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DEMAND OF A TOURISTIC TRIPS ON THE FRAME OF  
DIMINISHING MARGINAL UTILITY THEORY

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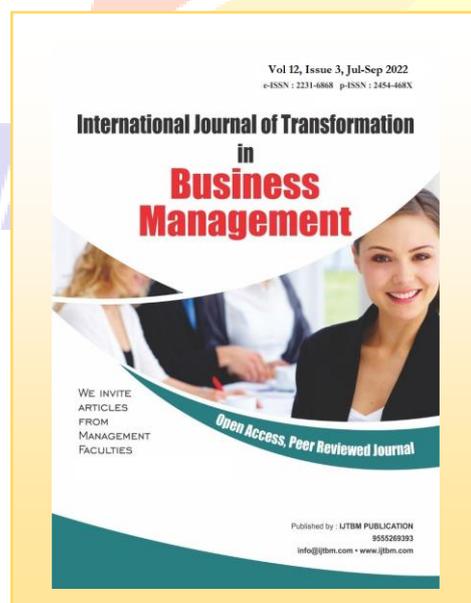
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### ABSTRACT

The research deals with the study and analysis linking the demand for tourist trips (tourism demand) and the theory of the diminishing marginal utility as an attempt to solve a fundamental problem within this framework, which is the absence of economic literature from referring to tourism services with other services and goods addressed in the interpretation of concepts of theory, In addition, the economic tourism literature is devoid of scientific studies that deal with this subject, except for the existence of theoretical hypotheses presented by Professor Ismail Mohammed Al-Dabbagh (\*) The theory of diminishing marginal utility applies to tourism services like other services and goods, but this assumption lacks practical and scientific proof. We will try to prove this hypothesis. The research tools for the use of the statistical program (Amos-24) were the statistical data obtained from the questionnaire distributed over the research sample.

The research concludes with the main conclusion of proving the main and subsidiary research hypothesis and that the demand for tourist trips is not subject to the applications of the diminishing marginal utility, and therefore a set of recommendations has been developed that contribute to important solutions within the framework of the study.

**Keywords :** *Tourism Demand; Tourism Trips; Marginal Utility; Total Utility; Diminishing Marginal Utility*

### INTRODUCTION

The science of tourism is relatively new to its origins, as it was recognized for the first time as a science in itself at the International Association of International Tourism Experts Conference held in Yugoslavia in 1972, at which time began to try to establish the foundations and rules of tourism theory, where these theories in the 1970 were limited to tourist literature.

The researcher Professor Ismail Al Dabbagh is one of the first pioneers in the field of introducing economic theories in tourism science, and the researcher Professor Ismail Al Dabbagh is one of the first pioneers in the field of introducing economic theories in

tourism science, which contributed to the development of the origins of tourism economics.

The problem of research is reflected in the extent to the theory of the diminishing marginal utility applies to tourism demand, as economists with the theory of marginal utility did not address the theoretical position on tourism demand and used examples of water, oranges and apples ... Etc. to convey the theoretical idea to the recipients, and its critics refer to the examples of money, ornaments, jewelry and artifacts as not applicable to the theory of marginal benefit.

Therefore, the task of research will be to prove or deny the hypotheses established in relation to the link between the theory of the diminishing marginal utility and tourism demand, through applied study and statistical analysis of research sample information, which was embodied in the test of honesty of the measurement tool (questionnaire) in a manner that authenticates the content compared to the peripheral, the test was used (Cronbach's Alpha)

To demonstrate the reliability of the data we obtained from the distribution of the questionnaire to the sample of the study, statistical analysis ends up using advanced statistical method to demonstrate the extent to which the main hypothesis is achieved using the application of the statistical analysis program (24-AMOS).

The study ends with a set of findings and recommendations that tourist's utility from to maximize their benefits from tourist trips to form a new quality and innovation that supports tourism economics.

### STUDY PROBLEM

The problem of research is reflected in the lack of an attempt to link of the theory of the diminishing marginal utility with tourism demand by economists with theory and critics of it, as they did not address the position of tourism demand from of the theory of the diminishing marginal utility.

The theoretical people use water, oranges and apples ... Etc. to convey the theoretical idea to recipients, critics refer to money, ornaments, jewelry and artifacts as not applicable to of the theory of the diminishing marginal utility and therefore will be studied through research the relationship between the theory of diminishing marginal utility and tourism demand to form a new addition to the development of tourism economics.

### STUDY AIMS

**The Main Aims:** Knowing the applicability of the theory of the diminishing marginal utility to tourism demand.

#### Sub- Aims:

- A. Knowing the applicability of the theory of the diminishing marginal utility to the number of trips a tourist takes as he achieves a new extra trip.
- B. Knowing the applicability of the theory of diminishing individual utility when the tourist stays in one tourist location during the implementation of the tourist trip.
- C. Knowing the applicability of the theory of diminishing individual utility when a tourist visits more than one location on a single tourist trip.

Note that all these goals are aimed at maximizing the utility gained to

tourists through the implementation of their tourist trips.

## STUDY HYPOTHESES

### The Main Hypothesis:

A. We assume that the theory of diminishing marginal utility does not apply to tourism demand ( $H_0$ ).

B. We assume that the theory of diminishing marginal utility applies to tourism demand ( $H_1$ ).

### Sub Hypotheses:

A. We assume that the theory of diminishing marginal utility does not apply to the number of tourist trips carried out whenever he achieves a new additional flight ( $H_0$ ).

B. We assume that the theory of diminishing marginal utility applies to the number of tourist trips carried out by the tourist whenever he achieves a new additional flight ( $H_1$ ).

