MIGRATION
LETTERS

CASE STUDY:

Determinants of illegal migration from North Africa to Southern Europe

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Abstract

This study focuses on determining the effects of demographic, socioeconomic and migration network factors on illegal migration from north Africa to south Europe using logistic regression model. The results indicated that migrants who thought it is easier to find a job in destination countries, had job before migration, had high level of financial situation before migration and had high level of education were more likely to migrate legally. However, migrants who had children before migration and migrated with others were more likely to migrate illegally. These findings can be useful for migration legislations in both sending and receiving countries.

Keywords: Illegal migration; legislation of migration; logistic model; north Africa; south Europe

Introduction

Illegal migration is one of the most irritating problems throughout the world since it affects both sending and receiving countries (Martin, 2003). A lot of benefits can be gained not only for migrants but also for host and sending countries through management of migration. Developing countries in particular can achieve a lot of gains in terms of increasing growth rates, investment, remittances, human capital accumulation and poverty reduction (Katseli and Xenogiani, 2006). Therefore, this study concerns the impacts of demographic, socio-economic and migration network factors on migration type (legal/illegal) from north Africa to south Europe. Since Egypt and Morocco have the grand population with the biggest labor stocks in north Africa (Baldwin-Edwards, 2005), they can represent north Africa population for the study of migration type from this area.

Out of the four Maghreb countries (Morocco, Tunisia, Algeria and Libya), Morocco has been the only one with a consistent policy of encouraging migration since 1968 to manage unemployment levels (Baldwin-Edwards,

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2005). Libya, after 1973, became a destination country that attracted migrants from neighborhoods with subsequent little impact on migration to south Europe. Migrants from Algeria and Tunisia prefer France as the main destination country (Labdelaoui, 2009).

Italy and Spain are considered to be the main destination countries for illegal migrants from sub-Saharan and north Africa since they have the largest informal economies in south Europe (Zohry, 2011). Italy was one of the main destinations in south Europe for Egyptian migrants since the early 1980s (Zohry, 2005). High local demand for low–skilled and low–paid workers in Italy encouraged unexpected push of Egyptian migrants (De Haas, 2007), especially after reduction in demand for Egyptian labor in Arab Gulf markets due to economic crisis and fluctuating oil prices following Gulf war. According to official data in 2009, there were 82,064 Egyptians in Italy (Pizarro and Finardi, 2012). On the other hand, Spain has been receiving more migrants from north African than any other country in south Europe (Katseli et al., 2006) and Morocco is the major north African sending country to Spain (Pizarro and Finardi, 2012). The number of registered Moroccan migrants in Spain had increased from 81,000 in 1996 to 579,000 in 2008 (Fokkema and De Haas, 2011).

The long coastlines of Spain and Italy, relative lack of legal migration channels and large size of informal labor markets facilitate illegal migration from north Africa to these countries. (Reyneri, 1998; De Haas, 2009). In spite of rising illegal migration from north Africa to south Europe in the past two decades, research in determining push and pull factors of this phenomenon is limited due to the high cost and difficulty of collecting data concurrently across different countries (Fokkema and De Haas, 2011).

Literature review

There is a set of partial theories developed from different disciplinary viewpoints concerned factors affecting migration decision (De Hass, 2011). Fundamental theoretical research on the nature and causes of migration process has made relatively little progress over the last few decades (Massey et al., 1998; Arango, 2000; Bakewell, 2010). Some theories of international migration systems focus on the demographic, economic, social, networks and political variables that establish the migration framework (Jennissen, 2007). Netherlands Interdisciplinary Demographic Institute (NIDI) in 2000 reported that push-pull framework is one of the most commonly known theoretical concepts in migration research including various factors that push migrants from origin to destination countries. Internal factors push people to migrate from origin and external factors pull people to destination countries (Mohammad and Som, 2010).

