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The Impact of Labor Migration Inflow on the Economy in Jordan (1980-2017)

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Abstract

The aim of this research was to investigate the impact of foreign labor migration on Jordan's GDP by studying some variables which related to the labor migration such as; foreign labor size, capital stock and labor's outflow remittances. Statistical tests have been made according to the model that have been adjusted by the researcher depending on Cobb-Douglas production function to explain the effect of each independent variable on the dependent variable (GDP) from 1980 till 2017; analysis conducted using Regression Coefficient Analysis, ADF test, correlation test, and Multicollinearity test on e-views statistical program. The analysis highlighted the impact of outflow remittances that sent by migrant labor to their families on the GDP. The result of this research showed that the foreign labors have a significant impact on Jordanian economy and they play an effective role in energizing the labor market in Jordan, on the other hand, the results showed that foreign labor's outflow remittance have no significant impact on the economy in Jordan, and the government may consider making new regulations to encourage the foreign labors to spend their money in the Jordanian market instead of sending their earnings back to their home countries.

Keywords: migration, labors, economy, labor remittances, GDP, foreign labors, labor market, Jordan economy

Introduction

"Migrant's labors make significant and essential contributions to the economic, social and cultural development of their host countries and their communities back home. But too often, these contributions go unrecognized..." (ILO, 2017). The previous statement highlighted the important role migrant labor plays in countries. Labors, in general, is considered as one of the factors besides land and capital which contributes to the production process of an economy, they are the power of the production process of a product or service either physically, mentally or socially. Labors supply the appropriate experiences and skills in order to change materials into new products, however, host countries shall control and organize the flow of those labors in a way that helps the economy rise and to minimize the negative effect of their migration. Labor migration has become a global and highly important phenomenon nowadays; it has been capturing public and political attention. Labors have been migrants more than ever in order to work in places that are far away from their home to find new hope or new opportunities in order to improve their living standards. Labor migration main goal, is to find a new job, career or new position that improve their situation (ILO, 2017). On the other hand, host countries nowadays imposed more restrictions on labor migrants to enhance security, social unity and save the rights of the local labor in the country as to reduce unemployment rates. In Jordan, for instance, the local economy relies on labor migrants in transformative and service sectors while others depend on agriculture, i.e. Egypt, Bengalis in the textile industry, and Sri Lankans in domestic services (Middle East institute, 2010). The flow of workers has been taking a serious effort in order to be controlled either by Jordanian or by the expat countries. Generally, both Jordan and sending (expat) countries have been succeeded in controlling the flow of labor migration.

In 2007 Jordan began to control the entry of labors from outside the country strictly. As an effort of that, Jordan signed memoranda with several countries i.e.; Egypt, Indonesia and Sri Lanka, to regulate and to control the entry of workers from those countries to the Hashemite Kingdom of Jordan.

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Workers in such cases shall meet the requirements imposed by the Jordanian government in accordance with the laws and regulations (Middle East institute, 2010). It is necessary to mention that Labor migration can contribute to the growth and development of the country they migrants to, while the sending country can benefit from the remittances and the skills that they acquired during the time they spend working in another country (ILO, 2017). The number of migrant's labors started to increase especially when legal requirements are implemented and legal contracts were signed to protect the employee's rights.(Kjeldstadli, 2017). The history of labor migration shows how the process of migration was complicated and apprehensive for the workers themselves. Today, the number of labor migration increased adequately in Jordan due to the global and surrounding crises that occurred in the middle east and neighbor countries. According to the department of statistics (2016), the percentage of migrant labors (employed) reached 16% in 2016 from the total labors in the Jordanian market.

During the last two decades the number of labor migration in Jordan has increased, the large number of foreign labors in the market altered the economy of Jordan in many ways, thus, this research investigated some variables that related to the labor migration (Foreign labor size, Capital stock, and outflow labor remittances) to understand how these variables impact the Jordanian economy in a way that helps the country to control and regulate the labor migrations.

Primarily, this research investigated the impact of labor migration inflow on Jordan's GDP noting that the country has been in economic, demographic, cultural and social changes through the political situations triggering the country. Worker's supply exceeded the local demand, the economy could not absorb that huge number of newcomers into labor market, which led to create more obstacles to the ones already exist (Ministry of Planning and international cooperation, 2009). The Jordanian labor market has been impacted by the situations that the country experienced by the region in general (political and economic situations in the countries around Jordan), yet, the number of worker raised from (1,220,521) in (2009) to reach (1,406,640) in (2016), noting that this number still increasing due to many factors that affect the country either economically or politically (Department of Statistics, 2016).

