

# Entrepreneurial Dreams in a Digital Age

Insights From Tunisia and Beyond

Abidi Hana *Editors*

# Entrepreneurial Dreams in a Digital Age: Insights From Tunisia and Beyond

**Abidi Hana**

Management Department, Faculty of Law, Economics and  
Management of Jendouba, University of Jendouba, Tunisia



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## Preface

This book discusses the nature of transformation of entrepreneurship in digital age with the focus on Tunisia and other emerging contexts. It investigates the impacts of innovation, social networks and digital transformation on the organizational performance, intentions, and entrepreneurship. The first chapter uses artificial neural networks to model the complex interactions within Tunisian companies to determine how both the internal and external board social capital are related to social and economic success..The second chapter explores smart hotels as intelligent tourism entrepreneurship, examining visitor attitudes and emphasizing how creative hospitality techniques and technology solutions support new business models in the travel industry. The third chapter highlights the influence of subjective norms on customer behavior in digital marketing environments by examining how visual advertising inventiveness affects cognitive reactions and purchase intention. This book offers a thorough understanding of how entrepreneurial ambitions are formed, nurtured, and realized in a digitally connected world by fusing empirical data, quantitative modeling, and insights from digital innovation. For academics, corporate executives, and legislators looking to promote innovation-driven entrepreneurship in Tunisia and elsewhere, it provides useful insights.

**Keywords: Artificial Neural Networks, Board Social Capital, Digital Entrepreneurship, Smart Hotels, Creative Visual Advertising**

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# **Modeling the Effects of Internal and External Board Social Capital on Social and Economic Performance: A Tunisian Empirical Investigation Employing Artificial Neural Networks**

**Hana ABIDI**

[abidihana01@gmail.com](mailto:abidihana01@gmail.com)

Management Department, Faculty of Law, Economics and Management of Jendouba, University of Jendouba, Tunisia

**Chokri SLIM**

[chokri.slim@gmail.com](mailto:chokri.slim@gmail.com)

Professor, MOCFINE Laboratory, ISCAE ,Manouba University

## **Abstract**

Although the role of the board of directors has been to address the potential tensions in the social enterprises as the hybrid organizations, minimal research has explored thoroughly the interaction between the board social capital and the performance of the organization. Through the integration of the resource-based perspective and the social capital perspective, we suggest that board capital aspects (i.e., internal and social capital) determine the performance of the organization. Structural equation modeling and neural networking have been used to analyze a sample of 54 social enterprises in Tunisia. The findings indicate the importance of social capital in the performance of the boards. As our research is conducted, board external social capital and board internal social capital positively impact board performance. We also discover a positive relationship between the performance of a board and the social and economic performance. This study has implications to academicians, practitioners and policymakers, who should reflect on external connections of board members to the external stakeholders and the internal connections of board members to improve their capacity to make right strategic decisions, especially in the areas of social and economic performance. The performance development recommendation of the social enterprises should be more or less grounded on the composition of their boards. On the other hand, the fundamental significance of the internal and external social capital that amplifies the positive effects of the board of directors on the organization performance should be considered.

**Keywords: Social capital, Board of directors, Social enterprises, Organizational performance, Structural equation, Modeling and neural networks**

## **1. Introduction**

The social entrepreneurship, or, more precisely, the need to provide social benefit, is an ever-growing topic, as the community seeks to see companies more actively seek social responsibility and ethics in their work (Saebi et al., 2019). Unlike in the for-profit businesses where the sole aim of the business is to make financial gains, social enterprises must ensure that the attribute of balance and tension is persistently upheld. social enterprise organizational identity is also multidimensional and more challenging to formulate because they are hybrid organizations (Doherty et al., 2014; Kruse, 2020; Au et al., 2021).

