The Interactive Role Of Selecting The Type Of Tourist Technology In Enhancing The Relationship And Impact Between Foreign Tourism Investment And Improving The Technological Capabilities Of Tourism:

**An Investigative Study** 

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#### **Abstract**

The research intends to develop tourist technological capabilities leading to improving total performance of the tourism sector or tourist organization by depending on the compatibility of the type of technology with the source of equipment. The research was conducted on a group of tourist formations in Basra Governorate. Two checklists were used for data collection purposes, one on the general importance of tourism, and one on the conceptual model. The research reached a set of results, the most important of which is the role that tourism technology plays in improving technological capabilities that lead to improving the overall performance of the tourism sector.

#### Introduction

Tourism is described as one of the intangible and fast-growing industries, and it has an impact on the economic and social sectors, and it is a major attracting factor for investors in the tourism industry sectors, (UN:2010). Tourism is described as a long-term investment and a great supporter of the economy and sustainable economic development. A report (the United Nations issued in 2010) indicated that tourism revenues in Europe were (717) million dollars annually, and in East Asia were (282) million dollars annually. The growth rate of the tourism sector in (Africa, East Middle, South Asia and the Pacific (within 5% annually), which is greater than the world record tourism growth rate of (1.4 annually). The tourism sector contributed to reducing the unemployment rate, as tourism contributed to achieving) 250 million new jobs (at the global level) (WTO, 1999: 2).

*Table (1) The contribution of the oil sector to the state total revenue* 

Year	Virtual overall revenue	Virtual oil revenue	% Percentage of participation
2007	54964	51701	% 94
2008	54964	75358	A special case/ rising oil prices
2009	55229	48872	% 88
2010	77025	71340	% 93

Year	% percentage of deficit				
2013	29.3				
2014	before decreasing oil prices % 17				
2015	% 42				

Table (2) Percentage of deficit

Source 1: budget deficit 2014. www.iragicp.com/indexphp/section/0034-2014)

Source 2: budget deficit 2015. www.xendan.org/arabic/dregaa.asp?Jmara=7640

Other alternatives that support the oil sector should be searched, and constitute a safety valve in the event of any crises or fluctuations that have a negative impact on oil prices. Oil pricing and fluctuations in its prices are of a global nature and outside the control of an oil-producing country such as Iraq. One of the most important methods for tourism is investing in technologies having a direct and effective contribution to the development and improvement of tourism sector. The important issue in this field is to reveal the method on the basis of which the appropriate investment source is selected to invest in tourism technologies that have a positive impact on tourism technological capabilities, and which constitute a solid basis for improving the overall tourism performance in its three main dimensions (economic, social, and environmental).

Therefore, the research tried to address problems by presenting a conceptual framework that explains the interactive role of the type of technology such as cognitive technology, and organizational technology in strengthening the relationship and influence between sources of investment in technology, such as foreign direct investment, import, and joint investment, enhancing operational capabilities, continuous learning capabilities, investment capabilities, and absorptive capacity lead to improved tourism economic performance. In other words, choosing the appropriate source of technology investment for tourism technology will reflect positively on enhancing tourism technological capabilities, which form the basis for improving the overall tourism performance.

### **Statement of the Problem**

The tourism industry is one of the most important and largest economic activities that provide value at the global level, which directly and indirectly affect other cultural and economic activities. Although tourism alone does not lead to developing the country, the expansion in the scope of tourism and the need for change in the main components of the tourism sector and other activities related to the tourism sector that lead to development increased the importance of investment in tourism (Dowlatabadi and Yaghob, 2009, p15). The importance of tourism is due to its ability to generate new job opportunities and to increase spending in touring areas (Hooshang et al. 2012: 2248) Tourism, in developing countries, is one of the developing sectors that generates jobs for life work, whether administrative or related to women) (The World Bank Group/MIGA, 2005), but the shortage of capital was the main obstacle to tourism development in many countries, especially developing countries (Marvell, 2010). The problem lies in the type of technology and the appropriate source of investment for the type of technology used to

improve the performance of the tourism sector, and the possibility of developing technological capabilities that help increase the efficiency and effectiveness of the tourism sector. The problem is summarized in the following questions:

- 1 1 How can the sources of investment in tourism technologies be identified and selected?
- 1-2 How can a better choice of tourism technologies affect the improvement of the performance of tourism technological capabilities?
- 3-1 How can the impact of the interactive role of tourism technologies be revealed in strengthening the relationship between sources of investment in tourism technology and improving tourism technological capabilities?

### 2- Objectives:

- 2.1. Uncovering the role of selecting the appropriate source for the transfer of tourism technology in improving tourism technological capabilities improving overall tourism performance.
- 2.2. Disclosing the role of choosing the type of technology in improving the tourism technological capabilities that lead towards improving the overall tourism performance.
- 2.3. Revealing the interactive role of choosing the type of technology in enhancing the relationship and influence between the appropriate source of foreign investment in technology and improving technological capabilities that lead to improving the overall tourism performance.

# 3- Importance:

- 3.1. Encouraging researchers and academics to expand and deepen in the areas contributing to the development of the Iraqi tourism sector and improve its performance.
- 3.2. Providing information and methods for the Iraqi investor (public or private) in the tourism sector to benefit from investment in the transfer of tourism technologies and tourism technological capabilities from their foreign sources.
- 3.3. Directing the attention of those responsible for improving the performance of the Iraqi economy, and those concerned with the Iraqi tourism sector, to the pivotal role of tourism in supporting the Iraqi economy and improving its performance.

