancellor depicted in his inaugural speech in 2013, there appears to be no limit as to what extent universities are going to transform its academic labor. This new but trendy rational inside universities, has been very clearly demonstrated in the case of London School of Hygiene and Tropical Medicine in the UK that acquires 21% of its revenue from UK government grants and 80% from entrepreneurialism activities that the school claims to academic entrepreneurialism in nature. In 2003 it decided to change its mission statement from offering consultancy based services to 'teaching and research of high quality and how that transfers/ impacts on practice and policy' (Shattock & Becker, 2007). It seemed that the move to entrepreneurialism has taken a different direction in the current century. It is not surprising how universities have changed from modestly introducing new revenue generating activates in the previous century, to actually publicly display the transformation in their core mission and values (Upton & Warshaw, 2017). It is not just the new paradigm of development for universities, it is now also the way to preserve.

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In the road to revenue diversifications, universities of different sizes and varied historical assets have almost tried everything possible to diversify their sources of revenue. These endeavors to increase revenues have usually included, but were not limited to, selling educational non-academic programs for professionals (training courses) or pre-university academic qualifications, transferring technology from research to the industry for profit, managing endowed funds on behalf of philanthropic or charitable organizations, and the utilization of a university based press service. Some universities have become world leaders in one or more of the previously mentioned areas such as Cambridge, one of the top 5 globally, that established a corporate-like empire called 'Cambridge Assessment', which is delivering GCE and English language qualifications worldwide. A recent estimate by the university said that Cambridge Assessment prints half a billion exams papers every year to the use of millions of learners across the globe (Cambridge, 2018). It had become bigger to the extent that it needed to outsource the exams delivery services overseas to the British Council through a multi-million global contract. The 2016/17 annual review of Cambridge Assessment said that it generated revenue of £413 million (Cambridge, 2017).

Similarly, Oxford University Press, a department of Oxford University which has become the world's largest publisher that is affiliated to a university. Oxford University Press sells 110 million books every year covering a multitude of cultures and languages across all human knowledge subjects. Their turnover in 2017 amounted to 847.4 £'m with a net profit of 110.5 £'m. It is a remarkable enterprise inside Oxford and is such a huge source of revenue for the university that is funding research and scholarships according to a video broadcast by the chief executive officer. (OUP, 2017).

5. Philanthropy – A New and Promising Sources of Revenue

"Fundraising is the gentle art of teaching the joy of giving." – Henry Rosso

Philanthropy has played a significant role in funding higher education activities in various countries, among which the United States come first with $295 billion collected in 2006 (Giving USA, 2007) followed by other countries such as Malaysia, Australia and Egypt. To better understand the future of philanthropy in universities, some rigorous research was conducted by various experts to study philanthropy, and distinguish examples of successful philanthropies around the world. These studies established that private philanthropy can be seen as a new and potentially promising stream for revenue in universities, and is possibly going to be instrumental to the development of public higher education institutions that suffered lack or reduction of government funding (Rohayati, Najdi and Williamson, 2016). There are very successful philanthropic models in some of the world's leading universities such as Harvard, Yale and MIT in the US, and in the UK there is indeed Cambridge and Oxford. Other examples include Chalmers University of Technology Foundation in Sweden, with € 28 million in 2005, and the University of Oregon in the US that raised around $65 million in 2003/04, the bulk of these gifts were from individual philanthropies (European Commission, 2008). In Egypt, the American University in Cairo has been successfully raising funds from philanthropic sources that were close to 10$ million in 2017 (AUC: University Finance, 2017). Philanthropy might be the safe escape goat from the current threats to sustainability that face academic institutions and universities especially those who are falling behind in teaching quality and research because of lack public and private funding.

