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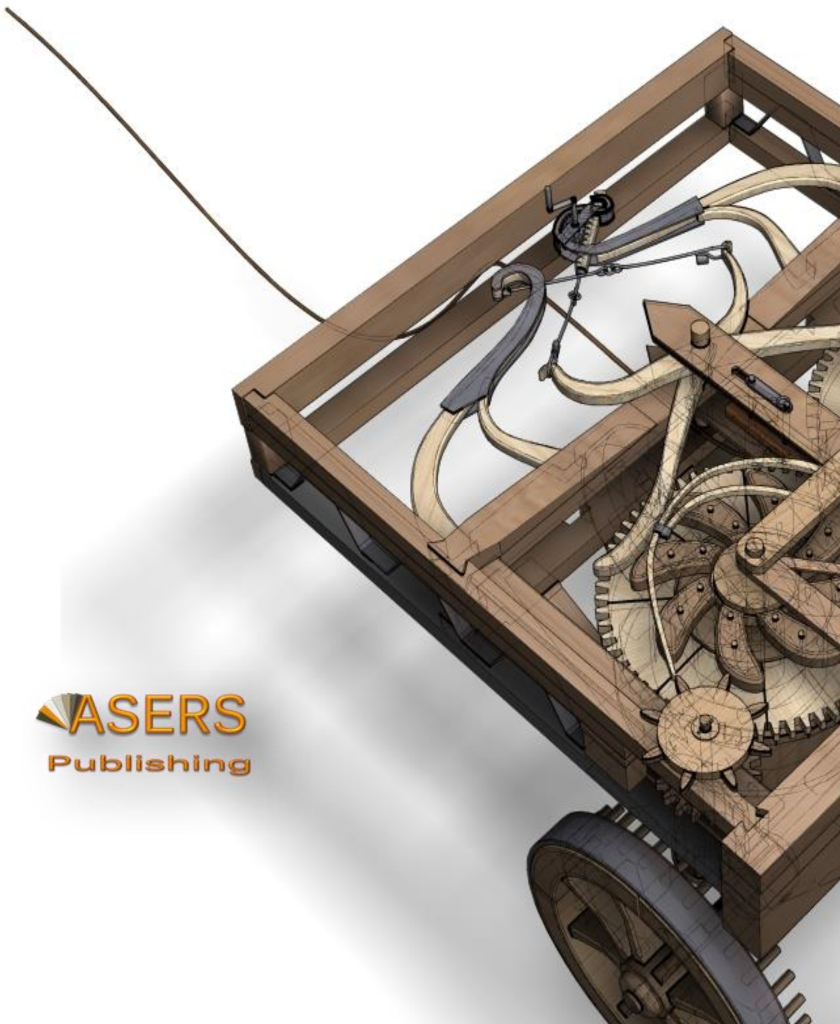

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Journal of Environmental Management and Tourism

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The Contribution of Tourism Industry Cash Flows to Economic Growth "Middle East Evidence"

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Abstract:

This study aims to verify the extent to which the tourism sector contributes to economic growth measured by gross domestic income (GDP) in emerging countries. This study relied on the applied research method through correlation, simple and multiple regression. The study sample consisted of all tourism companies in Jordan. Quarterly Cash flows of tourism sector was traced from 2008-2021 and linked to GDP. The study reached the following conclusions, the simple regression confirmed the positive impact for all economic sectors including tourism sector on GDP; on the other hand, the multiple regression results for the joint influence of all sectors together on GDP only five sectors including tourism found with positive impact on GDP. Further evidence was found for the importance of tourism contribution to local income after excluding this sector from total earnings, the explanatory power of all sectors to GDP was decreased by 25%. The overall results of study recommended to give more attention to this sector in emerging economics particularly middle east countries.

Keywords: economic growth; cash flow; GDP; tourism.

JEL Classification: C22; O11; L83.

Introduction

Economic growth is one of the most important goals that all countries seek to achieve, as the gross domestic product is the most important measure of what the state's fiscal and spending policies have achieved in supporting the various economic sectors, which in turn use this support in addition to their investments to provide goods and services to local and external beneficiaries. The gross domestic product of all countries is calculated on the basis of the contribution of all sectors to the country's final output of goods and services, assessed at the prices of that country.

All countries are working to assess the contribution of these sectors to the gross domestic product to identify the most contributing sectors to strengthen them and discover the inactive sectors in order to strengthen their weaknesses, as the state wants all sectors to be successful and effective and work in an integrated manner to achieve the state's goals. The GDP is characterized by the fact that its components vary from one country to another. Some countries are characterized by that the largest contributions to GDP come from industry, while others come from agriculture and countries from tourism. For example, some countries in the Middle East and Jordan are distinguished by the fact that their GDP depends on sectors such as agriculture, tourism, and the financial and real estate sectors, while they are ineffective in sectors such as industry.