#### 4 - Determinants:

4.1. The difficulty of obtaining accurate data and information on the subject, especially in the current conditions of Iraq, and the lack of interest in other tourism sectors outside the scope of Karbala governorate.

4.2. The integrated picture of work in the Iraqi tourism sectors, and the extent to which it is directed by a comprehensive strategy at the country level, is not clear to researchers.

## **First: Reviewing previous literatures:**

Vaugeois's study (1990:1) showed that tourism in developing countries is as an export tool from three angles: internal attraction, obtaining funds, and exporting. Thus, it constitutes a new major source to the national economy. The UN study described the tourism sector as a rapidly growing industry that contains many economic and social sectors, which make it a distinct development factor. The study emphasized that the tourism industry has the first priority with investment promotion agencies at the global level, with the increasing growth of competition between tourism destinations and high competition in investment projects, which led to the emergence of the importance of promotion in order to attract investors in the tourism sector. Mena's study (2004) showed that local tourism in each country contributes to improving the balance in the national economy through the redistribution of national income. Tourism increases interest in common knowledge, and contributes to the development of activities favorable to the national economy in general. A study by word bank group (2005) presented a conception about pursuing investment in tourism stating that although some doubts remain about the feasibility of tourism. Tourism can contribute to providing employment opportunities, achieving wealth, addressing social issues, and ensuring the preservation of nature and cultural resources. Marvell's study (2010) indicated that foreign direct investment provides the foreign company with new market opportunities, a reduction in production costs, and access to new suppliers of labor, products, and financing, and provides the host country with new technologies, funds, products, and management skills. It also provides an impetus for economic growth.

The study by Sazali Abdul Wahab et al, (2012) presented the viewpoint of (Kummer et al. 1999) about the two basic elements of technology, which are the physical element: products, devices, equipment, schematics, techniques, processes, and the informational element: knowhow in work administrative, marketing, production, quality control, reliability, skilled workers and functional areas. The study (Ogbu et al: 2011) emphasized the importance of information and communication technology in the development of the tourism sector, by publicizing the marketing product through the international network without visiting the tourist sites as well as booking flights and hotels through the Internet. Behalie's study (2013) stated dramatic impacts of strategic and operational electronic information technology on tourism organizations and tourist sites, as well as the ability of the Internet to expand the customer database to cover large areas of the world and improve cost effectiveness.

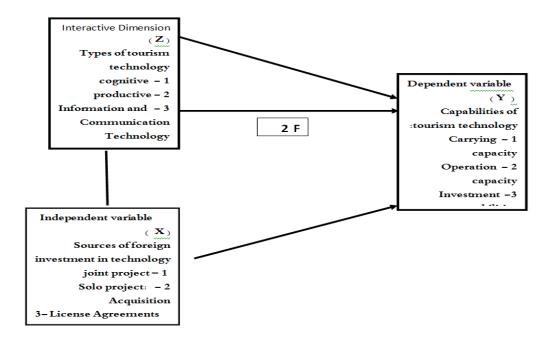
A study by Un Kumer et al. (2004) presented a conceptual framework that explains the role of administrative capabilities, organizational elements, absorptive capacity, and the government's role in improving technological capabilities leading improve the organizational performance in the tourism sector. The study (Omar R, Talcim et al, 2004: 406) reviewed a set of conceptual models for technology transfer, including a model for tourism technology transfer

that included three main dimensions: administrative capabilities, organizational elements and capacity, which lead to improving tourism technological capabilities.

It is clear from a review of these literatures that:

- 1) The tourism sector supports the national economy and sustainable economic development in developing countries, through transferring foreign currency to the country.
- 2) The development and increase of the effectiveness of the tourism sector in developing countries, including Iraq, requires foreign investment in tourism technologies (productivity, information and communication technology), because they have the most impact on both sides of the tourism industry, production and marketing.
- 3) However, the lack of funds and negligence of economic role of tourism are the obstacles to investment in tourism in developing countries.
- 4) Foreign investment in tourism technology brings benefits to the host country, including new technologies, funds, products, and management skills, and also provides an impetus for economic growth, which strengthen the role of tourism in the national economy.
- 5) Some conceptual and planning models were presented for the transfer of tourism technology, but none of them were applied in the tourism sector of developing countries in general, and Iraq in particular. This is a justification for developing a conceptual model to clarify the role of foreign investment in technology in improving tourism technological capabilities improving the overall organizational performance of the tourism industry.

Second: Outline of the conceptual model of the study and hypotheses:



# **Hypotheses:**

The first main hypothesis: There is a statistically significant effect of the dimension of foreign investment sources in tourism technology on tourism technological capabilities that lead to improving overall tourism performance.

The second main hypothesis: There is a statistically significant effect of the interactive dimension (types of tourism technology and the dimension of foreign investment sources) in strengthening the relationship and influence between sources of investment in technology and improving technological capabilities that lead to improving overall tourism performance.

# **Second topic**

The conceptual framework for the role of technology selection in strengthening the tourism investment relationship in improving tourism technological capabilities.