C. We assume that the theory of diminishing marginal utility does not apply when the tourist remains in one tourist location during the implementation of the tourist trip ( $H_0$ ).

D. We assume that the theory of diminishing marginal utility applies when the tourist remains in one tourist location during the

implementation of the tourist trip ( $H_1$ ).

E. We assume that the theory of diminishing marginal utility does not apply when a tourist makes a visit to more than one location on a single tourist trip ( $H_0$ ).

F. We assume that the theory of diminishing marginal utility applies when a tourist makes a visit to more than one location on a single tourist trip ( $H_1$ ).

## FIRST APPROACH : THE THEORY OF DIMINISHING MARGINAL UTILITY

In the first aspect, we offer the conceptual framework of the theory of diminishing marginal utility through which consumer behavior can be interpreted in the choice of goods and services that it prefers and saturates its needs, which can contribute to the interpretation of the demand curve and its characteristics.

### Utility concept

The idea of utility has been used as a tool for analyzing consumer behavior since the end of the 19th century, where consumer behavior has been analyzed by economists such as Stanley Jevons (1835-1882), Leon Walras (1834-1910) and Carl Menger (1840-1921). Based on the idea that man always seeks to achieve as much pleasure as

possible with minimal pain, all his economic actions are therefore subject to the influence of these two variables. (1)

The three economists interpreted consumer behavior on the grounds that the utility could be measured by the number of units it received from the utility for consuming a particular commodity, which means that it is able to determine the number of utility units it receives as a result of its consumption of each commodity, it may give the consumer a kilo of apples (10) utility units and oranges (5) utility units. (2)

The utility theory shows that each commodity has a utility resulting from its consumption, and that it is this utility that drives the consumer to order the item, within the limits of its income and available potential. Utility. (3)

The utility is defined as ( **the consumer's sense of satisfaction or satisfaction when consuming different units of a commodity or a group of goods, and represents the level of satisfaction achieved as a result of the consumption of the individual one or units of a commodity he buys (4), and is also defined as ( a hidden force in things that can create satisfaction, and the happiness of the individual is measured by the size of the satisfactions he receives from his consumption of a range of goods and services) (5), which is (Consumer feeling or assessment of the amount of satisfaction achieved, which the consumer**

**feels when consuming a specific amount of a commodity or the amount of psychological satisfaction obtained from consuming a particular commodity).(6)**

The utility measure is used to measure the preference between goods and services offered in the market by the consumer, in this case the utility is considered a ( **numerical measure that determines the level of satisfaction achieved by individuals as a result of their consumption, which is expressed by the extent of the utility to them ) (7), so it is clear that the idea of utility is not an objective characteristic but a personal characteristic because it expresses a direct relationship between human and goods, and since it is subjective, it changes by changing individuals on the one hand as It also changes from time to time and even for one individual on the other hand (8).**

### **Total Utility**

Given the assumption that the utility can be measured, i.e. the possibility of measuring the satisfaction that a person receives as a result of consuming successive units of a particular commodity and within a certain period of time, the more quantity consumed, the greater the utility units he receives as a result of such consumption, until he reaches the full satisfaction limit at which utility units reach the highest possible level, and (the **number of utility**

units that the consumer receives as a result of consuming a specific quantity of a commodity and within a period of time). A certain time limit is known as total utility (10). It is also defined as the "total pleasure derived by the individual from consuming a certain amount of a commodity or service" (11). It is also seen as (total consumer consumption achieved by the consumption of successive quantities of the commodity over a certain period of time) (12). It is (the amount of satisfaction that the consumer receives when consuming successive units of the commodity) (13).

### Marginal Utility

The total Utility changes by changing the number of units consumed from the commodity as previously indicated, and that

(the amount of this change, whether it is an increase or decrease in the total Utility as a result of the increase in consumption by one unit) is known as Marginal Utility (14). It is also defined as (the amount of change in the total Utility resulting from the change in the amount consumed by a commodity in one unit and within a certain period of time), or it is (The Utility of the last unit consumed from the item or the additional unit), or the amount of change in the total Utility resulting from the consumption of an additional unit of the commodity. (15) It is seen as (the amount of gratification added to the total gratification when one additional unit of the commodity is added), and can be measured according to the following equation: (16)

$$\text{Marginal Utility (MU)} = \frac{\text{Change in total utility (TU)}}{\text{Change in the number of units consumed (Q)}}$$

$$\text{MU} = \frac{\Delta \text{ TU}}{\Delta \text{ Q}}$$

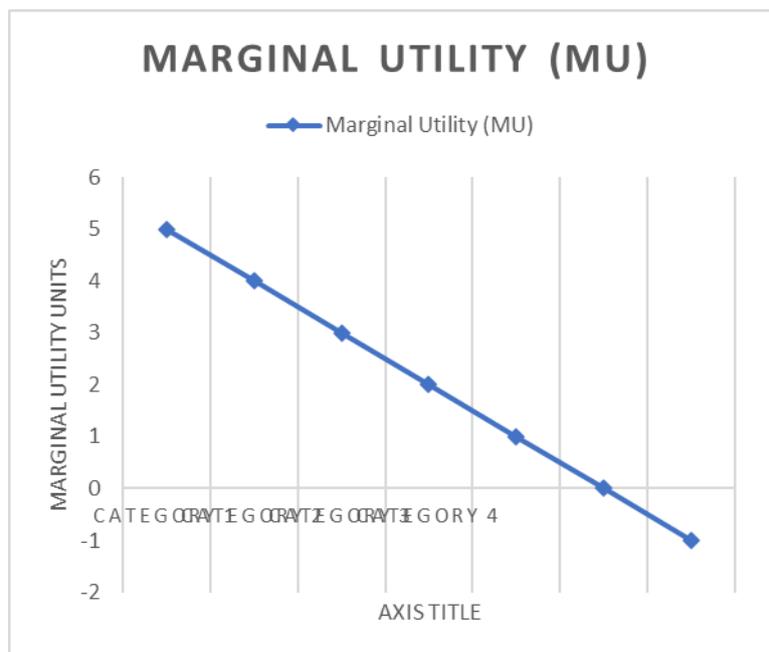
To clarify, we use the following table ( 1 ) :

