The Effects of the Global Financial Crisis on the Tourism Sector  
(Analytical study: Jordan)  

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Abstract  
Despite the remarkable prosperity witnessed by the Jordanian tourism sector since early 2004, and growing the contribution in the national economy, but the negative effects of the global financial crisis which broke out in the second half of 2008 and gripped on the global economy, has affected this sector and others sectors. And the implications of the crisis began on the tourism sector to emerge since December 2008, where the number of the arrivals tourists to Jordan dropped in that month by to 15% compared to the same month of 2007. This study aimed to highlight and analyze repercussions of the global financial crisis on the tourism sector in Jordan, through clarify the nature of the current crisis, and select the channels their impact on the tourism sector, as well as discuss the foundations of the ways to help the sector out of the crisis. The study concluded to the significant effect of each of the median income & relative prices on tourism demand, while not find significant evidence of the impact of the exchange rate, and confirmed by the results on a high elasticity of demand for tourism relative prices.  
The study predictions pointed out to the decrease rate of the influx of tourists to Jordan, from all countries in the world and finally the study provided a number of recommendations for policy-makers regarding the demand and supply beside me, and the role of government in helping the tourism sector to exit from the crisis.  


1. Introduction  

year 2008 witnessed, many of the contradictory economic events, that rarely occur in same year because the global economy suffered during the first half of 2008, a rise of interest rate and rise in the exchange rate of the euro and the dollar and increase oil prices in accelerating way, whereas in the second half of the same year, signs of a global financial crisis, quickly turned into an economic crisis struck the all sectors, which resulted increase the jobless rate and the spread of the phenomenon of recession in all worldwide. And it have suffered all countries of the world by this crisis, and the disparity emergences of symptoms of the crisis and its impact from country to another, which can be return to the degree of involvement of each country in the global economy.  

Where the global crisis has affected all countries, without exception, we can say that all the economic sectors in all countries have been affected negatively cause of this crisis, and the global tourism industry comes in the forefront of those sectors. In spite of the dramatic growth of the tourism sector in the world during the past few years, but the occurrence of the global financial crisis has led to reduced growth rates in this sector to approximately 3% in the first half of 2008, and to 1% in the latter half of the same year, as The statistics of the United Nations World Tourism Organization shows (UNWTO).  

And can be attributed the speed response of the tourism sector to the crisis for two reasons; first is the special nature of this sector, which is reflected at an altitude of exposure rate to global events (Vulnerability), while the second reason is the sensibility of tourist spending by the credit crunch ("Credit Crunch"). Where many tourists was modify or cancel their plans tourism, and waiting for the clarity of vision and the demise of the uncertainty surrounding the crisis, a lot of economists expect continued global recession during 2009, with a probability of extend for the first quarter of 2010, which resulted the United Nations World Tourism Organization (UNWTO) to expect lower growth rate of the global tourism in 2009, between zero % and 2 %.  

And as the Jordan Investment Board (JIB) shows that expected the tourism sector in Jordan to remain one of the most global sectors growing, it has maintained on the annual growth rates ranging from 10 - 12% and that’s
return to a combination of factors: Jordan location and rich cultural heritage, sacred sites of religions, security and stability, mild climate and beautiful nature, a thriving business environment, natural wonders, and the appropriate facilities and services for families recreation.

Moreover, Jordan cares by the maintenance and modernization of the infrastructure, and provides services for restaurants and hotels in the highest international standards, and the staff working in the tourism companies, transportation, and transfer of tourists, and car rentals, and the significance of tourism, restaurants and hotels are characterized by tact and professionalism and great diversity in language skills.

2. The Study Important

The global tourism witnessed remarkable growth since the period after the Second World War up to the present time, and has become one of the fastest industries growing in the world, where the percentage of its contribution to the total global output more than 10%. As United Nations World Tourism Organization (UNWTO) predicts that the tourism industry which is one of the ten most important industries on the world level generate overall revenue estimated at about $1.5 billion in 2010.

And this have bringing the attention of many countries to become directed more investment to the industry and promote to it, which was reflected in the form of accelerated rate of growth of the tourism industry in the world, with an average influx of tourists internationally about 4% per year on average during the period from 1995 to 2007, while the rate was 6.6% in 2007, marking a record for the number of tourists on the international level, more than 900 million tourists in 2009 (ESCWA). It should be noted that the tourism industry is no longer just a market to enjoy and entertainment, but is considered an economic activity intertwined with many other economic sectors, such as agriculture, industry, transport and services, including infrastructure, also confirmed by Blake 2008; that although this industry was driven by tourism demand, the effects spread to other sectors, where growth is reflected in the tourism industry on both employment and GDP and foreign exchange receipts of the state.