Historically, the Mediterranean countries are considered to be one of the most revenue-generating countries through tourism, as tourism constitutes an essential component of the gross domestic product. Multiple studies have been conducted globally in order to identify the sectors that contribute the most to the GDP. Some studies have also been conducted in the Middle East for the same reason. This study complements the studies conducted in the Middle East, especially Jordan, with the aim of identifying the extent of the tourism sector's success in supporting and participating in the tourism sector. Gross domestic product, especially that many Middle Eastern countries are classified among the developing countries with low GDP. Coming up with results and recommendations about the role of the tourism sector in the domestic product will be a base that can be relied upon in promoting and improving this sector in the Middle East region in general and some countries globally in general. Also, this study will be added to the other studies that have been conducted globally and locally to compare the contribution of the tourism sector and other sectors. Another useful outcome of this study is that it will serve decision makers, governmental policy makers, and tourism company managements, in addition to its scientific benefit to researchers in the insurance and accounting sectors.

The rest of the scientific paper will be in order as follows: the next section for the theoretical background and previous studies, the third section for the study methodology, study models and hypotheses, and the fourth section will be for results and discussion, and the last part for conclusions and recommendations.

1. Theoretical Background

Tourism is regarded from the best sources for currency inflow to countries national income. The earning of this sector plays a significant role in economic growth particularly in areas that characterized by traditional reputation in their tourism places and services. Countries with important worldwide location also attracts many people to visit them and thus generates a good portion of revenues in addition to employing a huge number of personnel in serving visitors. Nevertheless, almost all countries bear the negative consequences of tourism like harmful behaviors to environment, to people and to infrastructure of these hosting countries; however, despite of positive impact for tourism on national income many countries suffer from many of severe effects of externalities that brought by tourism such as crime, pollution and waste in addition to strange practices that distorts local culture and tradition (Theobald 2005).

For many countries tourism and travel earnings recently are suggested from the important key success factors to economic as a whole and also success to the other sectors that takes a part in serving this tourism sector such as real estate, transportation, energy, agriculture and many other sectors. In a report for WTTC/WEFA in 2000 show that tourism feed the gross domestic product by approximately from 10% to 15% and it creates more than 200 million jobs internationally (Kuhn 1970). Another benefits attributed to tourism is the expansion of cultural influence, increase of public awareness, expanding of knowledge globally and reducing the percentage of unemployment in hosting countries (Dwyer and Forsyth 2006). Many countries that is reputed with national, old places and culture tend to have more attraction and a preferred destination for people to visit (Timothy, 2007). According to World Bank (2016), France was reported as the most visited country worldwide with a number of 84.5 million tourists, other countries in Europe such as Spain and United Kingdom also reported from the most visited countries in Europe; in far east china and Thailand in addition India were the best attractive countries for travelers; as for middle east and north Africa Egypt, morocco United Arab Emirates and Jordan were the preferred destinations to tourists.

1.1. Economic Growth

Economic growth is defined as the rise in production of goods and services from one period to the next period, this increase is measured by the aggregate growth in either gross national product (GNP) or gross national product (GDP) Economic growth has many phases; phase one is expansion that is when all aspects of economic increase such as income, employment, sales and industrial production, and when the economic hits its ceiling the economic growth reach its peak as a second phase. The third phase of economic growth occurs when all economic elements began to decrease and then the economic state is phase three, recession if this state continue and hits its nadir then economic is in the phase of trough.

Theoretically, besides other sectors tourism activity is suggested to have positive influence on economic growth in two levels micro and macro level. From the macro level viewpoint tourism works as a diversification element for economic sources of incomes by shifting the focus from popular income sources such as agriculture and industry to external funding of economic income (Signe 2018). World bank (2019) and Signe (2018) asserted that tourism and traveling sector is much easier to earn income relative to industrial or agricultural sectors since it has low level of inputs for accumulating income. Therefore, it's a preferred and cheap choice for many economics to enhance economic growth.

Many Scholars found that the economic growth reflected in GDP enhance the country living standards through increasing of employment, consumption and lowering inflation; this growth also reduce the direct aid of government to public and shift its concern on strengthening the general public services such as health and education (Cooper and Barro 1997; Barro 2001). Likewise, (Dowrick 2004; Frankel and Rose 2002) also approved that the economic growth rises the trade activities after productivity is grown continuously. Some of academics also confirmed that the overall national growth in economy added value to both public and government, community individuals will benefit from their own investments and improving their welfare and life style and on the other hand government will consume a great amount of growth retunes to support its primary activities such as security, communication and infrastructure projects (Sheghian 2016; Agraval and Khan 2011).

