

## The impact of information technology on the design of distribution channels

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### ABSTRACT

The study aims to identify the impact of information technology on the distribution of services of tourist institutions in the city of Al-Kharj in the Kingdom of Saudi Arabia. The survey was concentrated on a number of institutions represented in hotels, restaurants and travel and tourism agencies. The results indicate that the information technology had no meaningful effect on the distribution of tourism services in Al-Kharj. A set of recommendations was also presented to tourism organizations represented in the image of using social media to distribute tourism services as well as using and activating the websites of tourist institutions themselves when making reservations for their services and the necessity of activating and using electronic payment methods.

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## 1. Introduction

The world has witnessed today a wave of rapid changes and developments, which have added its impacts on all levels of the economy, whether partial or overall, and at various levels. Specialists have agreed to call it globalization. We find that the most important component of making this privacy and excellence in it is information technology. Although, this term is made up of two broad concepts; namely information and communication. Despite their vastness and depth, they are closely related and interconnected. Without the information and its technologies, there would be no communication, and no means of communication would have been developed, and without communication and its technologies, the information would not have attained the importance that it is now. In addition, their interconnection has the greatest impact on the phenomenon that the world lives today, and one of its most important features is the elimination of spatial and temporal barriers, thanks to the internet, the fruit of information technology, which enabled the whole world to communicate and exchange information everywhere and at any time with the whole world. It also had great favor for changing the style and management of institutions. In order for the organization to be able to attract the largest possible number of customers and increase its effectiveness in the market in which it operates, it must search for the best ways and methods that enable it to improve its goods and services, simplify

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workflow procedures and upgrade the levels of worker performance. Then the institution can raise efficiency, which is reflected on the quality of goods and services with the needs and desires derived from the institutions. This is also reflected to what is known as the adoption of modern marketing thinking. Many organizations, including tourism organizations, started to get benefit from electronic marketing and were able to achieve unprecedented results in terms of increasing the market share, through the provision of advanced tourism services that achieve customers' satisfaction and provide them with the spatial and temporal benefit at the same time, by relying on advanced distribution channels that are distinguished by their superior ability to transmit data, such as cell phones and the internet, which enabled tourism organizations to develop their method of offering their services. In addition to that, they were able to reduce the costs of producing, displaying and distributing tourism with goods and services which led to a low selling price. The growing popularity of information technology and the developments and improvements which happen on the internet day after day, have made everyone's attention focus on the threat to disappear from the marketing mix, which is distribution. The role of intermediaries began to decline and disappear in facilitating the flow of goods and services from the product to the customer, based on the emergence of electronic markets, as an expected result of information and communications technology. Saudi tourism organizations, like other tourism organizations at the international level, have been concerned with information technology and included it in the processes of promotion and distribution of their services provided within the Saudi tourism market. This is on a way that guarantees the process of disseminating the needs and desires of its customers with accuracy. This is through achieving the customer satisfaction and gaining loyalty to the goods and services provided by these institutions to them through electronic means, and in a manner that guarantees high quality of the tourism product provided in Al-Kharj Governorate.

## **2. Study Problem**

The idea of studying this issue is demonstrated through a basic problem experienced by tourism organizations in the city of Al-Kharj in the Kingdom of Saudi Arabia due to the lack of interest in the subject of traditional marketing. This is associated with marketing in light of information technology, as the distribution of tourism services and the realization of spatial and temporal benefit to it is not satisfactory, and this is due to the nature of the tourist service on the one hand, and to the marketing mechanisms that follow in the tourism organizations in Al-Kharj city. On the other hand, we can express the problem of studying through the following question:

What is the impact of information technology on designing the distribution channels of services of tourist institutions in the city of Al-Kharj in the Kingdom of Saudi Arabia?

### *2.1 The hypothesis of the study*

This study seeks to test the following hypothesis:

There is no correlation relationship and statistically significant impact at the level of significance ( $\alpha \leq 0.05$ ) for information technology on the distribution of tourism services to tourism organizations in Al-Kharj city.

### *2.2 Study objectives*

The study aims to identify the impact of information technology on designing the distribution channels of tourism services in tourism organizations in the Saudi Al-Kharj Governorate and clarify the role that information technology plays in developing the distribution system for tourism services in a manner which works to achieve the common benefit of tourism organizations on the one hand and their customers on the other.

### *2.3 Study importance*

The importance of this study comes from the role that information technology plays in developing the tourism product and achieving its temporal and spatial benefit, which helps in developing the level of

tourism services offered by tourism organizations in Al-Kharj Governorate and thus working to satisfy customers' arguments and desires better than competitors, whether in other provinces or overall, in the Kingdom.