The table (1) shows the Tourism Receipts and Expenditures 2008, as quarter segmented as we got it from Central Bank of Jordan (CBJ), and this statistics before the occur world crisis, and it shows the Relative Change% for the Receipts & Expenditures quarterly:

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Receipts</th>
<th>%Relative Change</th>
<th>Expenditure*</th>
<th>%Relative Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
<td></td>
<td>2007</td>
</tr>
<tr>
<td>1st Q</td>
<td>361.9</td>
<td>347.7</td>
<td>-3.9 %</td>
<td>143.4</td>
</tr>
<tr>
<td>2nd Q</td>
<td>405.6</td>
<td>483.374</td>
<td>19.2%</td>
<td>174.8</td>
</tr>
<tr>
<td>3rd Q</td>
<td>522.8</td>
<td>738.0</td>
<td>41.2%</td>
<td>181.1</td>
</tr>
<tr>
<td>4th Q</td>
<td>348.0</td>
<td>519.8</td>
<td>49.4%</td>
<td>126.2</td>
</tr>
<tr>
<td>Total</td>
<td>1638.3</td>
<td>2088.9</td>
<td>27.5%</td>
<td>625.5</td>
</tr>
</tbody>
</table>

* Expenditure: residing in Jordan / for the purposes of education, tourism and treatment

The importance of the study the effects of the global financial crisis on the tourism sector in Jordan will appear from two main points, the first in a natural interrelationships between the tourism sector and other economic sectors, both at the global level or local level, which leads to easily transfer the negative effects of the financial crisis between states quickly, as well as between sectors within the same state. And by extrapolating development of the tourism sector in Jordan, we find that although this sector affected to global shocks was the first sectors affected by the crisis, but it was the first sectors also healing during the crisis, and policymakers have given great importance to this sector.

The second point is the role played by this sector to absorb a great deal of labor, but no doubt that layoffs in this sector in addition to unemployment caused by the global recession, will lead to slower growth rates and doubling the effects of the crisis on the Jordanian economy. Thus, to save the tourism sector or reduce the impact of the
crisis it represents central objective of policy makers so as to not worsen the effects of the crisis on the Jordanian economy. It should be noted that the response of the tourism sector in Jordan, to impact of the global financial crisis, depends on the correct diagnosis of the channels by which the transfer of the crisis, and its impact on the size this sector, as well as how long they expect the continuation of the crisis.

3. The Study Objective

The study aims to examine the impact of the global financial crisis on the tourism sector in Jordan, and by reviewing the economic importance for the tourism sector in the world in general, and on the level of Jordan in particular, and by identifying the channels through which affect the global financial crisis on the tourism sector, while we take in the end the assessing of decrease in tourism demand on Jordan as a result to the financial crisis. As well as prepare of a number of potential scenarios for the continuation of the crisis and how each affects the tourism sector in Jordan. Through the analysis of scenarios for the continuation of the crisis and the problems that entail, the study seeks to achieve a number of recommendations and suggestions that will help policymakers to take the necessary actions to reduce the negative effects of the financial crisis on the Jordanian tourism sector.

4. Tourism Sector in Jordan

4.1. The Economic Importance for the Tourism Sector:

The tourism industry is one of the largest sectors in terms of international economic size and importance, with an estimated number of tourists in the world with 935 million tourists during the year 2010, compared to 877 million during the year 2009. The World Tourism Organization predicts that the number of tourists in the year 2011 to 982 million tourists and the growth rate estimated 4-5%.

Tourism has become the largest sector shareholder in the global GDP as it contributes by 15%, while contributing 16% of global consumption, and 7% of global investment, and 9.6% of total government expenditure. The World Tourism revenues accounted about 7-8% of the total world exports of goods and services, and provided about 200 million jobs, or the equivalent of 11% of the total workforce in the world. 

4.2. Relationship Between Tourism & Jordan's Economy

The tourism sector plays an important role in the growth of the Jordanian economy and attracting investment, in addition to job creation and the introduction of foreign currency. And the tourism activity achieve directly revenues to the state through entry fees tourist sites, and visa fees and departure tax, income tax and sales on hotels, the VAT collected from hotels, income and sales tax on tourist facilities, including the transport sector, income tax and sales activities indirect for tourism. The contribution of tourism is an important factor in the growth and revitalization of the economy as follow:

4.2.1. 13% of GDP (Ratio not the Contribution).
4.2.2. 64% of the total receipts of the services account of the balance of payments.
4.2.3. 26% of total receipts in the current account of balance of payments (and this puts tourism in third place in terms of importance after commodity exports and transfers from workers abroad).

