ACCEPTANCE OF TOURISM E-ENTREPRENEURSHIP: APPLICATION TO EDUCATIONAL BALEARIC ISLANDS CONTEXT

Rachid Oumlil, Ibn Zohr University
Carlos Juiz, University of the Balearic Islands

ABSTRACT

This paper investigates acceptance of e-entrepreneurship by future tourism entrepreneurs in the Balearic Islands. It suggests a model referring to constructs from the relevant models mobilized to predict acceptance of Information technology.

This study was conducted at the Faculty of tourism, located at Palma de Mallorca. It concerned undergraduate students from the third year in tourism and considered as future entrepreneurs. They represented 70.83% of the target population (120 students). Results pointed out that, the proposed model explained 47.8% of total variance in the intention to accept tourism. They also revealed that Anxiety and Perceived Ease of Use factors influenced significantly this intention. However, Attitude and Perceived Usefulness factors showed no significant impact on the future entrepreneurs' intention. Furthermore, this paper generates a useful knowledge on future e-entrepreneurship in the age of the digital economy that could be very useful for decision makers, policymakers of tourism industry.

Keywords: Tourism Entrepreneurs, E-Entrepreneurship, Digital Economy.

INTRODUCTION

Information Technology (IT) is widely used to help companies to optimize their business processes and reach customer market segments. Nowadays, it is seen as a powerful tool for these companies to overcome their physical and managerial barriers. Advances in this technology allowed migration from the traditional economy to the rapid growth of new economy called Net economy (Matlay & Westhead, 2005). This later is interestingly based on digital technologies and the internet providing a global platform supporting interrelations between individuals/firms (King et al., 2002). Net economy is characterized by advent of innovative organisational forms (Matlay & Westhead, 2005) and development of a modern entrepreneurial form activity heralded e-entrepreneurship (Balachandran & Sakthivelan, 2013; Bennani & Oumlil, 2014).

E-entrepreneurship has been emerged from the synergies between the rapid IT advancement and the fundamental changing paradigms of economic transactions. It is centered on the creation of new businesses and the growth of existing ones inside a digital environment. Otherwise, e-entrepreneurship is the act of creating new companies based on IT (Matlay, 2004). Besides, e-entrepreneurship could be seen as a virtual process carrying out something new, with time, effort and financial, psychological and social risk to obtain economic growth, job creation and social welfare.

The massive usage of IT in tourism exerts a significant influence on various possibilities for developing innovative tourism business concepts based on IT. IT plays an indispensable role to make touristic companies successful toward uncertain and turbulent of their environment

conditions (Deans & Kane, 1992). Furthermore, synergies between the wide spread of IT and fundamental changing of tourism environment led the rise of tourism e-entrepreneurship. This later has become one of the most critical activities for the development of the tourism sector. It describes the act of establishing new companies and it generates new job opportunities and multiple other economic benefits for this sector. Moreover IT leads to new businesses offering innovative products and services and eventually engenders to a significant contribution to the development of the tourism companies.

Referring to Steinberg (2003), maintaining a sustainable competitive advantage in the net economy supposes that future tourism entrepreneurs can no longer operate or be considered in isolation. In the sense of Humphreys & Brezillon (2002), e-entrepreneurship relies considerably upon collective learning and interdependent resources. Entrepreneurs should be prepared to adopt e-collaborative strategies to pursue their growth goals (Matlay & Westhead, 2007) and become more innovative. They should be more opened on ideas and knowledge coming from their customers, partners or competitors.

Tourism generates more than 45% of Gross Domestic Product (GDP) of the Balearic Islands, the highest percentage in the country and the other autonomous communities in Spain. Its economic impact calculated in terms of Gross Value Added (GVA) or additional value to acquire goods and services to be transformed during the production process, is more than 11,360 million euros. Regarding travelers choosing Balearic Islands as destination, more than half of the displacements develop any of these processes online (50.9%) the highest among the destinations in Spain. However, according to the Regional Innovation Scoreboard 2014, the Balearic Islands are ranked as a modest innovator with an innovation performance below EU average. The industry in Balearic Islands does not reach 10% of the GDF, whilst the tertiary sector represents 80%. However, one the main sub H sectors/technology area in which Islas Baleares has a specific competitive advantage in the advanced manufacturing fields is IT (EU Commission, 2016). The new economic milieu and globalization have given rise to new demands for international competitiveness, increasing the importance of research, technological development and innovation, both regionally and nationally. Yet beyond the machinery and money, what is truly important is knowledge, creativity, the capacity for innovation and adaptation and knowing how and wanting to learn. Thus, among other innovations, the development of new sustainable production methods must enable our society to move forwards, adopting an economic growth model that is respectful of our culture and our environment and far removed from the insularity-related limitations often placed on other production sectors. The information and communication technologies industry is undergoing a major boom. By strengthening and supporting the technology and innovation sector, we have different tools that are constantly in use. In the tourism innovation field, mention must be made of the Turistec cluster; an Innovative Business Group (known by the Spanish acronym, AEI) specialized in information and communication technologies services applied to the tourism sector. Participating in the cluster are over fifty companies that are devoted to the production and implementation of technological solutions for the tourism (MINECO, 2015).

Success of these projects is related to the e-entrepreneurship intention that future entrepreneurs should acquire, whence the necessity to study factors determining acceptance of tourism e-entrepreneurship in Balearic Islands. Matlay & Westhead (2005) stressed several factors that impact the individual virtual entrepreneurship among which IT investment and e-entrepreneurship commitment seems to be the most important in our case.

In this paper, we investigate acceptance of investments in IT projects by future tourism entrepreneurs, laureates of the tourism Faculty of the University of Balearic Islands. We attempt to answer the following research question: what are the factors influencing tourism e-entrepreneurship by future entrepreneurs in Balearics Islands? It is based on the main constructs of the relevant models predicting IT acceptance, mainly: Technology Acceptance Model (Davis et al., 1989) and its extensions. The study concerned students from the Faculty of Tourism at University of Balearic Islands, located in Palma de Mallorca. This faculty is considered the main academic institution for training the tourism competences in the archipelago.