#### 2.4 Study methodology

The study depended on the descriptive analytical approach through presenting various concepts related to the subject of the impact of information technology on designing the distribution channels of tourism services through access to many books and previous studies related to the subject and also used many of the sites available within the internet and for tourism organizations in Al-Kharj city, and depended on a case study method where a special questionnaire was designed to answer study questions related to the impact of information technology on designing the distribution channels of tourism services in Al-Kharj Governorate.

#### 2.5 Study limitations

The study limitations are as follow:

**Objective limits:** The study examined the impact of information technology on designing the distribution channels of tourism services.

**Spatial limits:** This study was conducted on tourism organizations in Al-Kharj city in the Kingdom of Saudi Arabia.

**Temporal limits:** This study was conducted from September 2019 to March 2020.

#### 2.6 Study population & sample

The study population was represented by the tourism organizations operating in the city of Al-Kharj consisting of hotels, travel and tourism agencies, transport companies and restaurants. The study sample was randomly chosen from the study population where 60 tourism organizations were chosen and the questionnaire was distributed to them, and all distributed questionnaires were restored.

**Table 1**

Distribution of the study sample to tourism organizations in Al-Kharj Governorate \*

No.	Type of tourist organization	Number of organizations selected	Percentage 100%
1	Hotels	10	16.666
2	Travel and tourism agencies	10	16.666
3	Restaurants	20	33.333
4	Transport companies	10	16.666
5	Cafes	10	16.666
<b>Total</b>		<b>60</b>	<b>100%</b>

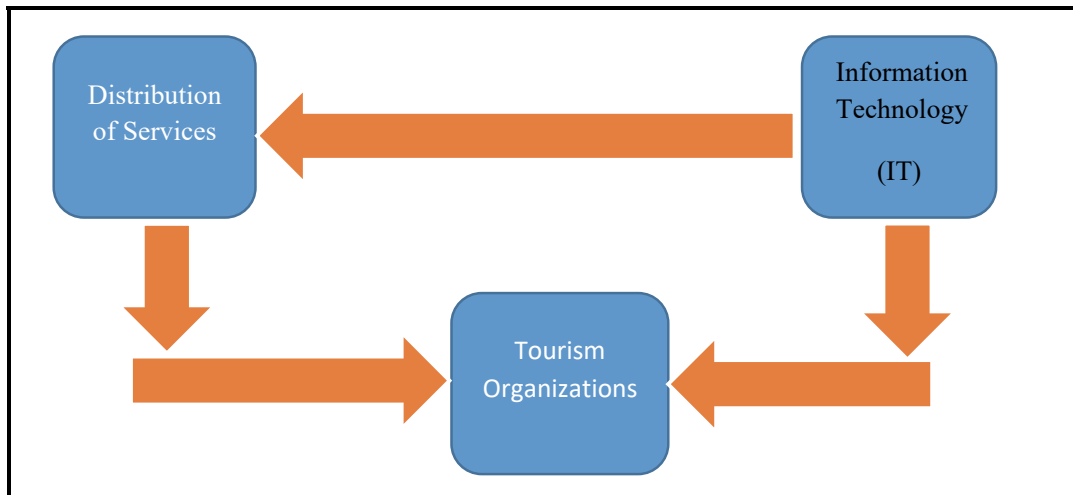
\*Prepared by the researcher.

#### 2.7 Study Tool validity & stability

As it was confirmed, the validity & stability of the study tool as follow:

**A- The study tool validity:** A questionnaire was presented to a number of arbitrators from the faculty members at (Prince Sattam University, King Abdulaziz University and Taiz University) to verify the validity of its paragraphs, where some suggestions were made and were taken when preparing the questionnaire in its final form.

**B- The stability of the study tool:** to find out the stability of the study tool, an internal stability equation method was used using the Alpha Cronbach test, where the values of the Cronbach Alpha for the questionnaire were 87,000 and this value is sufficient for the indications of scientific research.