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In addition to the above mentioned activities that universities have sought in order to gain more non-traditional revenues, there are also some other creative initiatives inside universities such as press services, entrepreneurship acceleration programs, renting facilities regularly, offering consultancies to companies, industrial testing for materials, and finally curriculum development for pre-university education. Those examples of revenue diversification models and endeavors that universities have introduced to the world of education were meant to prove that capital accumulation inside higher education institutions is the new paradigm of development as described by Filippakou & Williams, 2014. Yet this new paradigm of development has probably brought significant changes to the management structure of each of these institutions. Some universities' structures look like a corporate structure with titles such chief executive officer, chief financial officer…etc. These job titles were never going to make its way to the world of higher education had it never changed its key mission from providing education and research into providing education, research and surplus. As the structures in universities have become corporate-like, so have their human resources strategies, for example universities are now restricting the tenured appointments and permanent posts in order to minimize its liabilities towards staff planning and also pension coverage. The majority of the faculty and administrators are now on fixed term appointments in many universities around the world. As a result, the change of structures and human resources polices inside universities have significantly affected the governance of these institutions, where the influence of each party largely depended on their contribution to the revenues and so was the case for controlling major resources and receiving attention of the university leadership.

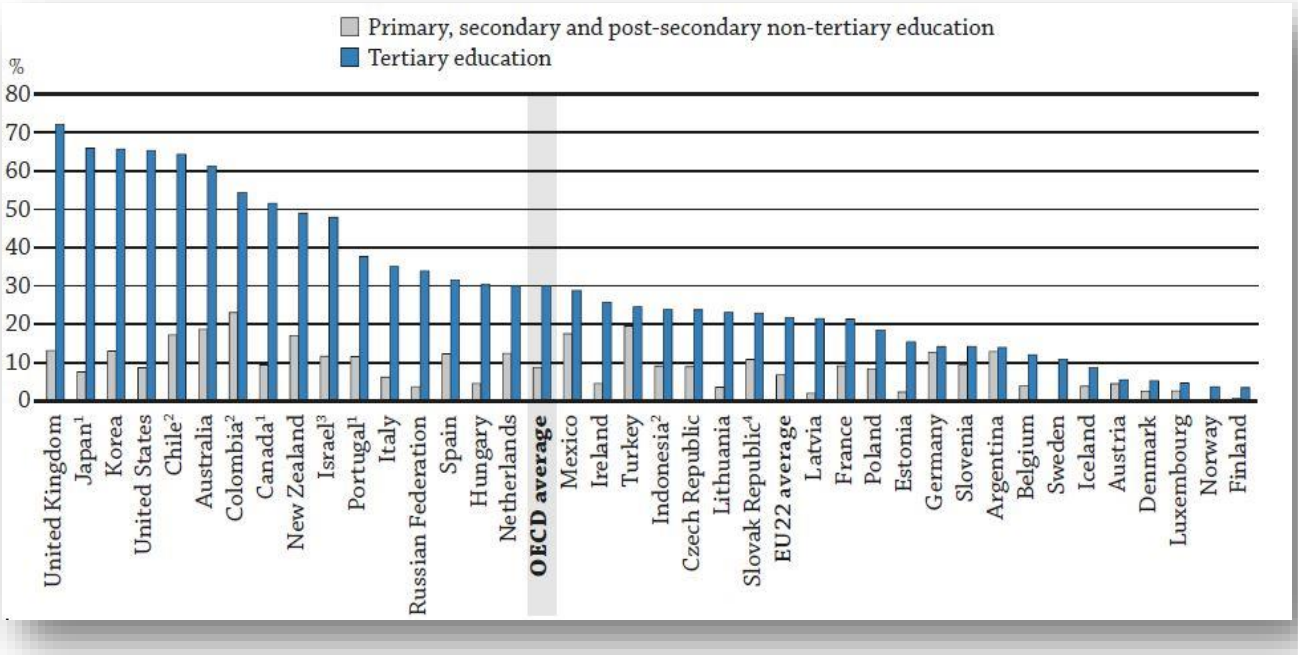
6. Financing Higher Education Institutions – Patterns change