A social enterprise is frequently called organizations having their social mission accomplished with the help of market mechanisms because of the character and structure of these organizations and the growth in hybrid missions (Di Vaio and Varriale, 2020; Harsanto et al., 2022). It presents balancing social and financial goals in the decision-making process as one of the critical internal issues of the social enterprise (Battilana and Lee, 2014; Broekema et al., 2021). In particular, a number of authors have warned about the occurrence of mission drift that would make an organization lose its original mission or goals (Ebrahim et al., 2014; Mikovic, et al., 2020; Anna et al., 2022). The reduction of social goals to the advantage of business and economic success is also called the mission drift (Doherty et al., 2014; Thompson, 2018; Morris, M. H et al., 2020). In the literature, there have been several causes of mission drift, with a high level of reliance on one or a few stakeholders of the external environment as one of the most frequent causes of the phenomenon (Wolf and Mair, 2019; Harsanto, 2022).

Boards hence play a preservation role in terms of the social and financial mission and performance of social business via their service role. The explanation is based on the theory of resources based view and social capital. We will attempt to bring to a theoretical framework board social capital, performance, and various aspects of organizational performance in the following. Actually, since social enterprise involve multi-stakeholder organizations, the connection that board members to the different groups of external stakeholders enables the board to satisfy the interests of multiple stakeholders hence balancing the development of social value and financial sustainability (Kuruppuge et al., 2017; Akintimehin et al., 2019).

The partners and stakeholders that are trusted without the need of prolonged procedure guarantees can be discovered by the board social capital. The value and benefit of such partners in the network is that they are motivated to respect the conditions of the trade that are not certain:

instead of jeopardizing being thrown out of the network through cheating, the partners would rather comply with the terms of the network.

This external social capital of the board is crucial as it links the organization to the environment decreasing the degree of dependence to the environment. Consequently, the total of all new direct and particularly indirect social contacts (Stam et al. 2018) generated by an actor, either personally or collectively, is the external social capital (Maurer et al. 2011). These relationships are often part of the close setup of a social network since the involved individuals often have their personal objectives (Han et al. 2014). The primary purpose of the external social capital is bridging or connection between the firm and the external environment (Barroso-Castro et al., 2016). Empirical research has not covered the impact of board social collateral (internal and external) on social enterprise performance in a shifting arena of operation functioning, and in any case, only in emergent settings.

This research paper examines how the social capital of the board has an impact on the organizational performance of the social enterprises. It is based on the novelty of the sphere of study and its significance to managerial practice that explains our selection. The research hypotheses made in this study are therefore related to the role of social capital of the board on the performance of social enterprises. In fact, the central aim of the study consists in answering the following question: What is the role of the board social capital to the performance of Tunisian social enterprises?

To solve the question we divide the social capital of external and internal boards with the board performance. We examine the correlation between the performance of the board and the performance of the firm. By so doing, we take into account the twofold role of social enterprises and at the same time<sup>5</sup>.

## **2. Theoretical underpinnings and hypotheses development**

The purpose of this section is to set forth the theoretical grounds for the research and to present a literature review of the key variables of the study. Board social capital, board performance, and organizational performance are defined; studies of the existing literature regarding these variables and their interrelationships, and the hypotheses of this study are developed. The conceptual framework of the research model is described at the end of this section. The board social capital in social enterprises has become a new analytical framework that combines a dual theory of Resource-Based View and Social Capital Theory.

## **2.1. Theoretical underpinnings**

Resource –Based view and social capital theory are combined in our theoretical framework. The theory of social capital has become increasingly important in recent years, showing the benefits of the company's position in a social network, (Uyar, A,2020). Indeed boards of directors play a crucial role in strategic decision-making (Spear and Lars, 2006; Ozdemir, 2020; Luciano et al., 2020). While studies have discussed the different board characteristics associated with corporate orientations in social enterprises (BinYousaf et al., 2021), board capital, an attribute representing the board's ability to achieve performance (Fernandez et al., 2019), has been typically ignored.

Board social capital is generally viewed as an important indicator of board performance. (Barroso-Castro et al., 2016; Martín, J.G. and Herrero, B. (2020). Social capital is primarily composed of social and cultural factors.

