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# Creation of Enterprises & Knowledge Economy in the Arab Countries

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## Abstract

*The limited business and enterprise creation in relation to the high unemployment of skilled labor are among the issues analyzed and discussed in this paper. The present paper shows clearly that shifts to the creation of more enterprises are the most important ways to enhance economic performance and market development through further access to the knowledge economy.*

Keywords: Enterprise creation, doing business

## Introduction

Knowledge economy is assumed to be linked to both business development where private initiatives are the main drivers of an overall macroeconomic and social growth where governments play an important role. The impacts of knowledge economy on businesses and economic policies are first reviewed as measured through series of indices. Further analysis based on “doing business” data is then performed.

The way of doing business and mainly the starting of a business provide important indications about how enterprises are created. It seems that the context of Arab countries shows the prevalence of more public businesses and government related

transactions in comparison with that of private businesses. As the growth of the number of enterprises indicates how market economy is promoted, it also indicates how private initiatives lead to enterprise creation.

This paper uses the data from the World Bank databases with the objective of showing the major trends characterizing the initiation of businesses in Arab economies at the level of countries and globally. The major characteristics as well as the comparisons are important means to underline the existence of market incentives for the expansion of private initiatives in individual countries and for the overall economy of the Arab World. The present paper is composed of a literature review and a section based on data analysis. This latter is used to discuss the trends taking place in Arab economies.

## **I. Literature Review**

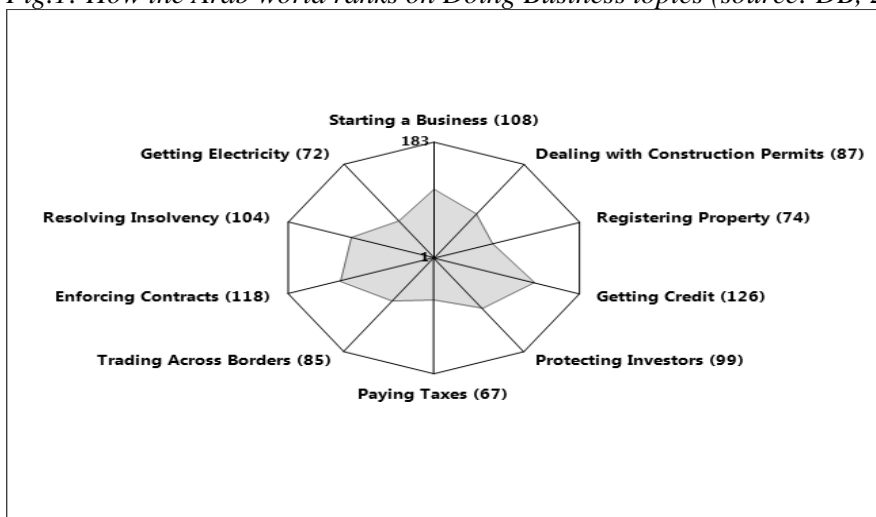
Most of the existing economic literature focuses on the general economic conditions for business development and on the overall entrepreneurship in Arab countries. Only few contributions are found to be based on the characterization of doing business at the microeconomic level.

In practice, the creation of new enterprises goes through series of steps that relate to the different stages needed for launching a business. This can be crucial in case of largely fragmented set of authorizing agencies.

According to Doing Business (2012) when governments make registration easy, more entrepreneurs start businesses in the formal sector creating thus, more jobs and generating more revenue for the government. As Doing Business measures the ease of starting a business in an economy by recording all procedures that are officially required in practice

by an entrepreneur to start up and formally operate an industrial or commercial business and the time and cost required to complete these procedures. It also records the paid-in minimum capital that companies must deposit before registration (or within 3 months). The ranking on the ease of starting a business is the simple average of the percentile rankings on the 4 component indicators: procedures, time, cost and paid-in minimum capital requirement.

*Fig.1: How the Arab world ranks on Doing Business topics (source: DB, 2012, page 7)*



The most important contribution in this area is provided by Qianwei and Guangnan (2007). In this paper, the authors investigate how the fragmentation of licensing rights affects the occurrence of the tragedy of anti-commons in the enterprise licensing procedures. It is also shown that the impacts of the tragedy of the anti-commons are more emphasized with the high extent of fragmentation. This situation alters the evolution of the entrepreneurial initiatives in China because it creates considerable challenges for the victims of the anti-commons (e.g., enterprises). Dethier, Hirn and Straub (2010) survey the recent literature which examines the impact of the business climate on productivity and growth in developing countries using enterprise surveys. Various infrastructure,

finance, security, competition, and regulation variables have been shown to have a significant impact on enterprise performance.

