

# The innovative intention in the Tunisian tourism

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## Abstract

Within the scope of this paper, we seek to identify factors that significantly affect the "innovative intention" at the level of decision makers in the field of Tourism.

Actually, we focus on developing a model relating the *Intention to Innovate* with six major determinants pertaining to Tunisian tourist industry. Using Principal Components Analysis (PCA) and Discriminate Analysis (DA) as two statistical tools to test this model, we have reckoned it necessary to conduct a self-administered survey by means of a questionnaire administered during the spring 2009, with a sample comprising 103 Tunisian touristic companies specifically located in the regions of Sfax, Monastir, Mahdia, Sousse and Hammamet.

**Keywords:** Innovative intention; determinants; tourism industry; entrepreneurial attitude.

## 1. Introduction

Innovation in tourism is a multifaceted phenomenon, particularly in terms of ICT and the Internet. Tourism itself is also a complex activity. An analytical framework able to embrace all the dimensions of innovation in tourism is required to enable a synthetic and homogenous assessment of their evolution over time (Benedicte, A., Rani, J. D., Longhi, C., 2010).

Schumpeter (1942), the founding father of entrepreneurship, greatly highlights the paramountly importance aspect of innovation. He deeply believes that innovation and entrepreneurship are two inseparable concepts.

Actually, the importance of innovation lies in the fact that it is the greatest value-generating source enabling the

entrepreneur to guarantee durable success (Fayolle.A & Verstraete.T, 2005). Many authors confirm this worth mentioning view, among whom is Drucker (1991) who strongly believes that innovation is a guarantee of the organisations' survival and the development. Inversely, its absence causes systematic organisations' obsolescence.

Fayolle and Filion (2006), claim that "an entrepreneurial project without innovation is like a car without an engine."

At this function, one might well wonder what about the tourism sector in Tunisia?

Relying on recent theoretical developments in terms of service-innovation procedures in tourism industry, we aim at identifying the main factors

which influence the innovative behavior as regards this sector. Hence, some adequate solutions could be reached to resolve the problem of innovation shortage persisting in Tunisian tourism industry.

Noteworthy, owing to the fact that this sector's innovation implies a diversity of determinants, it may be classified into several types (Sintes, F., & Mattson, J., 2009). These two later types of determinants are intended external.

To note, in 2008, Tunisia has hosted more than seven million visitors (+4.4% compared to 2007) making it the second destination on the African continent after South Africa. (Hamrouni, A., 2009).

The touristic sector contributes six % to the national GDP (Gross Domestic Product) and 12% of total current national revenue. It represents 14% of total exports in goods and services (and therefore the largest source of foreign currency exchange) and employs 382 400 peoples (direct and indirect) (Hamrouni, A., 2009).

At this level, innovation constitutes a competitive advantage. Identifying the major determinants of intention for innovation among managers of the Tunisian tourism companies becomes the corner stone and subject matter of the present research.

Actually, innovation in tourism activities is often misunderstood due to the uniqueness and particularities of this constantly growing sector. Besides, it worth noting that there is a lack of research concerning the tourism sector management model.

The tourism sector is a large wide field. Indeed, it encompasses numerous sub-sectors (for instance the hotel sector, catering sector, the travel sector ...), which converge and diverge in some points. Several ranges of innovation have been discovered regarding this area and each has its own special characteristics: medical tourism, cultural tourism, sports, sea or desert adventure. Other kinds of innovative projects and activities regarding tourism can be stressed at this level such

as : a new sport or cultural services ; setting up a club for children and luggage transfer ; the introduction of new information technologies and communications likely to facilitate tourists' stay by enhancing some financial operations , and , for instance, implementing hairdressing salons and traditional cooking and clothes shops for both men and women within the hotel facilities.

All these features have not prevented touristic firm managers and owners from introducing some innovations in a bid to increase the number of customers and to face competition both nationally and internationally. Innovation in tourism will be further discussed in detail in the coming section.

## **2. Innovation products and services in the tourist industry**

The hotel and related services may undergo several innovation procedures including a technological response to face competition. Fievet (2005) has shown the importance of introducing ICT on hotels stressing that: "With the introduction of the Internet in hotels, the supply rate has been extended".

As regards, the restaurant must, in turn, have to introduce innovation as it is the only guarantee for customer-base attraction. These facts are strengthening the competitive advantage and generating a more added value to its services. To confirm this idea, it is worth mentioning the case of MC Donald's, the globally well-known restaurant. Actually, it has been rewarded on April the 14<sup>th</sup> 2008 by a program dubbed "Creating Innovative Products".

In fact, this restaurant is investing nowadays in the societal side reducing visual pollution caused by throwing packaging anywhere.

