

Development and Modernization of OIC Member Countries: A Study Based on Selected Indicators

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Abstract: This paper attempts to analyze the performance of 57 member states of the Organization of Islamic Cooperation (OIC) based on selected indicators of some sectors namely demography, economics, education and technology and innovation. Specifically, it aims at firstly portraying an overview of OIC performance based on six selected indicators followed by analyzing the relationship between selected development variables with literacy and exploring the state of OIC performance as indicated by their achievement based on selected indicators. The study was undertaken vis-à-vis the prevailing theories on modernization and development as well as the widely asserted underdevelopment of the contemporary Muslim *ummah* as claimed by numerous contemporary Muslim scholars. The data were solicited among others from the World Bank Database, Statistical, Economic, and Social Research and Training, Centre of Islamic Countries (SESRIC) of OIC and some previous studies. They were then analyzed using SPSS with the results

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being generated mainly through the use of descriptive statistics. Among others, the study found that there is a positive correlation between Muslim countries' urban population growth and literacy rate, there is a steady decline in the number of OIC countries as they are categorized from lower to higher income category placement and the percentage of the scientific publications of all 57 OIC countries is far below that of any one single developed nation.

Keywords: Modernization, Development, OIC, Urbanization, Muslim World, Western and Eastern models of Development.

Abstrak: Artikel ini bertujuan menganalisis prestasi 57 negara anggota Pertubuhan Kerjasama Islam (OIC) berdasarkan kepada beberapa petunjuk atau indikator dari beberapa sektor terpilih iaitu demografi, ekonomi, pendidikan dan teknologi dan inovasi. Secara khusus, ia bertujuan pertamanya untuk memberi gambaran menyeluruh tentang prestasi OIC berdasarkan kepada enam indikator terpilih diikuti dengan analisis hubungan antara beberapa pembolehubah berkaitan pembangunan dengan kadar celik huruf dan seterusnya meneroka prestasi OIC berdasarkan kepada pencapaian petunjuk-petunjuk yang dipilih itu. Kajian ini dilakukan di tengah-tengah perbicaraan mengenai teori-teori tentang pemodenan dan pembangunan serta perbincangan tentang kemunduran umat Islam masa kini seperti disentuh oleh ramai sarjana Islam kontemporari. Data-data yang digunakan diperoleh daripada sumber-sumber seperti Pangkalan Data Bank Dunia, Pusat Statistik, Ekonomi, Penyelidikan dan Latihan Negara Islam (SESRIC) dan beberapa kajian terdahulu. Data-data ini dianalisis dengan menggunakan SPSS terutamanya melalui penggunaan statistik deskriptif. Antara lain, kajian mendapati terdapat korelasi positif antara pertumbuhan populasi penduduk dan kadar celik huruf penduduk negara-negara Islam, penurunan bilangan negara OIC dari kategori berpendapatan rendah ke peringkat lebih tinggi dan peratusan penerbitan saintifik negara OIC secara kolektif yang jauh terkecil berbanding mana-mana satu negara maju.

Kata Kunci: pemodenan, pembangunan, OIC, pembandaran, Dunia Islam, model pembangunan barat dan timur

Introduction and Background

Social scientific studies of society particularly in sociology are concerned with empirical investigations of various aspects of social realities such as social change, social mobility, urbanization, development and social problems. In doing so, social scientists are bound to solicit evidence or data from both historical and contemporary sources with varying degrees of consultation to support the results of their studies. The

current work is concerned with the study of contemporary Muslim society often referred to as the *Ummah* focusing on its performance in selected domains based on the data generated from some contemporary data sources. In particular, it has the following specific objectives to achieve: 1) to provide an overview of performance of Organization of Islamic Cooperation (OIC) member countries based on six selected indicators, 2) to analyze the relationship between selected development variables with literacy and 3) to explore the state of OIC performance as indicated by their achievement based on selected indicators. For convenience sake, the following are adopted: a) the term ‘development’ and ‘modernization’ are used interchangeably as a general reference for studying these aspects, b) despite their preference for more comprehensive connotations, the authors confine the usage of development and modernization to their conventional senses as reflected in the subsequent discussions, c) for practical purpose, the notion of *ummah* is confined only to OIC member states leaving behind any polemic over the most appropriate term that can be used to refer to the today’s Muslim society, and d) the term ‘contemporary’ is employed to refer to the period after World War II and hence any data related to any part of this period is considered relevant for this study.

The prevailing studies on development seem to suggest that while many countries have succeeded in becoming modernized, most Muslim countries still underdeveloped. As Hunter (2004) claimed “after more than five decades of modernization, the Muslim world still lags behind not only the advanced Western countries but also a number of East Asian states, such as Taiwan, South Korea, Singapore, and China, in every aspect of modernization (2004, p.1)”. This is so despite the fact that some Muslim countries are advancing and taking development and modernization issue more seriously as can be seen through the application of modern technology and development of infrastructure and manifested among others in the forms of the *Mile-High Tower*, Jeddah, Saudi Arabia (5,250 feet) and the *Burj Khalifa skyscraper*, (an impressive 828 meters, or 2717 feet, tall) Dubai, United Arab Emirates, currently the world’s tallest skyscraper. Some of them have even attained higher level of Gross Domestic Product (GDP), Gross National Income (GNI), literacy rates, and urban lifestyles which are comparable to those in developed countries like Turkey, Qatar, Malaysia, Saudi Arabia and Dubai due to their implementation and engagement with

modernization in transforming their societies from traditional to a modern one. In addition, they also have succeeded in increasing per capita income, lowering infant mortality, improving educational access, and expanding programs related to health care (El-Ghannam, 2001). Despite that, the majority of Muslim countries are still behind others in achieving expected level of prosperity possibly due to the fact that they were unable to benefit from the modernization process and as a result they failed to progress in their national development (Farhat-Holzman, 2012; Hunter, 2004). This paper reports the findings of a study on the status of development and progress among members of the OIC which comprise of 57 countries and is the second largest organization in the world after the United Nations (UN).