Some authors have examined the relationship between board social capital and board service performance, while others have investigated the relationship between board service performance and organizational performance, as we argue, resulting in a fragmented picture of the relationship between board social capital and organizational performance in the literature.

According to Resource Dependence theory, social capital is the cornerstone of the dynamically changing capacities that ultimately lead to performance. (Xin et al., 2020), The majority of academics have concentrated their efforts on examining the relationship between social capital and organizational performance during the past ten years due to the critical importance of social capital in business performance (Putra et al., 2020; Rodrigues et al., 2020).

## **2. Hypotheses development**

### **2.2.1 Board external social capital and board performance**

The relationship between the performance and the external social capital of boards has been shown to have mixed results based on studies carried out on this topic. Board performance is reliant upon how the members of the board can utilize and exchange the information that is produced and created by their internal and external networks of relations (Borrasso -Castro et al. 2016). According to the social capital theory, boards that have strong relationships with other boards and with the board have strategic relations, enjoying greater access to higher quality and more information, are capable of providing better corporate advice and organizational performance (Carpenter and Westphal, 2001; Putra et al., 2020). To address the conflicting needs of the stakeholders, social enterprises establish external social capital in the form of a network of individual members of the board with the stakeholders (Cornforth, 2014; Spear et al., 2009;

Crucke, 2020). As highlighted above, we expect the relations amid members of the board and external stakeholders to enhance trust between the social enterprise and the stakeholders. It is significant in its transaction costs, and enhances people lives; assert Priyanath and Lakshika (2020).

The external Board social capital is viewed as a determining factor in social enterprise performance and attainment of their business objectives (Tom et al., 2017). As can be seen, the social enterprise typically targets suppliers who are very trustworthy, and consumers and similar close social networks make the companies lucrative by lowering transaction costs (Priyanath and Lakshika, 2020). The perception has caused boards to add many of their own directors who occupy high-level jobs of their external social capital thus making their operations more visible and complex (Johnson and al. 2011, Barrosso-Castro et al., 2016).

On these arguments, we propose that boards that have a higher amount of outside capital will be in a better position to execute their network, advise, and strategic decision making and will therefore, be more active in the services activities of the board. The above argument resulted in the formulation of following hypothesis.

**Hypothesis 1:** *Board external social capital affects positively the board performance.*

### **2.2.2 Board internal social capital and board performance**

In parallel with the interest in external board social capital, and in line with the increasing attention to internal board mechanisms and the value of board teamwork (Crucke and Knockaert, 2016; Crucke ,2020), internal board social capital has gradually become more valuable. Various studies have also discussed the importance of knowledge and information dissemination and sharing among network stakeholders for increasing firms' innovation capabilities, which in turn enhance social value creation (Gauthier et al., 2019). Interpersonal relationships among board members are expected to improve trust, which develops knowledge and information exchange, which is potentially beneficial for board decision making (Kim and Cannella 2008).

Finkelstein and Mooney (2003) argued that “boards are groups” that can enhance their decision making by working together as a team. Individual directors may not have the full set of skills and knowledge to meet a firm’s advisory and governance needs, but as a group, they be able to pond their knowledge to complete their governance duties successfully (Kor and Sundaramurthy,2009; Ju,H and al., 2021).

Second, when board members have strong relationships, they will be exposed to external networks and pertinent expertise. This allows board members to effectively exchange and coordinate their expertise by upgrading performance (Tian et al. 2011). The relationships between directors serve as informal conduits, breaking down the boundaries that lean to weaken the orchestrated activities expected from the board (Nahapiet and Ghoshal, 1998). Therefore, we suppose a positive relationship between board internal social capital and board performance and present the following hypothesis:

**Hypothesis 2:** *Board internal social capital affects positively the board performance.*

### **2.2.3 Board performance and organizational performance**

The board of directors is the "heart" of the corporate Governance, where the outcomes of the enterprise are frequently fixed, (Donaldson, 2003; Miković, R. et al., 2020; Ju,H and al., 2021). Most codes of good practice and corporate governance principles have a tendency to emphasize critically the performance of the board as a fundamental cornerstone for achieving the company's social and economic objectives. Diversification or multiplicity in the structure of the board of directors is seen as an asset to enhance the performance of the firm (Innayah et al., 2020, 2021).