There has been quite a noticeable change in the patterns of financing higher education institutions in major western countries even long before the 1990s, following the rise of capitalism and entrepreneurialism in universities after a long period of dependence on core government grants in most countries. Warwick University demonstrates this notion when looking at its financing patterns, where it had made significant increase in its self-funded potion of their operations rising from 31% in 1970 to 76% in 2008. Subsequently it reduced its dependence on core government grants from 69% to 24% within the same timelines (Warwick, 2009). Now the new patterns include new sources such as the non-public self-funding contribution that is generated internally inside the institution from revenues of entrepreneurial activities, and the endowed funds coming from charitable and philanthropic organizations and individuals, which is becoming a trend in the new world of higher education. The Organisation for Economic Co-operation and Development (OECD) has been closely monitoring the changes in public/private shares of spending on higher education. The below is an illustration of the private and public contribution to the expenditures of education in 2015. (OECD/UIS/Eurostat, 2017). The chart includes both primary, secondary and higher education, but the analysis only focus on the higher education side:

- The private funding of higher education in most countries is substantial, ranging from 70% to 30% in the majority of countries surveyed.
- The Scandinavian countries are the lowest in terms of private funding to higher education where the public funding almost fund all the higher education sector.

- The UK ranks the highest in terms of receiving private funds that amount to nearly 70% of the overall higher education funding, the government funds only 30%. Japan, Korea, United States, Chili and Australia are relatively lower than UK in terms of the private funding but still make the 2nd category with around 60% of private share of funding for higher education, the UK stands alone at the 70% scale.

Source: Education at a glance: Educational finance indicators



A full picture on the different spending patterns and sources of funds on higher education can be drawn from the below comprehensive table that shows the contribution of the public (government), the private, the households which refers to family and parents, and the other private funding (charitable or philanthropic entities) in nearly 35 research countries in 2015

(Source: Education at a glance: Educational finance indicators OECD, 2017).

Country	Public	Private	Households	Other private entities
Australia	38.76	61.24	47.65	13.59
Austria	94.43	5.57	2.92	2.64
Belgium	87.89	12.11	6.16	5.94
Canada	48.45	51.55	26.25	25.31
Chile	35.66	64.34	54.94	9.39
Czech Republic	76.19	23.81	9.73	14.08
Denmark	94.71	5.29	0	5.29
Finland	96.48	3.52	0	3.52
France	78.64	21.36	11.75	9.61
Germany	85.8	14.21	0	0
Hungary	69.68	30.32	0	0
Iceland	91.29	8.71	8.08	0.63
Ireland	74.28	25.73	20.89	4.84
Israel	52.12	47.88	27.2	20.68
Italy	64.95	35.05	27.21	7.84
Japan	34.09	65.91	50.83	15.08
Korea	34.33	65.67	41.89	23.77
Latvia	78.54	21.46	20.39	1.07
Luxembourg	95.3	4.7	2.91	1.79
Mexico	71.18	28.82	28.52	0.3

Country	Public	Private	Households	Other private entities
Netherlands	69.9	30.1	16.34	13.76
New Zealand	51.03	48.97	34.27	14.7
Norway	96.28	3.72	3.49	0.23
Poland	81.5	18.5	16.3	2.2
Portugal	62.35	37.65	31.43	6.22
Slovak Republic	77.12	22.88	11.61	11.28
Slovenia	85.81	14.19	11.78	2.41
Spain	68.45	31.55	28.06	3.49
Sweden	89.09	10.91	0.64	10.28
Turkey	75.42	24.58	13.05	11.53
United Kingdom	27.88	72.12	47.62	24.5
United States	34.74	65.26	46.19	19.07

7. American University in Cairo – Diversified Sources of Revenues

The American University in Cairo, which was founded in 1919, and has been regarded as Egypt's global university. It has a global rank of 365th place according to the international universities ranking announced in 2017. The size of AUC's budget is approximately $174 million, but Egypt's inflation rate which has reached nearly 24 percent this year along with the pound flotation and the currency devaluation have created great challenges for the university.