Therefore, the second section will highlight the theoretical background related to e-entrepreneurship concept and to the relevant models explaining the acceptance of IT. The third one will present the research model and expose the hypotheses. The fourth section will explain the research methodology. The fifth will analyses data point out and discuss the findings. The last section will expound the conclusion, limitations and managerial implications of this paper.

THEORETICAL BACKGROUND

Since 1980s, entrepreneurship has been interestingly considered as an important tool for economic growth and innovation (Acs et al., 2008). It is present at various levels of observation, such as the person or the firm, region or industry and even nation (Davidsson, 2006). It consists of a process bringing or creating something new with an added value and assuming the risks and rewards (Hissich et al., 2002). According to Low & MacMillan (1988), entrepreneurship is defined as the 'creation of new enterprise'. Per (2005) added that entrepreneurship could be considered as the discovery of opportunities and the subsequent creation of new economic activities throughout creation of new business organizations. As for Hussain et al. (2011), they considered entrepreneurship as the art or science of innovation and risk-taking for profit in business, the quality of being an entrepreneur. This later is a person who controls a business or enterprise and accepts the risk of success or loss. Otherwise, he senses opportunities and takes risks in the face of uncertainty to design new product of process (Thompson and Randall, 2001). An entrepreneur is then a person who seizes opportunities and takes risks in the face of uncertainty to improve or create new business (Kuratko & Hodgetts, 2001). Referring to Nafziger (2006), usually an entrepreneur can be viewed in four ways: (1) as the coordinator of other production resources (2) as the decision maker under uncertainty (3) as an innovator; and (4) as the gap filler and input completer.

Nowadays, the increasing usage of IT in society and in most of industries/businesses created the digital economy phenomenon and engendered changes in all the aspects of the business world. Moreover, the rapid development of this technology had a significant influence on various possibilities for developing innovative business concepts based on IT only. Subsequently, this increasing importance and proliferation of IT has mended the general climate of entrepreneurship and spawned a new entrepreneurial form called e-entrepreneurship.

E-entrepreneurship has recently gained recognition amongst both academics and practitioners. According to Zutshi et al. (2005), it is defined as the using the Internet to strategically and competitively achieve vision, business goals and objectives. In the same sens, Thompson & Stickland (2003) added that e-entrepreneurship is the use of the World Wide Web to interact and complete virtual transactions both with other business and their customers. It explains the ability to create and run owner business activity on the net. According to Matlay (2004) E-entrepreneurship refers to the act of establishing new companies specifically in the digital Economy. As for Kollmann (2006), it consists of setting a new company with an

innovative business idea within the Net economy. Otherwise, e-entrepreneurship could not be limited on running and creating business on the net. It could mean the process of establishing a new company or project with an innovative business within the Information Technology sector. However, success of this process implies its acceptance by e-entrepreneurs. We underline that an e-entrepreneur could have many similarities with an entrepreneur. He is person that uses IT to strategically and competitively achieve vision, business goals and objectives Zutshi et al. (2005).

To investigate tourism e-entrepreneurship acceptance by future entrepreneurs we referred to Linan et al. (2005) statement, wherein Acceptance behavior is explained by intentions of these entrepreneurs towards E-entrepreneurship. Several theories and models attempted to study entrepreneurial intention: Theory of Planned Behavior (Ajzen, 1991), model of the entrepreneurial event (Krueger, 1993) and Model combining personal and contextual factors and self-efficacy (Boyd & Vozikis, 1994). However, number of researches investigating e-entrepreneurship acceptance is still very limited (Bennani & Oumlil, 2014). Peculiarities of projects related to tourism E-entrepreneurship and in supposed to appeal models adapted to technological context. For this issue, we referred to Technology Acceptance Model (Davis et al., 1989) and its relevant extensions to identify factors that could predict e-entrepreneurial intentions.

Technology Acceptance Model is proven to be one of the well-known models predicting technology acceptance and use (Legris et al., 2003). It is originally proposed by Davis (1989) referring to the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980). In 1989, Davis et al proposed a new version of TAM to explain reasons behind acceptance or rejection of IT by users. They based on three factors to explain user behavior: (1) Behavioral Intention (BI), (2) Perceived Usefulness (PU) and (3) Perceived Ease of Use (PEOU) and they supposed that if the technology is deemed to be useful, the individual will develop a stronger intention to use it.

TAM provides a basis with which one traces how external variables influence belief, attitude and intention to use IT. It postulates that IT Intention influence directly the actual use. Intention is a component within the individual soul that refers to perform behavior (Fishbein & Ajzen, 1975). It is defined as the subjective probability of the individual dimension in a relationship between self and behavior. It is influenced by the factor Attitude. According to Ajzen (1991), attitude is a predisposition to answer an object in a favorable or unfavorable way. It is defined as the feeling of pleasure, gaiety and dissatisfaction that associates individual to a given behavior (Triandis, 1980). It expresses the positive or negative feelings about performing the IT acceptance (Davis et al., 1989). Moreover, TAM centered on two cognitive beliefs considered of primary relevance to IT acceptance behaviors:

1. Perceived Usefulness (PU): It is one of the prior belief constructs developed by TAM. It is defined, as the degree to which a person believes that using a particular system would enhance his or her job performance (Davis et al., 1989). It represents a theoretical substitute of the relative advantage developed in the Innovation Diffusion Theory (Roger, 1995). PU is proved to be relevant determinant of IT acceptance.
2. Perceived Ease of Use (PEOU): Refers to the degree to which a person believes that using a particular system would be free of effort (Davis et al., 1989). It indicates degree to which user finds that the use of a technology is relatively deprived of effort. Technologies perceived as being easier to use and less complicated are more likely to be accepted by potential users. Compared to perceived usefulness, perceived ease of use is considered the second important determinant of a user's IT acceptance.