1.2. Previous Studies

The last five decades has witnessed a tremendous increase in tourism activity worldwide, due to this noticed growth in tourism, researches has started to investigate and explore the positive impact of this growth rates in tourism on both micro and macro level of countries economic growth. The impact of tourism sector on economic growth has been recently extensively focused by many researchers in all countries, researchers for this extant literature have confirmed that the tourism sector has grown exponentially, and this advantage raised the inflows of foreign earnings and government revenues that mirrored in GDP growth for many countries and middle east countries is no exception (Szivas and Riley 1999; Henry and Deane 1997; Oh 2005) some historians believe that tourism increases the foreign inflow of income which can be utilized to support country activities (McKinnon 1964); furthermore, tourism works as motivator for local companies to enhance their efficiency in order to compete other countries firms that provides services to tourists (Krueger 1980; Balaguer and Cantavella-Jorda 2002). The contribution of tourism to country working force benefits is also suggested from the most important element when adopting tourism function (Brida and Pulina 2010). Another researcher also found that the economics of scale tend be enhanced when production costs decline due to the large amount of tourist's consumption of goods and services within the host country (Andriotis 2002; Croes 2006).

A number of authors (for example, Payne and Mervar 2010; Lee and Chang 2008; Ridderstaat *et al.* 2014) reported that general growth of tourism activity in country always empowered by the well plans and economic polices enacted by government; moreover, the governance structure and the efficient investment in physical and human capital greatly helps agencies to achieve the desired outcomes for gross domestic product. This energetic environment be likely to create a set of developing tasks that upsurge the tourism movement.

The link among tourism and GDP was confirmed by many of previous research. Dhungel (2015) after investigating the Nepal environment from 1974 to 2012 found unidirectional long run association between tourism and economic growth, his results failed to confirm the short run causality between the two variables. Belloumi (2010) results regarding this relationship on Africa for 37 years showed that revenue generated by the tourism sector has significant positive impact on economic growth for Tunisia, his results confirmed that economic growth is greatly driven by tourism sector results. The same result was reached by Hassan and Sanchez (2011) in Indian environment, according to his results the Indian tourism sector and energy sector was found as the best sectors that drives the economic growth. Another similar study undertaken in Malaysian context for the years 1998-2005 by (Kadir and Karim 2012) aimed to investigate the link between tourism and economic growth using panel data from tourism sector; the results in East Asia particularly the Malaysian environment also approved the causality of tourism income to economic growth. The detailed investigation conducted on Korean economy by Oh (2011) using Engle and Granger two-stage model shown that the economic expansion is related to tourism only on the short run but on long run the relationship between tourism and country growth is not constant.

Much more of current research have been undertaken to address the issue of tourism impact on economic growth (examples, Songling *et al.* 2019; Sofronov 2017; Bojanic and Lo 2016; Pratt 2015; Ma *et al.* 2015; Holzner 2011); these studies were conducted in different Asian developing countries and some African context (Fayissa *et al.* 2008). However, majority of these studies empirically approved the positive association between economic growth and the tourism sector achievements; the study results confirmed the pushing power of tourism activities to economic development; the recommendations of these studies were dedicated to public and private companies by advising them to brought more attention for polices, plans, procedures that empower the tourism sector for both internal and external visitors. Similar results were found too in BRICS countries (Brazil, Russia, India, and China), that evinces the positive power for tourism on economic growth, likewise Savaş *et al.* (2010) in turkey environment found affirmative results that supports the assumption for the driving source of tourism on economic expansion measured by GDP; moreover, the results confirmed the decline of economic deficit due to tourism returns.

The assistances of tourism activity to society continuously have the attention by several international associations like World Bank. The World Bank from 2011 up to date supported and encouraged the role government in addition to small and medium-size enterprises to take more part in tourism events. According to world bank annual reports more than 60% of tourism work force are from youth and women, hence, the social justice for working in developing countries is mostly achieved in tourism sector, moreover the world bank asserted that if this workforce is provided by suitable work opportunities will participate strongly in enhancing developing countries economic growth (World Bank, 2011-2019; Asongu and Odhiambo 2018). The United Nations Environment Programme "UNEP" 2011; UNCTAD 2013). Viewed tourism as a valuable sector to all countries since its conveys transference of different values, culture, and lifestyles to many different nations worldwide; the UNEP also asserts on the tourism role for integration among communities through the possible mixture of values, norms, attitudes and religions.