The paper basically reports the findings based on analysis of the data to achieve the above stipulated objectives. In addition, it also identifies some obstacles faced by the Muslim countries and proposes some suggestions for the improvement of Muslim societies. To begin with, it is appropriate to look briefly at the term 'modernization' and how is it employed and pertinent in this study of OIC performance.

Notion of 'Modernization'

The term modernization is of recent origin. Previously, it used to be referred to as Europeanization, Americanization, and Westernization due to its close affiliation to these eco-cultural entities. As Lerner (1958) mentioned in *The Passing of Traditional Society: Modernizing the Middle East*:

"The term is imposed by recent history. Earlier one spoke of Europeanization, to denote the common elements underlying French influence in Syria-Lebanon and British influence in Egypt and Jordan. More recently, following a century of educational and missionary activity, Americanization became a specific force and the common stimuli of the Atlantic Civilization came to be called Westernization. Since World War II, the continuing search for new ways has been coupled with repudiation of the Western aegis. Social and other modernizing models, as illustrated by India and Turkey, have become visible in the area. Any label that today localizes the process is bound to be parochial. For Middle Easterners, more than ever, they want for modern lifestyle widespread, but so is the rejection of the label 'made in

U.S.A.’ (or for that matter, ‘made in USSR’). We speak, nowadays, of modernization” (1958, p. 45)”.

In a similar tone, Latham (2008) in *International Encyclopedia of the Social Sciences* perceived modernization as “a theory of global change, as well as an American political project (2008, p. 232)”. From 1950s through the 1970s, a group of American social scientists from various disciplines viewed modernization as a universal historical process through which traditional societies became modern. This model emphasizes an evolutionary pattern by which economic systems, cultural values, and political institutions moved along an incremental linear path towards the rational economy, democratic order and liberal society that theorists identified most clearly with countries like United Kingdoms and the United States.

The key concepts in modernization theory are “tradition” and “modernity” (Fangjun, 2009). From these concepts, the “modernization” of society means a process of transformation from “traditional” society to “modern” society. Fangjun’s study is crucial because the author has briefly elaborated the basic concepts of modernization. According to him (2009, p.7) modernization is a practice of modern transformations in social, economic, and political systems. He explicates the characteristics of a modern society as follows: first, a modern society manifests in a country which is advanced in the economic, social, and political spheres. For example, economic modernization involves countries which have higher advancement in science and technology, leading to a rapid increase in industrialization and automation. Second, necessary changes take place in the political systems. For instance, some common characteristics in modern governmental systems are adoption of a rational and secularized procedure in decision making and great public interest and participation in political activities. Third, societies are highly stratified in social structure due to for instance a high rate of flow or migration of population to the cities, and that bureaucratic systems are much more developed.

Eisenstadt (1974) emphasizes the term “social mobilization” used by the Karl Deutsch’s¹ to describe the characteristics of the modernization. According to Eisenstadt, “perhaps the best overall characterization of the socio-demographic types of modernization index is Karl Deutsch’s term ‘social mobilization,’ which he defined as the process in which

major clusters of old social economic and psychological commitments are eroded and broken, and people become available for new patterns of socialization and behavior” (1974, p. 228). Eisenstadt’s study is crucial as he explained some of Deutsch’s main indicators as “exposure to aspects of modern life through demonstrations of machinery, buildings, consumer goods, response to mass media, change of residence, urbanization, and change from agricultural occupations, literacy, growth of per capita income, etc.” (1974, p.228).

Lerner (1958) has separated modern and traditional societies by their participant and non-participant characteristics. He claims that the characteristics of modern society are urban, industrial, literate, and participant. It is explained that the traditional society is non-participant in nature. For instance, it deploys people by kinship into communities isolated from each other and from a center; without an urban-rural division of labor, it develops few needs requiring economic interdependence; lacking the bonds of interdependence, people’s horizons are limited by locale and their decisions involve only other known people in known situations. In contrast, Participant Societies, are those where most people go through school, read newspapers, receive cash payments in jobs they are legally free to change, buy goods in exchange for cash in an open market and vote in elections to decide among competing candidates and express opinions on many matters which are not their personal business.

In a recent article, Farhat-Holzman (2012, p.50) rightly acknowledged that modernization is a global process that can be observed in most of the contemporary major cities of the world, regardless of culture. Simon (1993) suggested that advanced industrial technologies not only produce economic growth in developing societies but also contribute to other structural and cultural changes. Almost all social scientists, particularly sociologist, economist and political scientist agree that the main components of modernization are urbanization, industrialization, and scientific revolution. In his famous book *The Clash of Civilizations*, Huntington has claimed that:

“Modernization involves industrialization, urbanization, increasing levels of literacy, education, wealth, social mobilization and more complex and diversified occupational structures. These common elements may be borrowed or brought. But to create and sustain it, one must look to

Westernization, which created the tremendous expansion of scientific and engineering knowledge beginning in the eighteenth century in totally unprecedented ways” (Huntington, 1996, p. 68).

Huntington’s definition reminds us of the prerequisites and components of a modern society. Therefore, modernization as a process of social differentiation and enactment of values (Portes: 1976), involves the manifestation of such characteristics as urbanization, industrialization, mobilization, democratization, secularization, consumerization, empathy, openness to new ideas and expansion of knowledge through education and media participation (Allardt, 1973, p. 110; Portes, 1976, p. 71). In short, modernization involves a rapid transformation and process that began in the West with the industrial revolution, scientific revolution, religious revolution, and political revolution. The term has been used to refer to different aspects of modernization such as economic modernization, political modernization, educational modernization, technological modernization, military modernization, administrative modernization and so forth (Alatas, 1973, p. 153). It is in this conventional sense of modernization that this study is treated although a more comprehensive and normative notion of it is preferred by the authors as reasoned earlier. Since the term modernization has frequently been treated together with the term ‘development’, this paper also employs both terms interchangeably.