Massey et al. (1993) discussed most of international migration theories on the macro level. Neo-classical economic theory is the oldest theory of migration claims that wage differences between countries affect labor migration such that

people migrate from low-wage to high-wage countries. Dual labor market theory also emphasizes that economic pull factors in the destination countries attract international migration. The new economics of labor migration theory considers migration as a household decision that aims to maximize income and minimize risk. On the other hand, institutional theory indicates that once international migration has begun, private institutions and voluntary organizations rise to balance between demand of the large number of people who desire to migrate from their origin countries and the limited number of immigrant visas which are offered by destination countries.

Income difference between sending and receiving countries is an important factor in the migration decision according to relative deprivation theory (Stark and Taylor, 1989). Economic globalization and relationship between sending and receiving countries play an important role on movements between these countries (Massey et al., 1993). World systems theory considers migration as circular, multi-causal and interdependent such that effects of change in one part of the system will be observable through the rest of the system (Faist, 1997).

Conceptual framework of illegal migration based on three levels: migration network level, macro level (political and economic situations in origin and destination countries) and micro level (socio-demographic and economic factors in origin and destination countries). The application of this framework requires massive amount of data (Zohry, 2011).

Recent studies have focused on the effect of migration networks on international migration decision (Massey and España, 1987; Boyd, 1989; Fawcett, 1989). Network theory discusses the importance of personal relationship between non-migrants, migrants and former migrants in origin and destination countries. This network may increase the likelihood of international migration because they lower the cost and risk of movement and increase the expected net return to destination countries (Massey et al., 1993).

In 2008, Sabates-Wheeler et al. dealt with the determinants of migration type (with or without visa/work permit) from Egypt to Italy using data collected by NIDI in 1997/1998. They found that Egyptian migrants with high level of education, had work before migration, single and come from small households were more likely to have visa or work permit to live in Italy. Moreover, Kahn et al. (2014) used the same data to determine the factors that affect significantly the decision to migrate from Egypt to Italy. They showed that education, being married, remittances, the belief of migrant that migration improves financial situation, past poverty and migration network in receiving countries have positive impacts on the decision to migrate.

The framework of this research contributes to the literature in two ways; it focuses on factors that affect illegal migration from north Africa to south Europe. In addition, the modelling framework of this study includes some demographic, socioeconomic and migration network characteristics of households that were not considered in the previous studies.

Data

The data used in this research are subset of large data file of the survey "Push and pull factors of international migration" managed by NIDI in 1997/1998. Local research teams collected the data using independent multistage stratified disproportionate probability sample. The data were collected from eligible respondents in surveyed migrant households who were born in the country of origin and 18 years or older at the time of the last migration and they were actually residents in Italy or Spain at the time of the interview (NIDI, 2000). The total sample size is 1100 migrants such that 502 households migrated from Egypt to Italy and 598 households migrated from Morocco to Spain. Due to missing data for the responses and some of independent variables, 5.5% of observations were not included in data analysis.

NIDI survey questionnaires concentrated on past situation of households in origin countries, current situation in destination countries and information about last migration. Household questionnaires were found to be suitable for collecting data related to demographic, socio-economic and network factors in both origin and destination countries (Zohry, 2011). Data of these questionnaires were used in the current study following the concept of "the new economics of labor migration theory" that considers migration as a household decision aims to maximize income and minimize risk. Although these data are historic, they are the only available data represent international migration from north Africa to south Europe that concurrently collected and shared the same basic modular design and layout. Analysis of these data can be potentially valuable in the recent migration developments. Reviewing the recent literature revealed that socio-economic changes in this area have not grossly affected push and pull movement from north Africa to south Europe (Hafez, 2010; MPC, 2013).

Measures

Dependent variable

Data of the response variable "migration type" were collected by asking the respondent "Did you have a visa or residence or work permits when you entered this country?" which resulted in no or yes (the reference category) response.

Independent variables

Sixteen explanatory variables were chosen in the light of conceptual framework and literature review to represent demographic, socio-economic and migration network characteristics of migrants.

Demographic variables

"Age" was the only continuous variable. "Gender" was categorized as male and female (the reference category). "Number of children before migration" was re-categorized as none (the reference category), low number (1 or 2), medium number (3 or 4) and large number (more than 4).