Scharff (2006) in condemning the anti-commons found that economic development of land may be suboptimal where multiple parties have the legal right to exclude use of the property in question.

But some authors referred to the links between bureaucracy, corruption and economic performance before the pioneering works on anti-commons. These include Quah (1982). This author focused on some examples such as import-export licenses and the underassessment of income tax.

The empirical evidence introduced here concern respectively the general trends taking place in both technological and institutional innovations and related economic policies pursued by series of developing countries. While economies should develop further awareness about the negative effects of anti-commons and related tragedies, they are invited to the strengthening of the knowledge base and the economic foundations that sustain different policy shifts and reforms, especially when accounting for access to promising technologies.

The pervasiveness of anti-commons appears at different levels in developing economies and is not often perceived outside the existing legal frameworks. With the expansion of urbanization and the increase of the number of buildings where individuals and households own apartments in different floors, individualistic incentives show often the blockages taking place in the access to new technologies and services (i.e: Internet) and in the maintenance and repair of different facilities. This concerns the common areas, the overall environment besides some useful facilities (elevator, utilities besides others).

## II. Empirical Analysis

There are several indices that are produced by different international organizations that help identify the aggregate behavior of businesses, the macroeconomics and the sectors environments in each economy. Selected indices are introduced before looking at all of them as aggregated in groups.

The list of indices and the corresponding abbreviations used in the empirical analysis undertaken below include Business Disclosure Index (BDI), Intellectual Property Protection (IPP), Intensity of Local Competition (ILC), Rigidity of Employment Index (REI) , Soundness of Banks (SB), Corporate Ethics Index (CEI), Corporate Governance Index (CGI). In addition, the indices related to Corporate Illegal Corruption Index Component (CICI), Corporate Legal Corruption Index (CLCI)n Public Sector Ethics Index, Economic Freedom Index (EFI), the Bertelsmann Transformation Index (Management index), the Bertelsmann Transformation Index (Status Index) are also considered in the descriptive analysis pursued here. The remaining indices are Contract Intensive Money (CIM), Global Peace Index (GPI), and Government Effectiveness (GE). The Silatech Index: Access Index Scores, The Silatech Index: Mindset Index Scores and the index of Regulatory Quality (RQI).

### 1. The positioning of Arab businesses relative to all indices

*Table 1 Positioning of Arab countries with respect to variables as defined above*

	BDI	IPP	ILC	REI	SBI	CEI	EFI	BMI	BSI	CIM	GPI	SIG	SMSS	RQI	GEI
Algeria	6	2.5	4.2	41	3.9	39.35	56.9	3.88	4.72	0.763	2.277	44	69	-0.94	-0.59
Bahrain	8	4.9	5.3	10	6.4	59.58	76.3	4.66	6.01	0.955	1.956	53	69	0.78	0.62
Egypt	8	3.6	4.6	27	4.7	44.81	59	4.15	4.88	0.856	1.784	22	55	-0.14	-0.3
Iraq	4			24				2.54	3.28	0.499	3.406	26	45	-1.04	-1.26
Jordan	5	4.6	5.6	24	5.8	63.18	66.1	4.81	5.12	0.86	1.948	35	65	0.36	0.28
Kuwait	7	3.6	5.1	0	6.2		67.7	3.94	5.2	0.968	1.693	66	77	0.2	0.21
Lebanon	9			25			59.5	4.57	6.16	0.979	2.639	24	60	-0.07	-0.67

Mauritania	5			39			52	5.94	4.46		2.389	32	65	-0.66	-0.9
Morocco	6	3.3	4.6	63	5.2	37.47	59.2	4.6	4.65	0.821	1.861	38	63	-0.01	-0.11
Oman	8	4.9	4.7	13	5.4		67.7	4.77	5.3	0.917	1.561			0.66	0.65
Palestine	6			31								28	52	-0.12	-0.87
Qatar	5	5.1	5.1	13	6.2		69			0.962	1.394	67	83	0.62	1.13
Saudi Arabia	9	4.5	5.2	13	5.7		64.1	3.81	4.36	0.912	2.216	59	70	0.22	-0.09
Sudan	0			36				2.88	3	0.705	3.125	41	66	-1.25	-1.32
Syria	6	3.8	5.1	20	5		49.4	2.47	3.39	0.703	2.274	34	66	-1.07	-0.61
Tunisia	0	4.4	5.4	40	5.3	57.2	58.9	4.75	5.37	0.864	1.678	49	68	0.1	0.41
UAE	4	5.2	5.6	7	6.2	72.99	67.3	5.04	5.23	0.945	1.739	68	79	0.56	0.93
Yemen	6			24			54.4	3.97	3.91		2.573	19	53	-0.6	-1.12