4.3. Employment opportunities in the tourism sector

The tourism sector offers about 42 thousand direct jobs, while the estimated number of employees indirectly by about 130 thousand, which means to take advantage of more than 800 thousand citizens of the economic returns of tourism. And the aim of the current plans to raise the number of jobs to 51 thousand, in addition to creating more than 300 thousand new jobs directly and indirectly in the tourism-related sectors. As we provide in figure (1).
The growth of the tourism sector reflected on education, are also labor rehabilitation of Jordan through Jordan Applied University College of Hospitality and Tourism Education this in addition to number of Jordanian universities that teach specialty hospitality, as well as practical training in the Century Park Hotel. And the growth of the tourism sector contributed to create and develop thousands of enterprises and small and medium-sized businesses in all parts of the Kingdom, and encouraged the role of women in the national economy, where statistics indicate that Jordanian women make up 10% of the workers in this sector.

4.4. **Investment in the tourism sector**

Jordan witness increasing in investment activity in the tourism sector to meet the requirements of the growing numbers of tourists, aviation, transport, hotels, restaurants, and other recreational activities. The tourism sector is the biggest attraction of investments, which amounted to value since the year 1996 until the year 2009 about two billion and 915 million dinars, the form of foreign direct investment 53% of them. There was also a number of projects and investments that will come into force in the coming period, whether in the form of hotels, conference centers or cities amusement and entertainment in all of the city of Amman, Aqaba and the Dead Sea, it reinforces the importance of the sector of the Jordanian economy. (Figure (2))

*Figure No: 2; the volume of tourist investments in Jordan, 2004-2009*

5. **The Global Financial Crisis**

5.1. **The nature of the global financial crisis:**

There is no specific definition of the financial crisis but we can say it is a sharp and sudden disorder in the prices of one or more of the assets, whether material or financial or equity for financial assets (derivatives), or is the sharp deterioration in the financial markets of a State or group of States, while financial crisis is not related in the beginning except the financial markets, but exacerbated it lead to detrimental effects to the real economy, such as credit tightening and thus lower investment, dragging in an economic crisis to the recession. International Economics has known for several financial crises associated with causes of the circumstances prevailing global starting from the crisis of the Great Depression during the period
(1929 - 1933), and market crisis climate of Kuwait in 1982, then the Mexican crisis in 1994, and the crisis of Asian countries in 1997, and the crisis in Argentina in 1998, and other crises but since February 2007 to September 2008 appeared landmarks global financial crisis, which was considered the worst of its kind since the time of the Great Depression; this crisis has hit fund holders and others were treated for shock and panic, prompting many private institutions and governments to search for a way out of the predicament of the crisis.

5.2. The reasons of the global financial crisis:

5.2.1. The economic recession in the United States of America:

The reason for this is that the United States is the largest importer in the world, so the emergence of the economic recession which will impact on the exports of other countries, let alone volatility evident in the exchange rate of the dollar against other major currencies, and economic globalization that has made the world vulnerable, including by what happens in the United States of America.

5.2.2. Mortgage loans:

The booming real estate market led to a rise in mortgage volume, which is an additional pressure on the demand for real estate because to the abundance of funding and soft conditions, On the other hand the financial institutions that took these credit contracts offering these loans investment securities which led to the existence of a secondary market its mission is trade in these loans and sell them for several times, and the result is that the gap between real prices and market prices has widened significantly. When the rising price of the mortgaged property is trying to the property owner to obtain a new loan, compared to mortgage a new second-class (mortgages lower quality) (sub Prime) it any more dangerous in the case of low price of the property, and the fact that the volume of loans was given priority on the type of loans.

5.2.3. Using the Financial Derivatives:

Derivatives are financial instruments have been developed in order to hedge first, and speculating on rising and falling stock Secondly, they include: futures, options, and futures exchanges. The volume of derivatives contracts on different kinds of U.S. $ 25,372 billion at the end of the month 6/2009, which is distributed as follows: (2,470 billion U.S. dollars of currency derivatives contracts), (15,478 billion U.S. interest rate derivative contracts), (879 billion U.S. dollars contracts equity derivatives) (689 billion U.S. dollars of commodity derivatives contracts), (U.S. $ 5,855 billion other derivatives contracts). The total amount of all outstanding derivatives is now estimated by the Bank for International Settlements at $ 600 trillion, ten times larger than the size of the global economy.