Modernization in OIC Countries

Development experts and modernization theorists have identified the prerequisites of modernization as follows: a country industrialized, urbanized and has adequate bureaucratic and state institutions that reached a certain level as well as other changes in cultural values and attitudes (Danial Lerner, 1958). As Lerner (1958) stated, once physical modernization reached a certain level, modern values such as secularization of the social and political space and greater emphasis on individuals would replace traditional cultures. There have been a few studies in the past that concentrated on Muslim countries’ modernization process. Daniel Lerner’s extensive study on Arab Worlds is one of the best works entitled ‘*The Passing of Traditional Society: Modernizing the Middle East*’. His survey of 73 countries when auditing modernization of selected Gulf societies was based on the index of urbanization. The author had taken urbanization as the key variable to measure

modernization of society. He found the significant relation between urbanization and literacy. To Lerner, urbanization and literacy increase together in a direct relationship (1958, p. 58). On the other hand, author has found a different picture when audited modernization in other Muslim societies namely Turkey, Lebanon, Egypt, Syria, Jordan and Iran. In his study, the author looked at variables such as total population (in millions), urbanization, literacy, media consumption, media production and education. He tried to find the balance between indices and their joint rates of growth in each country. The results revealed that, out of the above six Muslim countries, Turkish figure showed a better balance, representing a somewhat slower rate of growth, but this growth has been effectively maintained over three decades. In this case, Lerner stated, "It is indeed, the remarkably sustained process of balanced growth that makes Turkey the areas of outstanding example of modernization on our terms (1958, p. 88)".

As we can see Daniel Lerner's assumption was more than fifty years old and this still holds true for the present-day Turkey as it is now one of the leading and fast growing Muslim countries. In contrast, Lerner has found the imbalances in Egypt. Although the data indicated that with the same number of population (both have the population of 21 million in the year 1950), Egyptian urbanization was twice as large as Turkish but the country scored lower in other indicators especially in literacy rate. This explains why greater urbanization did not constitute modernization in Egypt. This is particularly true because literacy growth is an important index of balance urbanization but in Egyptian case literacy rate was half as high as Turkey. The author claims that this movement has simply displaced a portion of illiterate rural population into the cities without stimulating growth in the skills required for true urbanization. Being in an educational institution, the authors too have special interest in the relationship between development variables with literacy and hence our analysis gives special treatment to this aspect in this study.

Meanwhile, a study conducted by Professor Shireen T. Hunter (2004) in 44 Muslim majority societies titled *Modernization and Democratization in Muslim World: Obstacles and Remedies* found that "although urbanization has increased in the Muslim world, the percentage of the population living in rural areas remains quite high. Moreover, urbanization in the majority of Muslim countries has resulted not from large-scale industrialization but rather from the migration of

impoverished rural populations to the cities” (2004, p. 2). Similarly, Farhat-Holzman claims that in Afghanistan, Kabul and Herat, there are seemingly modern cities, but the rest of Afghanistan is trapped in the very feudal dark ages (2012, p. 51).

In an exploratory research involving 22 Arab societies, El-Ghannam (2001) observed that the main factors affecting modernization in Muslim societies include change in urban population, energy consumption per capita, expenditures on education, total exports and total external debts. When measuring modernization in Muslim societies, El-Ghannam applied Donald Cowgill (1979) causal model theory and he found that the five basic factors involved in modernization in Muslim societies are economics, health, technology, education, and mobility. According to El-Ghannam, the best predictors of modernization that are more likely to occur among Arab societies include more urban population, less number of family size, more expenditure on education, more energy consumption per capita, less illiteracy rate, more exports, less imports, and more external debts. His study indicates that there was a significant positive relationship between total external debts and modernization. El-Ghannam suggests that the effect of modernization in Muslim society’s life expectancy has improved in most Arab societies. Also, many Arab societies have succeeded in raising incomes, lowering infant mortality, improving educational access, and increasing programmes of health (2001, p. 124).

From the above review of some relevant works, it is empirically evident that modernization promotes industrialization and industrialization leads to urbanization which in turn leads to literacy and other progress. The major components of modernization include industrialization, urbanization, Gross Domestic Product per capita, Gross National Income per capita, labor force, energy consumption, population living in urban and rural areas and other related factors as mentioned earlier (Lerner, 1958; Hunter, 2004; El-Ghannam, 2001). This study however focuses only on some selected indicators as stated above.

Methodology

The study utilized the secondary data which were solicited among others from the World Bank Database and Statistical, Economic, and Social Research and Training, Centre of Islamic Countries (SESRIC),

Organization of Islamic Conference sources and also from the previous studies like those conducted by Lerner (1958), Latham (2008), Fangjun (2009) and Farhat-Holzman (2012). In order to investigate the OIC member countries' modernization performance, all 57 OIC member countries were included in the study and the six indicators selected from this study cover four main domains namely demography, economics, education and technology and innovation. Statistical Package for Social Sciences version 23 was used to analyze the data mainly through the use of descriptive data analysis.

Findings

As mentioned earlier, this study was conducted to achieve three main objectives namely; to provide an overview of performance of Organization of Islamic Cooperation (OIC) member countries based on six selected indicators, to analyze the relationship between selected development variables with literacy and to explore the state of OIC performance as indicated by their achievement based on selected indicators. This section reports the findings of the study based on those objectives.