This situation endured; as the economy of Jordan is suffering from production decline and as a result of the unemployment rate is increasing. Furthermore, the return of Jordanian emigrant workers started especially from the gulf region. In general, the economy in Jordan and the labor market in Jordan were influenced by the economic and the political situations which previously experienced in the region and have imposed different economic pressures due to the migration to the Kingdom (Faranck, 2018).

Significance of study

This research was essential due to the fact that Jordan experienced an increasing number of labors migration in the last 15 years. According to the Ministry of Labor (2018) the number of foreign workers reached 318,830 in 2016, and so on the total of the working force reached 1,979,086 in the same year, and those numbers continue to grow till now. Jordan made many policies and amended its regulations and laws to manage the foreign migration, however, according to the situation Jordan is facing the country may need to take new steps to improve and manage the migration of foreign workers (Ministry of Labor, 2017).

This research aimed to investigate the impact of the inflow of labor migration and their outflow remittances on the economy in Jordan; mentioning all labor nationalities and expats such as Egyptians, Syrians and the Asian workers which represent the highest percent of the migrant labors in Jordan. This research is important as the number of labor migration in Jordan is rapidly increasing, which is necessary to know and understand the implications of this migration to the economy in Jordan.

Literature Review

This section includes the literature review which explains how the previous studies handled the subject of labor migration and the effect of this migration on the economy of any country, in order to investigate the effect of the variables of this research and how they affect the Jordanian economy.

Athamneh's et.al (2010) discussed the situation of inbound labor and the outbound labor migrants by presenting their impact on macroeconomic indicators in the Jordanian economy such as; inflation, the capital stock, consumptions, unemployment rate, and GDP growth rate. In order to do that they created two models, the first was to study the effect of inbound labor migration and their remittances on the economic growth, while the second model was to study the impact of outbound labor remittances on the Jordanian economy. Using Cobb-Douglas production function, they found that the features of foreign labor and the local labor are totally different. They noticed that the productivity of local labor is higher than the productivity of foreign labor.

Thus, the country should start to replace the foreign labor in order to have more productivity but this process may become difficult due to that the local worker has something called "culture of shame" which prevent them to accept any job under their expectations. Also, they found that the Foreign worker and the inbound labor migration has a deep effect on the unemployment rate by increasing the unemployment rate in the country, then they conclude that the foreign workers affect the economic growth in a negative way, by affecting the total reserve of supply, the investment and the equity capital.

Razzaz (2017) argued that there are two segments that affect the labor market in Jordan; the local labors and the foreign labors, those two segments affect the market in many ways. The method of collecting the data for this study was by making interviews with Jordanian labors and the foreign labor, in order to take notes from their answers on specific questions to reach to the results of the study.

Razzaz's (2017) found that the impact of foreign labors on the economy is negative by knowing that their impact on the labor market is also negative, and she summarized the finding in two points: First, that regardless which sector or which organization the Jordanian worker work in, and how much does the foreign labor fills jobs in the market, the local Jordanian labors have specific working term that affect their desire to work such as; having their wages on time, having extra pay for overtime work, working in a specific hours, appreciation for efforts and having training from time to time. Second, the working conditions that exist between migrant labor and the Syrian refugees put the Jordanian labor in a bad situation against the non-Jordanians, because the foreign labors and the refugees accept to work in conditions the Jordanian themselves refuse to work in, which increase the chance for non-Jordanian to be employed, some of these conditions are like; late of wages, low wages, no payment for overtime, long working hours, and heavy kind of works. For example, in agriculture and construction sectors Egyptian workers work for long hours which exceed 13 hours a day under tough conditions that Jordanian work mostly refuse to work with.

Cristea et.al (2018) discussed the effect of migrant's labors on the economic situations on host countries particularly in Europe; the research included different models of immigration flow to the European Union (EU), as well as their economic impact upon ten migrant host countries. She explained different ways in which migrant's labors can participate in receiving countries' development through positive spread of labors upon natives, labor market performance, and the whole economic situation. Several methods and macro econometric models were created based on many factors for ten EU host economies throughout two different periods of time; from 2000 to 2015, and from 2000–2019. As a result, they found that labor migration shaped by the labor market outcomes, while the main positive impact of labor migration was examined upon the (GDP) per capita and the employment rate for both local labors and foreign labors.