First: Tourism technology (overview):

The concept of tourism technology and its types: Tourism industry organizations, like other industrial organizations, address the customer, and work on developing technologies that support the customer's service and distinguish his personal needs. This leads towards collecting information about the customer, in order to make better choices about customer behavior. Personal services backed by advanced systems of customer relations help reveal the customer's preference, present and future needs, as well as the need to know the place, content, and mood to provide reasonable advice to the customer (Dimitrois, 2005: 11). Technology depends on information and communication systems. Modern definitions focus on knowledge and giving attention to the research and development process. Kumer et al, (1999) identified technology with two main elements: the physical element: products, means, equipment, plans, techniques, and processes, and the informational element: know-how in administrative, marketing, and production work, quality control, reliability, skilled workers, and functional areas. (Sazali Abdul Wahab: 2012:62). The following can be deduced:

- 1- Technology is used by industries or organizations, regardless of their complexity or specialization.
- 2- The concept of technology covers two main components: the first is physical and consists of products, devices, tools, equipment, plans, methods, and processes, which is the technology that is used in the production processes of industry. The second is informational and covers the skill and know-how in administrative and technical work. The tendency towards either of the two components depends on the methods of achieving the organization goals with the highest possible efficiency and effectiveness.

- 3- The interest of all production organizations, including the tourism industry, is focused on two main processes: (technology transfer or transfer from one country to another and the use of technology or the field in which technology is applied).
- 4- Technology plays its role in different ways, and the important role of technology in the tourism industry is to participate in the profitability strategy of tourism companies. Therefore, when trying to implement new technology in tourism projects, it is assumed that an appropriate study should be made about profits and costs (Amparo, 1999)

(Forman, 1982). Tourism sector is strongly influenced by new technologies, and is forced to take a series of changes in two main areas: changes in business methods as applied in the development, production, and marketing of tourism activities, and changes in the specific technical fields of tourism service production. The sub-sector of tourism is supposed to adapt fundamentally to new technologies, and the survival of tourism in its main and sub-sectors requires the preservation of innovation. (Amparo, 1999:2). Technology plays an important role in the profitability strategy of tourism companies in general and the hotel industry in particular. Hotel sector is one of the main service sectors in the tourism industry, and is based on the human element as an important factor for, whether in providing service, or in the development of quality and technology standards. The development and activation of the hotel industry depends on the rapid assimilation and implementation of advanced information and communication technologies, depending on the workforce and qualification. (Asplund and Vuori, 1996).

This expresses the potential link between new technologies on the one hand, and learning and training and the quality of business performance on the other. Tourism can be classified into two types, domestic tourism and international tourism. Tourism can be historical/archaeological, eco-tourism, recreational or educational. The internal aspect of tourism is concerned with the process of producing the tourism service and developing the technological capabilities of the tourism industry. Tourism technology frames the theoretical and applied knowledge of tourism service production and marketing. Tourism service production technology is measured by (administrative and technical knowledge technology, and production technology, while tourism service marketing technology is measured by information technology and communication technology).

### Potential effects of tourism:

Tourism is described as a fast-growing industry in the main sectors of sustainable development, economic and social, which makes it a distinctive factor in development (UN, 2010) It shifts developing countries from total dependence on agriculture and industry (Tooman, 1997). It can currently decrease due to Iraq dependence on oil, and tourism adds economic sustainability to many sectors, yet some developing countries do not pay attention to the expected benefits from tourism (Vaugeois, 1999).

Table (3) Potential Effects of Tourism

Negative effects	positive effects	No.
Total dependence on tourism	increasing income and improving the quality of life	1
Increase the costs of land, housing, food and services	Providing job opportunities	2
Increase in environmental pollution and irrigated congestion	Improving the infrastructure and tourist facilities	3
The dominance of large companies in the tourism market	The increase in tax revenue	4
Adverse impact on cultural and natural heritage	Enhancing knowledge and natural and cultural heritage resources	5
Sensitivity to sudden changes in feelings	Saving capital	6
Limited control over the tourism sector	Transferring managerial experience and skills to the host country	7
Unsuitable shapes and sizes for tourism	Expand and strengthen links with the markets	8
Invasion of open spaces	Giving more impact to local entrepreneurs	9

Source: UNCTAD, Expanding of UNESCAP, 2001

The negatives can be easily overcome, and strategic obstacles should not be placed in the way of tourism growth, or in an attempt to develop the sector and improve its performance. On the contrary, the advantages of the tourism sector and its exceptional role in supporting the economy and development, especially in the developing mono-economy countries.

# **Second: Investment in tourism technology:**

Investing in tourism technologies contributes effectively to improving tourism performance and the resulting economic returns. Tourism supports sustainable economic development in most developing countries, and adding sustainability to the economic growth of many national production and service sectors. (Nicole, 1999). It aims to attract funds from abroad, and to attract skilled human capital represented by businessmen, hospitality and transport

managers, and to attract international privileges that help to marketing and development of local tourist areas (UN, 2010).

The scarcity of national sources of funding is the main obstacle facing the development of tourism in developing countries, which prompts foreign investors to seek funds that enable the development of tourism in these countries (UN, 2010). This needs advanced technologies that help enhance the ability of the tourism industry to respond to environmental changes, and the possibility of investing opportunities available for tourism. These trends were previously presented by (Editorial / Technovation, 2009: 576) in the form of several questions that the research summarized as follows:

- 1- How does the customer evaluate the benefits of technology?
- 2- Does technology contribute to providing and improving the quality of tourism service?
- 3- How can technology change the customer's behavior and decision-making process?
- 4- How is technology a source of competitive advantage?
- 5- Does investing in technology enhance returns and generate additional income?
- 6- How does technology contribute to changing the value chain of tourism activities?
- 7- How can tourism companies be a catalyst for technological investment?
- 8- How can management concepts such as knowledge management help identify challenges in investing technology in tourism activities?
- 9- How are workers prepared to develop technological capabilities?
- 10- How can human resources facilitate the implementation of technology?
- 11- Does the nature of the tourism industry show peculiarities in relation to investment in technology?
- 12- Do tourism policy decision makers prefer investing in technology and sharing technological knowledge?