The two cognitive beliefs (PU and PEOU) are affected positively or negatively by external factors (Hong et al., 2002). TAM remains to be the most tested model in explaining IT

acceptance. However, its major drawback is the limitation on two beliefs (PU and PEOU) mainly to explain user IT acceptance behavior, whence the necessity behind its extension.

Several researches attempted to extend the TAM in terms of adding external and moderating variables. TAM2 remains one of the relevant extensions developed by Venkatesh & Davis (2000). The reason behind this extension was the lack of inclusion of the Subjective Norms (SN) considered as relevant for system usage. The two authors removed the Attitude variable and added the antecedents to perceived usefulness, such as social influence (subjective norm, voluntariness and image), cognitive instrumental processes (job relevance, output quality and result demonstrability) and experience. They tested the updated model in both mandatory and voluntary context and they found that in mandatory contexts, subjective norm has a direct effect on intention through the mechanism of compliance. However, in voluntary contexts, social influences can influence intention indirectly through the mechanism of internalization and identification.

The Technical Acceptance Model 3 (TAM3) is another extension of TAM proposed by Venkatesh & Bala (2008). The model combines TAM2 with the anchoring and adjustment determinants of perceived ease of use. The anchoring determinants are computer self-efficacy, computer anxiety, computer playfulness and the perception of external control (Venkatesh, 2000). As for the adjustment determinants, they consist of ease of use are perceived as enjoyment and objective usability. Besides, TAM 3 suggests three relationships (1) the moderation effect of experience to the relationship between computer anxiety and perceived ease of use, (2) the moderation effect of experience to the relationship between perceived ease of use and perceived usefulness and (2) the moderation effect of experience to the relationship. Venkatesh & Bala (2008) noticed that TAM3 could explain between 40% and 53 % of the variance in behavioral intention, supporting the suggestion that behavioral intention is a significant determinant of use.

Another relevant extension of the TAM is The Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003). It aims to explain the relationships between usage and intention. To develop this extension, the authors reviewed eight theories and models predicting behavior IT acceptance: (1) Theory of Reasoned Action, (2) Theory of Planned Behavior, (3) Combined Theory of Planned Behavior, (4) Innovation Diffusion Theory, (5) Social Cognitive Theory, (6) Motivational Model, (7) Technology Acceptance Model and (8) Model of Personal Computer Utilization. It includes four core constructs of intention and usage of IT: (1) Performance Expectancy (PE), (2) Effort Expectancy (EE), (3) Social Influence (SI) and (4) Facilitating Conditions (FC). Gender, Age, Experience and Voluntariness of use were considered as the moderating variables. Empirically Venkatesh et al. (2003) validated the UTAUT model throughout longitudinal studies conducted in six different organizations. They found that it predict roughly 70% of the variance in intention to accept IT. Moreover, they concluded that Performance Expectancy, Effort Expectancy and Social influence are direct determinants of Behavioral Intention (BI) while this latter and Facilitating Conditions influence Use Behavior (UB). Also, they added that the moderating variables influence the impact of the four key constructs (PE, EE, SI and FC) on BI and UB.

Table 1 summarizes components of TAM and its relevant extensions. It distinguishes between constructs supposed to have direct impact on BI and those that influence indirectly this intention. Some of these constructs will help develop the research model explaining tourism e-entrepreneurship by future entrepreneurs.

Table 1
COMPONENTS OF TAM AND ITS RELEVANT EXTENSIONS

MODEL	MAIN CONSTRUCTS	DIRECT IMPACT ON BI	INDIRECT IMPACT ON BI
TAM (Davis et al.,1989)	Actual Use	-	-
	Behavioral Intention	-	-
	Attitude	X	-
	Perceived Usefulness (PU)	X	X
	Perceived Ease of Use (PEOU)	-	X
	External Variables	-	X
TAM2 (Venkatesh & Davis, 2000)	Usage Behavior	-	-
	Intention to use	-	-
	Perceived usefulness (PU)	X	-
	Perceived Ease of Use (PEOU)	X	X
	Subjective Norm	X	X
	Image	-	X
	Job Relevance	-	X
	Output Quality	-	X
	Result Demonstrability	-	X
TAM3 (Venkatesh & Bala, 2008)	Use Behavior	-	-
	Behavioral Intention	-	-
	Perceived Usefulness (PU)	X	-
	Perceived Ease of Use	X	X
	Subjective Norm	X	X
	Image	-	X
	Job Relevance	-	X
	Output quality	-	X
	Result demonstrability	-	X
	Computer Self-efficacy	-	X
	Perceptions of External control	-	X
	Computer anxiety	-	X
	Computer Playfulness	-	X
	Perceived Enjoyment	-	X
	Objective Usability	-	X
UTAUT (Venkatesh et al., 2003)	Use Behavior	-	-
	Behavioral Intention	-	-
	Effort Expectancy	X	-
	Performance Expectancy	X	-
	Social Influence	X	-
	Facilitating conditions	-	-

RESEARCH MODEL AND HYPOTHESES

The research model is built from constructs of the relevant models predicting IT acceptance. In this paper, authors are limited to three principal TAM constructs: Perceived Usefulness, Perceived Ease of Use and Attitude, extended by two other constructs: Image and Anxiety. These two later are considered as external variables and supposed to enhance future entrepreneurs' intention to accept tourism e-entrepreneurship (Figure 1). Choice of the constructs

is justified by their appearance in several TAM extensions studies, also by their significant impact in predicting IT acceptance.

Attitude is considered as an important factor predicting behavioral intention (Davis, 1989). In e-entrepreneurship context, contrary to Bennani & Oumlil (2014), it supposed that Attitude could foster acceptance of tourism e-entrepreneurship and the hypothesis is:

H_1: Attitude toward IT is positively related to the future entrepreneurs' intentions to accept tourism E-entrepreneurship in the Balearic Islands.

