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SCIENTIFIC PROFILES AND POTENTIALITIES OF AFRICAN GRADUATES FROM THE UNIVERSITY ALAZHAR OF CAIRO AND STATISTICAL ANALYSIS

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ABSTRACT. Islam entered Africa with its system of dogmas and rites transmission. Undoubtedly, the language and the Arabic script have spread with this religion. Arab-Islamic culture has remained since then, anchored in some parts of the continent, its values are transmitted and disseminated. It thus became a constituent of the local education system. Today a significant number of Africans attend Islamic institutions of higher learning, in primarily the older institutions such as Al Azhar, Qarawiyine, and Zetouna. Some attend the more recently opened Islamic institutions in Sudan, Niger and Uganda. When this kind of formation doesn't exist in their countries, Sub-Saharan Africans have been exiled to the Middle East. Al Azhar, in Egypt, welcomed an important group of these Sub-Saharan Africans. Thousands of Africans attended and still attend this educational institution (Sall, 2009). Scholars have explored their motivations and migration path (See Kane (2003), Bava (2009), Bava (2011) and Sall (2013). But their scientific trajectory, according to the possibilities offered by Al Azhar has not yet, as we know, interested the researchers. So, it is important to list the African graduates of Al Azhar from 1961 to 2005 in order to determine their scientific outlines. This would place them in terms of different skills and allow us to appreciate their varying potentials. As a result, it becomes possible to see what benefit these Al Azhar graduates can bring to their societies.

Résumé): L'Islam a pénétré l'Afrique avec son système de transmission des dogmes et rites. Vraisemblablement, la langue et l'écriture arabe se sont répandues en mme temps que cette religion. Aujourd'hui, un nombre important d'Africains fréquentent les institutions islamiques d'enseignement supérieur, principalement dans les anciennes institutions comme Al Azhar, Qarawiyine et Zetouna ou dans des institutions du Moyen Orient. Bien que certains chercheurs aient exploré leurs motivations et leur chemin de migration (Voir Kane (2003), Bava (2009), Bava (2011) and Sall (2013)), personne ne s'est encore intéressé leurs trajectoire scientifiques, selon les possibilités offertes par Al Azhar notemment. Il est donc important d'énumérer les dipômés africains de Al Azhar de 1961 2005 afin de déterminer leurs contours scientifiques. Cela les mettra en relief les différentes compétences et nous permettra d'apprécier leurs potentiels et les bénéfices que leurs sociétés peuvent en tirer.

Keywords: Statistical Analysis; Exploratory Statistics; Data and Data Analysis; High Education Data Profiling; al-Ahzar University, Islamic Institutions; Africa.

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1. Introduction

The importance of the Islamic culture has evolved in relation to historical circumstances. Western colonization had a big impact on its social consideration. After their independence, the African states have not been able to radically change this situation. In countries emerging from Western Europe domination, the Arab-Islamic culture is no longer the focus of the program of study. However, this does not mean that the population's demand for training in Islamic sciences has weakened. Their attachment to the first educational system is still seen, although it is difficult to measure. Because it is not well-linked to the official political-economic system, the interest attached to it may not be well perceived. Of course, the opportunity cost would be heavy for the persons attending this system. This may strongly reduce the interest it might represent. Nevertheless, the demand for training in Islamic sciences is still important.

On the other hand, we can also claim that the research regarding Arabic speaking in Africa turns rarely around their skills. Apart from those who played a major role in the expansion of Islam, their scientific potential is rarely studied for real appreciation. The capacities of Africans Arabic speaking about the Koran understanding cover all their other skills.

In this context, it seems important for us to make well known these Africans who have Arabic culture. That is the aim of this paper. This one is contained in time and space. Since it is commonly known that the cultural or scientific emigration to the Arab world began long before the accession of African countries to independence. But, it is difficult to obtain statistics from that period. In addition, it is not easy to assess the skills acquired during this time period in terms of an actual academic field. This research is also contained in space for the

same reasons. The data concerns only the Africans graduates of Al Azhar in Egypt. We know very well that there are other universities in this country, but their numbers are very small.