6. Methodology

6.1. Estimating the demand function in Jordan:

In this study the demand function of tourism were estimated in Jordan, as is clear from equation (1), by estimating both the number of tourist arrivals (T), and the number of nights the tourists (N), as approximate variables for demand tourist (D) using the three economic variables represented in average per capita real income of the State of which the tourist come from (Y), and the real exchange rate (REP) and relative prices (RP), which reflect the level of prices in Jordan (DP) compared to the level of foreign prices (FP).

\[ D = f(Y, \text{REP}, \text{RP}) \]  

Where,

\( D \): Demand for tourism.
\( Y \): Average per capita of real income.
\( \text{REF} \): Real Exchange Price.
\( \text{RP} \): Relative Price.

The study forecasts the existence of positive correlation between the number of tourists and the average per capita real income, while expecting that the inverse relationship between the level of relative prices and the number of tourists. With regard to the impact of the change in the exchange rate, the study suggests it will
probably that high exchange rate (depreciation of the Jordanian dinar), to increase the purchasing power of the currency tourists in the Jordanian market, and then increase the number of tourist arrivals to Jordan. On the contrary, the rise in the value of the Jordanian dinar is likely to lead to increased expenditure tourists on the same previous program - before the crisis - estimated currency tourist - with the survival of other factors steady - and thus result in a reluctance of many individuals for travel, or draws tourists to other areas.

6.2. The study Models:
It is clear from the equations below, the proposed model consists of one equation takes "Double log Linear Functional Form" so that the form of the logarithm of dual-paced using to estimate the number of tourists through the first model, and the number of night a tourist through the second model, and for several key areas flock of tourists, according to rating the World Tourism Organization.

6.2.1. First Model :

\[ \log(T_{it}) = a_{i0} + a_{i1}\log(Y_{it}) + a_{i2}\log(PR_{it}) + a_{i3}\log(REP_{it}) + \epsilon_{i} \]  \( (2) \)

Where,
\[ \log(T_{it}) \]: Expresses the logarithm of the number of tourists from the region (i).
\[ \log(Y_{it}) \]: Expresses the logarithm of Average per capita of real income in the region (i).
\[ \log(PR_{it}) \]: Expresses the logarithm of Relative Price
\[ \log(REP_{it}) \]: Expresses the logarithm of the average annual exchange rate.

6.2.2. Second Model :

\[ \log(N_{it}) = a_{i0} + a_{i1}\log(Y_{it}) + a_{i2}\log(PR_{it}) + a_{i3}\log(REP_{it}) + \epsilon_{i} \]  \( (3) \)

Where,
\[ \log(N_{it}) \]: Expresses the logarithm of the number nights tourists (i).
\[ \log(Y_{it}) \]: Expresses the logarithm of Average per capita of real income in the region (i).
\[ \log(PR_{it}) \]: Expresses the logarithm of Relative Price
\[ \log(REP_{it}) \]: Expresses the logarithm of the average annual exchange rate

We choose this Mathematical form to estimate the demand function, for several reasons, including ease of recognition, and that given high quality and can be explained by its parameters estimated such elastic-ties, as well as the prevalence of the use of that form Sportive in estimating demand functions of tourism in many studies, such as all of the (Hamal, 1998), (Hamal, 1997), (Kulendran, 1995) & (Witt, 1992).

6.2.3. The results of estimating two models

Table (1): Estimation Result for Number of tourists *

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>T-Statistic</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAGDP</td>
<td>0.74938</td>
<td>0.03039</td>
<td>24.6561</td>
<td>0.000</td>
</tr>
<tr>
<td>LEEX</td>
<td>0.21030</td>
<td>0.24211</td>
<td>0.81703</td>
<td>0.434</td>
</tr>
<tr>
<td>LRP</td>
<td>-1.95991</td>
<td>0.58586</td>
<td>-3.34508</td>
<td>0.004</td>
</tr>
<tr>
<td>C</td>
<td>0.01589</td>
<td>0.17578</td>
<td>0.09040</td>
<td>0.929</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.92448</td>
<td>Mean dependent var</td>
<td>8.4328</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.90830</td>
<td>S.D. dependent var</td>
<td>0.4967</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>10.8356</td>
<td>Durbin-Watson stat</td>
<td>1.9682</td>
<td></td>
</tr>
</tbody>
</table>