Two things required when investing tourism technology: 1-**Confidence** in the ability of the external provider of technology, that is, the processing of technology of globally accepted quality that can contribute to generating economic returns and social benefits satisfactory for the investing sector in the host country. 2-**Developing** knowledge and technological capabilities of workers in the investing in the host country.

Lack of knowledge and understanding of the management of the company in the host country of technological capabilities and ways to use them in order to achieve competitive advantage are reasons for the failure of technology transfer in developing countries (Khamseha et al. 2014). The multiple effects of the tourism, direct and indirect, allow tourism to play part in the national economy, economic development and redistribution of wealth, and in attracting foreign direct investment. (UN (2010) pp.19-20.):

- 1- Contributing to stakes in hotels, employment in tourism, and car rental business.
- 2- Building and developing hotels or other tourist facilities.
- 3- Encouraging real estate development in the country.
- 4- Establishment of parks and other tourist attractions.
- 5- Develop formulas related to local equipment or foreign companies in the field of training institutions, equipment provision, and cleaning.
- 6- Providing management contracts for service providers in the tourism sector.

On the other hand, the tourism sector can provide benefits for economic development by providing a series of front-end links, telecommunications, and public service companies such as electricity, water, and sewage). Forward links arise when it is required to provide services to other sectors, such as conference and incident management, entertainment industries, tour operators. The development of the tourism industry in developing countries requires investment in infrastructure that includes transportation, uses, and advanced communication systems, but developing countries lack technological knowledge. (Marvell, 2010: 7). The Iraqi tourism sector has multiple alternatives for foreign investment presented as follows.

Table (4) investment alternatives

No	Law Regulating Matters Related to Foreign Investment and Technology Transfer / Nepal 2000	71	Sanjeev Agarwal, et al:  1991  Foreign market entry selection form	International Enterprises Center / 2004: 20 – 22
1	Investing in stocks	foreign direct investment (FDI)	without sharing	country funds
2	Reinvestment of profits from	foreign investment	Export	FDI

	investing in stocks	portfolio FPI		
3	Investment provided in the form of loans or loan facilities	official financial flows	joint projects	Minority stakes in host country companies
4		business loans	independent project	Licensing agreements with host country companies
5			Licensing	joint projects
6				Majority stakes in the host country
7				A company wholly owned by the investor in the host country

Additionally, some researchers casually touched on some types of foreign investment, as (Courvisanos & Pansiri, 2011), referred to strategic alliances and technology in tourism. (Miyagiwa & Creane, 2007) presented some types of foreign investment such as export, direct investment, joint ventures. Others touched on some criteria that help determine the appropriate option among the available foreign investment options. Agarwal et al. (1991) used the criteria of owners' benefits, location benefits, and internal benefits to determine the best investment decisions. (Miyagiwa & Creane, 2007) adopted the criteria of investment costs in light of the changing environment, price or quantity, the policy of the host country, expected profits) to choose the appropriate foreign investment alternative. It is clear from the above that the following:

- 1- The emergence of a difference in the views of researchers about the types of sources of foreign investment in technology in general and tourism technology in particular, the origin of the difference in the details of foreign investment, more than the difference being fundamental.
- 2- There is a difference in views on foreign investment and foreign direct investment. Some people deal with them with the same meaning and components, while others consider foreign direct investment as a component of foreign investment.

The researchers believe that foreign investment is either direct or indirect, and foreign investment is mostly used in theory and practice is foreign direct investment, represented by four investment models through international companies, joint ventures, licensing, and export.

4- The researchers presented criteria that help the foreign investor to choose the best type of investment in the foreign market, developing countries, and they differ according to the research or study objective. Despite the importance of multinational companies in investing in developing countries, due to their financial and technical capabilities, it is the use of their power and influence to dominate the host country discouraging investment through them.

Information and communication technology has helped customers identify, diagnose and purchase tourism products, and support the post-globalization of the tourism industry, by providing tools for developing, managing and distributing offers worldwide, on the other hand, (Buhalis and O'Conner, 2005). This requires obtaining technology that enhances the technological capabilities of the tourism industry internally, and contributes to the expansion of the tourism industry and its orientation towards global markets externally. The production technologies in the tourism industry are the key technologies used in this field, and the marketing technologies for tourism, which are represented by cognitive technology, production technology, and information and communication technology.

Third: The conceptual framework for the role of choosing the appropriate technology for the type of foreign investment in strengthening the relationship between foreign investment and technological capabilities in tourism:

Sources of foreign investment in tourism technologies:

- 1-1 **Joint Venture**: CIPE defined them as companies that are jointly established and owned by foreign investors in solidarity with local partners, usually private companies, but sometimes they are state-owned facilities and even government agencies. Foreign investors may occupy minority or majority positions in those companies. They may have some degree of control over the company operations to varying degrees.
- 1-2 **Licensing agreements**: Multinational companies may transfer the rights to use certain technology to a local company, which is responsible for production and marketing for the local market. ). It is also defined as a legal contract between two parties, the licensor and the licensee. In the model licensing agreement the licensee grants the person who will grant him the rights to produce and sell goods, use the mark or trademark, or use a technological patent belonging to the licensing authority. (<a href="www.inc.com/encyclopedia/licensing-agreements.html">www.inc.com/encyclopedia/licensing-agreements.html</a>)
- 3-1 A project or a single investment (sole venture; acquisition), which is the company purchase of a project from foreign markets to become more famous. (Root, 1994.142) In other words, the company buys a project from abroad in the belief that it is more beneficial when investing in the host country, because the conditions in the host country or (the buyer) are more compatible with the success of the acquired project. The acquisition project could be management skills, technology, or raw materials sources (Root, 1994:142).