**Table ( 1 ) Total and marginal Utility**

Marginal Utility (MU)	Total Utility (TU)	Consumed units (Q)
5	5	1
4	9	2
3	12	3
2	14	4
1	15	5
0	15	6
-1	14	7

show this Figure ( 1 )

Figure (1) marginal utility curve



Thus, it is clear that there is a close relationship between marginal Utility and total Utility where through this relationship can be known and measured when knowing the other, if we know the amount of the marginal Utility resulting from the consumption of a certain number of units of the commodity, we can know the total Utility achieved by the consumer, considering that the total Utility is only the sum of the marginal Utility and that the increase of the total Utility at a decreasing rate is only a reflection of the decrease in marginal Utility.(17)

The relationship between both the marginal Utility (MU) and the total Utility (TU) can be summarized by the following points:

1. total Utility increases and to declining degrees if the marginal Utility is positive.
2. The total utility is maximum when the marginal Utility reaches zero.
3. The total Utility begins to decrease when the marginal Utility becomes negative.

That relationship can be clarified by Figure (2).

Figure (2) the relationship between total Utility (TU) and marginal Utility (MU)



*Source: Prepared by researcher based on: Ibrahim Suleiman Qatif and Ali Mohammed Khalil, Principles of Microeconomics, First Edition, Al Hamid Publishing House, Amman- Jordan, 2004, p. 154 .*

### The Law of Diminishing Marginal utility

Based on the characteristics of human needs, it can be said that the amount consumed from a particular commodity increases until the stage of full satisfaction, but any increase after that limit does not increase the degree of Utility and satisfaction achieved by the consumer, but rather leads to a reduction due to the resulting continuation of consumption - after the full satisfaction limit - of distress and discomfort felt by the consumer, in other words, if the consumer continues to take other units of the commodity and after the limit of full satisfaction, The Utility will turn into a negative Utility (18).

We note from table (1) and figure (2) that the main feature of the marginal Utility is its submission to the law of marginal Utility decrease, which means that the marginal Utility reflects the amount of satisfaction added by the single unit of the commodity and this level of satisfaction gradually decreases as the number of units consumed of the commodity increases, meaning that each additional unit of the commodity adds a measure of Utility at a lower rate than the previous unit and this decrease continues until the Utility fades i.e. becomes zero This means that the consumer has reached the maximum possible level of satisfaction, but if the consumer goes beyond this level, the marginal Utility becomes negative. (19)

Economists explain why the marginal utility has decreased to two reasons:

1. Goods cannot be complete alternatives to each other, as each commodity has certain characteristics that make it suitable for satisfying one or only a limited number of needs, so increasing the amount consumed from a

commodity for a specified time must lead to a decrease in its marginal Utility.

2. There is no human need that is not gratifying, and because it is, the Utility also decreases until it reaches zero at the point of full satisfaction. (20)

### Consumer Balance

One of the objectives of the research is not to follow the consumer balance using the theory of marginal Utility, so we will review the balance equations only briefly as follows:

- 1- Consumer balance in the event of a single commodity:

The balance is based on the following equation:

Marginal Utility gained from the commodity = the marginal Utility sacrificed

The fact is that the marginal Utility sacrificed is the income of the consumer and thus the equation is:

Marginal Utility gained from the commodity = marginal Utility of money (income sacrificed)

- 2- Consumer balance when there is more than one commodity:

Here there must be two conditions:

**First** : The marginal Utility of the goods consumed must be commensurate with their prices as in the equation:

**Marginal utility of a good ( X1) \ Commodity PriceX<sub>1</sub> = Marginal utility of a good ( X2) \ Commodity PriceX<sub>2</sub> = Marginal utility of a good ( X<sub>n</sub>) \ Commodity Price (X<sub>n</sub>)**

**Second** : The need to equalize consumer income with total spending on the purchase of goods.

In other words, the consumer cannot exceed the possibility of his disposable income (Y).

( Quantity of goods X1 × commodity price X1) + ( Quantity of goods X2 × commodity price X2)+( Quantity of goods Xn × commodity price Xn)=(income)

$$Y = ( QX_1 \times PX_1 ) + ( QX_2 \times PX_2 ) + \dots + ( QX_n \times PX_n )$$

## THE SECOND RESEARCH: THEORY OF THE DIMINISHING MARGINAL UTILITY IN TOURISM ECONOMICS

### Introduction:

In 1972, at the International Association of World Tourism Experts conference in Yugoslavia, the science of tourism, which later became a flag in itself, was recognized for the first time, starting with the foundations and rules of tourism theory (22) and then developing and branching out a range of other sciences such as tourism economy, tourism planning, tourism management, etc.

In the 1970, tourist literature was on the fingers of the hand, and pioneers began to make their scientific contributions to the development of tourism science. One of these efforts was the work of researcher Ismail (al-Dabbagh) in the early 1980 in developing the origins of tourism economics through the use of economic theories to develop the science of tourism.