Socio-economic variables

"Highest level of education attended" was categorized as less than secondary (the reference category), secondary and higher than secondary. "Current work" was categorized as yes and no (the reference category). "Migration role of improving the migrant's financial situation" was categorized as yes and no (the reference category). "The migrant's thought about how easy to find a job in origin or receiving country" was categorized as it is easier in country of origin (the reference category), both sending and receiving countries are equally easy and it is easier in a south European country. "Working before migration" was categorized as yes and no (the reference category). "Migrant's past financial situation" was categorized as more than sufficient, sufficient, barely sufficient and insufficient (the reference category). "Migrant owned a property in the origin country while in the south Europe country" was categorized as yes and no (the reference category).

Migration network variables

"Did the migrant move alone or with others" was categorized as alone (the reference category) and with others. "Existence of relatives for the migrant in the receiving country" was categorized as yes and no (the reference category). "Migrant ever worked in the destination country" was categorized as yes and no (the reference category). "Migrant knew about income/wedge in south Europe countries before migration" was categorized as yes and no (the reference category). "Migrant knew about the availability of finding a job in the receiving countries before migration" was categorized as yes and no (the reference category). "Receiving country" was categorized as Italy and Spain (the reference category).

Statistical model specification

Data were analyzed in this study using logistic regression model. There are no assumptions about multivariate normality of the independent variables within each group and equality of variance-covariance of independent variables in different groups. Logistic regression model was constructed to estimate unknown parameters and corresponding odds ratios using SAS codes.

Data collected from N respondents and $K-1$ demographic, socio-economic and network migration characteristics were included in the model. The response variable "migration type" was categorized as migration without visa/residence/work permit (illegal migration) or migration with visa/residence/work permit (legal migration). The probability that an observation migrated illegally, p_i has the following form.

$$p_i = \frac{e^{\beta_0+\beta_1 X_{i1}+\beta_2 X_{i2}+\cdots+\beta_{k-1} X_{i,k-1}}}{1+e^{\beta_0+\beta_1 X_{i1}+\beta_2 X_{i2}+\cdots+\beta_{k-1} X_{i,k-1}}}, \qquad i = 1,2,\dots,N \qquad (1)$$

where, $X_{i1}, X_{i2}, \dots, X_{i,k-1}$ are observed independent variables for the ith observation and $\beta_0, \beta_1, \beta_2, \dots, \beta_{k-1}$ are unknown parameters that were estimated by maximum likelihood method (Neter et al., 1996). The natural logarithm of odds is a linear combination of the independent variables and it has the following form.

$$logit(p_i) = \ln\left(\frac{p_i}{1-p_i}\right) = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \cdots + \beta_{k-1} X_{i,k-1} \;, \quad i =$$
$1,2,\ldots,N$ (2)

Descriptive statistics results

Descriptive analysis revealed that 31.6% households migrated illegally. Table 1 represents cross-tabulations between the "migration type" and the independent variables.

Demographic variables

Average age for migrants entered illegally the destination countries (34.37 years) is larger than those entered legally (33.6 years). A remarkable difference is observed in illegal entry between males and females (81.7% and 18.3% respectively). North African households who had no children before migration migrated legally more often than households with children.

Socio-economic variables

Migrants with high education level migrated more often legally compared to those who migrated illegally (26.3% versus 12.7%). Most of illegal migrants could have current work in destination countries (83.8%). There were 89.4% of legal migrants thought that moving to south Europe improved their financial situation compared to 93.8% of illegal migrants. Illegal migrants most probably thought it is easier to find a job in south Europe compared to legal migrants (73.1% versus 64.0%). Legal migrants who had work before migration (57.9%) were more than illegal migrants who did not have work before migration (50.3%). Households with better past financial situation tended to migrate legally in 51.2% versus 34.6% illegal migration. Households migrated legally could own a property in their origin country (31.1%) more than illegal migrants (27.5%).

Migration network variables

North Africans who migrated alone were more likely to migrate legally (80.7%), whereas migrants who migrated with others carried the risk of illegal migration (38.3%). Among those who migrated illegally, 67.8% had relatives in south Europe. Households who ever worked in the receiving country or had information about the availability of finding a job in the destination tended to take the decision of illegal migrating (93.2% and 63.7% respectively). However, availability of information about income/wedge in destination countries drove households to migrate legally (52.5%). A large gap was found between sending countries for illegal migration from north Africa to south Europe such that 29.5% illegal migrants from Egypt to Italy and 70.5% illegal migrants from Morocco to Spain.