Based on this research, they argued that the impact of labor migration determined by labor and capital flexibility and upon the ability of the labor market to absorb labor in short and long term. In line with; they found that flow of labor migration has a positive impact on the economy through their impact on the labor market performance for both local and foreign labors, also they found that labor migration into the country improve the level of GDP per capita.

Peri (2010) studied the impact of migration and labor migration on the employment rate and the productivity in United States of America. He noticed that migration increased and led to increase the foreign labors in the U.S, this matter has been highly debated in the country; some argued that this migration declined the job opportunities for the native workers. Others said that that foreign labors are filling spaces in jobs that native labor can't or wouldn't work in.

Grinko & Voitko (2015) studied labor migration and how its affect some of the important indicators that maintain a sustainable development in a country such as security, life quality, economic freedom, growth competitiveness, unemployment rate, human development, these indicators help identifying the reasons that exist in order to provide sustainable development for the country by controlling labor migration. The effective labor migration regulation is important to ensure sustainability in countries such as Bulgaria, and Ukraine. They argued that since Labor migration has an economic nature it should be discussed at the level of countries which sharing human resources (migrant and his human capital), labor migration has an impact of basic indicators of the state as security, life quality, sustainable development, index of economic freedom, unemployment rate, human development and so on, generally, this study analyzed those indicators of the top 10 countries in the world in order to compare them with the indicators in Bulgaria and Ukraine. This will solve problems that facing that country in having a sustainable development in those countries.

The main result of this research showed that countries should create scientific and practical regulations of labor migration through a combination of an organizational, economic, social and legal mechanisms in order to ensure the sustainable development of countries; in order to have an effective regulation of labor migration, the policies should include a legal, organizational and financial system and information support for the government and public organizations, Those systems will help in the process of migration organize, regulate quantitative and qualitative composition of migration flows, their social, demographic and economic structure.

Kazaz (2013) discussed the effect of the labor migration on the local wages of the construction sector in Norway. She found that the migration of people to the country in the last decades affected the labor market in Norway by increasing the labor supply, especially that the country was not affected by the economic downturn after the financial crises, which made it more attractive for foreign workers. The high number of labor migration in Norway and the increase in the demand and supply of labors had an impact on the wages and the employment rate among native labors workers.

The study of Mikhaylova (2016) aimed to investigate the effect of inflow labor migration to the labor markets especially on life quality of local labors, the infrastructure and the level of social life in Russia; He examined the features of migrant labors in the Sakha Republic which is one of the largest entity of the Russian Federation, also he developed new mechanisms for managing labor migration. He emphasized four important points. First, the migration flows in the country have been identified and characterized. Second, it has been noticed using statistical data that the inflow of migrants to the country is observed in the construction industry due that the number of local labors in this industry is low. Third, the research reveals the strong and weak characters of the labor migration in the country based on the sociological data. Finally, new mechanisms of management of the labor migration in the country have been developed and improved.

Edrees's (2016) studied the impact of labor migration into the country and their outflow remittances on the economy of Saudi Arabia (KSA), United Arab Emirates (UAE) and Qatar. The main reason why he had chosen those three countries is that all those three countries had a large number of migrant labors who have been working in most of the sectors in the country. In order to know the effect of inflow worker and their outflow remittances on the economy of those three countries, he created a model based on a time serious data from the period 1985 to 2014. Analysis showed that foreign labors affect the economic growth positively, while the effect of the outflow remittances had negative impact on the economic growth of the countries chosen. As a result, he found that the three countries should review their policies regarding outflow remittances to encourage the labors to invest their money in the country and to make businesses easier instead of sending their money back home.