With regard to the theory of marginal utility, (al-Dabbagh) referred for the first time to the use of the theory of marginal utility in his printed lectures (Lt.), which

were taught in the Department of Tourism/University of Mustansiriyah. (24).

### The use of the theory of marginal utility in analyzing the behavior of the tourist

I have drawn many criticisms of the theory of marginal utility. But it remains a scientifically sober theory. But the foundation on which the tanning was based has an exception. Some critics of this theory have pointed out that the orientation of some of the goods is an exception to the law of diminishing marginal utility such as postage stamps, ornaments, jewelry and money. They did not refer to tourism services because the demand for them was in line with or an exception to the decreasing marginal utility law.

### The difference between consumer and tourist behavior

has been diagnosed with the following: (25)

- 1- The theory of marginal utility assumes a homogeneity and similarity between the units of the commodity consumed, the first orange is similar to the second and third ... Etc. But is the tourist trip to

Istanbul similar to the tourist trip to Mecca or Cairo? The answer is no.

- 2- The theory speaks of cheap goods available to the majority of consumers according to normal material possibilities (income) such as oranges, apples.. etc. and the consumer can buy a large amount of them with limited income. But the prices of tourist trips are very high and expensive and only those with high incomes accept it. This means that the consumer can reach the state of satisfaction from his consumption of oranges, but is it possible to reach the satisfaction of tourist trips, the answer is no.
- 3- The theory did not pay attention to the leisure worker, and this factor is not an obstacle to buying oranges and apples. Etc. The time factor is one of the obstacles and important determinants of tourist demand (26 ), and the tourist must give up his commitments at work as well as his social commitments temporarily in order to be able to embark on the tourist trip.
- 4- The theory suggests that if the consumer over consummates many units of the commodity up to the satisfaction limit and if it continues it will reach the stage of pain, i.e. the marginal utility will be negative. But in tourism, the tourist does not reach the stage of satisfaction, so

how can he reach the stage of saturation with negatives.

- 5- The usual consumer does not need the experience factor in buying oranges or apples. however

The experience and knowledge factor plays an important role in increasing the marginal utility of the tourist. Experience comes through frequent tourist trips as experience accumulates as the tourist achieves a new extra trip and becomes more able to use his money and time by maximizing utility units as he achieves a new extra trip. Through five differences we can say that the paths of normal consumer behavior differ from that of a tourist. The applications of the diminishing marginal utility law may differ in analyzing the behavior of the tourist.

#### **Applications of marginal utility theory on tourism demand**

Al-Dabbagh found three applications for theory on tourism demand and as follows: (27)

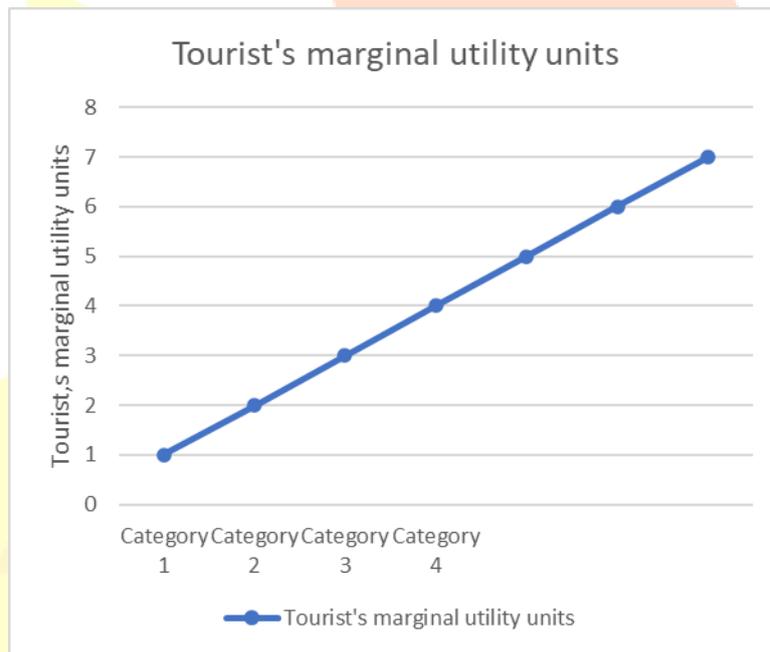
#### ***The direction of the marginal utility curve in the case of the participation of the tourist in multiple trips:***

In this case, the experience factor plays an active role in determining the course of the curve. The accumulation of experience from the frequent implementation of tourist

trips enables the tourist to use his money and time to achieve satisfaction on the current trip greater than the previous trip, and thus the direction of the marginal utility curve of the tourist is upwards contrary to the curve of marginal utility for other

goods. This is supported by the fact that the homogeneity and similarity between cruises is different from one trip to another and each trip offers a new flavor to the tourist. As in figure 3:

