ISSN 2228-9860 eISSN 1906-9642 CODEN: ITJEA8



**International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies** 

http://TuEngr.com



# Analyzing Impact of Saudi Tourism Investment on Employment and Overall Economy Using Structure Equation Modeling Approach

## **Caroline Mahmood Khan**<sup>1\*</sup>

<sup>1.</sup> Department of Economics, Faculty of Economics and Administration, King Abdulaziz University, Jeddah, SAUDI ARABIA.

\*Corresponding Author (Email: kkhan@kau.edu.sa).

### Paper ID: 13A3G

### Volume 13 Issue 3

Received 24 November
2021
Received in revised form 21
February 2022
Accepted 28 February 2022
Available online 05 March
2022

#### Keywords:

Microeconomics; Employment; Tourism; Econometrics; Hospitality; Kingdom of Saudi Arabia (KSA); Growth pole; Luxury scale investment; Tourism industry; Midscale investment; Economic scale investment; Hospitality.

# Abstract

This paper is written with two objectives firstly, to investigate the relationship between tourism investment and jobs creation in a developing economy and secondly, to compare different types of Investments whether they generate jobs in the economy particularly in the sector of tourism and leisure or in any other sector indirectly. To test the desired hypothesis an econometrics Panel autoregressive distributed lag regression model was assessed. It investigates the effect of total investment in different categories and its effect on employment, the standard of living and the overall economy in tourism, leisure and hospitality industries in the kingdom of Saudi Arabia (KSA). After the data analysis, it was found that investment in different categories increases employment in the overall economy in various sectors such as tourism, leisure and Hospitality Industries in the Kingdom of Saudi Arabia. The research is based on the main suggestions propounded by growth pole theory and the results also support recommendations for growth pole theory which is when investment increases economy observe its advantages in different areas. Therefore this research explores the relationship between investment and employment levels and has implications for the overall economic growth.

**Disciplinary:** Management & Economics, Econometrics.

©2022 INT TRANS J ENG MANAG SCI TECH.

## **Cite This Article:**

 Khan, C. M. (2022). Analyzing Impact of Saudi Tourism Investment on Employment and Overall Economy Using Structure Equation Modeling Approach. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies, 13*(3), 13A3G, 1-9. http://TUENGR.COM/V13/13A3G.pdf DOI: 10.14456/ITJEMAST.2022.49

## **1** Introduction

The tourism and foodservice industry have more hires and low turnover since the great depression. It means that more people are being recruited than the number of people who left the

company due to voluntary turnover, death, and retirement each year (The US Bureau of Labor Statistics, 2019). The US Bureau of Labor Statistics (2019) in their latest report mentioned that 2 lakh more hires are being reported than total separations in 2009 and the figure is constantly increasing with more than 5 Lac's recruitments more than total exits in 2016. The tourism industry's job growth has made the largest contribution to the economy. The main tank of this contribution comes from the big groups of tourism that is increasingly e becoming significant and Pioneer institutions which were defined by Rubin and Rose (2015), as the big employers acting as an economic milestone in the area of employment, purchasing, investment and also worked towards establishing social and cultural ties to the areas where they belong. It is also understood that the tourism industry is growing both in terms of revenue and employment and day by day it is becoming significant to the overall economy.

It is very much necessary to understand the importance of the tourism industry by Scholar developers and local officials so that the growth of this sector can be facilitated. There are many approaches to facilitate the growth of the sector.

Firstly it is important to reach and understand the hindrances involved in employment in this industry and identify the factors that encourage or hampers this growth. In this very approach, it is important to understand the influence of the tourism industry investment and total employment. Therefore this research paper emphasizes the influence of the tourism industry investment and total employment on the local hospitality industry and the overall economy.

As it is a well-established fact that investment in many forms contributes to the economic development of a country but when it comes to investment in the area of tourism it contributes to economic development in many ways, such as responsible for generating tax revenues, increasing income levels and in job creation (Dogru et al., 2020). Tourism investment usually requires a large capital spending resulting in economic development and growth in the area. It is suggested that the property which can fill 100 rooms per night can support more than 250 local jobs every year" it is an important statistic to judge the economic impact of the tourism industry. Moreover, it does not show the role different types of tourism investment play on employment in different labor markets which is an important area to be considered by the local bodies established by the government to look after the employment of people as it tends to facilitate and develop the local economy is in the area. Therefore this research paper should take into consideration different type of total investment and their impact on employment growth and the overall economy. It is the area of concern of macroeconomic theory, the researches in the area suggest that investments create a stimulus in the economy which in turn increases economic activity through job creation.