For achieving the first objective, the data sourced from SESRIC² are used. The generated data cover four domains termed by SESRIC as demography, education, national accounts and technology and innovation respectively. Two indicators are selected from each of the two domains namely technology and innovation and national accounts and only one indicator is selected from each of the other domains. This approach is adopted to serve the limited purpose of portraying only an overview of the OIC performance by way of samples and thus providing initial impression about the state of affairs of these countries and subsequently triggering more wide-ranging investigation to achieve wider purposes by other researchers. The selected indicators and their respective domains are: literacy rate (education), urban population (demography), gross national products (GDP) per capita (national accounts), gross national income (GNI) per capita (national accounts) and technological product exports (technology and innovation) and articles published (technology and innovation). The study has chosen samples of data on these variables covering a period of ten years from 2006 to 2015. The performance of OIC based on these indicators is summarized in the following table (Table I):

Table 1. Summary of OIC Performance Based on Selected Indicators³

CATEGORY/ DOMAIN	INDICATOR	DATA AVAILABILITY		AVERAGE
		Frequency	%	
DEMOGRAPHY	URBANIZATION	570	100.00%	53.1
EDUCATION	LITERACY RATE (ADULT)	148	25.96%	75.7
TECHNOLOGY & INNOVATION	TECHNOLOGICAL PRODUCT EXPORTS (USD)	390	68.42%	\$71,480,781,310.80
	ARTICLES PUBLISHED	569	99.82%	1,566.51
NATIONAL ACCOUNTS	GDP (Constant 2010 Prices) -USD	568	99.65%	\$ 99,892,650,233.62
	GNI (Current Prices) - USD	568	99.65%	\$ 98,879,736,414.26

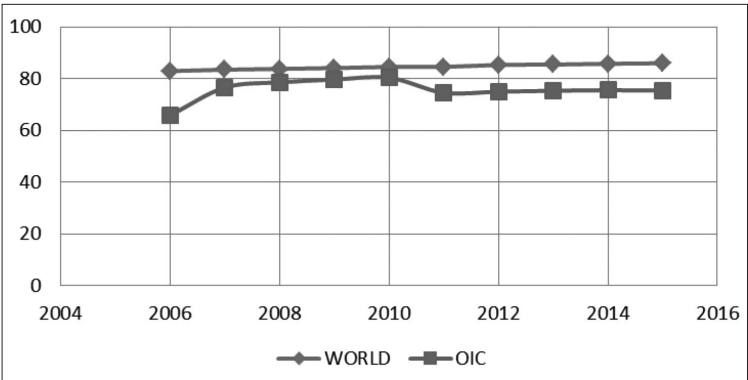
(Data for 10-year period from 2006 to 2015)⁴

Table I indicates that on average OIC countries during that period were urbanized at 53.1%. This finding is highly reflective of the true condition of urbanization in OIC countries at that time because the data are available for all countries over the studied period (100%). The other indicators whose data are available nearly 100% are the number of articles published, GDP and GNI. These indicators have scored an average of 1,566.51 published articles, US \$ 99,892,650,233.62 and US \$ 98,879,736,414.26 respectively per year within that duration.

A lesser percentage of data availability goes to technological product exports which accounts for 68.42% only. With this amount of the data analyzed, the average value of OIC export of technological products is found to be at \$71,480,781,310.80 per year over the studied period. The least available data from the referred data source are for literacy rate which is about 26% only. This data limitation may be compensated with recourse to several other data sources which is not done by this study due to time and other limitations. At any rate, the average literacy rate of OIC countries based on this available data stands at 75.7%. While this cannot be taken to truly reflect the actual rate of OIC literacy during this 10-year period due to that data limitation, the rate nonetheless seems to be quite typical when compared to the average literacy rate of OIC in a particular year. For instance, most data on literacy rate of all

OIC member countries are available in 2015 i.e. 55 out of 57 members (96.5%) and the average rate is 75.43%. Keeping the said limitation in mind, a comparison with the world literacy rate can be graphically illustrated by Figure 1 as follows:⁵

Figure 1. World & OIC Literacy Rates



The second objective of the study was to analyze correlation between literacy rate and selected variables. Due to the above data limitation on literacy rate, the analysis here uses data on youth literacy rate only and for only one particular year namely 2009. Table 2 below indicates the correlation between the three selected variables with literacy. They are urban population percentage and literacy; gross domestic product per capita and literacy; gross national income per capita and literacy. The results show that the percentage of total urban population is positively correlated with the literacy rate. The other two variables GDP and GNI have weak correlation with literacy rate. Thus, it can be summarized that there is a positive correlation between OIC member countries' urban population growth and literacy rate. This is in line with the study conducted earlier by Daniel Lerner (1958) who investigated 73 countries and used urbanization as the key variable in his research. He found that there is a correlation between urbanization and literacy and between literacy and media participation.