We can, also illustrate an other innovative service applied by the travel agency to satisfy customer needs. It is the "Go Speed", a new internet services aimed at

providing all the immediate real-time, a dynamic service on the Go Travel as a powerful point to cope with their customers' demands.

As it is the case with the other sub-components, a car rental agency, it is worth mentioning the case of Europ Car as the most famous agency in Europe. In fact, to satisfy the desires and needs of its customers aged between 21 and 55 years and over, Europ Car offers a wide range of products and services such as vehicles without any driving license requirement (micro car) and scooters.

Along with the other touristic industry companies, firms operating in the thalassotherapy center have witnessed major changes intended to provide a variety of better promoted new services. The following two examples may illustrate such innovations: On the hand, one can refer to Spa Marine Carnac Thalasso & Polynesian and Amazon Spa Resort which have established such innovative and efficient rituals of care and hygiene as Wrap with coconut pulp and cotton dust. On the other hand, one might also refer to Douarnenez Thalassotherapy which offers wax wraps of cocoa / coffee, or honey. All these innovation are settled on the light of the strategic choices. Dealing with core competency and uniquely designed products and resources. The successful touristic strategy based view should be resources (Sherry, E., & Teece, D., 2004).

### **3. The intention to innovate**

On one hand, executives as well as high-rank officials and members dealing with hotel organization governance should try to stress the importance of innovation strategy. On the other hand, the tourism sector is full of opportunities and has a great potential for further growing development and promotion.

Organizations valuing innovation can put structures and incentives in place to cultivate an innovative climate to help prevent "brain drain" and the consequences of having employees leave to set up new, potentially competitive ventures (Lena Lee & al, 2011).

This requires the concerned executives to pioneer innovation to be able to maintain their competitiveness. Yet, a major problem persists in inducing these tourist companies to have this challenging spirit which hinders the promotion of this sector, namely, the lack of the intention to innovate. For hotel managers, the too main reasons why tourists visit tourist companies are, above all, cultural and financial incentives.

Consequently, for the purpose of kindling their interest and stirring their enthusiasm about the paramount importance of innovation, it seems necessary to schedule regular training sessions and intensive programs for them in this particular area of skill. As it is often the case with any sector, innovation has always been motivated and stimulated by different various factors depending on how mature the business company is and its strategy.

### **4. The conceptual model of tourism innovation:**

Nobody can deny that thinking to innovate and pioneering challenging promotions in a tourism company is strongly related to certain stimulating factors likely to enhance adventure skills, challenging spirit and affect the willingness to innovate in this sector. So, we will analyse six factors which are, in our mind, the most relevant of this phenomenon. Before this, we represent, now, a model giving by Ming-Chih Tsai & al (2010) which approximates to our research. This model connects the adoption of innovation with four determinants which are Complexity, relative advantage, organisational readiness and supply chain integration.

#### **See Figure 1 (appendix B)**

Nevertheless, this model remained incomplete. This will lead us to enhance more and more this latter.

#### **a. The core competency impact**

The concept of "competence" or ability to innovate, persist and compete of the tourist company has been extensively labeled by Sintès and Mattson (2009). In their study dealing with innovation determinants in the hotel sector in "Balearic Islands". They argued that the key success factor remain distinctive competency. They mainly argue that the size of the tourist firm has a positive impact on innovation.

Indeed, Hjalager, AM., (2002) found that tourist firms are the largest central innovators. Noteworthy, above all, are the assets, described by Sintès and Mattson (2009) as being "the physical capacity of the touristic companies".

Sintès and al (2005) have discovered that the use of physical assets influence innovation decisions.

Sintès & Mattsson (2009) have also announced that "providing additional services to increase demand and diversify customers can be achieved through innovation."

The cited authors also note that integration into a channel (or group) of touristic companies is a factor which has been the subject of some debates among researchers who have studied its impact on innovation and performance in the tourism sector.

From another perspective, Munier (1999) has mentioned that: « the most important of competencies, are the relational competencies, in the innovation process. Innovation is not only R&D (Research & Development) but is often supporting by networks and relations that differ according to the size of the firm ».

Ajzen (1985) has demonstrated that the intention for action depends on our believe and motivation.

For us, we believe strongly that the characteristics or skills within tourism companies mentioned above have led us to raise the following hypothesis:

**H1:** The competences of tourism companies positively influence the intention to innovate in this industry.

### ***b. The consumption innovation impact***

Perceived as the first person whose innovation has to be mostly addressed , the customer (in general) or more particularly the tourist, is a person like the others, endowed with skills and characteristics that every tourism firm has to take into consideration on deciding or taking steps to innovate. Jones PA (1996), Johns and Mattsson (2003) and Preissl (2000) have underlined the importance of considering the role of customer service innovation.