**Figure (3 ) direction of the tourist's marginal utility curve when carrying out a number of tourist trips**

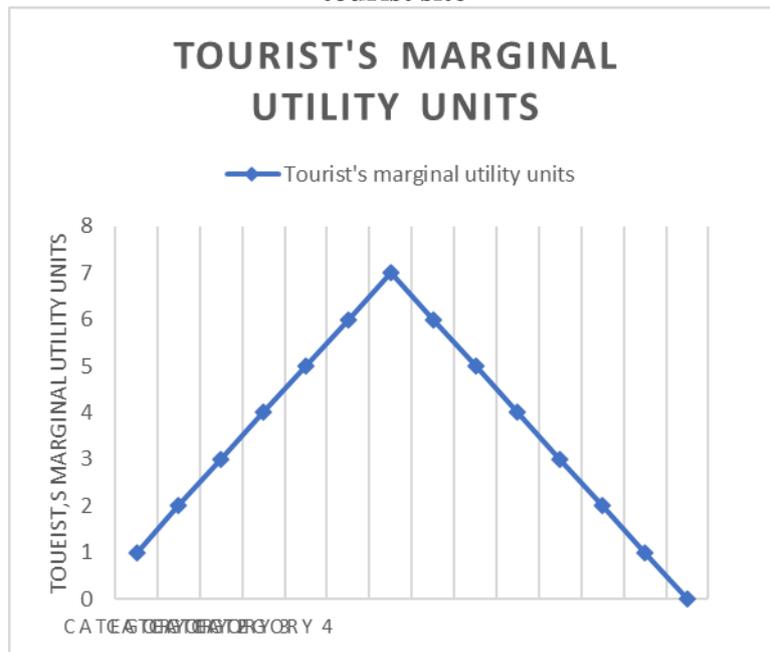


***The direction of the marginal utility curve in the trip to one tourist site :***

The first day of the tourist trip is one of the hardest and most difficult days of the tourist trip, which includes packing bags, preparing documents of passports and tickets, moving to the airport of departure and travel procedures, then reaching the reception airport as well as check-in

procedures and then reaching the tourist area. All this suffering leads to a significant reduction in the marginal utility of the first day of travel to zero or perhaps below. The marginal utility then begins to escalate day after day until the tourist achieves his visits to all tourist places near the residence site (up to satisfaction), after which the marginal utility begins to decrease as in figure 4:

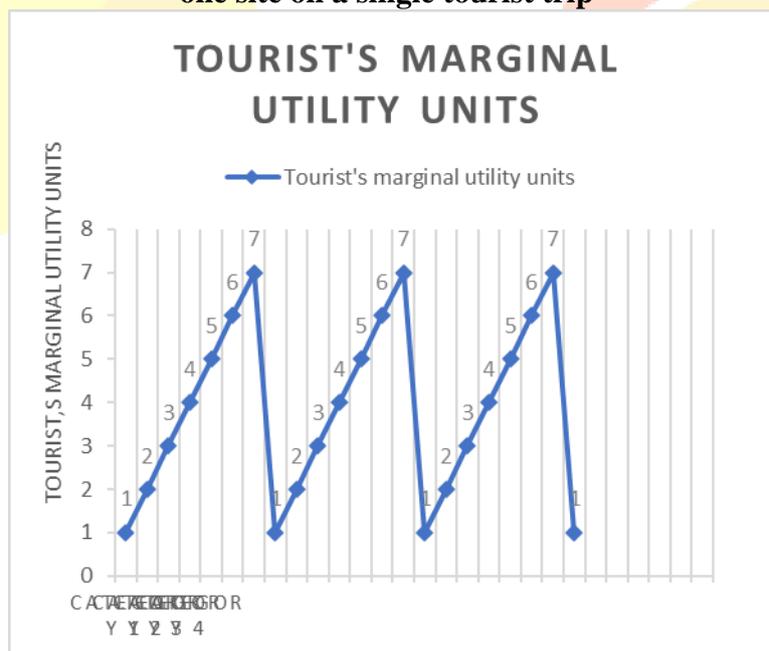
Figure ( 4) direction of the tourist's marginal utility curve when remaining in a single tourist site



*The direction of the marginal utility curve in the case of visiting more than one site on one tourist trip :*

The marginal utility curve begins in a low state due to the difficulty of travelling on the first day and then escalates and before it reaches the state of satisfaction moves to another tourist site as the marginal utility decreases to zero during the transition process and then rises and so on as in figure (5)

Figure (5) the direction of the marginal utility curve of the tourist when visiting more than one site on a single tourist trip



Thus, it is clear that the trends of the tourist's marginal utility curve vary in three cases with the usual consumer.

### THE THIRD RESEARCH: STATISTICAL ANALYSIS OF FIELD STUDY

#### Study Sample :

For the purpose of achieving the objectives of research and testing hypotheses, the purposive sample (28) has been adopted, as the following two basic conditions must be met:

- 1- The individuals participating in the sample must have achieved domestic and outdoor tours.
- 2- The individuals participating in the sample should have studied the theory of marginal utility and are usually majors of the faculties of management and economics as the subject of the principles of economics is taught in all departments of the college.

As for the number of sample members, given that the search is limited in pages, we have chosen (how to determine the percentage of society that supports a position) (29) under the following law:

$$N = \frac{P(1-P) Z^2}{r^2}$$

Where:

N = sample size

P = the percentage of society that supports the situation and usually imposes 50%.

P-1 = The percentage of society that does not support the situation and we usually impose 51%.

Because 50% = 50% - 100%.

Z = the appropriate standard mark for the moral level and assume it's 95% and this number is matched in the tables Z (1.96 )

r = error limits allowed and we impose it 10%.

$$N = \frac{0.50(1-0.50) [1.96]^2}{0.10^2}$$

This brings the number of sample members (96.04) individuals and for ease we will adopt (100) forms distributed to the sample members.

**Methods and statistical measures used in research :**

**Weighted Mean:** A value that gives a preliminary meaning to the nature of the data and is used to determine the level of respondents' answers to questionnaire paragraphs and is expressed in the following equation:

i. 
$$\bar{X} = \frac{\sum xiwi}{\sum wi}$$

ii. As:  $xiwi\sum$  = collectible (multiply all views \* corresponding weight),  $wi\sum$  = sample size

**Standard deviation:** Used to measure the dispersion of the study sample's answers to its computational medium, i.e. the homogeneity of the sample answers, expressed in the assent:

$$S = \sqrt{\frac{\sum_{i=1}^n (X_i - \bar{X})^2}{n - 1}}$$

**Relative importance:** The relative importance is the relative weight of the average, and we get it from the division of the computational medium of each phrase at the highest degree taken by the five-year lykert scale.