* Result From SPSS
Table (2): Estimation Result for Number of Nights *

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>T-Statistic.</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAGDP</td>
<td>0.90546</td>
<td>0.07724</td>
<td>11.7222</td>
<td>0.000</td>
</tr>
<tr>
<td>LEEX</td>
<td>0.76168</td>
<td>0.42172</td>
<td>1.80611</td>
<td>0.092</td>
</tr>
<tr>
<td>LRP</td>
<td>-2.14122</td>
<td>0.94403</td>
<td>-2.90339</td>
<td>0.011</td>
</tr>
<tr>
<td>C</td>
<td>0.38057</td>
<td>0.15729</td>
<td>2.41956</td>
<td>0.029</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.90457</td>
<td>Mean dependent var</td>
<td>10.414</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.88412</td>
<td>S.D. dependent var</td>
<td>0.6591</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>3.62162</td>
<td>Durbin-Watson stat</td>
<td>1.92429</td>
<td></td>
</tr>
</tbody>
</table>

* Result From SPSS

From the result that shows above in (SPSS) we can see that the result of estimation the number of tourists in table (1), and the estimation of the night in tourism in table (2), so we can find the results as follow:

The results indicate significant impact of all the variables at the 5% level of significance, except for the exchange rate, and that the estimated coefficients carried its expected signals, the results show that the impact of the global average income - calculated with an average income in Europe and the United States - the number of tourists coming to Jordan, of around 0.75 on average, that average increased by 1%, lead to (AGDP) per capita real income worldwide increase in the number of tourists to Jordan increased by 0.75%.

As can be seen that the number of tourists adversely affected by the level of prices in Jordan, where the resulting high prices in Jordan by 1% - compared with an average level of global price - a decrease in the number of tourists by reach to 1.96%, and this high sensitivity on the number of tourists can be returned to the relative prices, to increase the involvement of the Jordanian economy in the global economy, as well as increased global competition in the tourism industry, where the tourist compares alternative tourist destinations and cheaper price.

On the other hand, we can say that most of the incoming tourism to Jordan are classified as recreational tourism. The results also indicate that the effective exchange rate does not exercise any significant effect on the number of tourists, which is probably due to the transition effect of changes in the exchange rate to domestic prices is happening rapidly, reflecting the phenomenon of transition Effects.

Regarding the number of tourist nights, it has all the variables came when significant level of significance of 5% expected their signals, except for the exchange rate as well. The data showed that the increase in the average real income increased by 1%, leading to the increase in the number of nights spent by European tourists increased by 0.9%. As for the relative prices it’s clear that the flexibility of tourist nights relative prices lower than in special form for numbers of tourists, with an 1.96 - as opposed to 2.14 - the number of tourists, it can be explained, that the tourist before heading to the destination of tourism to be in front has many of the choices, while it when already resides in the tourist destination he has less than his choices before.

7. The Results & Recommendations

After finish this paper the researchers reach to many result & recommendations may it will be benefit to the tourist sector if it application by professional’s policy-makers:

- Necessity of adoption of different strategies to promote tourism in all the areas targeted, according to the effects of the crisis on each region, rather than to rely on a general strategy to promote tourism.
- There must be a use of the economic forecasts of the potential effects of income and relative prices on tourist expenditures when designing these strategies.
- Depending on the results of estimating the models, researchers advises the decision-makers need to control domestic prices, where the results showed high elasticity of demand for tourism relative prices in Jordan compared to prices of state tourist in all areas surveyed, which is not easy, especially under low world prices, as it requires greater rates of reduction in the level of domestic prices.
- Working to take advantage of turning expected tourism demand due to the crisis in favor of regional tourism, as it is expected to increase the regional competition in the tourism industry due to the crisis; by showing study preferences tourists after the crisis that the desire to travel has been found to tourists, but the ability to purchase is decreased.

- Directing attention to the inbound tourism from countries of Eastern Europe, where increased proportion to the total number of tourists increased significantly, and even surpassed the tourism coming from countries in the Middle - mostly from Arab countries - which requires policy-makers directing more promotions and marketing Jordanian tourism to those states in particular.

- Action to activate tourism demand by directing its marketing and promotional campaigns, to the areas less affected by the crisis or new markets, as well as to encourage domestic tourism to compensate for the potential decrease in foreign tourism.

- Encourage cooperation between the government and private sector enterprises operating in the field of tourism to confront the crisis.

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