Based on the above indices (table 1), three groups of Arab countries can be identified. The first one includes Qatar, UAE, Oman, Bahrain and Kuwait. The second includes Lebanon, Jordan, Palestine and Syria. The last one includes Algeria, Morocco, Tunisia, Egypt, Mauritania, Sudan and Yemen. While all groups are setting policies of economic openness, better market, and economy governance, the last group appears to have deficiencies in most of the indices. The first group is in better position but is still constrained by the existence of market imperfections. The second group is an intermediate position where improvements are needed on both market and public mechanisms. The following diagrams show the positioning of different Arab countries with respect to all the variables in relation to subsets of the indices used in this descriptive analysis (figures 3, 4, 5 and 6).

Fig.2: Positioning with All Variables

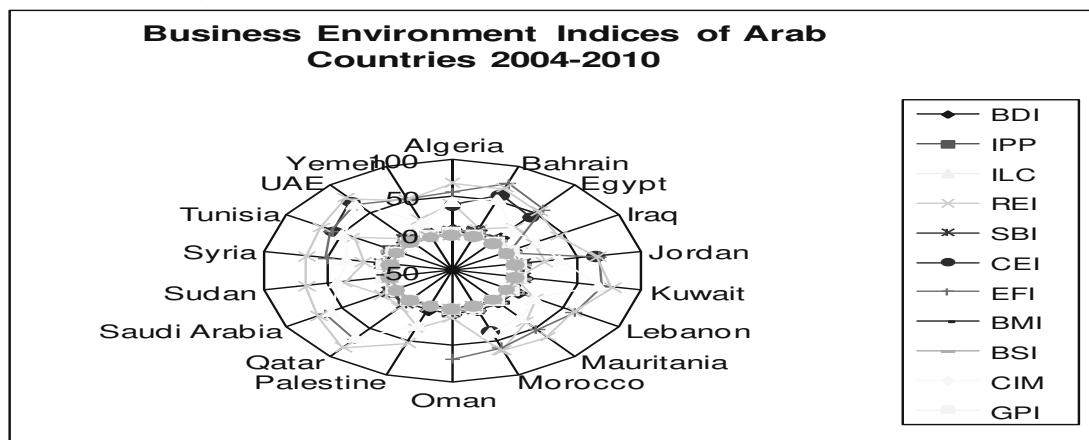


Fig.3: Positioning with Variables scoring from 1 to 100

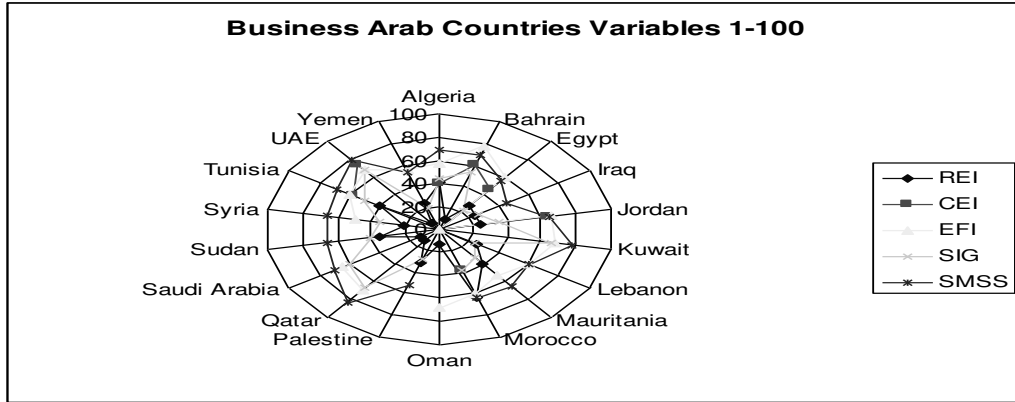


Fig.4: Positioning with Variables scoring from 1 to 10

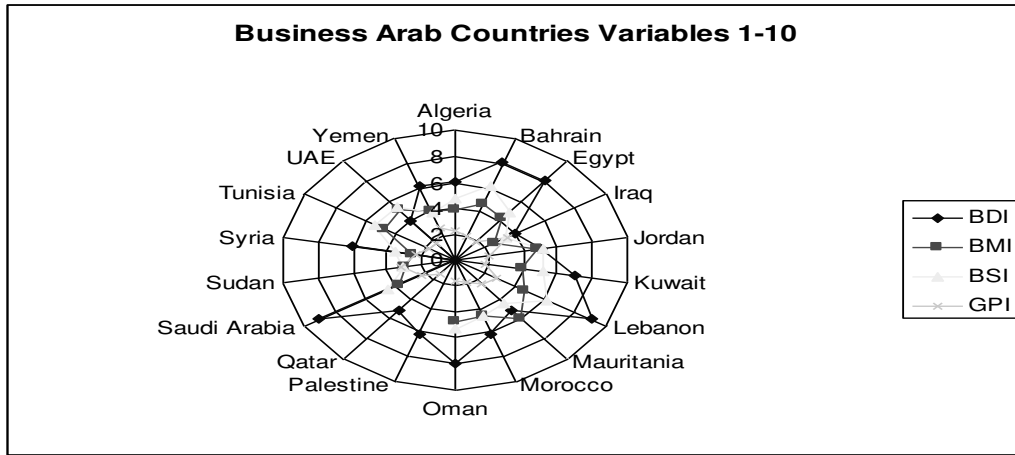