As for, the booking method, it is the way how the customer makes application to be given or offered the services he wants. This kind of reservation has significantly changed with the implementation of information technologies and communication (ICT) in the tourism industry, for instance booking airline tickets through the Internet or e-booking.

Sintès & Mattsson (2009) have deeply studied and investigated this reality. They stressed the importance of the relationship prevailing between the reservation by the tour operators and tourism innovation.

The distinction between a local tourist agency and foreign one is intended for the purpose of being aware of whether the touristic companies' senior managers do take this factor into consideration on when intending a deciding to innovate in their institutions. In this respect, Rauch (2003) has studied the peculiarities and uniqueness of the tourism sector.

For instance, as reception has become profession that needs to be learned and training, it should therefore reflect the customers' perception. Boisseau and al (2007) have developed a professional standard stressing the advantage of the receptionist profession while depicting its foundations.

The importance of customers' perception of how assistance, direction, guidance and advice are offered and presented to them obliges us to integrate it in the touristic customer service strategies as a factor that can have a major impact on

innovation in the tourism industry of any country.

Certainly, among the important criteria for change in this business consists in the customers' purchasing power (Debos, F, 1997).

Lukas & Ferrell (2000) pointed that the environment turbulence affects also the innovation strategy of touristic firms. To cope with these changes and to innovate, their strategy should be market oriented (Lukas & Ferrell, 2000).

This led us to consider the whole environment and not just the customers' one. We believe from the foregoing, of the following hypothesis:

**H2:** The tourism consumers' features have a positive effect on innovation in touristic companies.

### ***c. The effect of Marketing***

Sintes and Mattsson (2009) argue that: « Indeed, a strategic decision the firm is to differentiate itself from competitors may affect productive resources, services, organisation and management of operations and therefore the decision of innovation ».

Seeing the importance of competition factor in our subject case, we shall deal with the marketing mix or the four Ps affecting this area. In any mix marketing strategy, the first interest is the customer-oriented product or service design intended to gain a more competitive advantage.

Secondly, it will be very crucial for tourist companies to consider of about how to communicate innovations. Of course, innovation is highly expensive and costly procedure for the tourist company. It's related to the unit cost and may also increase the unit selling price regarding the quality of services labeled five or more stars.

To cope with Porter generic strategy (1980) and set for a leadership price, each tourism business can find other means appropriate to apply a suitable price for as an innovated product/ service. Actually, caring about prices is the crucial concern

of all businesses as it represents the turnover (income or revenues). Leadership cost strategy depends also on the strategic group belonging. This practice legitimates the market price whether in the case of decreasing or increasing it. This is called in marketing the effect of market place which can be innovative or not. Besides, we also distinguish the effect of customer psychology that can encourage or not the innovation. Hence we face the consumption innovation. At the third level comes the product impact on the price practices.

The fourth major element regarding marketing is the place. It deals with the manners and ways to exhibit, display or more precisely how to present innovation as much as possible for customers to benefit from.

These arguments allow us to test the following hypothesis:

**H3:** The marketing mix strategy has a positive impact on the touristic companies' intention to innovate.

### ***d. The employment status impact:***

It is worth noting that such factors as work experience, educational & hierarchical level, and training courses have been highlighted by some studies as necessary elements to explain innovation in tourism firms.

In this same subject, it can be given another paradigm. It is that Zinkhan and al (1987) have considered that, in addition of the employment status, « the individual differences had a cyclical influence on implementing innovations in any organisation »

Even if there are no agreements between researchers in this relationship between the employment status and touristic innovation, we are satisfied that:

**H4:** The employment status of touristic companies' managers highly influences the intention to innovate.

**e. The impact of tourism entrepreneur:**

Having an entrepreneurial character dealing with tourism innovation is a very broad and significant term to be defined. Indeed, there are several features and qualities that each individual should possess and acquire to become an innovative entrepreneur.

Among these characters, one can note: taking the initiative, risk taking patience, tenacity, innovation, bravery guts, and adventure spirit. However, three paramountly necessary qualities are most and foremost required as essential for innovators such as: calculated risk-taking, recognizing and fulfilling opportunities and willing to create a new entity and value. In his definition of the entrepreneur, McClelland (1961) states that the entrepreneur is "a dynamic person who takes calculated risks." As for, Cramer and al (2002), declare that "the attitude to risk affects the selection of individuals into entrepreneurial positions". Indeed, we reckon it as important factor that innovation does not automatically lead to success, due to some imminent obstacles that might likely to be encountered. So, if the innovator did not take this calculated risk, he can not go further, advance or make greater steps with the process of innovation.