Therefore the observations of major economists are important to note. According to Keynes (1937), aggregate investment tends to increase and creates and need for more labor as the firms increase their investment according to the increased demand in the economy, which requires the recruitment of more employees and facilitates employment levels and this will go on till the additional Investments generates profits. This observation in the context of the tourism industry

implies that when the demand increases the firm will continue to build new properties and it will increase employment levels and job creation in the economy so that the increasing demand in the area of travel and tourism should be met. Therefore there are many researchers found in the area whereas Scholars usually conducted economic impact analysis by using input-output models such as one of the popular models known as the computable General equilibrium model was introduced by Archer and Fletcher (1996; Crompton and McKay (1994). The model became very popular and can be used to measure the economic impact of spending on the local economy however it does not take into consideration major macroeconomic conditions or dynamics, therefore the observations based on this model attend to be biased due to these omitted factors (Dwyer et al., 2004).

On the other hand, the hospitality industry large and geographically diverse sector and therefore it claims to play an outstanding role in any country's economy and makes small but periodically consistent contributions to the US states economies (Dogru et al., 2020). Dogru et al. (2019) also suggested the tourism industry provides a fair share of the state's economy. In this industry, wages are comparatively higher and increased relatively quickly as compared to other sectors.

If you look into the investment made by the tourism industry, many specific types of investment produce healthy outcomes and are not similar to the effects made by the contributions of any other industry moreover the different types of investment made in the tourism industry tend to produce different types of economic gains.

Therefore in this research paper, the approach is designed to investigate the influence of total investment on employment levels from both theoretical and empirical perspectives by putting forth the claims design based on statistical interpretations. Therefore the research objectives are two-fold: 1) To examine the effect of investment in the tourism industry on employment levels in the economy, 2) To investigate and identify different types of investment in different segments of the tourism industry.

## 2 Literature Review

The area of tourism is beneficial for small tourist clusters as it circulates capital through these tourist regional marketplaces (Liu and Var, 1982). Figure 1 chooses the flowchart which was adapted from Liu and Var's (1982) presenting the same benefits the local economy enjoys when investment is injected into these mark places. This kind of investment creates a sustained effect on the local economy as the money remains in circulation for a longer period and also multiple times.

Regarding the methodology utilized for this study, a consensus on input-output models has not been reached, as Mazumdar (2012) also questions the best methodologies to study extensively the macroeconomic impact using the input-output framework, the issue lies with the interpretation of inferences.

On the other hand, many scholars have utilized the new model assumptions to study the greater economic impact of tourism as it helps to estimate the influence of income, employment, value-added import, and tax revenue. Other models are being developed in the field and tend to

write off the limitations highlighted by previous researchers by applying a set of equations derived from new classical economic theory to predict the behavior of key players like Producers and Consumers in the economy resulting in market-clearing constraints (Burfisher, 2017; Dwyer, 2015). However, Burfisher (2017) added the complexity added to the models makes the models more complicated, and we are unable to interpret results that can be communicated easily. The computable general equilibrium model provides major issues on the input-output model and me strong postulates about the economy, the main tenets of this model are that it assumes a limited number of consumers, and it consumer has some amount of capital to spend. However, these input-output models and other models HS computable general equilibrium models might have to provide guidance to policymakers regarding the economic impact of capital or spending increases tax revenues, income levels, increase job creation. But for this kind of study where the investigation is to be made on whether economic activity as large as Tourism investment makes some important contribution to the economy cannot be done through these previously used models due to their limitations on such extensive research. That is the reason why The Economist and the searches have used input-output models and computable general equilibrium models to investigate how many direct and indirect jobs are created through Tourism investment but does not provide whether the contribution to employment is statistically significant or not. Additionally, these models do not provide any details of the type of tourist infrastructure created through these Investments but only focus on the quantitative aspect which is the amount of capital bought into by the tourist (Liu and Var, 1982). Therefore there is a dire need to identify the main constructs through a comprehensive literature review and introduced a robust research methodology e which is superior and can account for all the research constructs used in this study.