On the other hand, Debbiche & Rahmouni (2017), examined the effect of outflow remittances on the economic growth in KSA, this study had been made due that the Kingdom of Saudi Arabia experienced a large number of inflow labor migration in the last two decades reached more than 9 million workers with a high rate of economic growth, this migration led to huge increase in the number of outflow remittances; noticing that KSA has become the third country after USA and Russia when it comes to the number of workers remittances, the outflow remittances in KSA reached 37 billion dollars in 2014, which accounted for 5% of the GDP that year. Debbiche & Rahmouni's (2017) study was conducted from the year 1970 to the year 2014; they used a (ARDL-ECM) model in order to know the relation between the remittances and the GDP. Debbiche & Rahmouni's (2017), found that the outflow remittances have a non- significant impact on Saudi's GDP on the short and the long run. This effect which consider as a neutral effect can be explained by the low share of those remittances on GPD, on the other hand outflow remittances reduce the inflation in the country. However, many advantages can be taken from the labor migration and their savings by making strategies to encourage those labor to inset their saving locally.

Arokiadasan et.al (2016) aimed to examine the relationships between the economic growth and labor outflow remittances in Malaysia, the study covered the period from 1982 to 2014. In this study, they collected the date which considers the GDP per capita as a dependent variable and the outflow remittance, the outflow foreign direct investment (FDI), export, and foreign worker as independent variables. Arokiadasan et.al (2016) used the Ordinary Least Square method (OLS), t-test Co-integration and Dickey-Fuller Unit test to create a model that contain the dependent variable and the independent variables in order to study the relationship between the outflow remittances and the economic growth in the country. The result of the regression was that there is a long-run relationship between the independent variables to the economic growth (GDP), while export, outflow remittances and foreign worker had a significant effect on GDP in short-run; outflow remittances had a positive effect in short and long-run, due that foreign workers can use in the production of goods and services in a country.

Also, Alkhathlan (2013) made a study to discuss the relationship between the outflow remittances and the growth in Saudi Arabia, in order to know this relationship from the year 1970 to the year 2010 he used the error correction model (ECM) and the autoregressive distributed lag (ARDL). The study assumed that the economic growth makes an outflow of capital as labor's remittances due to the large number of foreign labor inflow in the country.

The result of the analysis of the data shows that there is negative insignificant relationship between the outflow remittances and the economic growth in the short term, and the effect of government expenditures and the amount of exports had a positive significant effect on Saudi Arabia's GDP. Saudi's government must find ways to encourage labors to invest their money in the country instead of sending them back home.

Methodology

Research Model:

This study is based on a statistical descriptive approach in the analysis of the foreign labor flow into Jordan during the period from 1980 until 2017. A statistical analysis is used to show the effect of each independent variable on the dependent variable (GDP); this analysis done by using a Regression Coefficient Analysis, ADF test, and Multicollinearity test on e-views statistical program, also the analysis highlighted the effect of the outflow remittances that sent by the migrant labor to their families on the GDP, by knowing if that effect is negative or positive.

This research aimed at studying the relationship between the migrations of foreign labor into Jordan and the GDP in Jordan in a specific period of time, in order to do that the research considered that the GDP (Y) is the dependent variable that is affected by the labor migration, and the other factors; Foreign labor size (FL), the outflow of labor remittances (OLR), and Capital stock (K) are the independent variable which can help to know whether if the labor migration to Jordan affect the economy positively or not. The research model can be explaining by the equation below:

$Y = \alpha_0 + \alpha_1 \log FL + \alpha_2 \log OLR + \alpha_3 \log K + \epsilon$

Where Y GDP in Jordan, α_0 express any other factors that affect the Jordanian economy. (Technology), FL Foreign labor, ORL Outflow labor remittances, K Capital stock., α_1 represent the effect of (FL) on (Y), α_2 represent the effect of (OLR) on (Y), α_3 represent the effect of (K) on (Y), E Error term.

Research Sample

The sample that will be used in this research is the size of the foreign labors that came to Jordan from 1980 till 2017, Capital stock and the number of outflow remittances in Jordan during the same period. The reason why this period of time was chosen is that there was no data available before 1980 and after 2017 for the flows of the foreign labors to the country.

The data used for this research shall be the secondary data taken from different resources, the dependent variable (GDP) taken from the World Bank's reports, while, the independent variable; the size of foreign labor from Ministry of labor, and the outflow remittances is collected from the Central Bank of Jordan. All of the data collected annually from the year 1980 till the year 2017. (The reason why GDP data was taken from the World bank's report not from the Central Bank of Jordan's reports is that not all the data available for all years in the Central Bank of Jordan's reports).

Dependent Variable

A- Gross Domestic Product (GDP).