Perceived usefulness is defined as the degree to which a person believes, that using a particular system would enhance his or her job performance (Davis et al., 1989). Otherwise, if an investment in tourism project based IT can improve entrepreneur' performance, productivity and efficiency, it will affect his intention to accept it. Therefore, Perceived Usefulness is supposed to influence positively directly and indirectly (via attitude) the intention of future entrepreneurs to accept tourism E-entrepreneurship. Hence, these relationships are hypothesized as follows:

H_2: Perceived Usefulness is positively and directly related to the future entrepreneurs' intentions to accept tourism e-entrepreneurship in the Balearic Islands.

H_3: Perceived Usefulness is positively and indirectly, via attitude, related to the future entrepreneurs' intentions to accept tourism e-entrepreneurship in the Balearic Islands.

As for Perceived ease of use, it refers to the degree to which a person believes that using a particular system would be free of effort (Davis et al., 1989). Hence, entrepreneurs' intention to accept tourism E-entrepreneurship is affected by their feelings about whether Tourism Information Technology within their projects is easier to use. Referring to Davis et al., 1989, Perceived ease of use is supposed to influence positively and indirectly throughout attitude. Subsequently we hypothesize that:

H_4: Perceived Ease of Use is positively and directly related to relate to the future entrepreneurs' intentions to accept tourism e-entrepreneurship in the Balearic Islands.

H_5: Perceived Ease of Use is positively and indirectly, via attitude, related to relate to the future entrepreneurs' intentions to accept tourism e-entrepreneurship in the Balearic Islands.

As mentioned above, two external variables (Image and Anxiety) are expected to enhance the intention of the future entrepreneurs to accept tourism E-entrepreneurship. Image is drawn from Venkatesh & Davis (2000) and considered as an external variable in our research model. Referring to Moore & Benbasat (1991), it is defined as the degree to which use of an innovation is perceived to enhance one's status in one's social system). In the tourism area, a future entrepreneur who had a higher need for social recognition is likely to invest in project based Tourism IT. Hence we hypothesized:

H_5: Image is positively and directly related to the future entrepreneurs' intentions to accept tourism E-entrepreneurship in the Balearic Islands.

H_6: Image is positively and indirectly, via PU, related to the future entrepreneurs' intentions to accept tourism E-entrepreneurship in the Balearic Islands.

Igbaria & Chakrabarti (1990) consider anxiety as a specialized type of stress. As for Venkatesh (2000), anxiety is defined as "the degree of an individual's apprehension or even fear, when she/he is faced with the possibility of using computers" (p.349). Otherwise, it explains the individual tendency to be fearful or uneasy about and IT usage. It reflects the individual tendency towards experience of uneasiness of the current or a future technology. Several studies revealed the importance of the anxiety as the key variable predicting IT throughout perceived usefulness, attitude (Howard & Smith, 1986; Igbaria & Nachman, 1990; Elasmar & Carter, 1996). It is often found to exert a negative impact on the technology use. Hence, in this paper, we hypothesized:

H7: *Anxiety negatively and directly related to the future entrepreneurs' intentions to accept tourism e-entrepreneurship in the Balearic Islands.*

H8: *Anxiety is negatively indirectly, via PU, related to the future entrepreneurs' intentions to accept tourism e-entrepreneurship in the Balearic Islands.*

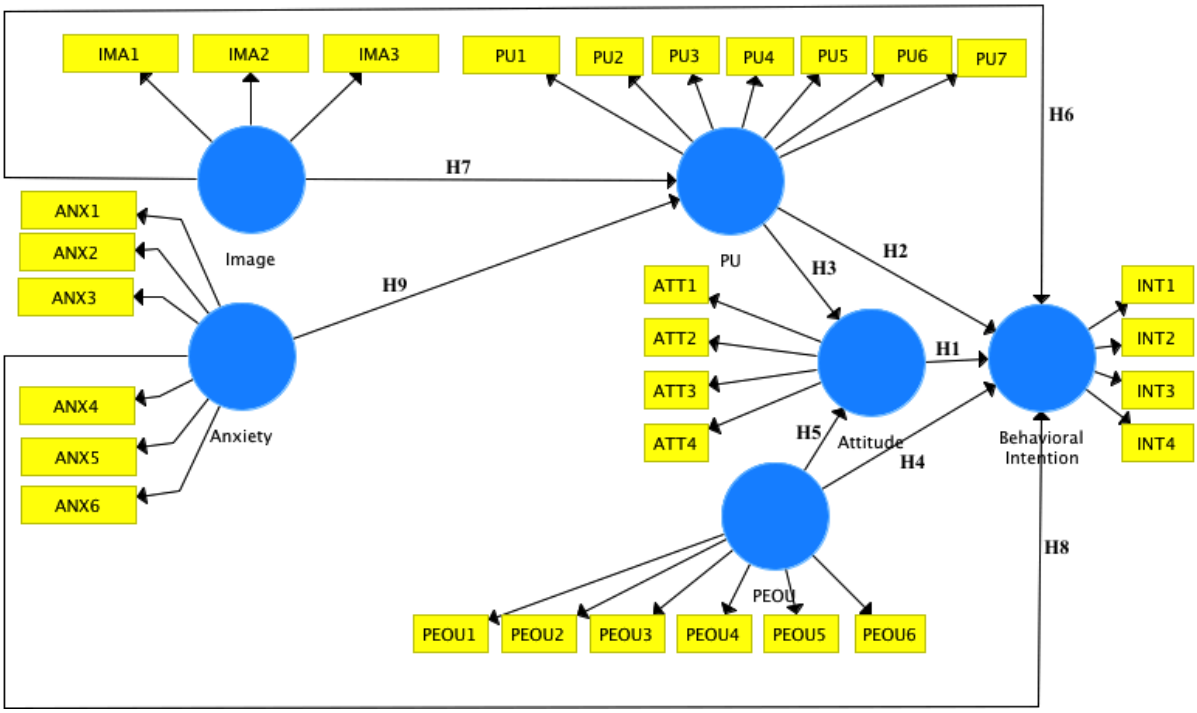

FIGURE 1
RESEARCH MODEL

RESEARCH METHODOLOGY

The study was conducted at the Faculty of Tourism, at University of the Balearic Islands, Palma de Mallorca, Spain. It concerned undergraduate students of the third year in tourism grade and considered as future entrepreneurs in this sector. Data were collected by a questionnaire developed and administrated online. The total population of the study corresponds to 120 individuals. The data collection process took place one month and half, from the 16 March to 1 May 2016. It started with a personal meeting, with students, at the classroom, to explain the objectives of the study. The first mailing of the questionnaire was in 16 March. As the response rate was unsatisfactory, authors were obliged to boost students via a second mailing. Of the 120