Table 2. Correlations between Selected Indicators with Literacy Rate

Country * (N=52)	LITERACY RATE (2009) ⁶	Urban population** (% of total) (2010)	Correlation with urban population	GDP (Per capita –2009)	Correlation with GDP	GNI (Per capita-2009)	Correlation with GNI
Albania	98.83	52.32	0.59142	3,796	0.38286	3970	0.3649
Algeria	91.78	72.02	0.59588	3,952	0.38936	4470	0.3712
Azerbaijan	100.00	53.40	0.59384	4,950	0.39232	4800	0.3739
Bahrain	100.00	88.62	0.59816	16,518	0.39822	15880	0.3803
Bangladesh	75.45	27.89	0.58883	608	0.38857	640	0.373
Benin	54.33	44.26	0.5883	766	0.3861	780	0.3705
Brunei Darussalam	99.69	75.60	0.59162	27,390	0.38067	31800	0.3653
Burkina Faso	39.26	25.67	0.58337	522	0.36246	520	0.3461
Cameroon	83.14	51.51	0.56393	1,157	0.36094	1210	0.3447
Chad	46.26	21.74	0.56389	648	0.36116	650	0.3448
Comoros	85.27	27.97	0.5338	748	0.35726	740	0.341
Cote d'Ivoire	66.55	50.56	0.54344	1,191	0.35841	1160	0.3421
Egypt, Arab Rep.	84.88	43.38	0.5471	2,371	0.35214	2160	0.3359
Gabon	97.61	85.84	0.54837	7,409	0.35239	7620	0.3361
Gambia, The	65.47	56.66	0.54036	536	0.35406	590	0.3383
Guinea	61.07	34.97	0.55431	427	0.34559	380	0.3302
Guinea-Bissau	70.88	43.22	0.54144	562	0.33545	550	0.3203
Indonesia	99.46	49.92	0.53678	2,273	0.32685	2160	0.312
Iran, Islamic Rep.	98.66	68.94	0.54579	4,526	0.33908	4520	0.3241
Iraq	82.66	66.54	0.53963	2,066	0.34713	2310	0.3324
Jordan	98.95	82.47	0.54594	4,027	0.34562	3900	0.3309
Kazakhstan	99.82	53.73	0.53509	7,165	0.35585	6780	0.3414
Kuwait	98.64	98.24	0.53963	40,023	0.36139	48980	0.3486
Kyrgyz Republic	99.75	35.30	0.53091	871	0.33821	860	0.3249
Lebanon	98.71	87.14	0.56423	8,256	0.35811	7870	0.344
Libya	99.85	77.56	0.55044	9,957	0.36009	12320	0.3479
Malaysia	98.55	72.01	0.53231	7,236	0.35876	7230	0.3435
Maldives	99.30	39.99	0.5158	6,230	0.36356	5660	0.3492
Mali	38.82	34.28	0.54214	601	0.37239	560	0.3604

Country * (N=52)	LITERACY RATE (2009) ⁶	Urban population** (% of total) (2010)	Correlation with urban population	GDP (Per capita –2009)	Correlation with GDP	GNI (Per capita-2009)	Correlation with GNI
Mauritania	67.69	41.23	0.54661	896	0.37346	1030	0.361
Morocco	79.47	56.68	0.54322	2,828	0.36264	2770	0.3507
Mozambique	70.87	30.96	0.55019	423	0.35941	430	0.3474
Niger	36.55	17.62	0.5342	351	0.34642	340	0.3347
Nigeria	71.80	49.00	0.44412	1,091	0.3567	1160	0.3445
Oman	97.63	73.19	0.45403	17,280	0.33912	18170	0.3274
Pakistan	71.11	35.88	0.43453	949	0.32568	990	0.3154
Qatar	97.76	98.66	0.40666	61,075	0.30451	69750	0.2948
Saudi Arabia	97.60	82.08	0.38069	14,051	0.29944	16250	0.289
Senegal	65.01	42.25	0.34314	1,055	0.27035	1070	0.2559
Sierra Leone	57.61	38.88	0.35765	323	0.24566	340	0.2315
Sudan	85.20	33.08	0.43331	1,239	0.21163	1230	0.197
Suriname	99.42	69.33	0.39316	7,486	0.17903	7020	0.1651
Syrian Arab Republic	94.43	55.67	0.34501	2,692	0.17626	2570	0.167
Tajikistan	99.87	26.50	0.34111	734	0.18349	750	0.1744
Togo	76.45	37.53	0.48842	536	0.25379	520	0.2421
Tunisia	96.79	66.10	0.52107	4,169	0.14759	4100	0.1362
Turkey	97.81	70.49	0.50067	8,554	0.17421	9060	0.1632
Turkmenistan	99.83	48.41	0.43965	4,059	0.18598	3460	0.1738
Uganda	87.41	15.16	0.44571	488	0.32123	470	0.3198
United Arab Emirates	95.01	84.04	0.28669	38,960	0.21447	41940	0.2134
Uzbekistan	99.94	36.20	1	1,182	1	1130	1
Yemen, Rep.	84.12	31.74	N.A.	1,077	N.A.	1070	N.A.

Source: *SESRIIC and **The World Bank Data

Objective 3 of this study is to explore the performance of OIC member countries as indicated by their achievement in three selected aspects namely 1) national income per capita (in USD), 2) export of technological products, and 3) academic research. Table 4 illustrates the

placement of OIC member countries in four different categories namely least developed or low income, lower middle income, upper middle income and high income categories.⁷ For this study, the analysis uses the data on GNI aggregated for three consecutive years i.e. 2007 to 2009. Based on gross national income per capita in USD,⁸ 17 countries are on the list as shown in column 1. The second category is lower middle income countries⁹ where 18 OIC member countries are on the list. The third column indicates upper middle income countries¹⁰ where 13 countries are on the list. The number of high income Muslim countries with per capita GNI greater than U.S. \$9,206 is only 8 countries as indicated in column four. From Table 3, we can summarize that the majority of OIC member countries are in low income categories and lower middle income countries with the total of 37 countries.¹¹

Table 3. OIC Countries by Their Income Categories (2007-2009)

Low Income (per capita GNI less than U.S \$ 745*	Lower Middle Income Per capita GNI less than U.S \$ 746-2975	Upper Middle Income (per capita GNI US\$ 2,976-9205	High Income (per capita GNI greater than US\$ 9206)
Sierra Leone	Pakistan	Jordan	Libya
Afghanistan	Uzbekistan	Albania	Saudi Arabia
Niger	Yemen, Rep.	Azerbaijan	Oman
Guinea	Senegal	Tunisia	Bahrain
Mozambique	Mauritania	Iran, Islamic Rep.	Brunei Darussalam
Uganda	Cote d'Ivoire	Algeria	United Arab Emirates
Togo	Nigeria	Maldives	Kuwait
Burkina Faso	Sudan	Kazakhstan	Qatar
Guinea-Bissau	Cameroon	Suriname	
Mali	Djibouti	Malaysia	