Recent developments in the field of tourism industry have led to highlighted the endless need trail the change that caused by tourism to national growth. Huang *et al.* (2008) inspected the probability for the relationship between tourism and economic growth in 88 Asian countries for 20 years by using nonlinear statistical model; his results empirically confirmed a positive impact for tourism receipts on economic growth. A related study conducted by Fayissa *et al.* (2009) on 17 Latin American countries from 1995 up to 2004 also revealed similar results for the significant association among tourism earning and economic growth measured by GDP. However, much of research also approved the correlation between torim income and economic growth (Ozturk and Acaravc 2009; Salleh *et al.* 2011; Orieqat and Saymeh 2015)

From the view of few writers studies the tourism-GDP relationship is not existing; so they do not support the theory that assumes the relationship between tourism earnings and economic growth, proposing that such relationship is absent (Banday and Ismail 2017).

1.3. Jordanian Tourism Sector

In Jordan tourism is considered one of the vital sectors that contributes to economy and society, according to central bank of Jordan this economic activity funds the Jordanian economy by at least 4.5 billion JD each year, more than 6 million tourists visit Jordan each year (CBJ 2020). The attractive location of Jordan in Middle East as a bridge linking the continents of Africa, Asia, and Europe in addition to its traditional ancient, Christian and Islamic heritage has motivated many people around the world to visit Jordan for tourism in general and medical tourism in specific. The tourism activity in Jordan varies from cultural religious, recreational, medical, adventure tourism, and others.

The recent advanced developments in tourism worldwide and particularly in middle east has motivated the adoption of ecotourism, the last decade witness the entrance of ecotourism in Jordan similar to other regions; therefore, local public started to involve in activities aimed to protect environment. Several small and medium size projects were established in Middle East region in order to generate revenues from handicrafts, these donated projects to nature have emphasized on sustainable economic development that provided several opportunities for hundreds of people to open their own handicrafts workshops that introduce services to visitors. Middle east region including Jordan considered a big museum for antiquities, historical places, forests and castles, hence, tourist has the opportunity to visit and tour several diversified attractive tourism places.

Table 1. The tourism cash flows in Jordan from 2007-2021

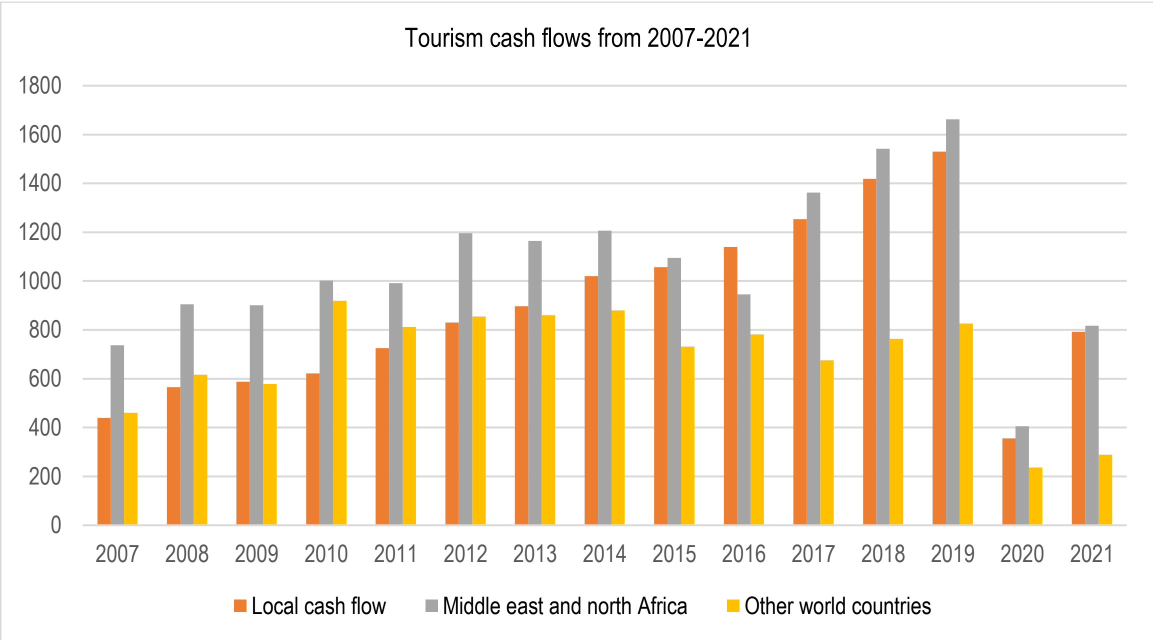
year	Local cash flow	Middle east and north Africa	Other world countries	Total cash flows
2007	440	737	461	1638
2008	565	905	617	2087
2009	588	901	578	2067
2010	622	1002	919	2543
2011	726	991	812	2529
2012	830	1196	855	2881
2013	897	1164	860	2921
2014	1020	1206	880	3106
2015	1057	1095	732	2884
2016	1140	946	782	2868
2017	1254	1362	675	3291
2018	1419	1542	764	3726
2019	1530	1662	826	4018
2020	356	406	236	998
2021	792	817	289	1898