## 2.1 Growth Pole Theory

There are many economic theories emphasizing the impact of one industrial sector on the overall economy among them the growth pole theory is important and reliable and could be seen as one of the important theories to be followed in this study. Nowadays many developing economies are transforming from manufacturing to service sector and the main part of their GDP came from the service industry in this kind of economy means the hospitality industry plays an important role in contributing to a greater economy so much so that some markets have grown on Tourism Development. The textbook case of the hospitality industry creating demand is the construction of Walt Disney in the city of Florida. With Walt Disney setting up in Florida the area enjoyed the highest growth in population between 1950 and 1990. (Demographia,1996). As it is also suggested by growth pole theory, that hospitality may play a vital role in economic development investment, and infrastructure development in any country (Perroux's, 1949). It is also summarized that growth and development are not uniform but it is clustered around some specific centers or poles of economic activity.

According to the growth pole theory, the thicenter or hole may be regarded as a hospitality or tourism industry that helps in building infrastructure and developing the economy around itself. As it is also discussed before the hospitality industry is an anchor institution (Rubin and Rose, 2015), which can be regarded as the pole on center under Perroux's (1949) framework, and it further facilitated economic activity around some new secondary centers that were established by the development of primary polls or centers in the economy, as a result, new cities and neighborhoods but developed further. Moreover, tourism is regarded salient example of Perroux's theory because some other researchers such as Liu and Var (1982) suggested that the money spent by the visitors separates circulation and the local economy several times. Therefore, through tourism, many of these tourisms facilitate the spread of economic well be e of a community as people visit parks, go out and he spends on eating, and shopping thereby facilitating the development of allied Industries around the central geographic location. However, if tourism is developed around some primary industry it can also help in generating employment in the local economy. Growth pole theory treatments that economic development cannot be done uniformly rather it is clustered around some poles or centers where initial development took place (Dzumbira et al., 2017). The tourisms in a given area capture demand and operate by not only giving themselves but also acting as a source of bringing new currency to the market for circulation (Liu and Var, 1982). In the light of arguments, it can be proposed that hospitality investment has a positive effect on overall employment and more specifically in the sectors of tourism. The hypotheses can be framed as

H1: Tourism investment directly affects employment in the overall economy,

H2: Tourism investment positively affects employment in the tourism and hospitality industry,

H3: Tourism investment positively influences employment in the allied sector total investment positively influences employment in accommodation and food services.

It is also important to understand how tourism investment affects the overall economy and also recommends that enough capital needs inflow into the economy through initial centers and then the economic activity in the secondary centers would have flourished (Werts, 2021). The categorization of different kinds of Tourism investment is unknown therefore it can also be researched that different kinds of Investments affect employment and overall growth in the economy. So for the convenience of empirical testing these prepositions the investments are divided into three categories economy scale, midscale free scale Tourism investment analysis tries to find a link between these kinds of investments and the generation of overall employment in the economy. In the light of literature, arguments were framed as

- Economic scale investment positively influences employment in the overall economy
- Midscale investment directly affects employment in the overall economy
- Luxury scale investment positively and directly affects employment in the overall economy.

With all the efforts and observations of many authors on growth pole theory are being reviewed there is a paucity of research as they do not have clarity on employment conditions or there is a difference between the amount of capital introduced into the economy and if its effect is on job creation.

# 3 Methodology

### 3.1 Sample Data Sources

The sample was collected from the main tourist destinations of the kingdom of Saudi Arabia i.e. the City of Jeddah which is a gateway to Mecca is the main spot for data collection as it is also a place from where people travel on a religious pilgrimage throughout the year. The tourism of Rivadh as the capital of Saudi Arabia is also chosen for the study. The data was collected from April 2021 to 2<sup>nd</sup> July 2021. Apart from quantitative data some secondary data was also are used and covers all the available tourism investment, wages, and employment-related details. Tourism investment was measured according to the number of Tourism rooms available in a property and it is regarded as the independent variable for this study. Total investment was also measured through star ratings of the hotels and the investment was categorized into three major categories i.e. economy scale, mid-scale, and luxury scale Investments. Then dependent properties are categorized as economy scale investments, the medium class properties were classified into midscale investments and the chain tourism properties were classified into upscale or luxury scale tourism Investments. Control variables were also included in the study as many other studies in this area are designed with control variables, there are three control variables included which were identified from the literature review and likely affect Macroeconomic conditions on employment and overall economics of the country. They are tourism demand, employee wages, and overall economic factors which can affect overall employment in a specific sector of tourism and also the overall economy (Canina and Carvell, 2005; Dogru and Sirakaya-Turk, 2018; Keynes, 1937; Lee and Jang, 2012).

The total number of employees and wages are considered dependent variables as these variables tell about the employment conditions and standard of living of the people who are working in this industry and get affected by any investment made in the area of tourism.