Low Income (per capita GNI less than U.S \$ 745*	Lower Middle Income Per capita GNI less than U.S \$ 746-2975	Upper Middle Income (per capita GNI US\$ 2,976-9205	High Income (per capita GNI greater than US\$ 9206)
Gambia, The	Egypt, Arab Rep.	Lebanon	
Chad	Indonesia	Gabon	
Bangladesh	Iraq	Turkey	
Tajikistan	Syrian Arab Republic		
Comoros	Guyana		
Benin	Morocco		
Kyrgyz Republic	Turkmenistan		
Somalia ***			
Palestine ***			

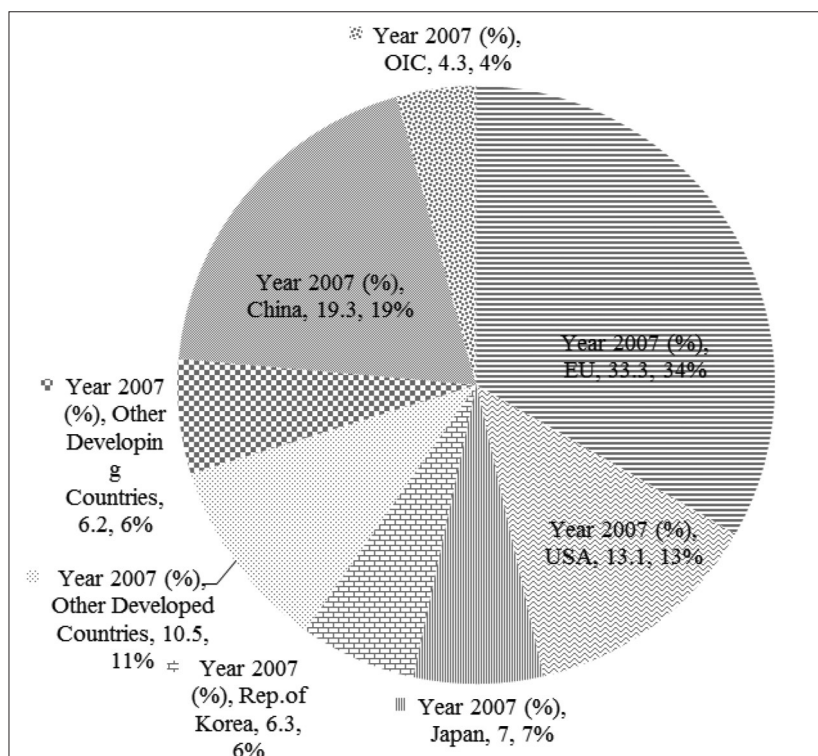
* Three years of average GNI per capita (2007-2009)

*** Data for these countries are not available

Source: World Bank Dataset

Export of technological products is another indicator that can measure objectively the achievement of a country in respect of technology and innovation. In this regard, exports of products such as computer hardware and software, electronics, semiconductors, pharmaceuticals, and machineries, become concrete manifestations of the national progress and hence of modernization in sense stated earlier. Figure 2 indicates the percentage of high technology exports in OIC countries and others countries in the year 2007. As shown, about 70 % of the products are exported by developed countries of which 33.3 % are from the EU members, 13.1% from the United States, 7.0% from Japan, and 6.3% from Republic of Korea. China is the largest (19%) exporter of high technology products. As can be seen, all OIC countries accounted for 4.3% only. This clearly demonstrates the state of OIC achievement in this particular area which is far behind other countries.

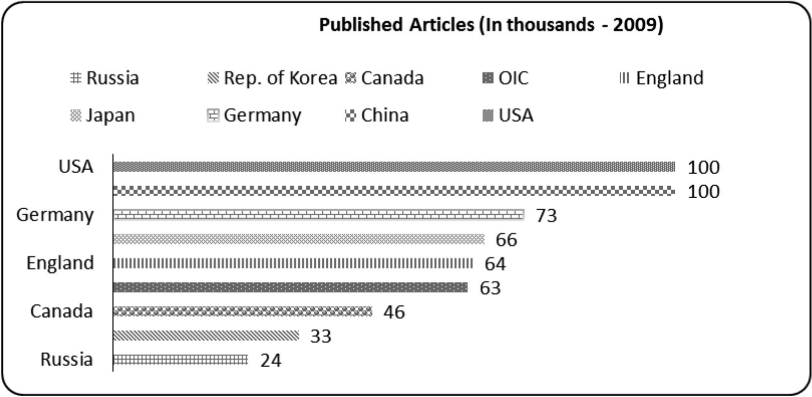
Figure 2: Percentage of High Technology Exports in the Year 2007



Source: ISI Web Knowledge [24.03.2010] in SESRTCIC report.

As indicated in the review, academic research is one of the most important indicators of the development/modernization of a country (Lamine, 2010)¹². Figure 2 indicates the scientific publication of the OIC and other countries based on 2009 data. As shown, OIC countries' total publications are 63,342 articles in 2009 journals as reported by Science Citation Index Expanded (SCI-EXPANDED)¹³. The number is below that of some other individual countries. For example, both USA and China have published more than hundred thousand articles in the year 2009, followed by Germany 73 thousand, Japan 66 thousand, England 64 thousand, Canada 46 thousand, and Republic of Korea 33 thousand, Russia 24 thousand. Although OIC score surpasses that of the other three countries, this achievement is still insignificant given the fact that OIC itself is an entity that consists of 57 countries as compared to any other one single country.