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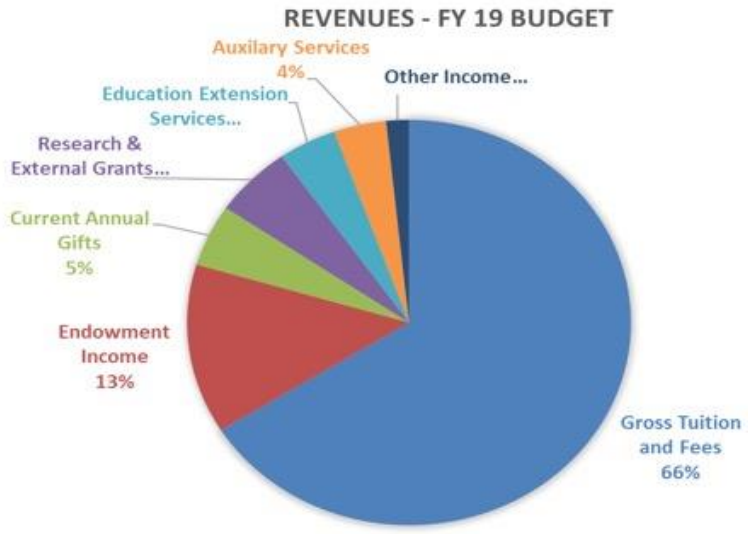
AUC is a unique and remarkable model of an entrepreneurial and philanthropic university that introduced a number of innovative initiatives to diversify its income and revenue sources among which there is the technology transfer office, the executive education department of school of business which offers executive education, the engineering and science center which offers affordable engineering programs for professionals, and quite recently the Initiatives and Competition for Research, Innovation and Entrepreneurship. AUC also developed its 90 years old continuing education department into a whole new non-academic school that offers education extension services (professional programs and training courses) to nearly 50,000 learners every year, amounting to almost 5% of the total university revenue (AUC, 2017).

AUC has been one of the leading universities in the region to embrace the concept of philanthropy in its mission and vision since its early days of inception in 1919, and has developed a set of strategies and polices that supported successful philanthropic initiatives over the past 100 years. AUC is currently managing more than 100 endowed funds from different philanthropic organizations and individuals. One of the key examples would be the Yousef Jameel partnership with AUC that funded various activities at the school of business and others. Among notable achievements, Al Jameel fellowships program for MBA which supported nearly 200 students over the period ten years 2004 -2014. Yousef Jameel GAPP Public Leadership Program is currently intended to support the education cost for 300 students in Egypt.

Philanthropy is seen as the future of funding and support to the institution that has, unlike other initiatives, generated no criticism from academia or the stakeholders within the university.

Below is an illustration of how the AUC managed to have various other sources of funding for its activities beyond the tuitions.

Source: (AUC: University Finances, 2018)



The chart above illustrates the various sources of income for AUC and their contribution to the overall institutional revenues. The biggest source of revenue that amounts to 66% of the total revenue (approx.114$ million) comes from the gross tuition and fees. The 2nd biggest source is the endowed funds which amount to 13% of the total revenues (approx. 22.62$ million) and that includes endowments from donors and philanthropic organizations and individuals. There comes after that both the research and grants contracts which amount to 5% of the total revenue (approx. 8.7$ million). In addition to the continuing education programs which also amount to nearly 5%. AUC earns some other revenues various auxiliary services on campus (rent of facilities, press services…etc.).

8. Concluding Remarks

Academic capitalism and entrepreneurialism in higher education are now an absolute reality. The industry and the academia might not be soon able to settle the ongoing debate of who had actually first initiated the university-industry liaison that is seen as the root cause of the problem, nevertheless, universities will still reserve the right to seek funding through all the possible and legitimate channels whether it be through capital accumulation or entrepreneurship. Entrepreneurialism, though, is regarded now as the new paradigm of development, where the ultimate goals are to support the public mission of education in which universities are entrusted, and to preserve and sustain these institutions. With a view to the near future, and especially when looking carefully at the examples and the models of universities that have engaged and sustained multi-million university-industry liaisons where applied research is integrated (a modest description than driven) with donors' agendas or the market demands, the idea of privatization and marketization of higher education becomes indeed terrifying. In a decade or two we might be seeing universities discontinuing some undergraduate majors or introducing new ones simply because it is in high demand in the market. It looks like it was just a change of the rulers of the game from government setting the national research priorities, agenda and policy, which all universities had had to follow in the past century, to a group of large corporates and international donors driving the research work and the academic labor in key universities in almost each field. The longstanding driver of scientific knowledge production might have changed and the search for truth will probably turn into search for the more profitable and most in demand knowledge. Academic capitalism and entrepreneurial universities seem to be the real road to all evil!

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