Source: researcher from amounts reported by central bank of Jordan

The tourism sector in Jordan is controlled and monitored by the ministry of tourism and environment that works continuously to enhance this sector from year to year. According to the Kingdom Hotels Association tourism sector in Jordan comprises more than 320 classified and unclassified hotels. The volume of capital invested in this sector increased from one billion in the nineteenth to reach about 5 billion in 2020 (MOT 2020). In the last 10 years' Jordanian tourism sector is ranked first in the field of medical tourism among 12 Middle East countries and ranked fifth globally according to medical tourism services. The annual revenue from medical service in Jordan exceeds 1.5 billion JD, Jordan host annually more than 300,000 visitors for medical care and treatment.

Table 1 show the tourism sector cash flows in Jordan from years 2007-2021, as table1 and chart 1 show the revenue in tourism sector sources in Jordan witnessed a continuous increase from 2007 to 2019 before covid-19 pandemic. The highest cash flows were donated to visitors from Middle East and North Africa then cash flows from local tourist and lastly the cash flows from other world areas.

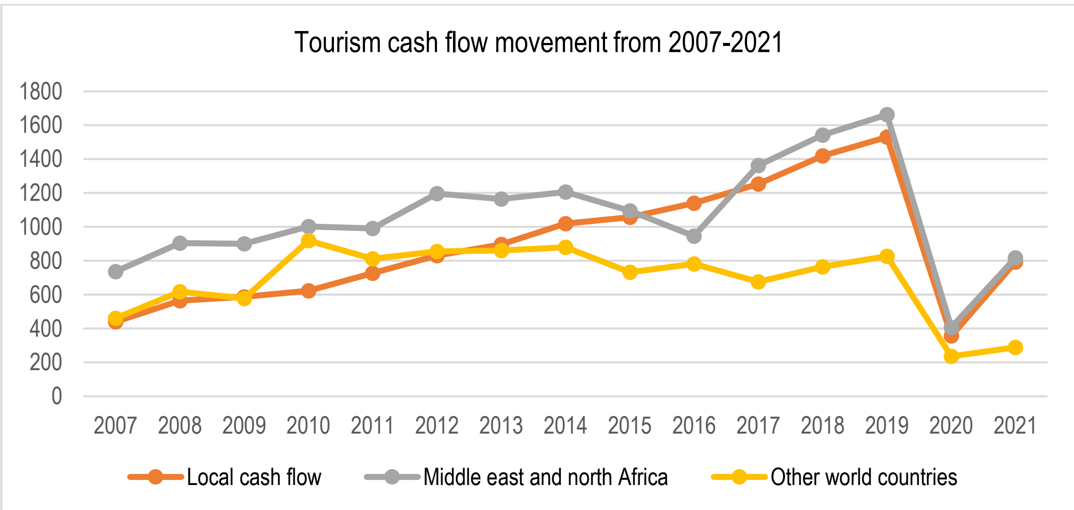
Chart 1. Sources of tourism cash flows from 2007-2021



Source: researcher from amounts reported by central bank of Jordan

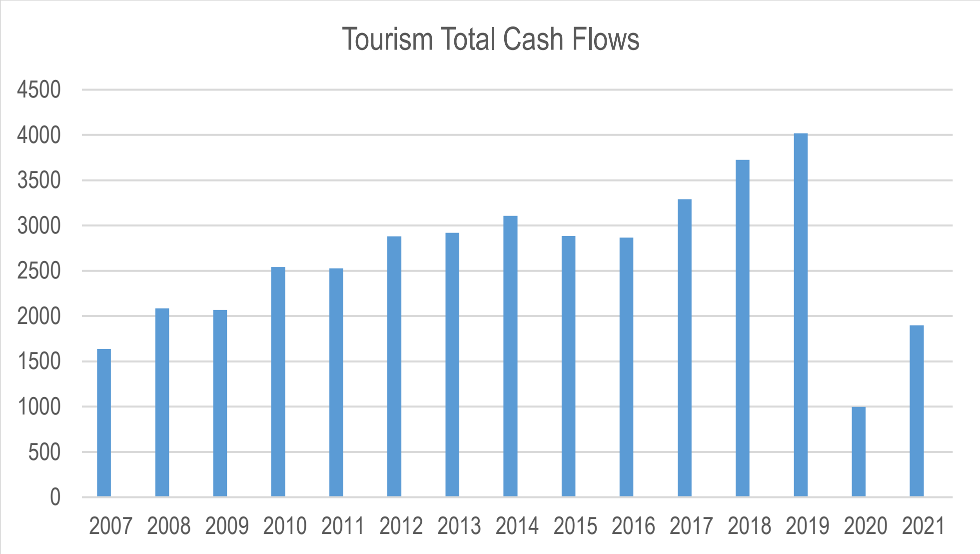
Charts 2 & 3 represents the movement of tourism income and total income earned by tourism industry, as the charts illustrates the cash flows were characterized notable increase from year 2007-2021.