Fig.5: Positioning with Variables scoring from 1 to 7

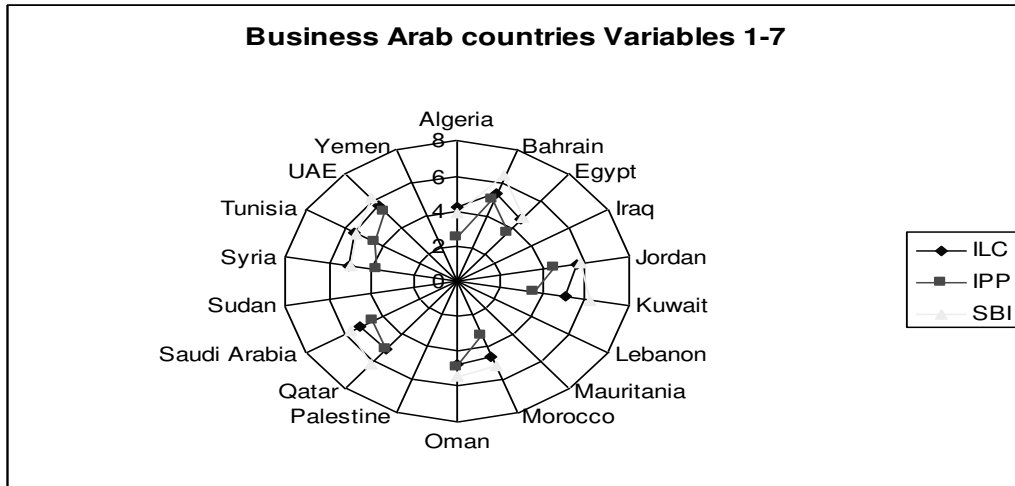
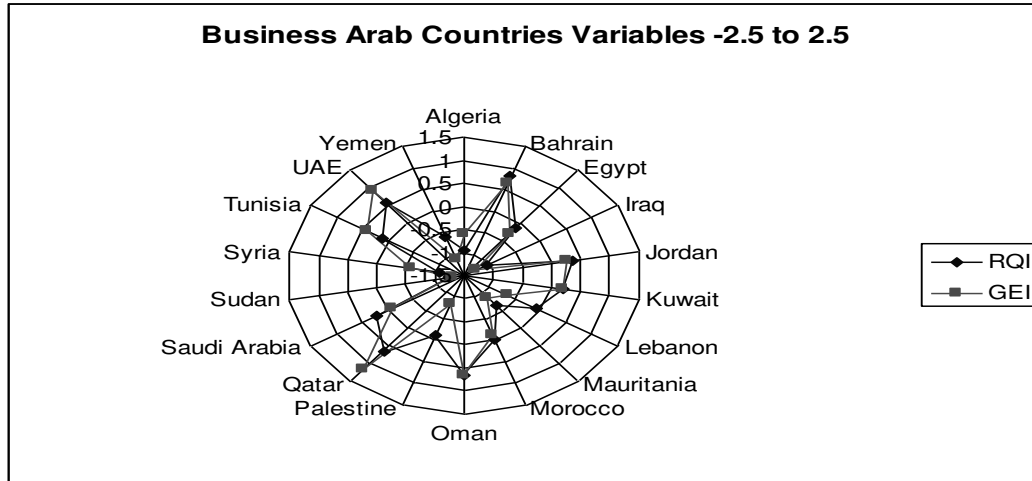




Fig.6: Positioning with Variables scoring from -2.5 to 2.5



## 2. Using “Doing Business” data

“Doing Business Report” is an annual report issued by The World Bank Group (2010). As of 2010, the report has input from 183 countries and 8000 lawyers, government officials, agencies and professional. DBR is ranking countries using the Ease of Doing Business Index. A country ranked in the top would have better laws and regulation for creating a business and high investors’ protection. This index is based on 9 main sub-indexes each measuring a topic or step in enterprise creation using indicators such as the time, costs and procedures required to accomplish a step. Those can be listed as follow: starting a business, dealing with construction permit, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing a contract, and closing a business. The first three topics deal with the creation of enterprises and will be used as data. The description of those topics and variables included will be in the next section.