**Data on the sample members and the number of their trips :**

For the purpose of giving an idea of the specifications of the participating sample members, we use the following table (2):

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Table ( 2) Participating sample specifications

		60 years and over	50-59	40-49	30-39	20-29	the age
		12	19	28	31	10	
		Doctor	Master	diploma High	Bachelor	diploma	Certificate
		33	35	2	28	2	
marketing	engineering	Count	Administration Work	accounting	economy	tourism	Specialization
3	3	5	20	4	17	18	
				other	English	language Car	
				16	6	8	
					Foreign trips	Domestic trips	Number of trips *
					843	1526	
Lebanon	Egypt	UAE	Jordan	Syria	Iran	Turkey	Countries that have traveled
27	19	12	40	65	36	64	
other	France	U.S.A	Britain	Malaysia	Saudi Arabia	Azerbaijan	To her **
14	2	2	3	4	12	7	

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\* Represents the number of domestic and foreign flights carried out by individuals The sample, The total is not equal to the number of sample members.

\*\* Represents the countries to which individuals have travelled The sample, The total is not equal to the number of sample members.

**Validity and reliability Test :**

**Validity test:** Validity means the extent to which the paragraphs in the resolution measure the phenomenon to be measured, and that one of the best ways to measure Validity is the method of Validity of the content by means of peripheral comparison, which depends on the need to make the sequence of resolution data either descending or ascending, and then withdraw from the upper section twenty-seven percent and from below the equivalent of the same percentage, followed by an application for test (-T) test to demonstrate the sincerity of the questionnaire paragraphs to represent the well-studied phenomenon, the result of the test will result in the availability of the Validity requirement in the questionnaire

paragraphs according to the method of validity of the content by peripheral comparison in case the probability value sig. corresponding to the calculated T value is below the level of morale used in the study of (0.05), as the results of table (3) exceed all the variables of the questionnaire to successfully test Validity, as it constituted a value of 0.05, as indicated by the results of table (3) overcoming all the variables of the questionnaire to test Validity successfully, as it constituted a value of T calculated for all the paragraphs of the questionnaire (21.633) which is moral because the corresponding probability value is equal to (0.00) which is smaller than the moral level of (0.05), and at the same time confirmed table (3) the validity of the paragraphs of each of the three axes of resolution.

**Table (3) results of the content validity test for the questionnaire items**

commentary	T-TEST		Resolution variables
	Value Probability sig	Calculated T value	
The result of the test establishes the sincerity of variable vertebrae causes the increased marginal utility of the tourist as he achieves an additional new journey	0.00	16.468	Reasons for the increased marginal utility of the tourist as he achieves a new extra trip
The result of the test entrenches the sincerity of the vertebrae Variable causes of the marginal utility curve of the tourist when remaining in one tourist location during the single trip	0.00	14.687	Reasons for the marginal utility curve of the tourist when staying in one tourist location during the single trip

The result of the test entrenches the sincerity of the vertebrae Variable causes of the zigzag curve of the marginal utility of the tourist when visiting more than Tourist site on the same trip One	0.00	18.178	Reasons for the curve of the tourist's marginal utility curve when visiting more than one tourist site on the same trip
The result of the test reinforces the sincerity of the resolution paragraphs.	0.00	21.633	Total resolution paragraphs
T scheduling reached ( 2,000) at a moral level			

*Source : Prepared by the researcher according to the results of the statistical analysis*

**Reliability test:**

It means the reliability of the data we will obtain from the distribution of the questionnaire to the sample members, thereby establishing the possibility of obtaining the same results if the resolution is distributed twice in two spaced times to the sample members divided, at the expense of the reliability factor in the manner (Cronbach's Alpha), where the value of the Alpha Kronbach reliability factor for the total resolution paragraphs (0.9276) confirms that the questionnaire has successfully achieved the reliability requirement, while table (4) Provides reliability in the three search variables.

**Table (4) Results of the reliability Test by Cronbach's Alpha method**

Researcher's Comment	Coefficient value Alpha Kornbach	Study variables
Paragraphs of this variable Pass the reliability test successfully	0.844	Reasons for the increased marginal utility of the tourist as he achieves a new extra trip
Paragraphs of this variable Pass the reliability test successfully	0.765	Reasons for the marginal utility curve of the tourist when staying in one tourist location during the single trip
Paragraphs of this variable Pass the reliability test successfully	0.865	Reasons for the curvace of the tourist's marginal utility curve when visiting more than one tourist site on the same trip
Resolution paragraphs Pass the reliability test successfully	0.927	Total resolution paragraphs

*Source : Prepared by the researcher according to the results of the statistical analysis*

**Test the increased marginal utility of the tourist whenever he achieves an additional new journey :**

The average computational value of this variable was 4.663, which is greater than the hypothetical average value of (3) which represents the boundary between the agreement and the non-agreement according to the five-year Lykert scale, and with a standard deviation recorded (0.56562), confirming the dispersion of data from its

computational medium, while the relative importance was recorded 93.26%, thereby establishing the agreement of most sample members on this variable as in table 5.

This means the validity of the A-2 hypothesis, as it has been shown that the decreasing marginal utility theory does not apply to the number of tourist trips carried out whenever he achieves a new additional trip, and even increases, and the curve takes an escalating form from the bottom left to the top right.