Chart 2.Tourism cash flows movement from 2007-2021



Source: researcher from amounts reported by central bank of Jordan

Chart 3. Total tourism cash flows movement from 2007-2021



Source: researcher from amounts reported by central bank of Jordan

2. Methodology and Data

The study follows analytical and empirical approach by establishing evidence for the relationship between tourism cash flows and economic growth measured by GDP. The data were collected from the annual and quarterly data issued by central bank of Jordan and ministry of tourism for the period from 2008-2021. Other complementary data about tourism literature was gathered from journals, books and any proper sources that serve the study objective.

2.1. Sampling

The sample consisted of all quarterly cash flows for the tourism sector, GDP, and other economic sectors that contribute to GDP; the number of years under study is 24 years each year four quarters, the total sample were 96 observations.

2.2. Methods and Variables and Hypothesis Development

In order to empirically approve and identify the impact of tourism sector alone on GDP, a simple regression will be firstly conducted for all sectors that contributes to GDP and then a comparison for the explanatory power of all sectors impact will be reviewed in comparison to tourism sector impact on GDP. The assumptions aimed to achieve this purpose is as follows:

H1: there is a positive impact for agriculture sector cash flows on GDP
H2: there is a positive impact for minerals sector cash flows on GDP
H3: there is a positive impact for industrial sector cash flows on GDP
H4: there is a positive impact for energy sector cash flows on GDP
H5: there is a positive impact for construction sector cash flows on GDP
H6: there is a positive impact for tourism sector cash flows on GDP
H7: there is a positive impact for real estate sector cash flows on GDP
H8: there is a positive impact for financial sector cash flows on GDP
H9: there is a positive impact for non-profit organizations sector cash flows on GDP
H10: there is a positive impact for social service sector cash flows on GDP

The assumed model for all of previous hypotheses is:

$$GDP_t = \alpha + \beta_1 X_t + E_t \qquad 2.1$$

where, GDP is Gross Domestic Product; t is the time period measured quarterly; X is the independent variable that used for each sector when apply the simple regression. The same simple regression will be applied nine times for all independent variables that impact GDP.

In order to find the how much the tourism revenue justifies the change in GDP beside other factors; a multiple regression will be employed for all variables jointly as a second step in this examination. The following model represents this assumed relation:

$$GDP_t = \alpha + \beta_1 AGR_t + \beta_2 MIN_t + \beta_3 INDS_t + \beta_4 ENRG_t + \beta_5 CONST_t + \beta_6 TORSM_t + \beta_7 RELST_t + \beta_8 FIN_t + \beta_9 NPO_t + \beta_{10} SOCS_t + E_t. \quad 2.2$$

where AGR, agriculture sector; MIN, minerals sector; INDS, industrial sector; ENRG, energy sector; CONS, construction sector; TORSM, tourism sector; RELST, real estate sector; FIN, financial sector; NPO, non-profit organization sector; SOCS, social service sector.

To investigate the change in GDP due to tourism sector effect, the multiple regression will be applied twice, once when tourism sector included and second time after excluding tourism sector from formula.

3. Results and Discussion

3.1. Descriptive Statistics

Table 2 show the descriptive statistics for study variables, as the results show the real state sector was the greatest contributed sector to GDP over 14 years with 24.2%, the second sectors with close contribution to GDP are the industrial and financial sectors; as for tourism sector participation in GDP the results ranked tourism in fourth rank place with a contribution to GDP with 9.5%. Such results approve that tourism sector in Jordan works efficiently and generates distinctive revenues relative to the other ten sectors under study.

Table 2. Descriptive statistics for dependent and independent variables

variable	Minimum	Maximum	Mean	Mean percentage of sector to GDP
AGR	88.000	657.000	277.982	4.3%
MIN	73.000	252.000	145.631	2.2%
INDS	663.000	1659.000	1175.210	18.3%
ENRG	44.000	181.000	106.491	1.6%
CONST	78.000	294.000	189.157	2.9%
TORSM	355.000	972.000	610.614	9.5%
REIST	636.000	1553.000	1121.140	24.2%
FIN	636.20	1553.20	1121.112	17.5%
NPO	21.000	70.000	45.087	0.07%
SOCS	262.000	749.000	510.596	8%
GDP	3525.000	8626.000	6402.526	100%
N	57			

*amounts in billions JD

Source: researcher own calculations.