Employee Earnings or wages were included in the study to assess the overall economic conditions. Increased tourism activity or increased demand also results in economic development, therefore tourist demand was also accounted for while analyzing the determinants of employment in the area of tourism and Hospitality. To assess that demand data regarding tourist arrivals was obtained by following the footsteps of (Dogru et al.,2017; Song et al.,2012).

## 3.2 Empirical Design

The following three simultaneous equations were framed for the assessment of independent and dependent variables:

Total Investment =  $\beta$  (Employment) + è term

Total Investment =  $\beta$  (Overall Economic Impact) + è term

Total Investment =  $\beta$  (Std. of living) + è term

Where  $\beta$  = Path value, è = error term.

## **3.3 Empirical Methodology**

After framing empirical simultaneous equations, the measurement model using Lisrel 8.80 was assessed. The assessment of the measurement model and structural model was performed simultaneously shown in Figure 1.

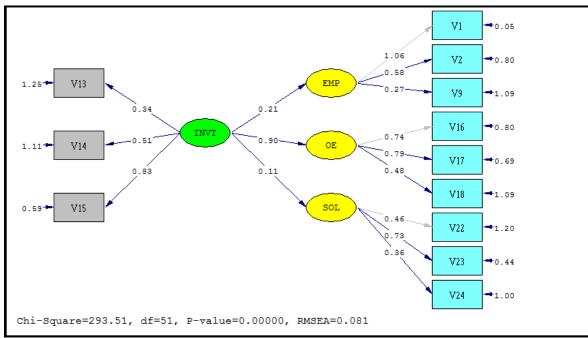
## **3.4 Measurement Model Evaluation**

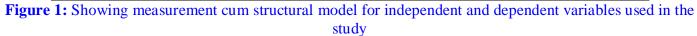
The researchers working in the area of econometrics explain that it estimates both measurement and structural models simultaneously. The measurement model estimates and examines the accuracy of the model whereas the second one is the structural model investigates the relationships and defines the explanatory power of the model thus formed.

The figures obtained for the assessment of the measurement model for composite reliability, standard loadings, *t* values and the Alpha values from these statistics unidimensionality, composite reliability and discriminant validity can be ascertained. In our study, all these statistical values were assessed. The study uses factor loadings, average variance extracted to support convergent validity and Cronbach's Alpha to support reliability. Recommended values of standard loadings must be higher than 0.5. Recommended Cronbach's Alpha value to support reliability must be higher than 0.7 (Levin 1982). The values are found to be in the acceptable range as shown below does indicate unidimensionality, reliability and validity.

S.No	Constructs	Standard loadings	Cronbach's Alpha	t Values
1	Tourism Investment (INVT)	.83	.89	2.98
2	Employment (EMP)	.58	.98	2.89
3	Standard of living (SOL)	.86	.78	3.87
4	Overall economic effect (OE)	.79	.77	4.66

**Table 1:** Showing standard loadings, Cronbach's Alpha, and t values.





## **3.5 Structural Model Evaluation**

When the measurement model was assessed, the next step is the assessment of the structural model for hypothesis testing and the generation of a final model from which results can be interpreted. The relationships were tested based on path values. All the hypotheses were accepted and it was ascertained that investment has a positive impact on employment levels, the standard of living, and growth in the overall economy. The highest impact was recorded for development and growth in the Overall economy, i. e. the relationship between investment and the overall economy has a value of b = 0.090 (p<0.05), then the relationship between investment and standard of living has a value of b = 0.11 (p<0.05 the relationship between investment and employment has a value of b = 0.021 (p<0.05). Thus, all hypotheses are accepted as p<0.05.

## 4 Conclusion

After the data analysis, it was found that investment in different categories increases employment in the overall economy in various sectors such as tourism, leisure, and Hospitality Industries in the Kingdom of Saudi Arabia.

The research is based on the main suggestions propounded by the growth pole theory and the results also support the recommendations of the growth pole theory, that is when investment in tourism increased it has its advantages in different areas and also all related economic sectors observe the increment of development. This research explores the relationship between investment and employment that the leader should encourage the type of investment that has a greater scope to facilitate development and implementation in the overall economy for growth. The study examined the relationship between different types of investments and their impact on employment in different areas and centers in the developing economy of Saudi Arabia and provides concrete results inferred from statistical observations

# 5 Availability of Data and Material

Information can be made available by contacting the corresponding author.