As Fayolle & Filion (2006), state: "Identifying business opportunities is a critical activity of entrepreneurs".

This leads to a belief that a qualified entrepreneur must necessarily enjoy this quality. In our study, we will try to highlight the importance of this factor, as touristic innovation is but an opportunity that each firm must identify, seize and exploit in the most appropriate time before it could reach its rivals who are likely to make ready and easy profits. This is called "The pioneer advantage". Moreover, creating a new entity or organisation is an entrepreneurial paradigm in itself. Bygrave and Hofer (1991) state that: « The entrepreneur is someone who seeks an opportunity and creates an organisation to exploit it ».

In this respect, we intend to check whether this situation could influence innovation in tourism as another prospective purpose of innovation is to create a new entity. This quote from Sharma and Chrisman (1991) confirm such point of view: « Entrepreneurs are individuals or groups of individuals acting independently or as an affiliate of an organisational system that create new organisations or implement innovations in an existing organisation ». Entrepreneurial attitudes in our research field deals with launching touristic innovation.

Even if a controversy exists between researchers in this issue, we believe that: **H5:** The entrepreneurial attitude of touristic firm's can positively influence the intention to innovate in this field.

**f. The impact of the tourism environment**

It is a well-known fact that the tourism sector is highly sensitive to any disturbances and changes likely to may take place either nationally or globally (Rauch, 2003).

Consequently, innovation in this sector is primarily affected by the national investment climate available for touristic companies. Indeed by the desire to innovate and create new opportunities, such firms' managers take the necessary steps to urge governments to help them, for instance, to innovate by setting new information and communication technologies. Besides, the vulnerability of this sector is affected by the establishment of protection and social security measures. Like other economic sectors, tourism is very sensitive to social factors and situations. Actually, social unrests, instability, turbulences and the lack of favorable conditions are among primary factors which hinder tourists from visit other countries.

Designing an innovation means finding new ways and opportunities adapted and consistent with the customers' habits and

lifestyles who are the first concerned by such creativities.

However, exterior happenings and occurrences are strongly correlated with the local touristic sector such as economic or financial crises, political unrests and wars.

Hence, the following hypothesis can be further discussed:

**H6:** The perception of touristic companies' responsibilities of the environment highly influences the intention to innovate in tourism.

## **5. The big picture**

In this paper we will try to confirm or infirm our hypothesis. Our research remains hypothetic deductive. The determinants of the intention to innovate and the relations between these variables are given in this picture.

**See Figure 2 (appendix B)**

## **6. Methodology**

### **a. The sample:**

Our sample isn't hazard. To note, the survey was conducted by means of questionnaire administrated during the spring of the year 2009. It comprises 30 items and is measured with Likert scale encompassing 7 levels: From "quite disagree" to "strongly agree". As for this study's relevant population, it involves 150 Tunisian tourist firms, while the sample consists of 103 responding companies which have accepted to fill in this questionnaire, with a response rate of 68, 66% specifically got in the cities of Sfax, Monastir, Mahdia, Sousse and Hammamet. The distribution of the tourism firms is given in the figure three. The sample allocation is realised according to the activity and to the regions as follows:

**See Figure 3 (appendix B)**

### **b. The variables of the model:**

Noteworthy, there are two categories of variables:

a- **Dependent Variable:** Intention to innovate denoted INI, a measurable variable to which a variable value or score can be attributed ranging from one touristic firm to another. Then it will be transformed into a dichotomous variable bearing two values, one or zero. In fact, in the case where the value is lower than the variable's median, we would consider that the intention to innovate is low, therefore, equals to zero. Inversely, if the value is higher than the median, the intention to innovate will be considered strong, hence, will equal to one.

b- **Independent variables:** They are six in number, covering the major determinants of "the Intention to innovate" in the tourism industry. The "intention" scale is made of the sum of marks relative to the following tips : The touristic firm competences ( $x_1$ ) ; the tourist's characteristics ( $x_2$ ) ; the mix marketing ( $x_3$ ) ; the employment status ( $x_4$ ) ; the entrepreneurial attitude ( $x_5$ ); the tourism environment ( $x_6$ ).

### **c. The data analyses methods:**

In this work, two data-analysis methods have been applied, namely: At the first stage, the PCA (Principal Component Analysis): Comprising a large number of correlation factors (30), constituting the items of each independent variable. To reduce their number and compact the information, we have resorted to the SPSS Software (version 13 in French) to able to implement the PCA method. At a second stage, the DA (Discriminate Analysis): It is defined as a statistical technique that aims at describing , as well as predicting membership in predefined groups ( more innovator and less innovator touristic companies ) of a set of observations (individual) from a series of predictors (descriptors, exogenous variables : Determinants of the intention to innovate).