3.2. Simple Regression Results

The simple regression shown in Table 3 measures and predict the impact of all sectors on GDP including tourism sector.

Table 3. Simple Regression Results

Variable	Adj. R^2	D-W	F	Sig.	Coef.	T	Sig.
AGR	0.465	0.989	49.650	0.000	6.111	7.046	0.000
MIN	0.143	0.156	10.379	0.002	12.675	3.222	0.002
INDS	0.760	1.004	178.710	0.000	4.521	13.368	0.000
ENRG	0.884	1.066	426.587	0.000	31.793	20.654	0.000
CONST	0.292	1.011	24.096	0.000	15.145	4.909	0.000
TORSM	0.645	1.939	102.708	0.000	7.173	10.134	0.000
REIST	0.900	1.801	502.633	0.000	4.703	22.419	0.000
FIN	0.899	1.801	502.191	0.000	4.702	22.410	0.000
NPO	0.632	2.117	97.173	0.000	92.295	9.858	0.000
SOCS	0.887	1.551	439.907	0.000	9.008	20.974	0.000

Dependent variable GDP

Source: researcher own calculations.

The T-test in the table for the separate impact of each sector on GDP; the table results reveal that all sectors have positive significant impact on GDP; screening these results in detail we find that both real estate sector and financial sectors have the highest impact on GDP with T-test value of 22.4. sectors of energy and social service appears in the second impact with T-test value 20. As for tourism sector the T-test score was 10 and ranked in the fifth place for the impact on GDP among the ten sectors. The other five sectors have lower contribution to GDP than tourism sector.

3.3. Multiple Regression Results

To compare the joint effect of all sectors jointly on GDP the multiple regression analysis results in Table 4 represents this effect. After regressing all variables together two times once when tourism sector is included in regression and a second time after excluding tourism sector from the regression. Tables 4 and 5 show the results for the two models. Table 4 provides the results obtained for model 1 that assess the joint effect of all sectors cash flows on GDP, a strong evidence was found for the effect of agriculture, industrial, tourism, real estate and financial sectors on GDP, all of these sectors positively contributes to GDP, the sectors is ranked as follows in terms of coefficient's at T-value; the large contribution to GDP comes from the industrial sector, then surprisingly from agriculture sector, then with slight difference from financial and real estate sectors and lastly from tourism sector. The other five sectors found with insignificant contribution to GDP. All of sectors together explained approximately about 98 % of GDP earnings and growth.

Table 4. Multiple regression Results-Model 1

Model 1	B	t	Sig.	Adj.R^2	Sig	F	Sig
(Constant)	315.381	3.099	0.003	0.997	0.000	1901	0.000
AGR	2.259	10.130	0.000				
MIN	-0.052	-0.150	0.881				
INDS	1.482	8.088	0.000				
ENRG	-1.834	-1.265	0.212				
CONST	1.390	1.417	0.163				
TORSM	1.520	5.043	0.000				
REIST	2.159	7.487	0.000				
FIN	2.121	7.468	0.000				
NPO	9.742	1.557	0.126				
SOCS	-0.172	-.0.345	0.731				

Dependent Variable: GDP
Source: researcher own calculations.

Further analysis for the influence of tourism sector on GDP is represented in Table 5 after excluding its influence of from the joint effect of sectors on GDP. The explanatory power for the model was decreased from 0.997 to 0.995 with about 4% decrease, also the fitness (F-test) of the model has decreased from 1901 to 1415 with 26 % decrease. The other results in the table remained similar for the significant positive impact for the mentioned sectors in Table 4. Further review of results in both tables show that some sectors have negative but insignificant impact on GDP such as mineral and social service sectors. The significant impact for tourism sector can be identified in results for both tables. Taken together, such results provide conclusive evidence for the positive impact of tourism sector cash flows on Jordanian Gross domestic product.

Table 5. Multiple regression Results-Model 2

Model 2	B	T	Sig.	Adj.R^2	Sig	F	Sig
(Constant)	367.982	2.960	0.005	0.995	0.000	1415	0.000
AGR	1.378	8.089	0.000				
MIN	-.618	-1.555	0.127				
INDS	2.087	12.274	0.000				
ENRG	0.295	0.173	0.863				
CONST	0.876	0.731	0.468				
REIST	3.159	12.487	0.000				
FIN	3.149	12.949	0.000				
NPO	0.652	0.089	0.930				
SOCS	-0.916	-1.571	0.123				

Dependent Variable: GDP
Source: researcher own calculations.