2. Al-Azhar and the formation of African elite

If the Egyptian city Cairo, is considered one of the most important capital in the Islamic world, it is because of Al-Azhar institution. It was that mosque erected by Jawhar Al-Siqilli, a commander of the Fatimid army under Mu'iz Li Dinillah, during the creation of Cairo city in 969. It turned into a mosque-university where are taught courses of Arabic language, theology and metaphysic, since 975. His academic part, was completely modernized in 1961 with the opening of new scientific and technical faculties such as medicine, engineering, theoretical science, agriculture, business, etc. In 2010/11, one has counted for this institution: 70 faculties, 8500 institutes across Egypt; offering a rich range of academic disciplines attended by 2253795 students (including 315.533 in higher learning), from 104 different countries CAPMAS (2012). Al-Azhar is an autonomous institution, even if the Egyptian government appoints its higher authority named Sheikh Al-Azhar. It manages a comprehensive education system, including all levels of education. It is one of the scientific centers that matter most in the world. It is the reference in Islamic sciences. It could be an example of what must be a mosque place in a city.

Based on this observation, it should not be difficult to understand why Al-Azhar of Egypt has always interested African Muslims. This institution played an important role in their religion and education. It was an inevitable passage of many pilgrims going from the continent to Mecca in order to accomplish one of their religious obligations. Today, there is a large segment of African population looking for an islamic culture. Scientific relationship between Egypt and Muslim African countries continues until know. The African community in Egypt is composed mostly by students. So, one must see why it is important to identify the scientific profiles of African graduates of this institution. Thus, we try to know the number of African who attended and completed their training at Al-Azhar, the evolution of this account, the output level of these as well as their field of training.

Let us mention here that, it is not easy to perform work based on statistics in a country like Egypt. The data may indeed exist, but often very difficult to access because of the bureaucracy or shameful suspicion. At Al-Azhar, for example, the available statistics are not public and are sometimes found in the manuscript state-records. Their operation requires a lot of work. But, we were lucky. We didn't encounter too many difficulties for some of these data., Because for the purposes of its first alumni conference, Al-Azhar was obliged to identify,

3.2. Distribution of Al-Azhar African graduates. Let us apply the previous indicator to the African continent. That will permit to see the variation of the total number of graduates during the reporting period between countries. So, one observe that this quarter of foreign graduates (5447), come from 41 countries of the continent. Sudan, immediate Egypt neighbor, enjoyed the Al-Azhar opening for foreigners more than any other country. Its nationals represent 33.75 % of Al-Azhar

which has never been done, his foreign graduates students. Thus, we were able to access the database created for this occasion. The vice-president of the university in charge of academic affairs and student life, was kind enough to respond positively to our request for information access. A part of the data is extracted directly from registers, after authorization of the General Directorate for Foreign Students, under the supervision of Islamic Research Supreme Council and Al-Azhar Deputy Rector responsible of foreign students.

At the end, one could build four indicators about the distribution of foreign graduates of Al-Azhar from 1961 to 2005. We have grouped them according to their continent, their country, their scientific fields and levels of education. After, we studied the evolution of these indicators in the same period.

3. Scientific profiles of Al-Azhar African graduates

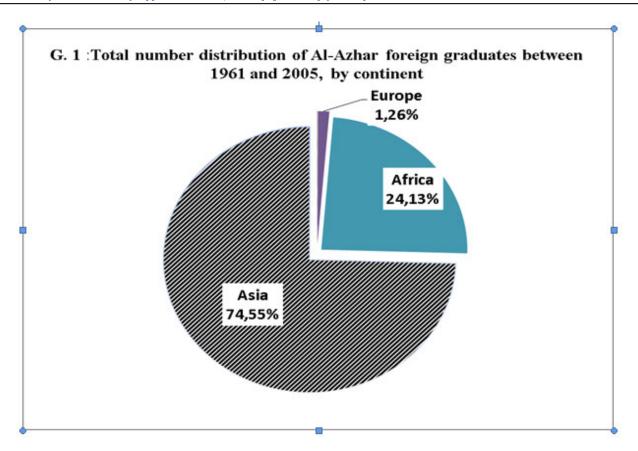
It is worthwhile to begin by counting the foreign students who passed the Bachelor degree examination in scientific and technical faculties or license in the other, from 1961 to 2005. One should know that these two higher education grades are awarded four or fifth academic years after ending of secondary level.