The conceptual model of our research should look as follows:

$$INI = \alpha_0 + \alpha_1 * x_1 + \alpha_2 * x_2 + \alpha_3 * x_3 + \alpha_4 * x_4 + \alpha_5 * x_5 + \alpha_6 * x_6 + \mu$$

Where:  $\alpha_0$  is the constant of the model and  $\mu$  is the error term.

## **7. The data Analysis**

To check whether a strong relationship does exist between the explanatory variables and the membership group, we have to undergo a test of equal group means. In an exploratory approach, we have applied an algorithm selection step for the sake of determining the corresponding intention to innovate, this leading us to construct the linear function D to discriminate between two groups of tourist companies:

Group n°1: Touristic firms with a low intention to innovate.

Group n°2: Touristic companies with a high intention to innovate.

The selection of factors explaining the intention to innovate is based on estimating their discriminating power. Our pursued method selected to estimate the discriminating power is the multivariate Wilks' Lambda.

The results of the equal-group-average test are given below.

### **See Table 1 (appendix A)**

The depicted results reveal that the Intention to Innovate can be explained via the six selected variables, which are all significant at the one % and five % thresholds and the  $F > 5.913$ . It is also indicated (by this table) that the relevance of the variable "customer characteristics", through the Fisher's F highest = 20.634, with a risk of error nearing zero %. Thus, "customer characteristics" appears to be an important factor of innovation for Tunisian tourism. This allows us to distinguish between two types of touristic firms; by depicting that the most innovative companies are those which take into account their customers' characteristics.

Similarly, Table 1 shows the relevance of the variable « touristic firm's skills or competencies » with a Fisher's F = 16.162 and an error probability near to zero. This variable is often applied and criticised by a large number of researchers in the field of innovation.

Thirdly, regarding the variable "entrepreneurial attitude" with Fisher's F, it is equal to 11.926 and may cause an error = 0.001 = 0.1%. This clearly explains that the three features chosen to measure the entrepreneurial attitude (Taking calculated risk, the recognition and exploitation of business opportunities and the desire to create a new entity borne internally or externally) are deeply-rooted and considered by Tunisian touristic firms authorities. To remediate this situation, it is suggested that the entrepreneurial culture (which is relating to innovation) should be firmly, deeply and quickly set in the conscience and conception of Tunisia's touristic firm's responsible and decision-makers.

In the fourth, fifth and sixth positions, respectively, come the variables "mix marketing", "tourism environment" and "employment Status" which have the following respective corresponding means.

At this level, Fisher's F = 11.647, 6.283 and 5.913 and a risk of error = 0.001 = 0.1%, 1.4% and 1.7%. In this way, the six variables appear to be efficiently applied to make a clear distinction between firms with "low intention to innovate" and those with "strong intention to innovate" but with different levels of distinction.

The Discriminate function is:

$$D = 0,579x_1 + x_2 + 0,575x_3 + 0,579x_4 + 0,403x_5 + 0,514x_6$$

**(Look at appendix A – table 2 - )**

## **8. Discussion**

It is worth noting that the six determinants of the intention to innovate, depicted in this study, are willingly selected and applied for their relevance to explain this

phenomenon in so far as Tunisian tourism industry is concerned.

As a matter of fact, the main findings have highlighted the effects of these six determinants on the Tunisian innovative intention along with the possibility of classifying the touristic companies' officials into two groups: The first of which enjoys a high intention to innovate while the second is characterized with a low innovative intention.

Hence, the depicted results reveal that the Intention to Innovate can be explained via the six selected variables, which are all significant at the one % and five % thresholds and the  $F > = 5.913$ . It is also indicated that the relevance of the variable "customer characteristics", through the Fisher's F highest = 20.634, with a risk of error nearing zero %. Thus, "customer characteristics" appears to be an important factor of innovation for Tunisian tourism. This allows us to distinguish between two types of touristic firms; by depicting that the most innovative companies are those which take into account their customers' characteristics.

The variable "customer characteristics" has an F of Fisher which is the highest = 20.634. The result found by "F.O. Sintes" and "J Mattson" (2009) clarify that the "customer characteristics", factor has a positive impact on an innovative behavior in the Icelandic hospitality industry.

This has a real resonance for the tourism sector innovation which has long been based around the customer experience, requiring close interaction between producers and consumers (Shaw, Bailey, & Williams, 2010). In this framework, tourists are seen as operant rather than operand resources. The latter accords with the passive role of consumers as a market to be identified analysed and targeted in marketing promotion campaigns (Allan, M. W., Gareth, and S. 2011).