Figure 3: Published Articles (in thousands, year 2009)



Discussion

Model of Modernization for OIC: Western or Eastern

Modernization theory emerged during the discourses on the development issues in cross-cultural situations. Social scientists tried to discover why some societies did not develop as they should be and what factors have retarded development in those societies. The Western world had experienced a series of revolutions and changes which caused it to move from one stage of progress to another the most notable of which are known as the Age of Exploration, The Renaissance, The Reformation, The Counter-Reformation and The Industrial Revolution. Daniel Lerner in his book “The Passing of Traditional Society: Modernizing the Middle East” says “in the end - and the end is not yet – all men of West had acquired a new style of life” (Lerner, 1958, p. 43). Lerner has illustrated the condition of Middle East on the process of modernity based on his 10 year-study of a total of 73 countries especially Middle Eastern countries. The study has found some underlying conditions among these countries which can be described among others in the following dichotomies: village versus town, land versus cash, and illiteracy versus enlightenment, resignation versus ambition and piety versus excitement. Some illustrations regarding this can be presented as follows: In Turkey, a grocer exhilarated by the sight of a city must still live out his life in a traditional village; in Iran, a new entrepreneurial peasant proudly owns the first store-bought suit in his walled hamlet, but rarely dares to wear it among his envious fellows; in Jordan, an illiterate Bedouin chieftain

professes the tribal law of the desert, but plans to send his son to school abroad ; in Lebanon, an educated Muslim girl loves the movies, but fears her orthodox parents; in Syria, an under-educated, over-ambitious clerk dreams of being a Tito; in Egypt, a young engineer has consumed pork in the West and seeks atonement in the Muslim Brotherhood. These people today are unified not by their common solutions but by their common problems: how to modernize traditional lifestyles that no longer “work” to their own satisfaction (Lerner, 1958, p. 44).

To summarize these diverse features in the modernizing Middle East and the consequences provided by Daniel Lerner, we can say that the author has explained modernization based on the personal meaning of social change – the transformations of the daily lifestyles of the individuals. Also, the scenarios in such countries as Turkey, Iran, Lebanon, Syria, Jordan have changed in terms of literacy rate, modern infrastructure, mass media exposure and so on. As Farhat-Holzman (2012) writes, most Muslim countries have automobiles, skyscrapers, television, airlines and that their young people dressed in blue jeans, bobbing to the latest hip-hop or other commercial Western Music (Farhat-Holzman, 2012). Similarly, Lerner also says, millions of Turks now live in towns, work in shops, wear jeans and have critical opinions. These same people, a generation ago, lived in the centuries-old *sholvers* symbolizing the agrarian, illiterate and isolate life of the Anatolian villages. This is what modernization meant and has done for some people. That other millions throughout the Middle East are yearning to trade in their old lives for such newer ways is what modernization promises to most people. Whether Eastern or Western, modernization poses the same basic challenge – the infusion of “a rationalist and positivist spirit” against which scholars seem to agree that, “Islam is absolutely defenseless” (Von Grunebaum, G.E. ed., 1955, cited in Lerner, 1958, p. 45). The Western model of modernization exhibits certain components and sequences whose relevance is claimed to be global. Everywhere, for example, increasing urbanization has tended to raise literacy which led to increased media exposure and in turn has “gone with” wider economic participation (per capita income) and political participation (voting).

For Muslim modernizers, Western model of development is a challenge (Lerner: 1958) because it was evolved in the West but reappears in virtually all modernizing societies regardless of their type

and location. The point is that the secular process of social change, which brought modernization to the Western world, has more than antiquarian relevance to today's problems of the Middle East transition (Lerner, 1958, p. 46).

In the literature on modernization, there are two basic terms which come into consideration. First, the relation between modernization and Westernization; and second, the relation between modernization and democratization. Farhat-Holzman (2012) claimed that the concept of modernization is rooted in the concept of Westernization. She explained that the Westernization process is an entire complex of practices and values that have shaped the West over the past 2,500 years from the ancient Athens until today. To Farhat-Holzman, it is not easy for a country to become Western. She concluded that a country might be modernized without being westernized. To illustrate, she provided an example of China's modernization. Although, the Country has shown much modern manifestations (human rights and local self-determination) and is beginning to play a larger role globally, it does not entirely become westernized in outlook and other substantive cultural aspects. We also find another example from the study of Fangjun (2009) on China's road to modernization. To Fangjun, "China has adopted an approach of drawing on the useful and discarding the unfit elements found in modernization theory" (2009, p. 7). He found that the country has formed its own ideas on development with Chinese characteristics.

Another example can be observed in the case of South Korea. For much of the time, since their independence, South Korea was under a military dictatorship that in due course yielded power when the population became largely middle class and educated (Farhat-Holzman, 2012, p. 54). Now, South Korea has developed into a major industrial and commercial power despite being largely military historically than democratic as were most of the Western developed nations.

When we look at the history of Muslim society in East and South-East Asia, the picture is different from that of the above mentioned countries. Pakistan, for instance, is a majority Muslim country which was separated from India in 1947 and divided into two parts, West and East that is separated by thousands of miles. Even though the people of both parts are Muslims, they differed culturally and historically to some extent. Within a few years, East Pakistan, much abused by West

Pakistan, emerged as a new country, Bangladesh (Farhat-Holzman, 2012) and is now categorized as a least developed country (Hunter, 2004, p. 3). Professor Hunter claims that the country has been practicing democracy and has practiced gender equality to some extent (Hunter, 2004).