students, 85 individuals participated at the study representing 70.83% of the response rate. Most of them were female (64.7%). The majority of these students came from Social-Humanistic (83.53%) baccalaureate from the either private (51.8%) or the public (48.2%) high school. Almost half of these respondents used academics IT for a duration ranging from 3 hours to 6 hours per a day (49.4%). Moreover, 64.7% of the students participating at the study classified investment at touristic IT projects as risky (Table 2). Scales used for this study were adopted from the works of (Davis et al., 1989; Venkatesh & Davis, 2000; Venkatesh, 2000) and were used to measure the tourism e-entrepreneurial intention. The measurement items were anchored on a 7-point Likert scale from "strongly disagree" (1) to "strongly agree" (7) in which respondents indicated an appropriate response.

Table 2
DEMOGRAPHIC PROFILE OF THE SAMPLE (N=85)

Variable	Content	N	(%)
Gender	Men	30	35.3
	Women	55	64.7
Type of Information Technology (IT) mostly used	Academics	47	55.3
	Professionals	10	11.8
	Social Networks	28	32.9
Number of Hours using IT per a day	Less than 3hours	14	16.5
	3H-6H	42	49.4
	6H-9H	7	8.2
	9H-12 H	22	25.9
Baccalaureate (high school)	Social-Humanistic	71	83.53
	Science-Technology	14	16.47
Type of the Baccalaureate	Public	41	48.2
	Private	44	51.8
Risk related to investment in Tourism IT project	Non	30	35.3
	Yes	55	64.7

DATA ANALYSIS AND RESULTS

Squares (PLS) approach. It is classified as a powerful method to study structural models involving multiple constructs with multiple items (Rigdon, 1998). However, it does not provide any global goodness-of fit criterion, which implies a lack of measures for overall model fit (Henseler et al., 2012).

Three main reasons justified usage of the PLS approach to perform data analysis of this study:

1. A minimal demand on sample sizes and data distribution assumptions (Hair et al., 2012);
2. A variance-based technique that is oriented towards the predictive aspects of the model (Barclay et al., 1995); and
3. Taking into account the measurement error when testing the structural model (Fornell & Cha, 1994).

PLS approach is performed on two main steps for the validation of the predictive models using reflective latent constructs (Henseler et al., 2009). The first step allows the assessment of the measurement model representing the relationships between items and the constructs that they measure. The second step consists of the structural model assessment depicting the relationships

between the constructs as specified by the research model. Authors used Smart-PLS software version 2.0M3 to assess both of the measurement and the structural models. They run PLS-Graph using a nonparametric test of significance known as bootstrapping method with 300 samples to determine the significance levels for loadings, weights and path coefficients (Gil-Garcia, 2008).

Measurement Model

Assessment of the measurement model (outer model) is performed by convergent and discriminant validities. Convergent validity assessed the degree to which different instruments are able to measure the same construct (Portney & Watkins, 2000). Otherwise, it explains the degree to which these instruments are in agreement. It includes reliability of construct measurement. This reliability was assessed by the composite reliability and internal consistency. This later was assessed by the Cronbach's Alpha coefficient. It is verified when the alpha is above 0.7. In Table 3, all constructs indicated Composite Reliability (CR) above 0.7. Moreover, Internal Consistency (ICR) of the scales is verified for all constructs. Furthermore, convergent validity is measured by the factor loadings of the items on the model's constructs. Barclay et al. (1995) recommended that an observed principle for convergent validity is to retain items with loadings of 0.70 or more. Results revealed that only items ANX1, ANX2, ANX4 and ANX6 for anxiety construct indicate a loading value under 0.7 (value in bold). Hence only those showing the threshold value retained for the rest of the analysis.

Table 3
ITEMS LOADING, CONSTRUCT COMPOSITE RELIABILITY (CR), INTERNAL CONSISTENCY RELIABILITY (ICR)

Construct	Items	Item loading	Construct CR	ICR (Cronbach's alpha)
Perceived Usefulness (PU)	PU1	0.909	0.949	0.937
	PU2	0.795		
	PU3	0.871		
	PU4	0.876		
	PU5	0.839		
	PU6	0.877		
	PU7	0.798		
Perceived Ease of Use (PEOU)	PEOU1	0.758	0.932	0.914
	PEOU2	0.794		
	PEOU3	0.895		
	PEOU4	0.821		
	PEOU5	0.852		
	PEOU6	0.879		
Attitude (ATT)	ATT1	0.779	0.871	0.799
	ATT2	0.988		
	ATT3	0.881		
	ATT4	0.584		
Image	IMA1	0.792	0.873	0.814
	IMA2	0.818		
	IMA3	0.890		
Anxiety	ANX1	-0.047	0.903	0.791
	ANX2	-0.169		
	ANX3	-0.935		
	ANX4	-0.282		

	ANX5	-0.880		
	ANX6	-0.533		
Intention (INT)	INT1	0.900	0.905	0.863
	INT2	0.903		
	INT3	0.814		
	INT4	0.732		

Discriminate validity is assured when the AVE value is above the threshold value of 0.50 and square root of the AVE is larger than all other cross correlations (Gefen & Straub, 2005). Table 4 showed the diagonal values (bold) are greater with respect to the corresponding correlation values in the adjoining columns and rows, hence the discriminate validity was confirmed.

Table 4
AVE, DIAGONAL ELEMENTS ARE THE SQUARE ROOT OF THE SHARED VARIANCE BETWEEN THE CONSTRUCTS AND THEIR MEASURES (AVE); OFF-DIAGONAL ELEMENTS ARE CORRELATIONS BETWEEN CONSTRUCTS (N=85).