This confirms the importance of consolidating this factor in the innovative conception of Tunisian tourism.

It is also noticeable that, at the second level, the variable "touristic companies competences", turns out to be, with a Fisher's,  $F = 16.162$ . This highlights the importance of further expanding this variable for the purpose of innovating Tunisian tourism. As an illustration of this, F O Sintes & J Mattson (2009) have achieved the same result and argue that: "Probably in hotels, economies of scale are less relevant. Then the size can reduce the establishments' flexibility to change the service output".

Firms are recognised, as being: "repositories of competences, knowledge, and creativity, as sites of invention, innovation and learning": (Amin & Cohendet, 2004, p. 2).

Thirdly the variable "entrepreneurial attitude" comes with Fisher's F equal to 11.926. Erlend Nybakk and Eric Hansen (2008) in their study on innovation in the tourism businesses in Norway have found that entrepreneurial attitude has a positive effect on innovation such firms and largely contributes to improve performance by increasing net income. They also declare that managers of these firms can earn a lot by setting up a favorable entrepreneurial climate.

As regards the other variables (i.e. the mix marketing, the socio-political environment and the employment status), they also, appear to be highly relevant for tourism innovation throughout this research study.

The marketing-mix is an important factor, though it might be often difficult to sensitise the potential customer of the newly applied product / service utilities. Consequently, touristic firms have to pursue an effective promotional strategy to achieve this goal. Indeed, innovation does contribute well in providing these companies leaders with a competitive advantage. This aim will be reached only if these leaders enjoy professional qualifications and only if stability prevails in their countries in the socio-political environment. Eda Gurel & al (2009), in their study of "tourism students' entrepreneurial intentions" find that both the UK and Turkey might need to develop

educational, socio-economic and political frameworks that will enable tourism students to exploit their innovative and risk-taking entrepreneurial qualities.

This empirical study clearly reveals that among 103 Tunisian tourism companies only 52 appear to be highly innovative. **(Look at appendix A – table 3- )**

Therefore, the use of discriminating analysis is interesting as the percentage of correct classification of all touristic companies has amounted to 68.9%. Each misclassification creates a cost likely to be generated by an incorrect decision. Indeed, in case public institutional investors intend to know whether tourism companies have a strong intention to innovate or not, it would be better for the classification error to be minimised. It is therefore necessary to minimise the cost engendered by the incorrect classification of the relevant elements. For this reason, it is worth mentioning that all the selected variables proved valuable in diagnosing the major determinants of innovation for tourism. Yet, the subject of touristic innovation remains still not fully examined or covered since other variables need to be included in the model (for the simple reason of data shortage).

As matter of fact, these variables pertain to the psychological state of the officials operating in tourism which strongly depends on the management style, the climate factors, the touristic firm financial position as well as the global economic and politic situation (economic crisis, for example). Besides, innovation turns out to become a strategic intangible asset for the tourism officials. It can promote company performance and stand as a weapon to face brutal competition and rivalry prevailing in this sector.

As far as Tunisian firms are concerned, the “customers’ characteristics” are recognized by the most officials as being a crucially and paramountly important reason or factor to innovate. In fact conciseness and awareness of the

entrepreneurial process is a requested impetus for tourism managers to innovate even more.

As for our ultimate recommendations, it is noticeable that the concept of “tourism” is very broad and several dimensions and sub sectors are involved. To be limited only to six predictors of Intention to innovate in tourism can not fully, entirely and definitely explain the innovation strategy with all the relevant details and aspects.

The Intention to innovate is but a first step in a durable ever lasting process wide in scope. Actually, we reckon consider the other perspectives constituting the whole process a topic research for a future study and further investigation.

Lastly, we close up by stressing that the issue of studying the major determinants of touristic innovation is a recent subject. Moreover, the achieved results concerning the Tunisian context are paramountly important for executives to make and seize the most appropriate decisions. Last but by no means not least, it would be necessary to establish a model comprising both qualitative and quantitative explanations for the Tunisian tourism innovation as a perspective for a prospective research work.