Table 1: Descriptive Statistics for Characteristics of Illegal and Legal Migrants

Variables *(%):*		Illegal migrants	Legal migrants
Age[1]		34.37 (8.164)	33.6 (7.133)
Gender	Male	81.7	85.9
	Female	18.3	14.1
Number of children before migration			
None		63.4	78.2
Low level		19.2	12.0
Medium level		13.6	6.5
High level		3.8	3.3
Highest level of school attended			
Less than secondary		53.4	31.1
Secondary		33.9	42.6
More than secondary		12.7	26.3
Current work	Yes	83.8	82.6
	No	16.2	17.4
Migration role of improving the migrant's financial situation			
Yes		93.8	89.4
No		6.2	10.6
Is it easier to find a job in the receiving country			
It is easier in the country of origin in north Africa		10.9	9.8
The country of origin and destination country are equally easy		16.0	26.2
It is easier in a south European country		73.1	64.0
Did the migrant work before migration			
Yes		49.7	57.9
No		50.3	42.1
Past financial situation			
More than sufficient		2.7	8.0
Sufficient		31.9	43.2
Barely sufficient		43.7	35.7
Insufficient		21.8	13.1
Did the migrant own a property in the sending country			
Yes		27.5	31.1
No		72.5	68.9
Did the migrant move alone or with others			
Alone		61.7	80.7
With others		38.3	19.3
Did the migrant have relatives in the receiving country			
Yes		67.8	64.2
No		32.2	35.8
Did the migrant ever work in the receiving country			
Yes		93.2	92.2
No		6.8	7.8
Did the migrant have information about income/wedge in the receiving country			
Yes		49.3	52.5
No		50.7	47.5
Did the migrant have information about the availability of finding a job in the receiving country			
Yes		63.7	60
No		36.3	40
Receiving country	Italy	29.5	53.7
	Spain	70.5	46.3

[1] Means and standard deviations (in parentheses)   Source: NIDI (1997/1998) data.

Table 2. Logistic Model Estimates and Odds Ratios

Parameter	Estimate	Odds ratio
Intercept	0.0270	
	(0.5891)	
Demographic Variables		
Age	-0.0062	*0.994*
	(0.0124)	
Gender		
Male	0.2976	1.347
	(0.2087)	
Number of children before migration		
Low level	0.4343	1.544
	(0.2230)	
Medium level	0.5990*	1.820
	(0.2944)	
High level	0.0179	1.081
	(0.4222)	
Socio-economic Variables		
Highest level of school attended		
Secondary	-0.4150*	0.660
	(0.1843)	
Higher than secondary	-0.7609**	0.467
	(0.2450)	
Current work		
Yes	0.1074	1.113
	(0.2206)	
Migration role of improving the migrant's financial situation		
Yes	0.2609	1.298
	(0.2965)	
Is it easier to find a job in the receiving country		
The country of origin and destination country are equally easy	-0.7870**	0.455
	(0.2797)	
It is easier in a south European country	-0.5956*	0.551
	(0.2567)	
Work before migration		
Yes	-0.3866*	0.679
	(0.1616)	
Past financial situation		
More than sufficient	-0.9580*	0.384
	(0.4404)	
Sufficient	-0.2403	0.786
	(0.2232)	
Barely sufficient	-0.2100	0.811
	(0.2066)	
Did the migrant own a property in the sending country		
yes	0.1213	1.129
	(0.1740)	

Table 2. (Continued): Logistic Model Estimates and Odds Ratios

Parameter	Estimate	Odds ratio
Migration Network Variables		
Did the migrant move alone or with others		
With others	0.8464** (0.1634)	2.331
Did the migrant have relatives in the receiving country		
Yes	-0.0141 (0.1608)	0.986
Did the migrant ever work in the receiving country		
Yes	0.0665 (0.3390)	1.069
Did the migrant have information about the availability of finding a job in the receiving country		
Yes	0.1247 (0.1879)	1.133
Did the migrant have information about income/wedge in the receiving country		
Yes	-0.3164 (0.1735)	0.729
Receiving country		
Italy	-0.5632** (0.1957)	0.569

Note: ** significance at 1% level; * significance at 5% level

Notes: Standard errors are in parentheses. Reference categories of categorical variables used in the model: female, none, less than secondary, no, no, country of origin, no, insufficient, no, alone, no, no, no, no, Spain.