One of the indicators to measure the economy of a country is by measuring the GDP (Gross domestic product), in practice, GDP is considered the best way to measure the health of an economy. GDP include the entire economic output of a country such as the products and services that the businesses produce in order to sell in a country, it can be measured either by the income approach by adding what everyone gain in a year, or by the expenditure approach which is calculated by adding what all the businesses spent; no matter what approach is used to measure GDP at the end of the process the total shall be the same (Kramer, 2018).

Independent Variables

A- Foreign labor size (FL).

Generally, in any country the labor force includes the local labors and the foreign labors; The foreign labors are the people who move to another country seeking for jobs instead of working in their country due to

many reasons such as the economic situation and political stability in their country, Foreign labors are people who are working in another country which there are no citizen in it, noting that sometime some countries develop programs and systems as to bring foreign worker who can improve and increase the economic efficiency of their country (Mei et.al, 2017).

Mainly, foreign labor in Jordan can be defined as uneducated or less-educated labors, this kind of labor can exist in the developing countries due to the fact that they can fill the space of local labors in many sectors such as services, constructions and agriculture sectors, as local labors believe that this kind of jobs is insufficient for them, since they are more educated for such a job (culture of shame), for that reason government allow foreign labor especially Egyptians to enter the country in order to fill these low wages jobs (Kirwan, 2015).

Foreign labor considers as an important factor that effect the economy in the country, noting that long time ago and till this moment, millions of foreign labors contributed in the improvement and establishment of countries like China, Japan, Singapore, the Gulf countries and many other countries around the world. In general, foreign labor help increasing the population, improving the gross domestic product (GDP) and fill up shortages in the labor market labor (Mei et.al, 2017).

B- Outflow Labor Remittances (OLR).

Remittances are any personal transfer of labor's money; it can also represent the compensation of work. Remittances consider as an important source of money and income for the family of labors who migrants to another country. Generally, remittances consider as a key factor that helps to reduce poverty, it also improves the development of the economy in the receiving country, moreover, it can improve the living situation and stabilize the family's income that is left behind, however, remittances can affect the economic structure and the economic behavior in the receiving country, yet, remittances can make an undesirable impact on the economy of the receiving country (Kumar, 2017).

C- Capital stock (k).

Pohjola (2017) studied the relationship between the Capital, labor productivity and economic growth in Finland from 1996 until 2015 by using the Cobb-Douglas production function. He argued that the Capital (K) in Cobb-Douglas production function is considered as the productive part of a firm's wealth. Wealth is the sum of all money, goods, human values, etc. that can be useful in the production of further wealth. Capital is known as the man-made means of production. Hence capital will include every man-made good that are used in the production process; this differentiates both land and labor from capital since both of these are not man-made. So, machinery, tools, plant, instruments, factories, transport vehicles, etc. are all forms of capital itself, in other words, capital is a passive factor of production. It needs labor to be productive which is generally generated from labors. Pohjola (2017) argued that both capital and labor are main primary production factors, that is why the basic form of the model of Cobb-Douglas shall always contain those two factors together, and any other additional factor that can be added in order to measure its effect on the output. According to Pohjola (2017) in any economy the contributions of the components of total capital input provide detailed information about the development of labor productivity and economic growth.

Regression results

This section includes all the statistical tests that have been used in this research in order to obtain the needed results; those tests will help the researcher to understand the correct relationship of each variable showing the effect of foreign labor migration on Jordan GDP.

Testing of assumptions

Since the data that have been used in this research is secondary data, a time series analysis has been conducted. To test the assumptions for using multiple regressions, several tests are to be applied as follows:

A-Multicollinearity

For the purpose of using multiple regressions, some statistical tests must be carried out to ensure not existing high correlation between research independent variables. Using Variance Inflation Factor (VIF) which is the ratio between the variance for a model calculated with multiple terms and the variance of the model with only one term. As a rule of thumb, VIF less than 10 is acceptable (Gujarati, 2004). Table (1) shows that the tolerance test values and Variance Inflation Factor -VIF that all tolerance values was more than 0.1 and Variance Inflation Factor –VIF values of independent variables were less than 10, therefore, it can be assumed that there is no problem related to multicollinearity between independent variables.

Variable	Tolerance	VIF	
Capital Stock	.188	5.314	
Foreign Workers	.178	5.630	
Outflow remittances	.312	3.208	

Table 1: Multicollinearity

A-Stationary test and Panel unit root test.