- 1-5 Selection Criteria: The best option will be determined through two dimensions revealed by the research:
- 1-5-1 criteria for preference among the three options: joint venture, licensing agreements, and single-project). The criteria are summarized as follows: expected returns, risk, availability of resources, technological development, project management skills, international reputation. (Geringer\* and Hebert. 1991).
- 1-2-1 The extent to which the source of investment is compatible with any of the technologies in question, namely the tourism service production technology, the tourism service marketing technology.
- 2 Tourism technologies: In a previous topic, the goal and definition of tourism technology was mentioned in the following: The main objective of tourism technology is to facilitate the distribution and marketing of local and regional tourism projects through established tourism distribution channels, direct and indirect. (Amadeus, 2012)
- 3- Technological Capability: It is defined as (the possibility of making an effective use of technological knowledge (Westphal, et al., 1985, p.171), and technological capabilities (Kumar et al, 1999, p. 82) that it must enable the project to take on a wide range of productive tasks, spanning from pre-investment analysis of a project to product and process engineering, to manufacturing, and then introducing new technologies where appropriate.
- 4 Absorptive capacity: It means the company's ability to recognize the value of new information, absorb it, and apply it for commercial purposes (Cohen and Levinthal, 1990). (Levinson and Asahi, 1997) referred to absorptive capacity as (the basic rules for organizational learning from within the organization, and between organizations in general). The current level of the company absorptive capacity determines the extent to which the company can effectively increase its technological capabilities, or generate a distinct group of technological capabilities (Cohen and Levinthal, 1990), measured by focusing on the technical energy of the recipient in planning and implementing overlapping programs or projects, according to donor criteria.

Third: Relationships and trends of the dimensions of the conceptual framework: The conceptual framework was developed in order to explain how the tourism sector or companies build their technological capabilities through the interactive impact of choosing the type of technology in the relationship between sources of investment in technology and technological capabilities, in order to improve the technological capabilities of the tourism sector. The conceptual framework attempts to reveal the relationship between the source of investment in tourism and the type of technology that the source can provide, and then choose the source that is most compatible with tourism technology that contributes to activating the technological capabilities and absorptive capacity of the tourism sector and leads to improving economic performance.

Fifth: Approach and method of study: The research followed in its study the integration of the deductive and inductive approaches, where presentation, analysis and extraction are in the theoretical side, and quantitative analysis supported by statistical methods in the field committees. The research was conducted on a number of tourism organizations in the province of Basra, a single investor, an investment company, governmental tourism authorities, local community. The sample size was 32 people, and it is the size of the community from which it was drawn. Two tools were used to collect data: the first is a list to know the importance of tourism and other factors affecting it, and the second is to collect data related to the main dimensions of the statistical model. Two statistical tools were used in the analysis, namely, hierarchical analysis, multiple regression analysis, and its details in the field study.

The third topic: the field study

First, multiple regression analysis and hypothesis verification

Table (5) results of the field analysis

Types of foreign investment	Beta	F	sig	Change R2	R2	R	Sig
Joint investment	- 0.313 1.29	174.4 440.4	0.00 0.00	0.853 0.115	0.853 0.968	0.92 0.98	0.00
Model 1	0.977 4.47	621.27 517.39	0.00	0.954 0.019	0.954 0.971	0.977 0.986	0.00
model 2	0.955 7.594	313.2 478.7	0.00	0.913 0.058	0.913 0.971	0.955 0.955	0.00
Solo investment			0.00	0.95 0.22	0.95 0.98	0.98 0.99	

Source: computer output after reorganization only.

*Notes*: The first model: conducting a multiple regression analysis based on the independents before introducing the interactive variable

The second model: conducting a multiple regression analysis after entering the interactive variable with the independents (X\*Z).

Multiple regression analysis (for individual types of foreign investment) and hierarchical analysis of foreign investment in general with its first and second models were used. (Aiken & West (1991).

It is clear from the table that:

- 1 Investment in a joint venture
- 1 1: The value of (R2) for the first model, which includes the regression of the dependent variable, is the tourism technological capabilities that lead to improving tourism performance on the independent variable, joint investment (0.853). This means that the joint investment explains its value (85%) of the approved variable tourism technological capabilities.
- 1-2: The value of the change in (R2) for the second model, which includes the regression of the dependent variable, is the tourism technological capabilities that lead to improving tourism performance on the interaction of the interactive variable with the independent variable, joint investment (0.115). This means that the interaction of the interactive variable with the independent variable, the joint investment, adds its value (11.5%) of the change in the dependent variable, the technological capabilities of tourism, in addition to what was determined by the first model.
- A-3: This means that the introduction of the interactive variable to the model achieved an additional explanation or effect with a value of (11.5%)
- 2- Investment in the single project (acquisition):
- 1-2: The value of (R2) for the first model, which includes the regression of the dependent variable, is the tourism technological capabilities that lead to improving tourism performance, on the independent variable investing in the single project "Acquisition" (0.954). This means that the joint investment explains its value (95%) of the adopted variable, the technological capabilities of tourism.
- 2-2: The value of the change in (R2) of the second model, which includes the regression of the dependent variable, was the tourism technological capabilities that lead to improving tourism performance on the interaction of the interactive variable with the independent variable, the single investment "acquisition" (0.019). The investment in the single project adds its value (1.9%) of the change in the dependent variable, the tourism technological capabilities.
- 2-3: This means that the introduction of the interactive variable to the model achieved an additional explanation or effect with a value of (1.9%).
- 3- License Agreement:
- 3-1: The value of (R2) for the first model, which includes the regression of the dependent variable, is the tourism technological capabilities that lead to improving tourism performance on

the independent variable, licensing agreements (0.913). This means that the licensing agreements amount to (95%) of the approved variable tourism technological capabilities.