Source: NIDI (1997/1998) data.

Logistic regression model results

Table 2 shows the estimates and the corresponding odds ratios of variables resulted from the logistic regression model. The following variables were found to be significant at 5% significance level. Number of children before migration, highest level of education attended, how it is easy to find a job in the receiving country, work before migration, past financial situation, if the migrant moved alone or with others to the receiving country and the receiving country.

All significant independent variables showed negative effect towards illegal migration compared to legal migration except two independent variables (number of children before migration and if the migrant moved alone or with others) which revealed positive effect towards illegal migration.

Comparing illegal versus legal migration, it was found that households who had children before migration were more likely to migrate illegally. Households with medium level of number of children before migration showed the highest increase in the odds of being migrated illegally (1.820) compared to other levels of this variable. Increasing the level of school attended resulted in decreasing the likelihood to migrate illegally. The odds of being migrated illegally was found to be 0.66 times for migrants attended secondary school and 0.47 times

for those attended higher than secondary school compared to migrants attended less than secondary school. Households who believed that finding a job in origin and destination countries are equally easy or it is easier in destination country, were less likely to migrate illegally. Households who did not have job before migration were more likely to migrate illegally. Households with financial situation that was "more than sufficient" in the past showed the highest decrease in the odds of being migrated illegally (0.616) compared to other levels of this variable. Odds of households migrated illegally with others is 2.33 times greater than households migrated alone. Egyptians were found to be less likely to migrate illegally compared to Moroccans (0.569).

Discussion

Effects of demographic, socio-economic and network factors on migration type from north Africa to south Europe were studied. Demographic variables such as age and gender do not significantly affect the migration type. Data analysis illustrated that number of children before migration is the only demographic variable significantly affected migration type. North African migrants who had no children before migration were more likely to migrate legally than those who had children. This may be attributed to the loads of having children and continuous efforts of parents for improving their financial situation might push them to carry the risk of illegal migration. Sabates-Wheeler et al. (2008) reported that single migrants and households with small size before migration were more likely to migrate legally.

Socio-economic factors are the most important variables for choosing the migration type. Migrants with higher education level were more likely to migrate legally. Sabates-Wheeler et al. (2008) showed that high levels of education significantly increased the tendency for legal migration. Kahn et al. (2014) indicated that education has a significant effect on the decision to migrate. According to human capital theory, educated people have a better chance to migrate than less educated people because high education provides migrants with skills required in destination country labor market (Mahinchai, 2010). However, migration of high skilled people causes "brain drain" for sending countries (Dustmann and Glitz, 2011).

Opportunity to get a job in origin or destination countries is one of the significant factors affecting the decision of migration type. Households would be more likely to migrate legally when they believe that it is easy to find a job in destination country. On the other hand, if the migrant had a job in the origin country, he/she would be less likely to migrate illegally. This result is consistent with the findings of Sabates-Wheeler et al. (2008) who stated that employees are more likely to migrate formally than inactive individuals.

This study indicates that the higher the level of finance before migration, the less likely is that households would migrate illegally because they do not have to carry the risk of illegal migration. This result agrees with Kahn et al. (2014) who showed that past financial situation significantly affects the choice

of migration. However, Sabates-Wheeler et al. (2008) reported that past financial does not affect migration type. Migration literature indicated that poor individuals are less likely to migrate due to obstacle of transportation costs whereas richer households are more likely to participate in costly international migration (Mendola, 2005) and the price of illegal migration is negatively correlated with the willingness to migrate illegally (Linguère, 2014).