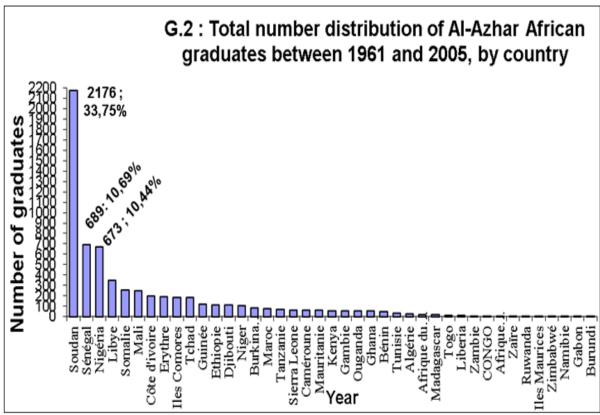
3.1. Distribution of Al-Azhar foreign graduates. This indicator serves to contextualize the subject. Indeed, as an international institution, Al-Azhar welcomes students from all continents. But some are better represented than others. That is why it is important to see how this representation changes by continent at some level of training during the retained period.

But, we must recognize that this approach is not exhaustive. Taking not into account the students who leave before getting the bachelor, it is impossible to estimate the total number of Africans trained at Al-Azhar. One must admit that, this level limit is chosen in order to better focus on quality. Indeed, it is important to situate theses graduates in the context where this level of education is considered as one for administrative editor.

So, we can estimate that, the total number of students who completed their training at Al-Azhar, from 1961 to 2006, is equal to 22 571. These graduates are from all continents. But most of them come from Asia. The Asians represent the three-quarters (74.55 %) of license or Bachelor holders. African form the bulk of the remaining quarter (24.13 %), the residual fraction (1.26 %) is composed by Europeans, Americans (0.05 %) and Australians (0.01 %). This reflects the Islamic vocation of Al-Azhar institution. The continents with large Muslim population are more represented.

African graduates. Senegal, geographically far from Egypt and not a member of the Arab League, is second in rank. The Senegalese form 10.69 % of the African graduates. It is classified before Nigeria, Africa's demographic giant, one of the most populous in number of Muslims, but counting 10.44 % of the total. These three countries represent more than half of African graduated from Al-Azhar between 1961 and 2005.





On the other hand, one has to know that, Al-Azhar classifies it educational offer in three main fields. These are :

- (b) Vocational training; taught in faculties of Science Education, Business, Translation and other theoretical ones.
- (a) Islamic sciences; taught in faculties of Theology, Law and Sharia, Arabic Language and Islamic Studies,

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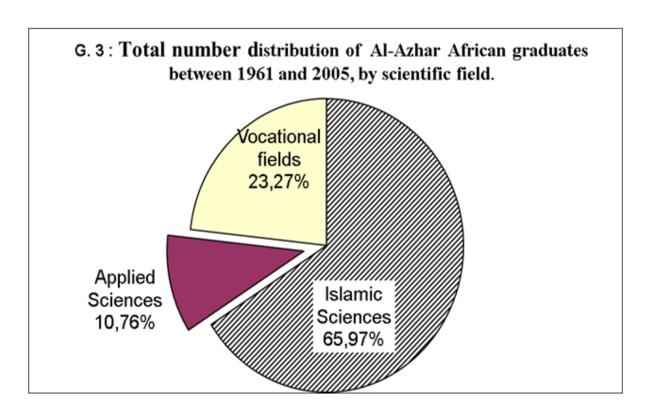
Home pages: www.jafristatap.net, ww.statpas.net

(c) Applied sciences; taught in faculties of Agronomy, Medicine, Engineering, Pharmacy, Dentistry and of Mathematics.

It would be useful to mention here that, only Islamic sciences faculties are open unconditionally to students who are nationals of countries non-member of Arab League. The other departments, qualified to be modern ones, are accessible solely

to those who can afford to pay tuition fees amounting to thousands of sterling pounds. Some states have signed agreement with Al-Azhar that allows their citizens to be exempt.