- 2-3: The value of the change in (R2) of the second model, which includes the regression of the dependent variable, is the tourism technological capabilities that lead to improving tourism performance on the interaction of the interactive variable with the independent variable, licensing agreements (0.058). This means that the interaction of the interactive variable with the independent variable, licensing agreements, adds a value (5.8%) of the change in the approved variable, the tourism technological capabilities, in addition to what was specified by the first model.
- 3-3: This means that the introduction of the interactive variable to the model achieved an additional explanation or effect of (5.8%).
- 4- Foreign investment in tourism technology:
- 4-1: The value of (R2) for the first model, which includes the regression of the dependent variable, is the tourism technological capabilities that lead to improving tourism performance on the independent dimension, foreign investment in technology (0.95). This means that foreign investment in technology explains its value (95%) of the approved dimension of tourism technological capabilities.
- 4-2: The value of the change in (R2) for the second model, which includes the regression of the dependent variable, is the tourism technological capabilities that lead to improving tourism performance on the interaction of the interactive variable with the independent dimension of foreign investment in tourism technology (0.22). This means that the interaction of the interactive variable with the independent dimension of foreign investment in tourism technology adds a value (0.22) of the change in the variable adopted tourism technological capabilities in addition to what was determined by the first model.
- 3-4: This means that the introduction of the interactive variable to the model achieved an additional explanation or effect with a value of (22%).

It is clear from the previous analysis that the following...

The two models (first and second) for each type of foreign investment in tourism technology had a statistical significance, indicating the acceptance of the percentage change in the second model compared to the first model. The percentage of change in the second model for each type of investment in tourism technology indicates the role of the interactive variable in the occurrence of this change, as in Table (6).

**Interpretation** Percentage Investing tourism change technology Morale of (R2( % 11.5 The percentage increase in the influence of the 0.00 joint venture dependent variable after the introduction of the interactive variable The percentage increase in the influence of the 1.9 % 0.00 single project dependent variable after the introduction of the interactive variable The percentage increase in the influence of the 0.00 5.8 % Licensing Agreements dependent variable after the introduction of the interactive variable The percentage increase in the influence of the 0.00 22% Foreign investment in dependent variable after the introduction of the tourism interactive variable

*Table* (6): *The role of the interactive variable.* 

#### This means

- 1-2: The compatibility of technology with investment in the joint venture enhances the improvement of tourism technological capabilities by 11.5 percent.
- 2-2: The compatibility of technology with the investment in the single project (acquisition): enhances the improvement of tourism technological capabilities by (9.1%).
- 2-3 The compatibility of technology with investment in licensing agreements enhances the improvement of tourism technological capabilities by (8.5%).
- The results of the analysis in (2-1), (2-2), (2-3), indicate that the best alternative when choosing foreign investment in tourism technology is (investment in the joint venture. Investment in accordance with licensing agreements ranks second in terms of preference.
- 2-4 The compatibility of technology with foreign investment in tourism technology enhances the improvement of tourism technological capabilities by (22%). That is, it encourages the need for foreign investment in tourism technology.
- 2-5 The significance of the two test models for foreign investment in tourism technology indicates the acceptance of the two main hypotheses "there is a statistically significant effect of the dimension of foreign investment sources in tourism technology on the tourism technological

capabilities that lead to improving overall tourism performance" and the second hypothesis "there is a significant effect of moral significance".

Second: Analyzing the results of the checklist that promotes investment in tourism technology. The objective of the list is to support the results in the first analysis, and to enhance the orientation towards investment in tourism technology.

Table (7) Results of the checklist

Notes	Expected	Arithmetic	Interpreted item	
	weight	mean		
			Customer's attitude to new technology	1-
The tourist investor in the	70 %	3.5	<ol> <li>Evaluate the benefits of technology.</li> </ol>	
host country evaluates the	92 %	4.6	2- Providing better customer service	
benefits of technology in	85 %	4.25	3- Improving the tourism service for the	
light of its ability to provide	87 %	4.37	future	
a better service to the	82 %	4.13	4- Contribute to changing customer	
customer, and its impact on	70.4 %	3.52	behavior	
understanding the behavior	57 %	2.84	5- Emerging fundamental defects when	
of the tourist or visitor, and	94 %	4.69	using new technology.	
achieving the possibility of			6- The tourism company attempts to	
responding to the			mitigate these shortcomings.	
satisfaction of any of them.			7- Technology helps to better understand	
			customer behavior	
			8- Contribute to increasing the level of	
			customer satisfaction.	
New tourism technology			The strategic management level of the tourism	2-
helps senior management to	87 %	4.37	sector	
enhance their	56 %	2.81	9- The impact of new technology on	
competitiveness, change the	77 %	3.87	competition	
value chain to achieve	62 %	3.12	10-New technologies are a source of	
additional returns, expand	24 %	1.19	competitive advantage	
the tourism market, as well	64 &	3.2	11- It contributes to providing additional	
as improve the reputation of	72 %	3.62	returns	
the company or the tourism	62 %	3.12	12New technology is changing the	
sector.			tourism value chain	
			13 Provide incentives for investment in	
			technology	
			14 Assisting decision makers	
			15-Positive impact of new technology on	
			market activities	