The current study shows that the decision to move alone or with others and destination country are the network variables affecting the decision of migration type. Group travelling affects migration type such that migrants who share the risk of illegal migration usually travel in groups through illegal travelling brokers. Migrants usually select the destination country on the basis of relationships connected their origin countries with the receiving countries. Egyptians are less likely to migrate illegally to Italy. Kahn et al. (2014) reported that migration network has a positive effect on the choice of migration.

Immigration policies in both sending and receiving countries should be focused on configuration of motivations which reflect the first step of illegal migration decision (Linguère, 2014). Spain and Italy passed their first immigration laws in 1985 and 1986 respectively. These legislations mandate that migrants should have work permits. Most permits provided in these countries are temporary and must be renewed on a regular basis. Recent laws make it possible to apply for permanent legal residency in case of having temporary permits to work without interruption in the formal economy for several years. This restriction resulted in excluding the majority of migrants who migrated illegally and worked in underground economies. Moreover, sanctions against employers who provide job opportunities for illegal migrants in underground economy may decrease the rate of illegal migration (Calavita, 2007).

Conclusion

Controlling illegal migration in south Europe is a continuous challenge and analysis of data that based on survey questionnaires of migrant households can be potentially valuable in the recent migration developments. Logistic regression model is suitable for analysis of current data since it describes the relationship between binary response variable and a mix of categorical and continuous independent variables.

Age and gender do not significantly affect the decision of migration type (legal/illegal) whereas number of children before migration is the only demographic variable significantly affected migration type. The decision of household to migrate legally is escorted by the highest level of school attended. Moreover, high level of financial situation in the origin countries, the opportunity to find a job in destination countries and the existence of work in the origin country before migration drive migrants towards legal migration.

As socio-economic factors have significant effects on the type of migration. North African governments should make effective plans to encourage people towards high levels of education and create new investments to improve their

financial situation. Moreover, modify migration policy in destination countries for admission of highly educated migrants and organize the entry of low educated migrants may facilitate the lawful entry to the destination countries.

Increasing legal channels of migration to south Europe and announcing for available jobs through these channels may facilitate legal migration for people thought it is not easy to have work permits in destination countries. Increasing sanctions against brokers who facilitate illegal group travelling and increasing borders observation especially the sea coast may discourage people to migrate illegally.

References

Arango, J. (2000). "Explaining migration: a critical view". *International Social Science Journal*, 52(165): 283–296.

Baldwin-Edwards, M. (2005). *Migration in the Middle East and Mediterranean*. A paper prepared for the policy analysis and research program of the Global Commission on International Migration (GCIM), 1-43.

Bakewell, O. (2010). "Some reflections on structure and agency in migration theory". *Journal of Ethnic and Migration Studies*, 36(10): 1689–1708.

Boyd, M. (1989). "Family and personal networks in international migration: recent developments and new agendas". *International Migration Review*, 23(3): 638-670.

Calavita, K. (2007). *The Immigration conundrum in Italy and Spain: Laws and policies in Italy and Spain reveal ambivalence about immigration*. America Immigration, Law& American Identity. American Bar Association, 1-4.

De Haas, H. (2011). The *Determinants of international migration* (Working Papers No. 32). Conceptualising policy, origin and destination effects, 1-35.

De Haas, H. (2009). *Morocco: Migration profile*. Focus-Migration 16: 1-11.

De Haas, H. (2007). *North African migration systems: Evolution, transformations and development linkages*. International Migration Institute. James Martin 21st Century School. University of Oxford 6: 1-44.

Dustmann, C., and Glitz, A. (2011). *Migration and education* (Paper No. 2011-11). Norface migration. discussion. Handbook of the Economics of Education 4.Ed. Edited by Hanushek,E.A., S. Machin and L.Woessmann.

Faist, T. (1997). The Crucial meso-level. In T. Hammar, G. Brochmann, K. Tamas & T. Faist (eds.), International migration, immobility and development. multidisciplinary perspectives. Oxford: Berg, 187-218.

Fawcett, J. T. (1989). "Networks, linkages, and migration systems". *International Migration Review*, 23(3): 671-680.

Fokkema, T., and De Haas, H. (2011). "Pre-and post-migration determinants of socio-cultural integration of African immigrants in Italy and Spain". *International Migration*, 1-24.