To find out the possible equilibrium relationship between variables and to justify using regression analysis and trust the results of the regression, the first step is to test the time series sample for stationary (Gujarati, 2004). ADF test was used and the obtained results for all-time series used in this research are as follow:

Table 2: ADF test results

Variable	T statistics	5% critical value	p> t
Capital Stock	-4.516854	-4.252879	0.0052
Foreign Labor Size	-8.146247	-3.540328	0.0000
Outflow Workers remittances	-5.677674	-3.536601	0.0002
Fixed GDP	-7.245432	-3.540328	0.0000

Table (2) indicates that P>|t| values are significant at 5% level; therefore, null hypothesis is rejected and the alternative ones are accepted. This means that the series are stationary and no unit roots exist. Table also shows that the absolute value of t statistics is larger than t critical this means that also null hypotheses are rejected. So, based on there are no unit roots in the sample time series, then they are stationary and integrated at level I (0).

C- Correlation

Correlation analysis is made for the purpose of identifying the strength of relationships between a pair of variables. The correlation coefficient r values vary between -1 and +1. Perfect collinearity is ± 1 and 0. Values of r between 0 and 1 reflect a partial correlation, which can be significant or not. Only correlations that are significant at p<0.05 or 0.01 should be considered (Gujarati, 2004).

Table 3: Correlation test

Probability	GDP	Capital stock	Labor Size	OLR
GDP	1.000000			
Capital	0.0505.4444	4 00000		
Stock	0.959561**	1.000000		
Labor Size	0.961920**	0.881337**	1.000000	
ORL	0.707213**	0.675010**	0.730118**	1.000000

Note: significant level ** 1 % and ** 5%.

Table (3) indicates that there is a relationship between independent variables and dependent variable since sig values are less than 0.05. Noting that the test above showed that there is a high correlation between some of relations (i.e. the observations are higher than 0.8).

However, as another step for check Multicollinearity this study using VIF and its tolerance (1/ VIF). Results show that there is no Multicollinearity problem between the study variables. The results are less than 10 for the VIF and more than 0.1 for the tolerance.

D- Regression Coefficient Analysis

It is defined as the constant 'b' in the regression equation which indicates the change in the value of dependent variable corresponding to the unit change in the independent variable and it is. A statistical measure of the average functional relationship between two or more variables. In regression analysis, one variable is considered as dependent and other(s) as independent. Thus, it measures the degree of dependence of one variable on the other(s). Regression analysis is a statistical tool used to determine the probable change in one variable for the given amount of change in another (Gujarati, 2004). This means, the value of the unknown variable can be estimated from the known value of another variable.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	924.31	241.1176	3.833	0.0005
Capital Stock	0.072	0.007051	10.1667	0.0000
Labor Size	0.013	0.001252	9.992	0.0000
ORL	-0.602	0.876243	-0.687	0.497
R-squared	0.981520	Mean dependent var		6280.905
Adjusted R-squared	0.979890	S.D. dependent var		2999.655
S.E. of regression	425.3832	Akaike info criterion		15.04316
Sum squared resid	6152330.	Schwarz criterion		15.21554
Log likelihood	-281.8200	Hannan-Quinn criter.		15.10449
F-statistic	601.9517	Durbin-Watson stat		0.934135
Prob(F-statistic)	0.000000			

Table 4: Regression coefficient

Analyses of Results

1- The analysis indicated that domestic product witnessed an increase during the whole period (1980-2017). At the same time, the data indicate the impact of foreign labor on GDP However; this does not mean that expatriate foreign workers have an absolute impact on GDP growth. Despite the increase in all variables, there is a decline in GDP in some years.

In 2007 the increase in the factors used to measure the impact of expatriate labor was accompanied by a noticeable decline in the GDP. This indicates that there is an effect of other variables not included in the present study. The impact is confirmed by the hypothesis which states that there is no statistically significant impact of foreign labor migration at $\alpha \le 0.05$ level on Jordan GDP. The result agreed with Athanneh et.al (2010) who found that the foreign workers affect the Jordan GDP in a negative way and also agreed with Razzaz (2017) who found that the impact of foreign labors on the economy is negative by knowing that their impact on the labor market is also negative, while the result do not agree with Cristea et.al (2018) who found that labor migration has a positive impact on the economy. And agreed with Edrees's (2016) who found that the foreign labors affect the economy positively.