	AVE	**Anxiety**	**Attitude**	**Behavioral Intention**	**Image**	**PEOU**	**PU**
Anxiety	0.824	0.908					
Attitude	0.633	-0.111	0.796				
Behavioral Intention	0.706	-0.224	0.552	0.840			
Image	0.696	-0.025	0.641	0.368	0.834		
PEOU	0.697	-0.123	0.538	0.584	0.419	0.835	
PU	0.727	-0.128	0.613	0.613	0.651	0.707	0.853

Structural Model

The structural model, named also the inner model, indicates the causal relationships among constructs in the conceptual model (Hair et al., 2012). It includes estimates of the path coefficients, which indicate the significance of the hypothesized relationship (relationship between the dependent and independent variables). It also provides R2 value, which determines power of the model (the variance explained by the independent variables). The R2 value and the path coefficients indicate how well the data support and hypothesized model (Wixom & Todd, 2005). We run PLS-Graph using a nonparametric test of significance known as bootstrapping method to determine the significance levels for loadings weights and path coefficients (Gil Garcia, 2008).

Results showed that the research model explained 47.8% of total variance (R2) in the intention of the future entrepreneurs to accept tourism e-entrepreneurship (Figure 2). They revealed that the intention of future entrepreneurs to accept tourism e-entrepreneurship is determined by two factors only. The first one, Anxiety, showed a negative significant influence (β=2.488), followed by PEOU that exerts a positive significant positive influence on this intention (β=2.198). However, the three others constructs, Attitude (β=1.730), PU (β=1.328) and Image (β=0.830) disclose positive non-significant impact on the intention of future entrepreneurs to accept tourism e-entrepreneurship.

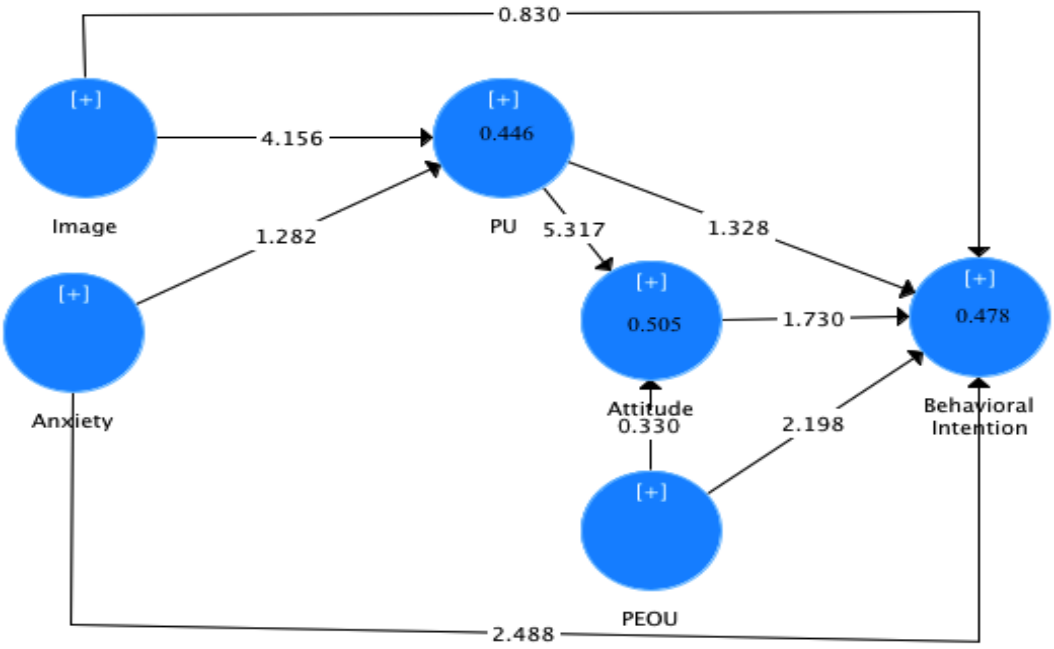

FIGURE 2
STRUCTURAL MODEL

DISCUSSION

The ultimate purpose of this paper is to identify factors influencing tourism e-entrepreneurship acceptance by future graduate students of the tourism Faculty at University of the Balearic Islands. To reach this goal, authors referred to TAM and its extensions to predict IT acceptance and selected the most tested constructs to predict IT acceptance. Besides to the main TAM constructs predicting individual behavioral intention (Attitude, PU and PEOU), authors added two pervasive constructs in TAM extension: image and anxiety. These two variables are considered as external variables and supposed to enhance future entrepreneurs' intention to accept tourism e-entrepreneurship.

Results showed that Perceived Ease of Use influences significantly the future entrepreneurs' intentions to accept tourism e-entrepreneurship in the Balearic Islands. This means that these future entrepreneurs accept to invest in tourism IT projects, especially when they perceived that this technology is not difficult to understand, to learn or to operate. Otherwise, when this tourism IT projects involve a minimum of effort in its usage, it implies that these future entrepreneurs will be less willing to invest, subsequently accept the tourism e-entrepreneurship. This could be explained perhaps by the profile of the respondents. Almost fifty percent of them got a humanistic and social baccalaureate at high school. Moreover, these future entrepreneurs are not habitual with the professional tourism IT applications, only 11.8% have already used this technology.

It is found that Anxiety exerts a significant negative impact on future entrepreneurs to accept tourism e-entrepreneurship in Balearic Islands. This means that these entrepreneurs evoke an anxious emotional reaction and fear toward investment in tourism IT projects. It implies then a negative reaction of the future entrepreneurs throughout these this category of project. This

could be explaining by their lack of proficiency in tourism IT usage or their perception of the project based IT as very risky.

Furthermore, results showed that Perceived Usefulness influence positively but not significantly the intention of the future entrepreneurs to accept tourism e-entrepreneurship. It means that future entrepreneurs don't give more importance to the utilitarian aspect of the tourism IT project. This result could confirm the subjectivity of the behavior of the future entrepreneurs that is influence by other factors encompassing usefulness and the profitability of the project based on information technology.