## **6** References

- Archer, B. and Fletcher, J. (1996). The economic impact of tourism in the Seychelles. Annals of Tourism Research, 23(1), 32-47.
- Burfisher, M.E. (2017). Introduction to Computable General Equilibrium Models, Cambridge University Press, Cambridge, MA.
- Canina, L. and Carvell, S. (2005). Lodging demand for urban hotels in major metropolitan markets. *Journal of Hospitality and Tourism Research*, 29(3), 291-311.
- Crompton, J.L. and McKay, S.L. (1994). Measuring the economic impact of festivals and events: some myths, misapplications and ethical dilemmas. *Festival Management and Event Tourism*, 2(1), 33-43.
- Demographia (1996). Top 50 US metropolitan areas in 1996: population from 1950. Demographia, available at:www.demographia.com/dm-usmet-fr50.htm
- Dogru, T. and Sirakaya-Turk, E. (2018). Modeling Turkish outbound tourism demand using a dynamic panel data approach. *Tourism and Hospitality Research*, 18(4), 411-414.

- Dogru, T., McGinley, S., Line, N. and Szende, P. (2019). Employee earnings growth in the leisure and hospitality industry. *Tourism Management*, 74, 1-11.
- Dogru, T., Mody, M., Suess, C., McGinley, S. and Line, N.D. (2020). The Airbnb paradox: positive employment effects in the hospitality industry. *Tourism Management*. DOI: 10.1016/j. tourman.2019.104001.
- Dwyer, L. (2015). Computable general equilibrium modelling: an important tool for tourism policy analysis. *Tourism and Hospitality Management*, 21(2), 111-126.
- Dwyer, L., Forsyth, P. and Spurr, R. (2004). Evaluating tourism's economic effects: new and old approaches. *Tourism Management*, 25(3), 307-317.
- Dzumbira, W., Geyer Jr, H.S. and Geyer, H.S. (2017). Measuring the spatial economic impact of the Maputo development corridor. *Development Southern Africa*, 34(5), 635-651.
- Keynes, J.M. (1937). The general theory of employment. The Quarterly Journal of Economics, 51(2), 209-223.
- Lee, S.K. and Jang, S.S. (2012). Re-examining the overcapacity of the US lodging industry. *International Journal* of Hospitality Management, 31(4), 1050-1058.
- Levin, A., Lin, C.F. and Chu, C.S.J. (2002). Unit root tests in panel data: asymptotic andfinite-sample properties. *Journal of Econometrics*, 108(1), 1-24.
- Liu, J. and Var, T. (1982). Differential multipliers for the accommodation sector. *Tourism Management*, 3(3), 177-187
- Mazumder, M.N.H., Al-Mamun, A., Al-Amin, A.Q. and Mohiuddin, M. (2012). *Economic impact of tourism–a review of literatures on methodologies and their uses: 1969-2011.* Visions for Global Tourism Industry-Creating and Sustaining Competitive Strategies, BoD–Books on Demand.
- Perroux, F. (1949). Les choix de l'etat producteur et l'application de la theorie des surplus du producteur et du consommateur. *Econometrica*, 17, 147-156.
- Rubin, V. and Rose, K. (2015). *Strategies for Strengthening Anchor Institutions' Community Impact*. PolicyLink, Oakland, CA, available at:www.policylink.org/sites/default/files/pl\_brief\_nola\_institutional\_FINAL3.pdf
- Song, H., Dwyer, L., Li, G. and Cao, Z. (2012). Tourism economics research: a review and assessment. *Annals of Tourism Research*, 39(3), 1653-1682.
- The US Bureau of Labor Statistics (2019). *Job opening and labor turnover may 2019 survey*. United States Department of Labor. www.bls.gov/news.release/pdf/jolts.pdf http://data.bls.gov/cgi-bin/dsrv
- Van Wyk, L.J.M., Saayman, M. and Rossouw, R. (2015). CGE or SAM? Ensuring quality information for decision-making. *African Journal of Hospitality, Tourism & Leisure, 4*, 1-20.
- Werts, (2020). Creating an environment for economic growth: creativity, entrepreneurship or human capital?. *International Journal of Urban and Regional Research*, 41(6), 997-1009.



**Dr. Caroline Mahmood Khan** is an Assistant Professor at the Department of Economics, King Abdulaziz University, Saudi Arabia. She was awarded a PhD in Applied Economics from Lancaster University, UK. ORCID: 0000-0001-5516-7711

Web of Science Research ID: AAM-7770-2021