**Table ( 5) The level of importance of the causes of the increased marginal utility to the tourist as he achieves a trip  
Extra new**

Icon	Reasons	Mean	Standard deviation	Relative importance %
Q1	The number of tourist destinations, as he can choose a new tourist site on each additional trip.	4.67	0.58698	93.4
Q2	The diversity of tourist destinations, as there is a difference between the sites according to the tourist components contained in the tourist site.	4.74	0.54346	94.8
Q3	Accumulating the experience that the tourist gets whenever he achieves an additional new tourist trip so that he can use his money and time better than the previous trip.	4.63	0.48524	92.6
Q4	The pleasure a tourist gets varies from tourist trip to tour.	4.7	0.482	94
Q5	Tourist satisfaction cannot be reached and the tourist has options to change tourist locations and styles on each additional trip.	4.77	0.4462	95.4
Q6	Tourist satisfaction cannot be reached because the tourist does not deal with homogeneous tourist trips just as the consumer consumes extra homogeneous units just like apples or oranges.	4.62	0.54643	92.4
Q7	The variety and diversity of tourist styles chosen by the tourist. In the first trip, he may choose recreation tourism, second sports tourism and religious tourism in the third ... Etc.	4.62	0.58223	92.4
Q8	High tourist travel costs prevent tourists from reaching the level of tourism satisfaction.	4.73	0.5096	94.6

Q9	Limited tourist income prevents tourists from reaching the level of satisfaction from tourism.	4.62	0.64792	92.4
Q10	The lack of time for tourists prevents the tourist from reaching the level of satisfaction from tourism.	4.77	0.48938	95.4
Q11	The difficulty of obtaining visa attributes to all countries freely prevents tourists from reaching the level of tourism.	4.54	0.84591	90.8
Q12	The difference in the natural factor between tourist sites pushes the tourist to make more tourist trips.	4.75	0.5	95
Q13	Different customs and traditions among peoples push the tourist to make more tourist trips.	4.65	0.70173	93
Q14	Different cultures and civilizations between countries push the tourist to make more tourist trips.	4.56	0.7152	91.2
Q15	A love of renewal and change drives the tourist to make more trips.	4.68	0.46883	93.6
Q16	A love of knowledge and increased knowledge drives the tourist to make more trips.	4.56	0.49889	91.2
X1	Reasons for the increased marginal utility of the tourist as he achieves a new extra trip	4.663	0.56562	93.26

*Source : Prepared by the researcher according to the results of the statistical analysis*

**Testing the reasons for the challenge of the marginal utility curve of the tourist at the same tourist location during the single tourist trip:**

The computational average value of this variable (4.655) was greater than the value of the hypothetical medium (3), which represents the boundary between spending and non-expenditure according to the five-year Lykert scale, and with a standard deviation recorded (0.61769), which is hardly a dispersion of data on its computational

average, while the relative importance (93.1%) was recorded, which establishes the agreement of most sample members on this variable as in table (6)

This means the validity of the P-2, as it has been proven that the theory of decreasing marginal utility does not apply when the tourist is broadcasting in one tourist location, instead of the marginal utility curve descending from the left to the bottom right, taking the form of a convex curve that rises in the first days and then decreases thereafter.

**Table (6) The level of importance of the reasons for the challenge of the curve of the marginal utility of the tourist When staying in one tourist site during one trip**

Icor	Reasons	Mean	Standard deviation	Relative importance
Q17	Researchers believe that the first day of the tourist trip is a very difficult day due to the anxiety and difficulty of packing suitcases and the hard time spent by the tourist as he moves from the permanent residence to the tourist site. Therefore, the marginal utility that the tourist receives from the first day is zero or perhaps negative.	4.8	0.4714	96
Q18	The marginal utility of the tourist increases from the second, third and next days by carrying out tours at the same tourist site.	4.71	0.60794	94.2
Q19	After staying for a long time in the same tourist site and visiting all its attractions, the marginal utility of the tourist begins to decrease.	4.6	0.58603	92
Q20	The long stay of the tourist in the same tourist site loses the pleasure of change and renewal which leads to a decrease in the marginal utility of it.	4.64	0.50292	92.8
Q21	The arc of marginal utility is convex from tourist to tourist depending on the tourist's taste, age and material potential. Young people, for example, are bored for a shorter period of time than the elderly if they stay at the same tourist site.	4.54	0.61002	90.8
Q22	The arc of marginal utility is convex by type of tourist trip, as it is prolonged in the pattern of medical tourism, for example, and falls short in the pattern of religious tourism, for example.	4.64	0.65935	92.8
Q23	The arc of marginal utility convex varies according to the nature of the tourist site and its attractions and attractions, so the arc is lengthened if the site enjoys a varied tourist offer, and shortens if the tourist offer is limited.	4.61	0.60126	92.2
Q24	The arc of the marginal utility convex varies according to the area of the site and the presence of multiple and varied tourist sites at close distances, so it is long to stay if the area is large and shortens if the area is small.	4.74	0.54346	94.8
Q25	Whatever the area and beauty of the tourist site, the marginal utility of the tourist will eventually begin to decrease.	4.65	0.84537	93
Q26	The marginal utility of the tourist is reduced to zero or below on the last day of the tour on the day of return home and the tourist will have the same difficulties on the first day of the tour.	4.62	0.74914	92.4
X2	Reasons for the marginal utility curve of the tourist when he stays in one tourist location during the same trip	4.66	0.61769	93.1

*Source : Prepared by the researcher according to the results of the statistical analysis*

**Test the causes of the zigzag curve of the marginal utility of the tourist when visiting more than one tourist site on the same tourist trip:**

The computational average value of this variable (4.79) was greater than the value of the hypothetical medium (3), which represents the boundary between spending and non-expenditure according to the five-year Lykert scale, and with a standard deviation recorded (0.47944), which is hardly a dispersion of data on its

computational average, while the relative importance (95.74%) was recorded, which establishes the agreement of most sample members on this variable as in table (7)

This means the validity of satisfaction (T-2) as it has been proven that the theory of decreasing marginal utility does not apply when the tourist makes a visit to more than one location on a single tourist trip, as the form of the marginal utility curve takes a curvy shape rising and falling during the journey of one life.