Moreover, this study showed that attitude was not significant in Balearic Islands context. This emphasizes the non-importance of future entrepreneurs' attitude and their beliefs on the importance of investing in tourism IT projects. The study investigated also the impact of Image on the future entrepreneur's intention to accept tourism e-entrepreneurship. Results revealed a positive insignificant impact of the image on this intention. It means that investing in tourism IT projects would not be an opportunity to improve their social system or their image toward other entrepreneurs in tourism sector.

To more understand tourism e-entrepreneurship acceptance by future entrepreneurs in the Balearic Island, we performed a comparison based on two moderating variables: Gender and Type of the Baccalaureate. Results revealed that besides to Anxiety and PEOU, the intention of the women future entrepreneurs is also significantly influenced Image with a total variance of 79.6%. We inspect then the presence of the social system improvement for women. However, the intention of men to invest in tourism IT projects is significantly determined by the Anxiety and PEOU. Identification of factors influencing tourism e-entrepreneurship moderating type of the Baccalaureate permitted to conclude that the intention of future entrepreneurs, having a humanistic and social Baccalaureate, to invest in tourism IT project based is basically determined by the anxiety and followed by the PEOU with a total variance of 70%.

CONCLUSION

Our work purposes identifying factors influencing acceptance of tourism e-entrepreneurship by future entrepreneurs. Future laureates from the Faculty of tourism belonging to University of Balearic Islands and located in Palma de Mallorca represented these entrepreneurs. Results showed that, Perceived Ease of Use and Anxiety are the two constructs providing an explanation of the tourism e-entrepreneurship by these undergraduate students. Moreover, a distinction between men and women, revealed the significant influence of a third factor Image. This later underlines the importance of the social position improvement towards women future entrepreneurs. Furthermore, a distinction between typology of the Baccalaureate helps to conclude that students coming from humanistic and social are more anxious toward investment in tourism IT projects. Also, the intention of these future entrepreneurs increases whenever IT is perceived easy to use.

Implications of the current study could be noteworthy for academics and practitioners alike. From an academic researcher's perspective, the paper open new track of research related to e-entrepreneurship acceptance in tourism. Future researches could investigate the track by adopting other methodological approaches and integrating other factors. For example, integration of the culture could be interesting, as it has long been considered as a cornerstone for research by Hofstede (1980) and has also been touted as a critical element in IT researches. As for the managerial implication, this study proposes a useful tool for government managers and policymakers in the Balearic Islands to outline digital strategies and assess acceptance of

investments in tourism IT projects. While Palma de Mallorca is classed as one of the most attractive destinations in Europe, it massively invested in Tourism Information Technology to promote the sector. It contains one of the most relevant technological parks in Spain devoted to Tourism IT. However, future entrepreneurs, from the Faculty of tourism, are still anxious of these technologies and their integration in their tourism projects. Educational policy makers and university decision makers could exploit results of this study and reduce this anxiety and so prepare a new generation of e-entrepreneurs.

The sample size of 85 represents a limitation to this research could bias results. Future work should attempt to integrate more constructs and include more accurate representation of the sample that could be extended to the whole of the tourism department in the University of Balearic Islands.

REFERENCES

Acs, Z.J., Desai, S. & Hessels, J. (2008). Entrepreneurship, economic development and institutions. *Small business economics*, *31*(3), 219-234.

Adams, D.A., Nelson R.R. & Todd, P.A. (1992). Perceives usefulness, ease of use and usage of information technology: A replication. *MIS Quarterly*, *16*(2), 227-247.

Ajzen, I. & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, N.J., Prentice-Hall.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Process*, *52*(2), 179-211.

Balachandran, V. & Sree Sakthivelan, M. (2013). Impact of information technology on entrepreneurship (e-entrepreneurship). *Journal of Business Management and Social Sciences Research (JBM & SSR)*, *2*(2), 51-56.

Bennani, A.E. & Oumlil, R. (2014). Acceptance of e-entrepreneurship by future entrepreneurs in developing countries: Case of Morocco. *Journal of Entrepreneurship: Research and Practice*, *2*(1), 2-10.

Barclay, D., Higgins, C. & Thompson, R., (1995). The Partial Least Squares (PLS) approach to causal modeling: Personal computer adoption and use as an illustration. *Technology studies*, *2*(1), 285-309.

Boyd, N.G. & Vozikis G.S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, *2*(1), 63-77.

Davidsson, P. (2006). *Entrepreneurship and the growth of firms*. Edward Elgar Publishing.

Davis, F.D. (1989). Perceived usefulness, perceived ease of use and user acceptance in information technology. *MIS Quarterly*, *13*(3), 319-340.

Davis, F.D., Bagozzi, R. & Warshaw, P. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management science*, *35*(1), 982-1003.

Deans, P.C. & Kane, M.J. (1992). *International dimensions of information systems and technology*. Thomson Learning.

Elasmar, M.G. & Carter, M.E. (1996). Use of e-mail by college students and implications for curriculum. *Journalism and Mass Communication Educator*, *51*(2), 46-54.

EU Commission (2016). Retrieved from https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/base-profile/balearic-islands

Fishbein M. & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research'*. Addison-Wesley, Reading, MA.

Fornell, C. & Cha, J. (1994). Partial least squares. *Advanced methods of marketing research*, *407*(1), 52-78.

Gefen, D. & Straub, D.W. (2005). A practical guide to factorial validity using PLS-graph: Tutorial and annotated example. *Communications of AIS*, *16*(1), 91-109.

Gil-Garcia, J. (2008). Using partial least squares in digital government research. In G.D. Garson & M. Khosrow Pour (Eds.,), *Handbook of Research on Public Information Technology* (pp. 239-253). Idea Group. Hershey.

Hair, J.F., Sarstedt, M., Ringle, C.M. & Mena, J.A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the academy of marketing science*, *40*(3), 414-433.