After this categorization, one considers now the number of graduates by fields of training as described above. This indicator will permit to analyze the variation based on these scientific fields.



Observing the data, Africa is present in various areas of training. Although about two-thirds of them (65.97~%) are directed towards the Islamic sciences, they are also present in vocational training (23~%) and applied sciences (10.76~%).

3.3. Evolution of Al-Azhar foreign graduates. Finally, one has to see the evolution of the number of graduates from 1961 to 2005, by continent. Looking at the curve below (G.4),

4. Conclusion

From what we have just seen, Africans represent a quarter of foreign students trained at the university level of Al-Azhar, after Asians who constitute almost three-quarters. Nationals of the other continents represent only about 1.28 %. In terms of comparing the number of graduates that are represented at Al Azhar from different African countries, Senegal graduates the highest number after Sudan. Nigeria ranks third on this list. The countries that are members of the Arab League have few graduates trained at Al-Azhar.

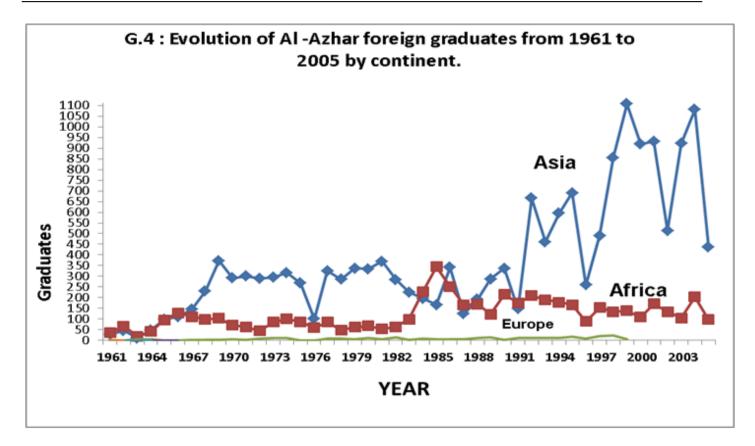
In analyzing their areas of training, it appears that two out of three African graduates are trained in the Islamic science

one sees that it is increasing. In Asia, the number of graduates between 1991 and 2005 is on average three times higher than in the period 1961 to 1990. The number of African trained at Al-Azhar has steadily increased during the same period. The peak in the number of African is reached in 1986 with 344 graduates. Now (2005), the average is around 154 graduates per year.

faculties, with one third coming from the department of applied sciences or vocational training.

When we look at the evolution of the number of graduates between 1961 to 2005, we see that it is chaotic, although the overall trend is upward. The number of students from the African continent has remained stable since 1987, while the number of Asians has grown.

From the previously discussed material, Africans still adhere to the Arab-Islamic pre-colonial education system. Emigration permits them to avoid exclusion from the official school since the independence of their countries. Undeniably, they represent a scientific potential. But, the question is how this potential is appreciated by their societies and states.



In March 1995, the Sheikh of Al-Azhar, Jyad Al Haq Aliou Jyad El Haq toured for seven days in Senegal. The purpose of the trip was to assess the Arab- Islamic educational institutions in order to provide consistent guidelines and strengthen Senegal-Egyptian relations." Al Khadib (1995)

After this tour, it was observed that "The fact that Islam plays no real and effective political role (in Senegal) is due to several factors: ... compared to their compatriots trained in Europe, particularly in France, Islamic actors lack some skills. The graduates from Europe direct the judicial authorities, financial, diplomatic, etc. while those of Arab countries direct simply religious associations, institutes or private Arab-Islamic schools. "Al Khadib (1995). After that trip, Al Azhar made less difficult to access for the modern faculties for Africans. Some places in the modern faculties are reserved without tuition for Africans.

But even if Islamic actors lack some skills and meet difficulties to access high political or administrative functions, their influence are yet important. It may be noted that on the social sector, they beneficiate an amount of respect, which gives them an interesting political base.

We see clearly this influence by examining the situation of a country such as Senegal. The hourly volume of Arab-Islamic education is increasing at the primary level from two to four hours weekly, official Franco-Arab schools are multiplying and an Arab-Islamic University announced by the Senegalese government to begin in 2016.