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## Appendix A

Table 1: Equality tests of group means

	Lambda of Wilks	F of Fisher	ddl1	ddl2	Meaning
The tourist firm competences	,862	16,162	1	101	,000
The customer characteristics	,830	20,634	1	101	,000
The marketing-mix	,897	11,647	1	101	,001
The employment status	,945	5,913	1	101	,017
The entrepreneurial attitude	,894	11,926	1	101	,001
The tourism environment	,941	6,283	1	101	,014

Table 2 : Matrix structure

	Function
	1
The customer characteristics	1,000
The employment status	,579
The tourist firm competences	,576
The marketing-mix	,575
The tourism environment	,514
The entrepreneurial attitude	,403

Table 3: Results' Classification

GROUP		Class(es) of expected affectation		
		Tourist companies with low Intention to innovate	Tourist companies with high Intention to innovate	Total
Original Sample	Tourist companies with low Intention to innovate	32	19	51
	Tourist companies with high Intention to innovate	13	39	52
% of different kinds of companies	Tourist companies with low Intention to innovate	62,745	37,254	100
	Tourist companies with high Intention to innovate	25	75	100

## Appendix B

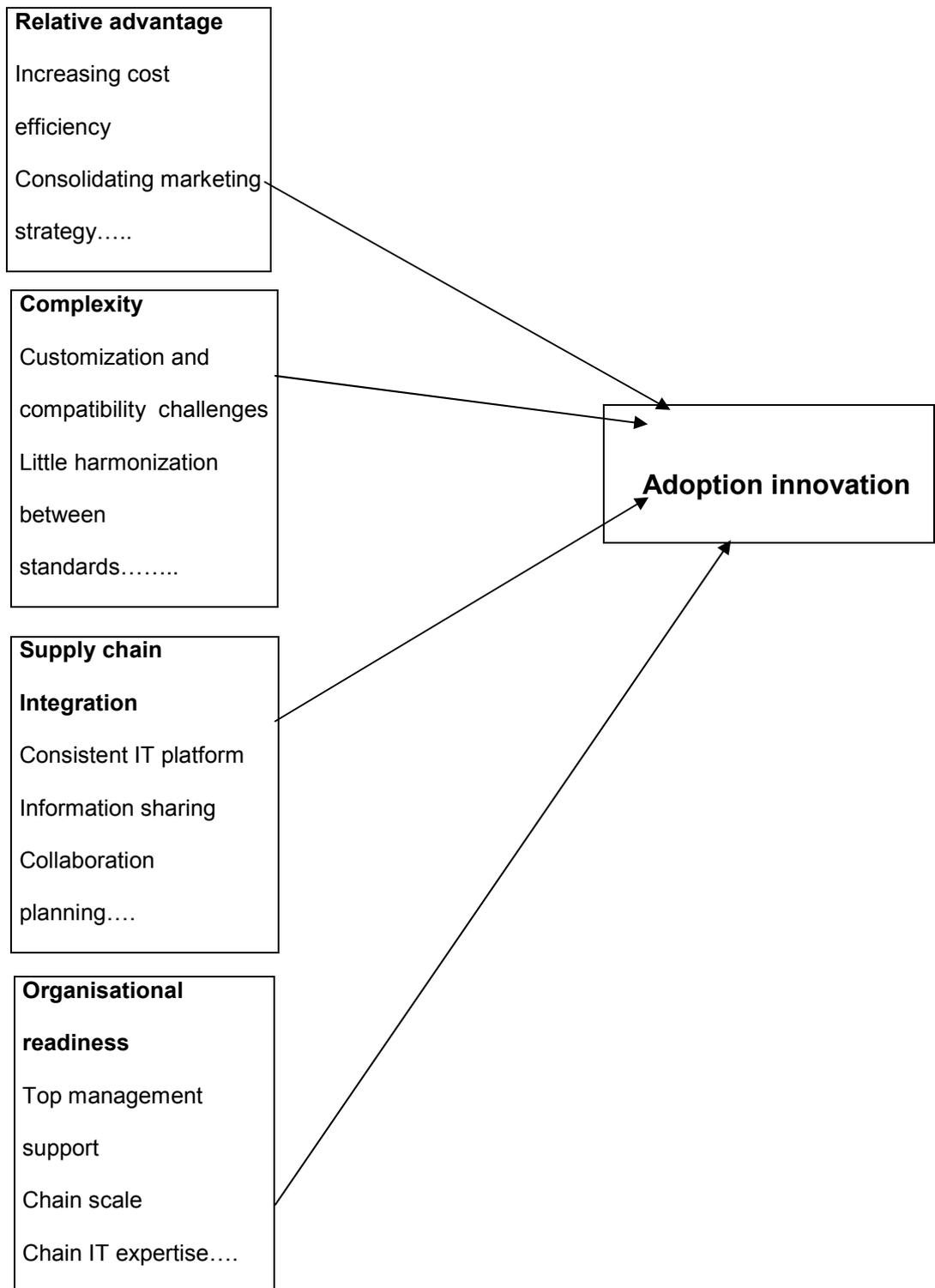


Fig. 1 The analytical model

Source: Determinants of RFID adoption intention: Evidence from Taiwanese retail chains, Ming-Chih Tsai & al (2010).