Henseler, J., Ringle, C.M. & Sinkovics, R.R. (2009). The use of partial least squares path modeling in international marketing. *Advances in international marketing*, *20*(1), 277-319.

Henseler, J., Ringle, C.M. & Sarstedt, M. (2012). *12 using partial least square path modeling in advertising research: Basic concepts and recent issues*. Handbook of research on international advertising.

Hissich Robert, D. & Peters Michael, P. (2002). *Entrepreneurship (Fifth Edition)*. International Edition: New York.

Hofstede, G. (1980). Culture and organizations. *International Studies of Management and Organization*, *10*(4), 15-41.

Hong, W., Thong, J.Y. & Wai-Man Wong, K.Y.T. (2002). Determinants of user acceptance of digital libraries: An empirical examination of individual differences and system characteristics. *Journal of Management Information Systems*, *18*(3), 97-124.

Howard, G.S. & Smith, R.D. (1986). Computer anxiety in management: Myth or reality? *Communications of the ACM*, *29*(7), 611-615.

Humphreys, P. & Brézillon, P. (2002). *Combining rich and restricted languages in multimedia: Enrichment of context for innovative decisions.*

Hussain, M.F., Afzal, A., Asif, M., Ahmad, N. & Bilal, R.M. (2011). Impact of innovation, technology and economic growth on entrepreneurship. *American International Journal of Contemporary Research*, *1*(1), 45-51.

Igbaria, M. (1993). User acceptance of microcomputer technology: An empirical test. *Omega Int J. of Mgand Sci*, *21*(1), 73-90.

Igbaria, M. & Chakrabarti, A. (1990). Computer anxiety and attitudes towards microcomputer use. *Behavior and Information Technology*, *9*(3), 229-241.

Igbaria, M. & Nachman, S.A. (1990). Correlates of user satisfaction with end user computing: An exploratory study. *Information and Management*, *19*(2), 73-82.

King, D., Lee, J., Warkentin, M. & Chung, H. (2002). *Electronic commerce: A managerial perspective*. New Jersey: Pearson Education International.

Kollmann, T. (2006). What is e-entrepreneurship? Fundamentals of company founding in the net economy. *International Journal of Technology Management*, *33*(4), 322-340.

Kuratko, D.F. & Hodgetts, R.M. (2001). *Entrepreneurship: A contemporary approach*. Mason, OH: South-Western Thomson Learning.

Krueger, N.F. (1993). The impact of prior entrepreneurial exposure on perceptions and new venture feasibility and desirability. *Entrepreneurship Theory and Practice*, *18*(1), 5-21.

Legris, P., Ingham, J. & Collerette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model. *Information and management*, *40*(3), 191-204.

Linan, F., Rodriguez-Cohard, J.C. & Rueda-Cantuche, J.M. (2005). Factors affecting entrepreneurial intention levels. *45th Congress of the European Regional Science Association*, Amsterdam.

Low, M.B. & MacMillan, I.C. (1988). Entrepreneurship: Past research and future challenges. *Journal of management*, *14*(2), 139-161.

Matlay, H. (2004). E-entrepreneurship and small e-business development: Towards a comparative research agenda. *Journal of Small Business and Enterprise Development*, *11*(1), 408-414

Matlay, H. & Westhead, P. (2005). Virtual teams and the rise of e-entrepreneurship in Europe. *International Small Business Journal*, *23*(3), 279-302.

Matlay, H. & Westhead, P. (2007). Innovation and collaboration in virtual teams of e-entrepreneurs: Case evidence from the European tourism industry. *The International Journal of Entrepreneurship and Innovation*, *8*(1), 29-36.

Matlay, H. & Martin, L.M. (2009). Collaborative and competitive strategies in virtual teams of e-entrepreneurs: A pan-European perspective. *Australasian Journal of Information Systems*, *16*(1), 99-115.

MINECO. (2015). *Balearic Islands business and investment guide*.

Moore, G.C. & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information systems research*, *2*(3), 192-222.

Nafziger, E.W. (2008). 26 Entrepreneurship and development. *International Handbook of Development Economics*, *1*, 371.

Per, D. (2005). Paul D. Reynolds: Entrepreneurship research innovator, coordinator and disseminator. *Small Business Economics*, *24*(4), 351-358.

Portney, L.G. (2000). *Foundations of clinical research-application to practice, (Second Edition)*. New Jersey: Prentice-Hall Health.

Rigdon, E.E. (1998). *Structural equation modeling, in modern methods for business research*. Marcoulides, Mahwah, NJ: Lawrence Erlbaum.

Rogers, E.M. (1995). *Diffusion of innovations (Fourth Edition)*. New York, NY: The Free Press.

Steinberg, J. (2003). Information technology and development beyond "either/or". *The Brookings Review, 21*(2), 45.

Thompson, P. & Randall, B. (2001). Can e-learning spur creativity, innovation and entrepreneurship? *Educational Media International*, *38*(4), 289-292.

Thompson, A.A. & Strickland, A.J. (2003). *Strategic management: Concepts and cases (13th Edition)*. New York: McGraw-Hill.

Triandis, H.C. (1980). *Values, attitudes and interpersonal behavior. Nebraska symposium on motivation 1979: Beliefs, attitudes and values*. University of Nebraska Press, Lincoln.

Venkatesh, V. & Davis, F.D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, *46*(2), 186-204.

Venkatesh, V. & Davis, F.D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, *46*(2), 186-204.

Venkatesh, V., Morris, M.G., Davis, G.B. & Davis, F.D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, *1*(2), 425-478.

Venkatesh, V. & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. *Decision sciences*, *39*(2), 273-315.

Wixom, B.H. & Todd, P.A. (2005). A theoretical integration of user satisfaction and technology acceptance. *Information systems research*, *16*(1), 85-102.

Zutshi, A., Sohal, A. & Zutshi, S. (2005). E-entrepreneurship and open source software. *In ANZAM 2005: Engaging the multiple contexts of management: Convergence and divergence of management theory and practice: Proceedings of the 19th ANZAM conference*.