- 2- The analysis indicated that the period (1980-1989) witnessed a fluctuation in the size of foreign workers as well as in gross domestic product. For the period (1990-1999) the analysis indicates that, the number of foreign workers declined. The impact of number of workers impact is not stable due to political situations which affect either directly or indirectly on the GDP. With respect to the period from 2000 to 2009 the analysis indicated that the increase in number of incoming workers was accompanied by an increase in GDP. As for the last period (2010-2017) the analysis indicated that the increase in the number of foreign workers or was accompanied by an increase in the volume of the GDP. In general, it was proved that There is a statistically significant impact of foreign labor size on GDP at level $\alpha \le 0.05$ in Jordan. The result agreed with Kazaz (2013) who found that migration of people to the country in the last decades affected the labor market in Norway by increasing the labor supply, especially that the country was not affected by the economic downturn after the financial crises, And agreed with Islam & Saskatchewan (2003), who found that migration of labors can assets in job creation and with Mikhaylova (2016) who found that the positive aspect of labor migration can be presented by that the mobility of labor contributes to improve the economy.
- 3- With respect to foreign workers remittances the analysis indicate that foreign workers' remittances declined, accompanied by growth in the GDP excluding 1984, which indicated an increase in workers' remittances and an increase in the gross domestic product. In addition, the analysis indicated the relationship between foreign workers remittances and GDP from 1990- 1999 is not stable. While in the period from 2000 to 2009 the analysis indicates an increase in foreign workers' remittances; this increase was accompanied by an increase in GDP, with respect to the last period (2010- 2017), the analysis indicates that the increase and decrease in foreign workers' remittances was accompanied by a continuous increase in the size of the gross domestic product.

In general, it was proved that There is a statistically significant impact of outflow remittances on Jordan's GDP at level $\alpha \le 0.05$. The result agreed with Edrees's (2016) who found that outflow remittances is negatively significant on the economic growth. The result disagreed with Debbiche & Rahmouni's (2017) who found that the outflow remittances have a non- significant impact on Saudi's GDP on the short and the long run. And agreed with Arokiadasan et.al (2016) who found that Remittances can consider as a solution to overcome credit problem or any other economic problem in a country and outflow remittances had a significant effect on GDP in short-run and agreed with Alkhathlan (2013) who found that there is negative insignificant relation between the outflow remittances and the economic growth in the short term.

Conclusion

This research confirmed that there is an impact of foreign labor migration on the Jordanian economy, and the foreign labors in Jordan contribute to improve the economy by effecting the labor supply in the market which assets in job creation by increasing the demand for products and services. The result of this research showed that the foreign labors play an effective role in energizing the labor market in Jordan, therefore the Ministry of labor has to be involved in training and development programs for national workforce for the purpose of meeting market needs, and to develop a number of programs and plans aimed at achieving development and increasing the contribution of the private sector to GDP through changing educational curricula and programs to meet the needs of the market.

On the other hand, it showed that the foreign labor's outflow remittance must be more regulated in order to reduce the negative effect of it on the economy, and the government should make new regulation to encourage that labor to spend their money in the Jordanian market instead of sending their money back to their home countries.

In view of the negative effects of the remittances on Jordan's economic variables and on the Jordanian economy in general, the study highlighted the labor market inputs in expatriate labor that shall be controlled only in accordance with the urgent need in sectors and professions that the Jordanians are not in need to.

According to this result the research recommends the legislators to make new regulations on the amount of cash the foreign labors may take with them while traveling outside the country in order to know the exact amount of the outflow remittances of the foreign labors to help the next studies to investigate the real impact of the outflow labors remittances on the economy of Jordan.

References

Alkhathlan, K, 2013, 'The nexus between remittance outflows and growth: A study of Saudi Arabia', *Economic Modelling*, Vol 33, July, pp. 695-700.

Arokiadasan et.al, 2016, 'The Effect of Remittance Outflow towards Economic Growth in Malaysia', Scholars Journal of Economics, Business and Management, Vol 3, no.4, pp. 217-229.