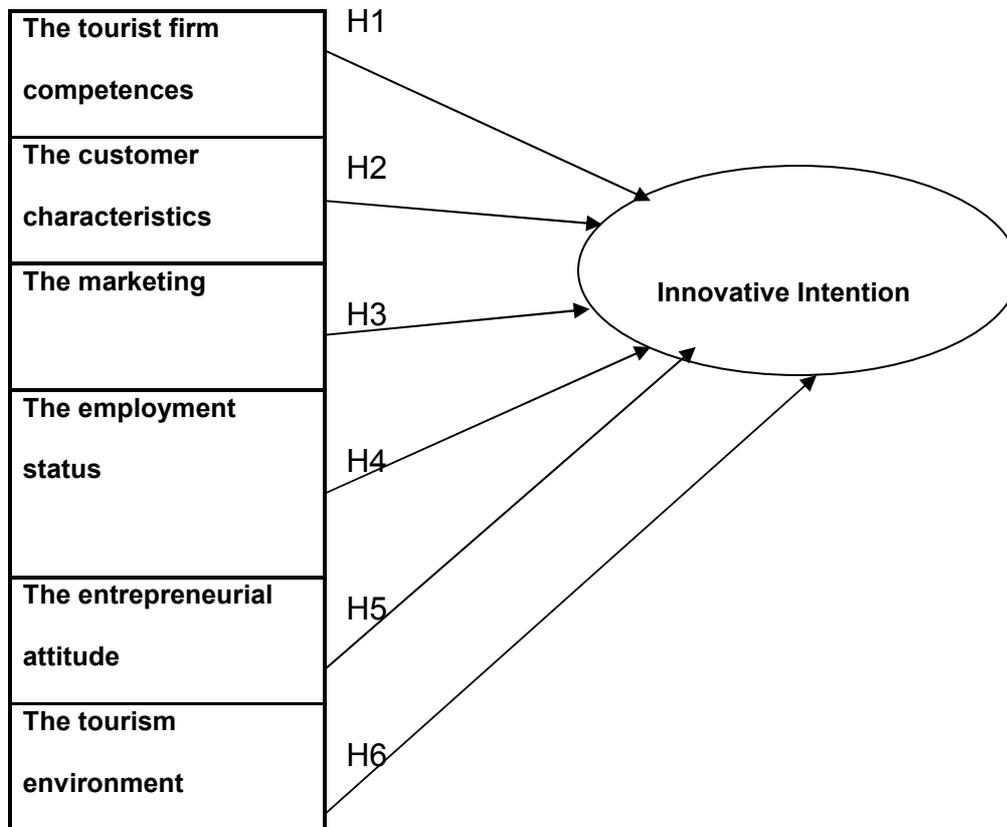
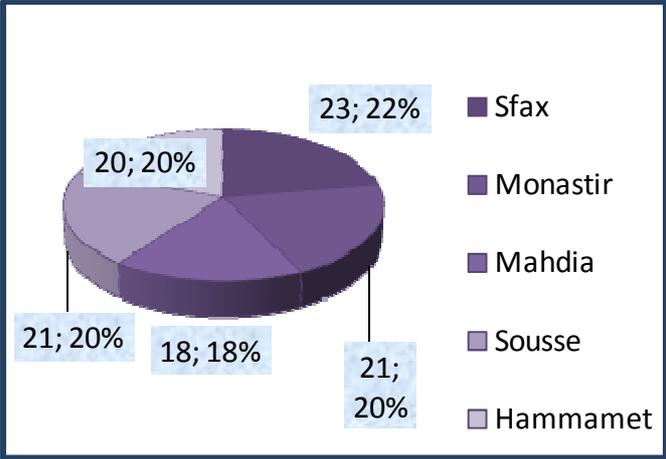


Fig 2. The general model of research

According to regions



According to activity

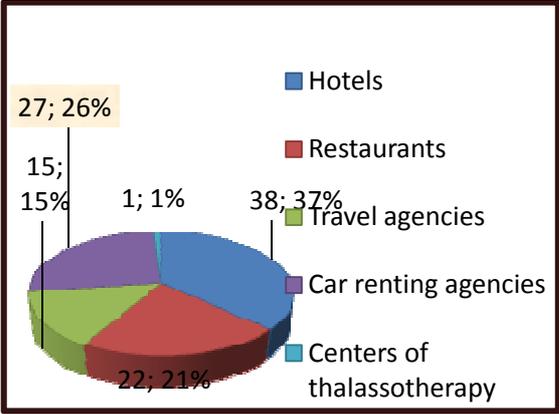


Fig 3. The sample allocation