Hafez, H A. F. (2010). *Irregular Egyptian migration of unaccompanied minors to Italy: a journey of death or salvation?* Master thesis, Center for Migration and Refugee studies, the American University, Cairo, Egypt.

Jennissen, R. (2007). "Causality chains in the international migration systems approach". *Popul Res Policy Rev*, 26:411–436.

Kahn, Y., Dumas, A., Eshet, Y., and Billfeld, N. (2014). "Migration and subjective poverty in sending countries: An Analysis of Egyptian case". *Migration Letters*, 11(3): 353-367.

Katseli, L. T., Lucas, R. E.B., and Xenogiani, T. (2006). *Effects of migration on sending countries: What do we know?* (Working Paper No. 250). Economic and social effects of migration on sending countries. OECD Development Center, 1-90.

Katseli, L. T., and Xenogiani, T. (2006). *Migration, A negative or a positive driver for development?"* OECD Development Centre Policy Insights, No. 29: 1-2.

Labdelaoui, H. (2009). *La dimension sociopolitique de la question 'Migration et développement' en Algérie.* CARIM-AS, No. 2009/24, EUI, RSCAS 1-32.

Linguère, M. M. (2014). "Barcelona or die": understanding illegal migration from Senegal". *IZA Journal of Migration*, 3(21): 1-19.

Mahinchai, M. (2010). *Determinants of migration: A Case study of Nang Rong, Thailand.* Graduation thesis, Trinity College, Duke University, Durham, North Carolina, USA.

Martin, P. (2003). "Managing international labor migration in the 21ᵗʰ century". *South Eastern Europe Journal of Economics,* 1: 9-18.

Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., and Taylor, J. E. (1998). *Worlds in motion: Understanding international migration at the end of the millennium.* Oxford: Clarendon Press.

Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., and Taylor, J. E. (1993). "Theories of international migration: A Review and appraisal". *Population and Development Review*, 19 (3): 431-466.

Massey, D. S., and España, F.G. (1987). "The Social process of international migration". *Science Journals*, 237(4816): 733-738.

Mendola, M. (2005). "Migration and technological change in rural households: complements or substitutes?" *Journal of Development Economics*, 85 (1-2): 150-175.

Mohammad, B. A. M. A., and Som, A. B. M. (2010). "An Analysis of push and pull travel motivations of foreign tourists to Jordan". *International Journal of Business and Management*, 5 (12): 41-50.

MPC Team. (2013). *The Demographic-Economic framework of migration, the legal framework of migration, the socio-political framework of migration, Egypt.* MPC - migration profile. *Migration Policy Center*, 1-13.

Neter, J., Kutner, M. H., Nachtsheim, C. J., and Wasserman, W. (1996). *Applied Linear Statistical Model.* 4ᵗʰ edition. The McGraw-Hill Companies, Inc.

Netherlands International Demographic Institute. (2000). *Push and pull factors of international migration: A comparative report.* The Hague: NIDI/Eurostat.

Pizarro, J. M., and Finardi, L. R. (2012). *Development, institutional and policy aspects of international migration between Africa, Europe and Latin America and the Caribbean.* Project Document, United Nations, Santiago, Chile.

Reyneri, E. (1998). "The role of the underground economy in irregular migration to Italy: Cause or effect?" *Journal of Ethnic and Migration Studies*, 24(2): 313-331.

Sabates-Wheeler, R., Sabates, R., and Castaldo, A. (2008). "Tackling poverty-migration linkages: evidence from Ghana and Egypt". *Soc Indic. Res,* 87: 307-328.

Stark, O., and Taylor, J. E. (1989). "Relative deprivation and international migration". *Demography*, 26 (1): 1-14.

Zohry, A. (2005). *Migration without borders: North Africa as a reserve of cheap labor for Europe.* Egyptian Society for Migration Studies*,* UNESCO, Paris 5: 1-23.

Zohry, A. (2011). A Proposed framework for the study of illegal migration Egyptian *(Working Papers Series*, No. 2011-01). *Society for Migration Studies*, 1-18.