### a. Variables and data

The data from the database of doing business (World Bank,) are now used to characterize the **business environment** of both Arab and EEE countries.

*Table 2: Comparing means of variables between Arab and EEE countries*

Variables	Arab Countries			EEE Countries			t- stat
	Mean	SD	Observations	Mean	SD	Observations	
ST	30.10	24.821	136	28.89	19.172	109	0.4304
SP	9.38	2.888	136	8.74	3.309	109	1.5911
ECT	642.10	136.280	134	450.39	164.117	108	9.7327
ECP	44.48	5.713	134	34.76	6.339	108	12.3881
RPP	5.78	2.992	122	6.51	1.953	97	-2.1745
RPT	39.80	36.188	122	98.37	149.456	97	-3.7727

**Variable Definitions:** **SC:** the cost of starting a business. (% of income per capita). **Etp:** Enforcing contracts time per procedure. **Stp:** Time needed to start a business per procedure pertaining to the business. **RpovT:** Registering property procedures per unit of time. **RIRR:** Resolving Insolvency- the Recovery rate (cent recovered per dollar loaned). **PIESSI:** Index assessing the ease of shareholder suits. (0-10). **GCPBC:** % of adults getting credits- public bureau coverage. **GCPRC:** % of adults getting credits: public registry coverage. **GCDI:** Index informing on depth of credit. (0-6).

The means and standard deviations of the variables are introduced in table 2. While the required time (ST) and the number of procedures (SP) exhibit no statistically significant differences between Arab and EEE countries, the time of enforcing contracts as well as the related procedures appear to be higher in Arab countries. The time and procedures for registering property show lower levels in Arab countries. But the costs of starting a business are overall larger in the Arab countries as shown in tables 2 and 3.

*Table 3: Descriptive statistics of the variables included in the regression*

Variables	Arab Countries		EEE Countries		Total	
	Mean	Std	Mean	Std	Mean	Std
SC	1.2160	0.6771	0.79901	0.4245	1.0291	0.6130
ETP	1.6550	0.19347	1.6560	0.2045	1.6555	0.1981
STP	1.3821	0.27834	1.4616	0.2995	1.4178	0.2902
RIRR	1.2245	0.5595	1.3502	0.4173	1.2808	0.5038
PIESSI	0.430	0.2615	0.5778	0.3125	0.496	0.2943
GCPBC	0.328	0.4760	0.5738	0.6931	0.442	0.5922
GCPRC	0.211	0.5377	0.4702	0.6526	0.325	0.6046
GCDI	0.351	0.2391	0.4682	0.2683	0.406	0.2576
RpovT	0.5933	0.25502	0.6108	0.2580	0.6011	0.2560

### III. Results of Analyzes

### a. Descriptive analysis

Table 4 shows that the Arab countries exhibit the highest costs for starting a business as shown by through the corresponding t-statistics given in the last column of this table.

*Table 4: Comparisons of means of variables between Arab and EEE countries*

Variables	Arab Countries			EEE Countries			t -Stat
	Mean	SD	N° Observations	Mean	SD	N° Observations	
SC	1.2160	0.6771	144	0.79901	0.4245	117	6.0669
ETP	1.6550	0.19347	144	1.6560	0.2045	117	-0.0402
STP	1.3821	0.27834	144	1.4616	0.2995	117	-2.2009
RIRR	1.2245	0.5595	144	1.3502	0.4173	117	-2.0771
PIESSI	0.430	0.2615	144	0.5778	0.3125	117	-4.0842
GCPBC	0.328	0.4760	144	0.5738	0.6931	117	-3.2616
GCPRC	0.211	0.5377	144	0.4702	0.6526	117	-3.4490
GCDI	0.351	0.2391	143	0.4682	0.2683	117	3.6786
RpovT	0.5933	0.25502	143	0.6108	0.2580	117	-0.5469

### b. Regression Analysis

The Table below introduces the outcomes of the regression of the cost of starting business on the other variables.