**Fig. 1.** Study model

### 3. Literature Review

There are quite a few studies associated with the impact of information technology on designing tourism services distribution channels in general, but there is not a single study that addresses this issue at the level of Al-Kharj Governorate (Emadaldain, 2016) The study dealt with the role of information technology in choosing a marketing strategy and has concluded that there was a strong relationship between the type of technology used and the marketing strategy followed, and that there was a strategic role played by the followed marketing strategy by identifying the type of technology required in institutions and also stressed that information was an important strategic resource in the organization through its characteristics that lead to influence various activities of the institution. Al-kadifi (2014) investigated the impact of information technology on the marketing mix of service institutions, and found that there was a relationship between information technology and each of the different elements of the marketing mix. They believed the need to pay attention to the technological structure of service institutions and the need to work to introduce modern technological means, whether in terms of production or the management of these institutions. The study Al-taip (2014) dealt with the distribution policies in service institutions. It concluded that there was a relationship between the type of distribution policy used in the institution and the type of technological development that is involved in it and recommended the need to adopt modern methods and techniques used in distributing goods and services and using social media. Aklli (2019) examined the role of distribution policies in achieving competitive advantage in service institutions. There has been a role for distribution policies pursued by the institution in achieving competitive advantage when compared to other competitors in the same market, and recommended the need for excellence when preparing and designing distribution channels for the institutions' products, with the necessity of adopting modern styles of distribution channels that use modern technological means. Rabih (2018) investigated the impact of the internet on the distribution of insurance institutions services. The study concluded that there is an impact of the network on the delivery of parameters for insurance institutions as well as the impact on the distribution of services without the use of intermediaries and recommended that work should be done to increase the use of the network, the internet and replace it with the insurance brokers. Somaih (2018) examined the role of distribution policies in improving the competitiveness of institutions, and concluded that distribution contributes to improve the competitiveness of the institutions under study. The author recommended the need to pay attention to the type of distribution policy used by the institution and work to introduce modern means of distribution that depend on information technology. The study by Othmani (2018) aimed to determine the impact of the distribution policy on the market share of business

institutions, and the most important conclusion was the existence of an association relationship and impact between the distribution policy and market share, and presented a set of recommendations that focus on the role of a good distribution policy in increasing the market share of the enterprise. The study by Obaid (2018) dealt with the relationship between customers' satisfaction and the type of marketing strategy followed by the institutions. The study reached the customer that uses several dimensions to assess the level of quality of service that he actually gets, as the options varied in the use of marketing strategies, and each strategy of these strategies has specific features that can be applied to address a specific situation to achieve customers' satisfaction. AL-Hazmi and Alkhateeb (2020) dealt with the barriers of tourism marketing that affect the level of perceptions of the tourist about the tourism services provided by the tourism organizations in Al-Kharj Governorate, and recommended the need to pay attention to technological communication means and prepare a promotional message capable of raising the level of awareness among tourists about tourism services in Al-Kharj Governorate. While AL-Hazmi and Hassan (2020) tackled the barriers of applying Total Quality Management to the tourism product in Al-Kharj Governorate, and recommended the need to use technology to achieve and raise the quality of marketing tourism services in Al-Kharj Governorate. Al-Hazmia (2020) examined the dimensions of the quality of tourism services in Al-Kharj Governorate, and recommended the necessity of training workers in the field of providing tourism services in Al-Kharj and working to develop means of providing tourism services.

Through reviewing the previous studies, we find that most of them dealt with the impact of technology on the distribution of services or products that differ from tourism services and in regions that differ from Al-Kharj Governorate. From here, this study has the advantage of dealing with the impact of information technology on designing the distribution channels of tourism services to tourism organizations in Al-Kharj Governorate in the Kingdom of Saudi Arabia.

#### **4. Analytical side**

##### *4.1 Data analysis of the impact of information technology on designing the distribution channels of tourism services of tourist institutions in Al-Kharj Governorate*

To answer the study question related to the impact of information technology on designing the distribution channels of services of tourist institutions in Al-Kharj Governorate, an arithmetic mean and standard deviation were used, and Table 2 illustrates this. From the table, we find that Paragraph No. (11) which states “The organization uses advertising links in electronic tourist sites in order to distribute its services” came first with an average of 3.101 and a standard deviation of 1.091. This indicates that tourism organizations in Al-Kharj Governorate announce their services in electronic tourist sites in order to deliver their services to the beneficiaries wherever they are. While paragraph (8) which states, “The organization uses social networks to distribute its services (Facebook-Twitter-Whatsapp-tic-talk)” comes in second place with an average of 3.829 and a standard deviation of 1.521, which indicates that tourism organizations in Al-Kharj Governorate use various social communication methods to deliver their services to their customers and facilitate the reservation process for them. While paragraph (13) which states, “Electronic means are used in the process of paying for the services of the organization” with an average of 2.818 and a standard deviation of 1.098 indicates that tourism organizations in the Al-Kharj Governorate use electronic payment methods in a medium way and approaching a few. While paragraph (15) which states “The phone is used in reservations for the services of tourist institution” in the last rank with an average of 2.818 and a standard deviation of 1.071 indicates that tourism organizations in Al-Kharj Governorate do not always use the phone in the reservation and distribution process for their services with their customers and beneficiaries of their services. From Table 2 we also find that the average answers to the total paragraphs were 3.434 and a total standard deviation of 3.434 and this approximates to the mean in the sense that the use of electronic means in distributing tourism services to tourist institutions in Al-Kharj Governorate

was a moderate degree. These results indicate that the impact of information technology on designing the distribution channels of goods / services is in medium level from the point of view of the study sample individuals.