Socially, we observe significant changes in the field of communication. Instead of preachers, who usually animate the religious programs in radios and televisions, graduates of the Arab world invest in this sector with themes such as Islam and

daily life. So, the program schedule has changed in radios and television. It is also now frequent to note a discrepancy between the official communication on social issues and the one of these opinion leaders who treat the same theme but under the light of Islamic principles. Secularism, gender, family planning, homosexuality, death penalty and other social project promoted by the government are often criticized by these new communicators. But, until now the higher political or administrative functions are not open for the Non-Europhone Intellectuals. Kane (2003).

For a future study, it would be interesting to look at the evolution of the political and economic domination of the elite formed at officially recognized schools in the African countries like Senegal.

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5. Annexes

Table 1 : Distribution of Al-Azhar Foreign graduates								
between 1961 and 2005 by continent								
Continent	Number	%						
Australie	2	0.01						
Amérique du sud	4	0.02						
Amérique du nord	7	0.03						
Europe	284	1.26						
Afrique	5447	24.13						
Asie	16827	74.45						
Total	22571	100						

Table 2: Distribution of Al-Azhar African graduates from 1961 to 2005, by country									
Country	Number	%	Country	Number	%				
Soudan	2176	33,75%	Afrique du sud	19	0,29%				
Sénégal	689	10,69%	Madagascar	16	0,25%				
Nigeria	673	10,44%	Togo	12	0,19%				
Libye	348	5,40%	Liberia	11	0,17%				
Somalie	257	3,99%	Zambie	8	0,12%				
Mali	248	3,85%	Congo	8	0,12%				
Côte d'ivoire	200	3,10%	Centre Afrique	8	0,12%				
Erythre	194	3,01%	Zaïre	4	0,06%				
lles Comores	187	2,90%	Rwanda	4	0,06%				
Tchad	181	2,81%	lles Maurice	4	0,06%				
Guinée	123	1,91%	Zimbabwe	1	0,02%				
Ethiopie	114	1,77%	Namibie	1	0,02%				
Djibouti	109	1,69%	Gabon	1	0,02%				
Niger	104	1,61%	Burundi	1	0,02%				
Burkina Faso	83	1,29%							
Maroc	76	1,18%	Total (41 Pays)	6 447	100,00%				
Tanzanie	68	1,05%							
Sierra Leone	64	0,99%							
Cameroun	64	0,99%							
Mauritanie	61	0,95%							
Kenya	58	0,90%							
Gambie	58	0,90%							
Ouganda	54	0,84%							
Ghana	53	0,82%							
Bénin	46	0,71%							
Tunisie	31	0,48%							
Algérie	30	0,47%							

Table 3 : Distribution of Al-Azhar African graduates between 1961 and 2005 , by scientific field							
Scientific field	Number	%					
Sciences islamiques	4357	66					
Sciences appliquées	711	11					
Sciences Théoriques	1537	23					
Total	6605	100					

year	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
Africa	35	67	19	42	96	129	111	99	104	71	64	45	86	101	87
Asia	27	46	10	49	97	110	145	230	373	292	300	290	294	316	268
Europe	0	0	0	2	0	1	4	0	4	0	1	1	2	2	2
America (N)			1									1			
America (S)			1							1		1			
Australia			1									1			
year	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Africa	59	86	49	62	68	53	64	99	227	344	252	166	169	123	215
Asia	101	326	286	337	334	369	284	225	196	166	342	124	191	287	338
Europe	4	3	8	11	10	1	1	8	8	6	12	5	14	3	9
America (N)			1	1								1			
America (S)			1									1			
Australia			1									1			
year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Africa	175	210	190	179	166	89	154	134	139	109	171	134	105	203	97
Asia	148	666	461	595	690	260	490	856	1107	918	932	514	921	1081	436
Europe			1									1			
America (N)			1			1					2	2			
America (S)	1		1				1					1		1	
Australia		1	1		1							1			

FIGURE 5.1. Table 4: Evolution of the number of Al-Azhar foreign graduates From 1961 to 2005, by continent