On the other hand, Farhat-Holzman (2012) claims that Pakistan, founded by a secular Muslim politician and was designed with some Western institutions, did not take long before Islamist military managed to exert influence to hamper Westernization. Although, the Country managed to develop nuclear weapons, the rest of the country's institutions that manifested Western features and elements are constantly under fire or in short, Pakistan is not thriving (Farhat-Holzman, 2012, p. 53). Similarly, the largest Muslim country by population in the world, Indonesia, has a history analogous to Pakistan. According to the author, "Indonesia went through the predictable process from decolonization to military dictatorship, and ultimately, to a modern and seemingly democratic state. However, its progress towards increasing democratization is now being threatened by a well-funded Islamist resurgence, which has already challenged the legitimate government" (Farhat-Holzman, 2012, p. 54).

Challenges of Modernization of OIC Member Countries

Looking at the data and findings presented earlier, it is obvious that the contemporary *Ummah* as represented largely by the OIC countries is indeed left behind in those and other respects. Although the data used are only for one selected decade, the general picture seems to be true for the years before and after the treated period. There are many factors which might have contributed to the so-called underdevelopment of Muslim countries particularly in science and technology, economic advancement, political stability and other domains. Some writers have attributed this to Muslim work ethics, status of women, Muslim education system and population issues. For instance, Farhat-Holzman claims that most troubling differences between Asian non-Muslim countries and Muslim-majority Asian countries are due to their work ethic (Farhat-Holzman, 2012: 51). In contrast to other nations like China where women work at industry and girls and boys are equally educated, the Muslim women have been sequestered, generally kept away from education, enjoying almost no human rights. The exception

to this outlook could be some oil-rich Muslim economies where women are getting some education like in Saudi Arabia, even though they work in gender-segregated enterprises. However, in other Muslim-majority countries, women are mostly *de facto* property (Farhat-Holzman, 2012, p. 58).

Another obstacle for modernization is related to population. Demographers have observed that if a population has doubled in half a century, the state can manage to keep up; but if it triples or quadruples, unrest is triggered. This will put strains on education, jobs, infrastructure, housing, and governance as can be seen in such countries as Algeria, Yemen, Egypt, Iran and Turkey. Some Muslim countries have initiated measures to deal with this problem. For example, Iran was the first Muslim country to institute population control upon realizing that they were facing serious water shortage. For instance, it now it now tries to reduce the earlier average of two children per family to only one. This is in line with Farhat-Holzman's view that societies grow more prosperous, when better educated children are nurtured and this is normally achieved when a country has less population (Farhat-Holzman, 2012, pp. 59-60). But in the case of Turkey, its Prime Minister then, Recep Tayyip Erdogan, predicted the national catastrophe by 2038 unless the prevailing low birthrate is reversed.

Hunter identified some internal impediments of modernization and democratization. According to her, "a principal characteristic of the vast majority of the Muslim countries' economic systems is the excessive role of the state and the weakness of the private sector. This sort of dominance of the state in the economic life of society skews the balance of power in the state's favor and against society" (2004, p. 29). For instance, the energy-rich Middle Eastern and North African Muslim states are the prime examples of such economies. Another characteristic is the presence of large military establishments with extensive influence in all aspects of national life of some Muslim countries. For example, political influence is exerted either directly by military or ex-military leader as in the case of Egypt, Tunisia, and Pakistan or indirectly as in the case of Algeria and Turkey (Hunter, 2004, p. 29).

Conclusion

Modernization is a global process of transforming social life economically, socially, politically and technologically. It is evident

that modernization promotes rising levels of literacy including women literacy and employment which one can also see now in Muslim societies. Nonetheless, Daniel Lerner is of the opinion that the main challenge that comes from the Western model of modernization is the infusion of “a rationalist and a positivist spirit” of modernization. Among the main features of Western-oriented social change are observable in its capitalistic economic system and liberal social and cultural system. On the other hand, in the East, quite different characteristics of modernization can be observed for example in China, Korea, Taiwan and Singapore which are also equally prosperous and developed economically. These countries have been able to benefit from the good and positive elements and aspects of the West while keeping their own indigenous social and cultural values. If Muslim societies are to progress in both material and non-material senses and in their own comprehensive religious mould of modernization, they could follow the footsteps of these Eastern countries to a certain extent in order to enrich and advance their current development state with the values, spirit and elements derived from their ‘own rich traditions’.

Endnotes

1. Karl Deutsch, “Social Mobilization and Political Development,” *American Political Science Review*, 55 (1961), pp. 17-24; “The Growth of Nations: Some Recurrent Patterns of Political and Social Integration,” *World Politics*, 5 (1953), pp. 168-195; and some analysis in Eisenstadt, *Modernization: Protest and Change*.
2. <http://www.sesric.org/oicstat.php>
3. Ideally, data should be available for 570 times given the total number of OIC countries (57) and the total number of the studied period i.e. 10 years. However, only data for urbanization are fully available.
4. The data were generated at <http://www.sesric.org/oicstat-result.php> from SESRIC on 31 May 2018.
5. The data for world literacy rate were retrieved from <https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?end=2016&start=1970&view=chart> on 31 May 2018.
6. Total percentage of people aged 15-24
7. The categories used are based on UN committee for development policy.
8. Less than \$745 is considered as least developed and low income country.
9. The gross national income per capita of US\$746-2975.

10. Per capita GNI US\$2976-9,205,
11. Do not include data for five OIC member countries due to its unavailability (Afghanistan, Guyana, Djibouti, Palestine and Somalia).
12. Lamine, B., 2010. Towards An Arab Higher Education Space: International Challenges and Societal Responsibilities: Proceedings of the Arab Regional Conference on Higher Education. UNESCO. UNESCO Office Beirut and Regional Bureau for Education in the Arab States. Lebanon.
13. Source: ISI Web Knowledge [24.03.2010] in SESRTCIC report.

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