**Table 2**

It shows the results of data analysis on the impact of information technology on the distribution of services of tourist institutions in Al-Kharj Governorate

No.	Paragraph	Mean	Sd. Devotion	Degree (Approval) *	Sig.	Ranks
1	The tourism organization is using new cartoon distribution channels to distribute its services as the electronic broker channel by adopting a web page.	3.321	1.201	Medium	0.000	7
2	The distribution of the services provided by the organization in a manner download.	3.129	1.102	Medium	0.000	9
3	The services provided by the organization are distributed through the Foundation's website.	3.032	1.021	Medium	0.000	12
4	The tourism organization uses new electronic channels to distribute its services, such as catalog channels, and browse them to see the minute details of the tourism services it provides.	3.193	1.125	Medium	0.000	8
5	The organization's services are marketed through an organization specialized in Internet marketing (software - download).	3.534	0.349	High	0.000	5
6	The organization has a 24-hour online store.	3.431	1.300	Medium	0.000	6
7	Organization services are booked electronically and delivery is manual.	3.058	1.058	Medium	0.000	6
8	The organization uses social networks to distribute its services (Facebook - Twitter - Whatsapp - Tik Tok).	3.829	1.521	High	0.000	2
9	Some services are directly delivered because they cannot be delivered over the network (physical attendance to the hotel and overnight).	3.620	1.426	High	0.000	4
10	The organization uses online channels with customers to distribute its tourism services.	4.192	1.620	High	0.000	10
11	The organization uses advertising links on electronic tourist sites to distribute its services.	3.101	1.091	Medium	0.000	1
12	The organization uses email in the process of distributing its services to customers.	2.310	0.908	Low	0.000	3
13	Electronic means are used in the process of paying for the services of the organization.	2.818	1.098	Medium	0.000	14
14	The phone is used for reservations of tourist institutions services.	2.589	1.071	Medium	0.000	15
15	The services are distributed by institutions specialized in travel and tourism.	3.018	1.003	Medium	0.000	13
Total value		3.434	1.128	Medium	0.000	

\* (1 - less than 2.8) weak, (2.8 - less than 3.6) medium, (3.6-5) high

#### 4.2 Study hypothesis test

To test the study hypothesis, which states, "There is no correlation relationship and statistically significant impact at the level of significance ( $\alpha \leq 0.05$ ) for information technology on the distribution of tourism services to tourism organizations in Al-Kharj city.", one Sample T-test was used, as Table 3 shows the test results. We notice from Table 3 related to the results of the t-test for one sample, there is no statistically significant relationship between information technology and the distribution of tourism services in Al-Kharj Governorate, where the average answers to the paragraphs of the scale is 3.434, which is close to the default average 3.000, and proves the results of the test (t) for one sample: There are no statistically significant differences at the level of significance (0.05) between the average of answers and the mean of the default scale, where the calculated value (t) was (0.304) which is smaller than the tabular value (t) (1.412). Accordingly, we accept the null hypothesis which states there is no correlation relationship and a statistically significant impact at the level of significance ( $\alpha \leq 0.05$ ) for information technology on the distribution of tourism services to tourism organizations in the city of Al-Kharj.

**Table 3**

One Sample T-test is shown to identify the impact of information technology on designing the distribution channels of tourism services in Al-Kharj Governorate

Mean	Sd. Devotion	t. Critical Value	t. calculated value	Degrees of freedom df	Sig.*
3.434	1.128	1.412	0.304	36	0.710

\* Significant correlation at the level of significance ( $\alpha=0.05$ ).

#### 4. Conclusion and Recommendations

Based on an analysis of the results of the study, we have found that information technology had no effect on the distribution of tourism services to tourist institutions in Al-Kharj Governorate, and accordingly it is due to the level of technology used by these institutions in Al-Kharj Governorate, as most of them are still dependent on old means in the process of communicating with customers, or it is due also to the nature of the non-transportable tourism service, which requires the attendance of the beneficiary of the service to the place of production of the service itself, from here on the tourist institutions in Al-Kharj Governorate must keep up-to-date of technological developments. Also, work to introduce modern means in the distribution of their services through the use of social media to reach the target audience and activate electronic ads and activate the sites of tourist institutions on the Internet as well as dealing with electronic payment methods and the use of tourist websites for tourism agencies and institutions interested in tourism promotion in order to distribute tourism services and access on reservation for services provided from different regions that secure the spread and distribution of tourism services provided by tourism organizations in Al-Kharj Governorate in the Kingdom of Saudi Arabia.

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