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			16 New technology leads to an improvement in the company's reputation	
Improving human technological capabilities requires training in the methods of using new technology, and a willingness to overcome	62.5 % 72 5 92 %	3.125 3.62 4.62	Technological capabilities related to human resources - 17Training workers to absorb new technology - 18Management and staff contribute to facilitating technology implementation	3-
implementation conditions.			- 19Adaptation to face productive changes	
The use of new tourism technology may lead to the emergence of new unexpected benefits as well as improving the attractiveness of the tourist site	77 % 60 % 32 %	3.87 3 1.62	More specialized aspects of tourism  - 20The emergence of new cases, especially when using foreign investment  - 21Management's preference for foreign investment and knowledge sharing  -22The role of government agencies in facilitating investment in technology  - 23The contribution of the early use of technology to enhancing the competitiveness of the tourist site	4-
Enable the transfer of local tourist organizations from the country market to global markets, and obtain returns in foreign currency	95 % 24 %	4.75 1.19	The global dimension of technology investment - 24The interest of some global markets in tourism as a result of their speed in adopting technology - 25Reflection of interest on change in the national economy	5-

*Note*: The above checklist was designed and its variables determined based on the questions in the source. (Editorial / Technovation 29 (2009) 576

The checklist results revealed the following:

- 1- Foreign investment in tourism technology brings benefits to both parties investing in tourism, the foreign investor to evaluate the potential benefits from investing in tourism technology, and the party in the host country in acquiring new opportunities in the tourism market, increasing returns, and achieving a competitive advantage for the investor in the host country.
- 2- Obtaining tourism technology from a foreign source who has expertise in the tourism sector and the means to maximize the effectiveness of its activities enhances the capabilities of human resources working in tourism, and pushes towards adopting training programs that enable the assimilation of new technology, and simplify the implementation procedures.
- 3- The use of technologies acquired from the source of foreign investment helps to discover new methods in the field of tourism, in a way that improves the overall tourism performance.
- 4- Foreign investment in tourism technology helps to increase contact with global tourism markets, and to increase the interest of the foreign customer (tourist) in the tourist sites in the host country.

## Fourth: Discussion, conclusions and recommendations

First: Discussing the results: The results showed the following:

- 1- There are many positive aspects of investing in sources of foreign investment in tourism technology, due to the transfer of foreign knowledge and experience to tourism companies in the host country.
- 2- The limited provision of incentives by the state and the tourism sector to encourage foreign investment in tourism technology. This is due to the lack of awareness by many of the administrative leaders responsible for the government tourism sector of the positive and significant role of the tourism sector in supporting the national economy and sustainable development in the host countries.
- 3- What confirms the above point is the scarcity of government agencies that contribute to facilitating foreign investment in tourism.
- 4- Preferring the decision to invest in the joint venture when dealing with tourism in a comprehensive way, because the new company is joint in terms of ownership, but it has administrative independence, and the independence of the decision.
- 5- The two values (R2) and (B) measure the level of influence of the independent (predictive) variable on the dependent variable (responder). B) Corresponding to each individual independent variable, as work was done according to this rule when analyzing in the above table.

**Second: Conclusions**: Through the presentation and theoretical and field analysis, the following conclusions were drawn.

- 1- The strategic role of the tourism sector in promoting the national economy and sustainable development.
- 2- The speed of growth in the tourism sector and its direct effects on the economic and social aspects of the country.
- 3- The positive and effective role of the tourism sector is still not established by the government leaders responsible for drawing up policy and making strategic decisions.
- 4- The development of the Iraqi tourism sector requires encouraging foreign investment in the Iraqi tourism sector and companies.
- 5- The importance of focusing foreign investment on investment in tourism technology and sources capable of fully equipping this technology and methods of using it in the Iraqi tourism sector.
- 6- The Iraqi tourism sector still lacks government agencies that help facilitate the task of foreign investment in the development of the Iraqi tourism industry.
- 7- Advanced tourism technologies enable the improvement of the performance of the tourism service production process and the development of tourism technological capabilities on the one hand, and the expansion of the tourism market nationally and globally on the other hand.
- 8- Despite the importance of foreign direct investment through foreign multinational companies, the risks of their dominance over the state's policy and economy do not encourage investment through them.
- 9- Improving tourism technological capabilities (absorptive, operational, and investment) often leads to improving the overall performance of the tourism sector.
- 10- The emergence of a positive, moral and clear change in the impact of the independent dimension "foreign investment in tourism" in the adopted dimension "tourism technological capabilities", after the introduction of the interactive variable "type of tourism technology", and different effects with regard to the types of foreign investment in tourism.
- 11- The emergence of a clear preference for investment in the joint venture when choosing the type of foreign direct investment in tourism.
- 12- The possibility of improving the tourism technological capabilities that lead to improving the overall tourism performance by matching the foreign source of investment in technology with the type of tourism technology required by the tourism sector in the host country.
- 13- The limited provision of incentives by the state and the sector to encourage foreign investors to invest in the Iraqi tourism sector.

14 - The scarcity of specialized agencies to facilitate the task of foreign investment in the tourism sector.

### **Third: Recommendations:**

The first recommendation: Consolidate the awareness of those concerned with tourism in the country and the tourism sector of the main and essential role played by the tourism sector in supporting the national economy and sustainable economic development.