The outcomes of the regressions for the sets of Arab, EEE and total countries (Arab+EEE) show elasticities that are statistically significant for most of the explanatory variables introduced. Another statistical result relates to the statistically significant differences between the three models (Arab, EEE and all) using the Chow-F test that is around 20.52. This means that each regression can be interpreted separately as it exhibits coefficients that are different for the same variable. According to the results, the regression of the Arab countries shows coefficients that are higher than those of the EEE.

The cost of starting a business or creating an enterprise in the Arab countries appears to be more sensitive to ETP (2.592) (number of procedures to enforce business contracts). This same explanatory variable shows the highest level of response over all the countries

(2.301) but the level of response of this same variable is not statistically significant for EEE economies (0.433).

*Table 5: Outcomes of the regressions of starting business costs*

<b>Independent Variables</b>	<b>Arab Countries</b>	<b>EEE Countries</b>	<b>Total</b>
Constant	-3.155 (-10.014)	-0.108 (-0.334)	-2.399 (-8.619)
ETP	2.592 (10.539)	0.433 (*) (1.818)	2.301 (11.545)
TP	0.589 (4.660)	0.280 (2.547)	0.389 (3.980)
RIRR	<b>-0.599</b> <b>(-7.796)</b>	<b>0.394</b> <b>(3.471)</b>	-0.510 (-7.376)
PIESSI	-0.468 (-3.235)	-0.349 (-2.954)	-0.338 (-3.039)
GCPBC	-0.585 (-7.183)	0.052 (nss) (1.014)	-0.285 (-5.155)
GCPRC	-0.293 (-4.571)	-.215 (-3.643)	-0.245 (-4.677)
GCDI	<b>0.577</b> <b>(2.749)</b>	<b>-0.477</b> <b>(-2.677)</b>	0.096 (nss) (0.577)
RpovT	0.429 (3.408)	-0.410 (-2.985)	0.100 (0.896)
<b>R Square</b>	0.791	0.561	.584
<b>Fstat</b>	62.981	17.124	43.908
<b>VIF</b>	Less than 4	Less than 4	Less than 3
<b>Chow Test</b>		20.52238	

#### IV. Discussion

In relation to labor markets and unemployment of skilled and unskilled labor, the limited enterprise creation is not consistent with level of unemployment. But it is assumed that constraints to enterprise creation, leads to limited creation of enterprises.

The indices and the “Doing Business Data” have had a promising role in characterizing both the business environment and the creation of enterprises in Arab countries with comparisons with EEE economies. The attained descriptive and regression results confirm that Arab countries need to attain highest level of business performance at both the environment and enterprise creation levels. EEE countries appear globally to have highest performances but Arab countries such as those of the Gulf are ensuring promising conditions for the development of enterprises. But these performances need to

be sustained. The global economic and political conditions may inhibit the efforts that have been undertaken so far.

## **CONCLUSION**

The descriptions and analyzes pursued in this paper show that even with the existence of highly performing enterprises in Arab economies, the creation of new enterprises suffers from series of constraints as shown in “doing business” data. This means that the youngest generations and the skilled labor from the education system do not benefit from new business opportunities in most Arab countries. Does this trend explain the high unemployment rates that prevail in North African, Jordan and Yemen?

Furthermore, the results attained in this article show the prevalence of economic and social imperfections with regard to the adoption of knowledge economy and thus limit access to new development opportunities? Different explanations are provided and converge to indicate that the political economy of the Arab countries needs to shift towards a more knowledge economy approach with further economic and trade openness. The EEE economies have appeared to be creating more incentives for new enterprises with a better business environment where knowledge is seen as engine for growth and development.