- Athamneh, et.al, 2010, 'The economic impact of inbound and outbound labor migration: the case of Jordan (1970-2006)', International Journal of Development Issues, Vol. 9, no.1, pp. 53 67.
- Cristea, S et.al, 2018, 'Migrants' Role in Enhancing the Economic Development of Host Countries: Empirical Evidence from Europe', Sustainability, Vol.10, no.3, pp.25-32.
- Debbiche & Rahmouni, 2017, The effects of remittances outflows on economic growth in Saudi Arabia: Empirical evidence, *Journal of Economics and International Finance*, Vol 9, no.5, pp. 36-43.
- Department of Statistics, 2016, 'Labor statistics in Jordan', Available at: http://dosweb.dos.gov.jo/ar/ (Accessed 5 November 2018).
- Edrees, A, 2016, "The Impact of Foreign Workers, Outflow Remittances on Economic Growth in Selected GCC Countries: ARDL Approach", Published, Arabian Journal of Business and Management Review, Malaysia.
- Fanack, 2018, 'Economy of Jordan', Available at: https://fanack.com/jordan/economy/?gclid=Cj0KCQjw4qvlBRDiARIsAHme6otqZkpSx2E615gfV7wSLzhao6-V8ZF363TQWTA1AnZdZFAQrkDehGYaAmJ2EALw_wcB (Accessed 8th April 2019).
- Gujarati, D, (2004), 'Basic Econometrics', 4th Edition, McGraw-Hill Companies.
- Grinko, I & Voitko, S, 2015, 'Ensuring the sustainable of countries development at the intersection of K-waves through the regulation of the labor migration', *KSI Transactions on knowledge society,* Vol.8, no.1, p.p 49-52.
- International Labour Organization, 2017, 'A Challenging Market Becomes More Challenging: Jordanian Workers, Migrant Workers and Refugees in the Jordanian Labour Market', Published, International labor office, Available at: https://reliefweb.int/report/jordan/challenging-market-becomes-more-challenging-jordanian-workers-migrant-workers-and (Accessed 20th March 2019).
- International Labour Organization, 2017, 'Labour migration', Published, International Labour Office.
- Kazaz, D, 2013, 'The Effect of Labor Migration on Native Wages', Published, University of Oslo.
- Kirwan, F, 2015, "The Impact of Labor Migration on the Jordanian Economy", Published University of Strathclyd. Kjeldstadli, K, 2017, "The history of migration and creating a world market for labour, Available at: https://medium.com/people-on-the-move/the-history-of-migration-and-creating-a-world-market-for-labour
 - https://medium.com/people-on-the-move/the-history-of-migration-and-creating-a-world-market-for-labour-47c472b7b9c9 (Accessed 27 October 2018).
- Kramer, L, 2018,"What is GDP and why is it so important to economists and investors?", investopedia, Available at: https://www.investopedia.com/ask/answers/what-is-gdp-why-its-important-to-economists-investors/ (Accessed 18 December 2018).
- Kumar, R, 2017, "The Effect of Remittances on Economic Growth in Kyrgyzstan and Macedonia: Accounting for Financial Development", Vol 56, no.1, pp. 95-126.
- Mei, W, et.al, 2017, "THE IMPACT OF MACROECONOMIC FACTORS ON FOREIGN LABOR FORCE IN MALAYSIA", Master Thesis.
- Ministry of planning and International Corporation. (2019), Foreign aid reports, Available at: http://www.mop.gov.jo/DetailsPage/PartAr.aspx?CourseID=10, (Accessed: 4 March 2019).
- Ministry of labor, 2017, Annual report of 2017, Jordan: Ministry of labor.
- Mikhaylova, A, 2016, 'State Management of Labor Migration (As Exemplified by the Sakha Republic)', *International Journal of Economics and Financial Issues*, Vol. 6, no.8, 346-353.
- Middle East institute, 2010, ' State effort to regularize labor migration into Jordan', Available at:http://www.mei.edu/publications/state-efforts-regularize-labor-migration-jordan (Accessed at 6 November 2018).
- Pohjola, M, 2017, 'Capital services, labour productivity and economic growth in Finland, 1996-2015', Published, Aalto university, Finland.
- Razzaz, S, 2017, 'A Challenging Market Becomes More Challenging: Jordanian Workers, Migrant Workers and Refugees in the Jordanian Labour Market', Publications of the International Labour Office, Jordan, and Available at: https://www.ilo.org/beirut/publications/WCMS_556931/lang--en/index.htm (Accessed at 6 November 2018).