# **Implementation Mechanisms**

- 1 Informing officials and those concerned with tourism about successful global experiences in the field of tourism, such as the experience of Tanzania and Cuba or the like, in order to arouse their interest in the importance of the tourism sector in the national economy and improve the quality of life.
- 2 Educating through literature, seminars, conferences, and meetings the exceptional characteristics of the tourism sector, including (the speed of its growth, the intertwining of its positive effects with the economic and social sectors, its positive effects in absorbing unemployment and serving social welfare).
- 3 Clarification through the available media of the first priority of the tourism sector in promoting the national economy in the oil countries, including Iraq.

The main benefit of implementing the recommendation: directing the attention of officials in the government and the tourism sector to focus on the tourism sector as a structure and investment.

**Second recommendation**: Encouraging foreign investment in tourism and ways to attract it to the Iraqi tourism sector.

## **Implementation mechanisms:**

- 1- Determining the aspects of tourism whose rapid development requires work in accordance with foreign direct investment, such as (developing tourist sites, improving the service of accommodation and hospitality facilities, transportation facilities, and the like).
- 2 Providing material and moral incentives that help in attracting foreign investors to invest in the Iraqi tourism sector, and one of them is to ensure the interests of the investing party, preserve its efforts, and help it expand in the field of investment.
- 3- Establishing private national agencies from the government sector or the private sector to facilitate the task of foreign investment in the Iraqi tourism sector.

The main benefit of implementing the recommendation: the possibility of attracting foreign investors to invest in the Iraqi tourism sector and the consequent improvement in performance in this sector.

**The third recommendation**: Choosing the appropriate source of foreign investment when deciding to invest in tourism technology.

### **Implementation mechanisms:**

- 1 Ensure that the investment source (joint venture, single project, licensing agreements) responds to good project criteria, including (expected returns, risk, availability of resources, technological development, project management skills, international reputation, and the like.
- 2 Ensuring the basic rights of the two parties to the investment (the foreign investor and the local investor) in accordance with the international laws in force, taking into account the role of the investor in action and decision-making.
- 3 The ability of the foreign investor to provide the tourism technology with the required quality, and to ensure that the Iraqi benefactor can use it well.

The main benefit of implementing the recommendation: access to new tourism technology, and ensuring the development of sufficient skills in order to use it..

**Fourth recommendation:** Choosing the type of tourism technology that is most compatible with the Iraqi tourism sector, and has a significant contribution to improving the performance of this sector.

## **Implementation mechanisms:**

- 1- Determining the tourist sites or tourist services that need improvement (tourist places, tourist facilities, tourism workers, information and communication systems.
- 2- Determining the type of technology that responds efficiently to any of these services (cognitive technology, i.e. developing administrative and technical skills, production technology related to service devices and equipment, information and communication technology).
- 3 Verification of the foreign source supplying the required technology in accordance with what was previously mentioned.

The main benefit of implementing the recommendation: Obtaining the most economic and productive type of technology for the Iraqi tourism sector.

**Fifth recommendation**: Employing new tourism technologies in areas that contribute to improving the main technological capabilities (absorptive, operational, and investment), in order to improve overall tourism performance.

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### **Implementation mechanisms:**

- 1- Diagnose and identify the components and elements of the tourism industry that need to improve its performance (people, devices and equipment, information and communication systems) with the adoption of criteria of importance and priority
  - 2 Adopting a SWAT analysis to achieve the above point.
- 3- Determining the type of technologies that are compatible with the needs of developing and improving the performance of any component of the tourism industry that leads to improving the overall performance of the tourism industry (economic, social and environmental). The main benefit of implementing the recommendation is to improve the overall performance of the tourism sector or the tourism industry concerned with the aforementioned tourism technologies.

The sixth recommendation: Employing new tourism technologies to improve the capabilities of the tourism industry to learn and the ability to respond quickly to the development in the tourism sector and the change in its environment.

## **Implementation mechanisms:**

- 1 Diagnose and identify the aspects that are characterized by the weak acceptance of workers for new technology, and the slowness in learning the requirements for its implementation, or responding to new changes.
- 2- Determining the type of educational and training programs and training methods that further improve the knowledge and skills of people working in this field.
- 3 Follow-up and evaluation of the results achieved from point (2) above, to ensure improved performance in this area, which leads to the transition to the educated tourism organization.

The main benefit of implementing the recommendation: Achieving organizational learning speed in order to successfully confront unexpected situations and circumstances.

The seventh recommendation: Employing new tourism technologies (productive technologies in particular), to improve the operational performance of the tourism sector or the tourism industry.

## **Implementation mechanisms:**

- 1 Diagnose and identify the operational aspects (equipment and devices, service facilities, tourist sites, management and personnel) that require new production technologies to improve their performance.
- 2- Adopting the methods and procedures that are appropriate for each case (replacement of new devices and equipment, administrative and technical systems, advanced information and

communication systems, documentation systems, advanced educational and training programs), to ensure the actual improvement of their performance.

3- Follow-up and evaluation of the results of paragraph (2) above, to ensure the improvement of the operational performance of the tourism sector or the tourism industry, and the consequent improvement of the social and environmental performers. The main benefit of implementing the recommendation is to improve the operational performance of the tourism sector

The eighth recommendation: Employing new tourism technologies (particularly information and communication systems), to improve investment capabilities in the tourism sector.

# **Implementation mechanisms:**

- 1 Diagnose and identify (tourist sites, tourist facilities, tourist markets) that encourage (national or foreign) investment.
- 2 Adopting a benefit-cost analysis to determine the aspects that should be invested in, taking into account the importance and priority.
- 3 Follow-up and evaluation of the results of paragraph (2) above to ensure the expansion of the tourism sector or the tourism industry and improve tourism performance. The main benefit of implementing the recommendation is to achieve a deliberate expansion of investment in the tourism sector.

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