Conclusion

The study was an attempt to examine the influence of tourism industry on economic growth in emerging country, Jordan. The study was motivated by the little research that conducted on this subject in emerging Middle East countries. The quarterly cash flows that inflow to Jordanian economy from 2007-2021 was traced and then measured for their effect on gross domestic product (GDP). The examination was employed both simple and multiple regression in order to predict how much tourism sector contributes to economic growth. The results of the study concluded that tourism sector earning has a vital role in short and long term growth for Jordanian GDP and contributed at least by 10% to local income.

Beside other economic sectors that contributed significantly to GDP tourism sector found from the top five sectors among eleven sectors that screened through the study; therefore, this sector requires more attention and enhancement to raise its contribution to local economy growth. Such evidenced results should encourage policy makers to take action for several implications. More portion of government spending must be directed to tourism sector in building hotels, leisure places and small business that serve visitors; traditional and religious places also should be renewed constantly to attract more tourist; enacting regulations that enable visitors to have more freedom in movement across Jordan; increase of awareness among community for the importance for this sector and motivate the multicultural acceptance.

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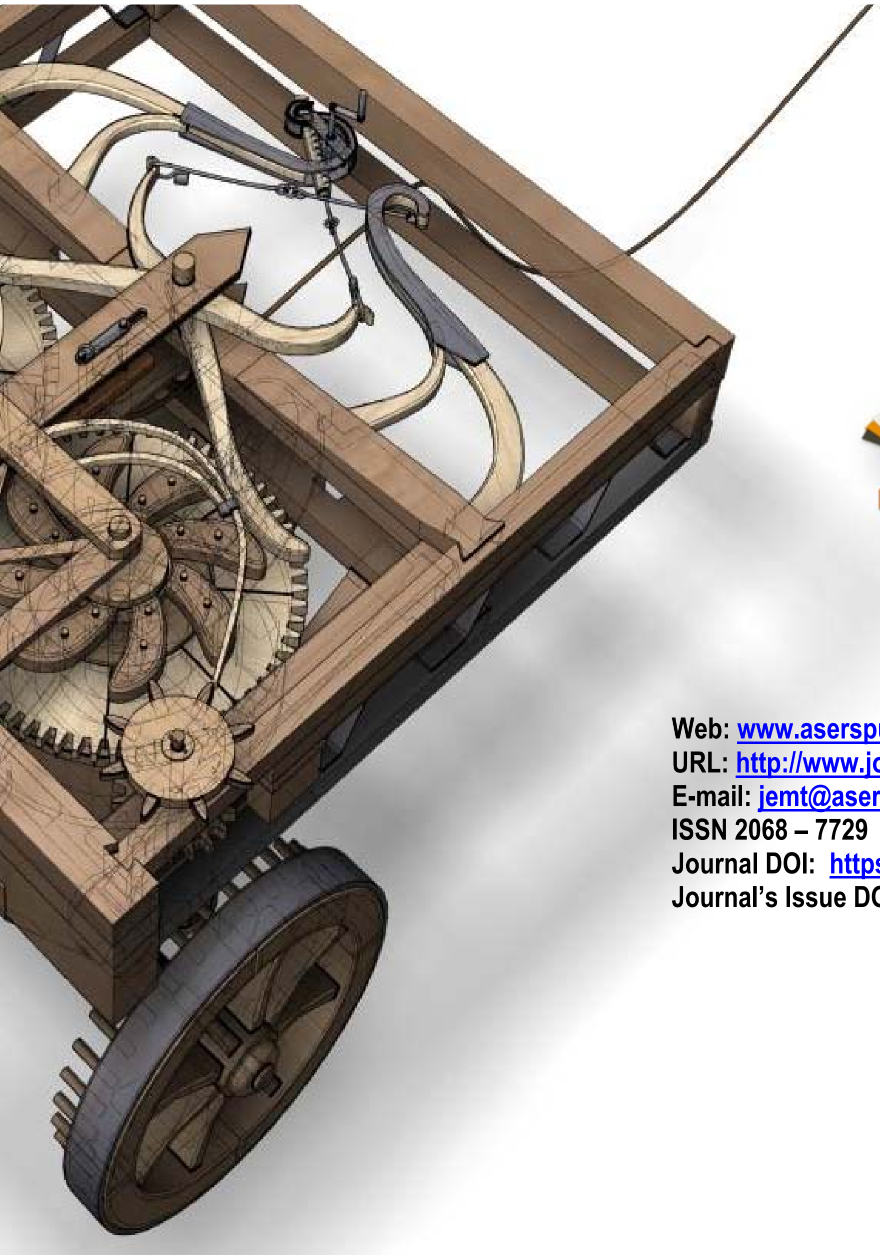

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