## **REFERENCES**

- Dethier, J., Hirn, M. and Straub, S. (2008). Explaining Enterprise Performance in Developing Countries with Business Climate Survey Data. *Policy Research Working Paper 4792*, World Bank, Washington DC <http://econ.worldbank.org>
- Qianwei, Y. and Guangnan Z. (2007). Enterprise Licensing, Bribery and the Tragedy of the AntiCommons: The Case of China. *Asian Journal of Public Affairs Summer 2007 (1):1*
- Quah, J. (1982). Bureaucratic Corruption in the ASEAN Countries: A Comparative Analysis of Their Anti-Corruption. *Journal of Southeast Asian Studies 13 (1)*, <http://www.jstor.org/stable/20070476>
- Scharff, R. (2006). A Common Tragedy: Condemnation and the Anticommons. bepress Legal Series. *Working Paper 1312*. <http://law.bepress.com/expresso/eps/1312>
- World Bank Group. (2010). Doing Business Home. *The World Bank Group*. <http://www.doingbusiness.org/> (accessed November 25th, 2010)
- UNESCO. (2003). Annual report 2003. *UNESCO Publication*
- UNESCO. (2010). Annual report 2010. *UNESCO Publication*
- World Bank Group. (2010). Doing Business Home. *The World Bank Group*. <http://www.doingbusiness.org/> (accessed November 25th, 2010)
- Achy, L. (2012). L'économie de rente dans les pays arabes à l'origine du chômage et de la précarité. *Le Cercle*. Retrieved from : <http://lecercle.lesechos.fr/economie-societe/international/afrique/221144512/leconomie-rente-pays-arabes-a-lorigine-chomage-et-p>
- Acs Z.J, Braunerhjelm, P, Audretsch, D.B and Carlsson, B. (2009). The knowledge spillover theory of entrepreneurship. *Small Bus Econ 32(1):15–30*
- Acs, Z, J. and. Audretsch D, B.(1990). Innovation and Small Firms. *Cambridge: MIT Press*.

- Al-Yahya, K., and Vengroff, R. (2004). Human Capital Utilization, Empowerment, and Organizational Effectiveness: Saudi Arabia in Comparative Perspective. *Journal of Global Development Studies*, 3: 251-95.
- Aoki, K. (1998). Neo-colonialism, Anticommons Property, and Biopiracy in the (Not-So-Brave) New World Order of International Intellectual Property Protection. *Indiana Journal of Global Legal Studies*, 11.
- Bergstrom, T. (2010). The Uncommon Insight of Elinor Ostrom. *Scandinavian Journal of Economics*. [http://works.bepress.com/ted\\_bergstrom/107](http://works.bepress.com/ted_bergstrom/107).
- Birch, D. L. (1987). Job Generation in America. *The Free Press: New York*
- Birch, D. L. (1979). The Job Generation Process. *U.S. Department of Commerce, National Technical Information Service*.
- Black, S. and Strahan, P. E. (2002). Entrepreneurship and the Availability of Bank Credit. *Journal of Finance*, November, 67(6): 2807-2833.
- Buchanan, J. and Yoon, Y. (2000). Symmetric Tragedies; Commons and Anticommons. *Journal of Law and Economics*, 43 (1).
- Canavese, A. (2004). Commons, anti-commons, corruption and behavior. *Econometric Society 2004 Latin American Meetings*, 115.
- Cantrell, R., Hettel, G., Barry, G. and Hamilton, R. (2004). Impact of Intellectual Property on Nonprofit Research Institutions and the Developing Countries They Serve. *Minnesota Journal of Law, Science & Technology*, 6 (1), 253-276
- Choueiri, E. (2008). Igniting the Arab Scientific Revolution. *Princeton, Princeton University*
- Coelho, M., Filipe, J. and Ferreira, M. (2009). Tragedies on Natural Resources a Commons and Anticommons Approach. *Working Papers 2009/21, Department of Economics at the School of Economics and Management (ISEG), Technical University of Lisbon*.
- Corden, W. M and Neary, P. J. (1982). Booming sector and de industrialization in a small open economy. *Economic Journal*, 92 (1982): 335-59.
- Corden, W.M. (1984). Booming Sector and Dutch Disease Economics: Survey and Consolidation. *Oxford Economic Papers* 36, 359-380.

- Dabrowski, M. (2012). What can Arab countries learn from the post communist transition. *MEDPRO commentary, European commission, 7<sup>th</sup> framework program, thinking ahead for the Mediterranean*, 31 May, 2012. Retrieved from <http://www.eu-enprelabeledjobs.eu/images/May%202012%20Arab%20Transition%20final.pdf>
- Depoorter, B. and Vanneste, S. (2004). Putting Humpty Dumpty Back Together: Experimental Evidence of Anticommons Tragedies. *Research Paper No. 04-53, George Mason Law & Economics*.
- Dethier, J., Hirn, M. and Straub, S. (2008). Explaining Enterprise Performance in Developing Countries with Business Climate Survey Data. *Policy Research Working Paper 4792, World Bank, Washington DC* <http://econ.worldbank.org>
- Dias, J. and McDermott, J. (2006). Institutions, education, and development: The role of entrepreneurs. *Journal of Development Economics* 80, 299– 328.
- Djankov, S; La Porta, R; de Silanes F, L; and Shleifer. A. (2002). The Regulation of Entry. *Quarterly Journal of Economics* 117 (1): 1–37
- Farzanegan, M. R. (2012). Resource Wealth and Entrepreneurship: A Blessing or a Curse?. *Marburg: Philipps-University of Marburg Center for Near and Middle Eastern Studies (CNMS)*.
- Frankel, J. (2010). The Natural Resource Curse: A Survey. *NBER Working Paper, No. 15836. Cambridge: National Bureau of Economic Research*.
- Gylfason, T. (2001). Natural Resources, Education, and Economic Development. *European Economic Review*, 45, 847–59.
- Hardin, G. (1968). The Tragedy of the Commons. *Science* 162.
- Hause, J. and Du Rietz, G. (1984). Entry, Industry Growth, and the Microdynamics of Industry Supply. *Journal of Political Economy*, 92, 733—57.
- Heller, M. (1998). The Tragedy of the Anticommons: Property in the Transition from Marx to Markets. *Harvard Law Review* 11: 621-688.
- Hofstede, G. (2010). The GLOBE debate: Back to relevance. *Journal of International Business Studies*, 41, 1339–1346.
- Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. p. 25, Beverly Hills, CA: Sage.



- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. Thousand Oaks, CA: Sage, 2nd Edition.
- ILO. (2011). Employment report 2011. *ILO publications*
- Kelly, D., & Michelman, F. (1980). Are Property and Contract Efficient?. *Hofstra Law Review* 8:711.
- Klapper, L. Laeven, L. and Rajan, R. (2006). Entry regulation as a barrier to entrepreneurship. *Journal of Financial Economics* 82 (3): 591– 629.
- Nash, M. (2001). Grains of Hope. *TIME*.  
[www.time.com/time/asia/biz/magazine/0,9754,98034,00.html](http://www.time.com/time/asia/biz/magazine/0,9754,98034,00.html)
- Ostrom, E. (1990). Governing the Commons. *Cambridge University Press: New York*.
- Ostrom, E., & Schlager, E. 1992. Property rights regimes and natural resources. *Land Economics* 68:249-262.
- Parisi, F., Depoorter, B. and Schulz, N. (2003). Simultaneous and Sequential Anticommons. *Working Papers 279, John M. Olin Center for Studies in Law, Economics, and Public Policy*.
- Parisi, F., Depoorter, B. and Schulz, N. (2005). Duality in Property: Commons and Anticommons. *International Review of Law and Economics* 25 (4):10.
- Qianwei, Y. and Guangnan Z. (2007). Enterprise Licensing, Bribery and the Tragedy of the AntiCommons: The Case of China. *Asian Journal of Public Affairs Summer 2007 (1):1*
- Quah, J. (1982). Bureaucratic Corruption in the ASEAN Countries: A Comparative Analysis of Their Anti-Corruption. *Journal of Southeast Asian Studies* 13 (1),  
<http://www.jstor.org/stable/20070476>
- Robinson, J.A., Torvik, R. and Verdier, T. (2006). Political foundations of the resource curse. *Journal of Development Economics*, vol. 79, pp. 447–68.
- Scharff, R. (2006). A Common Tragedy: Condemnation and the Anticommons. *bepress Legal Series. Working Paper 1312*. <http://law.bepress.com/expresso/eps/1312>
- Schwalje, W. (2011). Knowledge-based Economic Development as a Unifying Vision in a Post-awakening Arab World. *London: London School of Economics, MPRA, Working Paper Version 1.0*.

- Schwalje, W. (2012). Measuring Value for Money in Education System Reform for Knowledge-based Development in Qatar. *London: London School of Economics*.
- Torvik, R. (2001). Learning by doing and the Dutch disease. *European Economic Review* 45, 285–306.
- Torvik, R. (2002). Natural resources, rent seeking and welfare. *Journal of Development Economics*.
- Twati, J. M. (2006). *Societal and Organisational Culture and the Adoption of MIS in Arab Countries*. Ph.D thesis, University of Brisbane, Australia (unpublished thesis).
- UNESCO. (2003). Annual report 2003. *UNESCO Publication*
- UNESCO. (2010). Annual report 2010. *UNESCO Publication*
- Van der Ploeg, F. (2011). Natural resources: curse or blessing?. *Journal of Economic Literature* 49, 366-420.
- Van Wijenbergen, S. (1984). Inflation, employment, and the Dutch disease in oil exporting countries: a short-run disequilibrium analysis. *Quarterly Journal of Economics* 99, 233–250.
- Velho, L. (2004). Agricultural Biotechnology Research Partnerships in Sub-Saharan Africa: Achievements, Challenges and Policy Issues. *Technology Policy Briefs* 4(1).
- World Bank Group. (2010). Doing Business Home. *The World Bank Group*.  
<http://www.doingbusiness.org/> (accessed November 25th, 2010)