**Table (7) The level of importance of meandering in the marginal utility curve of a tourist when visiting more than one tourist site in the same trip**

Icon	Reasons	Arithmetic medium	Standard deviation	Relative importance %
Q27	It is normal for the marginal utility of the tourist to be zero or below on the first day of the trip as we indicated earlier.	4.81	0.52599	96.2
Q28	The marginal utility of the tourist rises in the following days after the first day of arrival.	4.82	0.47948	96.4
Q29	Before the tourist's marginal utility curve begins to fall, it will move to a new tourist site and on the day of the move, the marginal utility will be reduced to zero or below due to the hardship and trouble of travel.	4.69	0.66203	93.8
Q30	The same process is repeated at the second and third locations and other sites if found on the same flight.	4.75	0.64157	95
Q31	A tourist will be more marginally beneficial if the tourist is taken to more than one location during a single tourist trip compared to staying longer in only one location.	4.85	0.38599	97
Q32	To transport the tourist between more than one tourist site in one trip avoids boredom and provides him with more fun and more units of marginal benefit.	4.79	0.43333	95.8
Q33	To transport the tourist between more than one tourist site in one trip is more suitable for the youth category than the age group because it requires physical efforts available to young people and may not be available to the elderly.	4.74	0.46319	94.8
Q34	The style of navigating more than one tourist site on the same trip provides the tourist with	4.82	0.38612	96.4

	more experience and cumulative knowledge to better use his money and time on future trips.			
Q35	The tourist style based on visiting more than one tourist site per trip is more suitable for group cruises packed than individual trips, considering that the tour company is responsible for reservations in accommodation and the provision of transportation and all other requirements.	4.75	0.45782	95
Q36	This type of tourist trip fits with many different tourist styles such as religious tourism, cultural, recreation, ... Etc. It is contrary to medical tourism, ice skating tourism, conference tourism and some patterns that make it imperative for the tourist to stay in one tourist location.	4.85	0.35887	97
X3	Reasons for the curvace of the tourist's marginal utility curve when visiting more than one tourist site on the same trip	4.79	0.47944	95.74

*Source : Prepared by the researcher according to the results of the statistical analysis*

One of the results of the test of the three sub-hypotheses can be reached if the hypothesis (a) is correct, which states that the theory of diminishing marginal utility does not apply to tourism demand.

**CONCLUSION AND RECOMMENDATIONS**

**Conclusions**

- 1- The theory of marginal utility is based on the decreasing marginal utility law, which provides for a decrease in the marginal utility of the consumer whenever he eats an additional unit of the commodity, and the theory has clarified the justifications for this decrease.
- 2- According to the decreasing marginal utility law, the marginal utility curve is falling from the top left to the bottom right, reflecting the reverse relationship

between the units consumed and the marginal utility.

- 3- Although there are many criticisms of the theory of marginal utility, it remains a scientifically sober theory and applies to all goods and services except in limited cases.
- 4- The research found a difference between consumer and tourist behaviour, which was limited to five differences, raising doubts about the applicability of the theory to tourism demand.
- 5- The research has shown that tourism demand is an exceptional case of declining marginal utility theory and by testing three cases:

A. The marginal utility of the tourist increases as he achieves an additional new journey other than what is stipulated in the decreasing marginal utility law, which means

that there is an escalation in the tourist's marginal utility curve, contrary to the marginal utility curve of the average consumer.

B. If the tourist stays in one tourist location, the marginal utility increases in the first days and then begins to fall so that it takes the form of a convex arch unlike the marginal utility curve of the regular consumer, which is falling from the top left to the bottom right.

C. If the tourist moves to more than one tourist location per trip, the marginal utility will increase and then land several times as he moves to a new tourist site so that the tourist's marginal utility curve takes the form of a zigzag curve between up and down, reversing the marginal utility curve of the regular consumer, which is falling from the top left to the bottom right.

### Recommendations

Through research, recommendations can be made to tourists to maximize the marginal and total utility to them as follows:

1- Diversification in tourist trips and processing of homogeneity, we recommend that tourists not repeat their tourist trips to a particular country or tourist site because this repetition leads

to the homogeneity of the tourist trips achieved and eliminates diversification and thus reduces the units of benefit. Changing tourist sites ensures an increase in utility units.

2- Knowledge and accumulation of experience, we recommend tourists who are new to tourism to travel by group trip several times before travelling on individual flights. To gain experience and knowledge in how to invest time and money in order to maximize utility units.

3- Invest the tourist trip better by visiting several locations during the single tourist trip and preferably not staying in one tourist site for more than one week to move to a new tourist site in order to maximize the utility units.

4- Diversifying the patterns and forms of tourist trips and not remaining in the practice of one style or form, one time he travels for medical tourism, another for summer tourism and another for exhibition tourism ... Etc. this will maximize utility units.

5- We also recommend that the tourist take care of the material economic aspects so that he has the ability to obtain more gained benefits than sacrificed and it is okay to see the theory of marginal utility in economic literature.

6- We also recommend that the tourist see the general level of prices and exchange

rate in the country he intends to visit and choose which countries are in line with his income level in order to maximize the benefit.

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