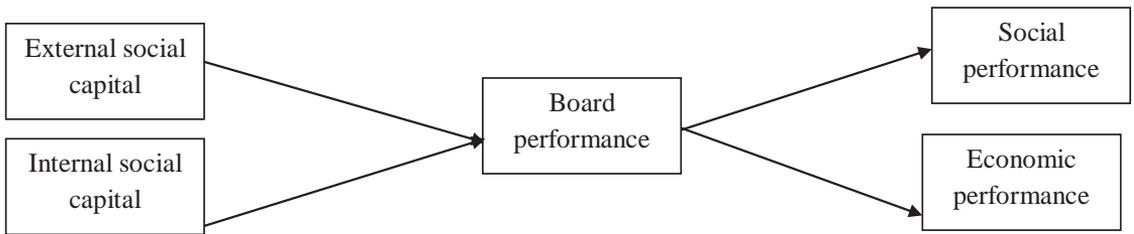
The board of directors plays a fundamental role in strategic decision-making by assuming an important role in balancing social and financial objectives. Based on the above background, it is important to conduct research on the organizational performance of social enterprises by considering board performance as an antecedent, since the achievement of organizational performance is expected to increase the confidence and loyalty of depositors, shareholders, and other stakeholders to social enterprises. By consequence, we formulate the following hypotheses:

**Hypothesis 3:** *Board performance affects positively the social performance.*

**Hypothesis 4:** *Board performance affects positively economic performance.*

Based on previous studies, we created the following path model for the current study: We are creating a model that illustrates the connection between board social capital and organizational success in order to further this understanding. Figure 1 shows the research model for the present study.

**Figure 1:** Conceptual model



Source: Authors' compilation based on the literature review

### **3. Methodology**

#### **3.1. Research setting and sample**

In order to combine economic performance with a social goal, social enterprises are consequently seen as hybrid organizations (Chou, 2018;). Additionally, social enterprise conceptualization and development have varied greatly across the nation (Boughzala et al., 2019).The main reason for the establishment of social enterprises in Tunisia is to address social and economic issues, such as the rise in the homage rate (Lotfi, 2021). Then, the development of social enterprise is centered on the human factor above all. This therefore presages relatively similar socio-economic solutions from one country to another. However the system of governance assumes a different contextualization depending on the country. As a result, social enterprises were established to help people reintegrate into society by giving them a job while also delivering job training and social support (Zollo et al., 2018).

#### **3.2. Data collection**

To fulfill the objectives of our research, the survey was to be implemented through a questionnaire, initially reviewed by two academic professors as to the extent of its approval, and later on tested on four social entrepreneurs. The questionnaire was issued directly to the managers of the sampled firm that is directly related to non-profit organizations. The questionnaire entailed queries of general data concerning the social enterprise, the process and activities of the board of directors, as well as the operations and (non-financial) performance of social enterprises. The survey was distributed to the CEOs of the Tunisian Center of Social Enterprises that have been listed in social enterprises. Followup intensive participation yielded responses of 74 CEOs after a certain period, translating to 25-response rate. We corpus deleted 20 incomplete responses. We narrowed to 54 social enterprises as our sample.

#### **3.3. Measurement of Variables**

For all independent and dependent constructs, we used measures based on previously validated measures wherever possible. With the exception of some control variables, items were measured statement-style on a scale from 1 (strongly disagree) to 5 (strongly agree).

### ***3.3.1. Dependent variables***

#### ***Board Performance:***

The assessment of the board performance involved the use of a 10 -item tool, (Minichilli et al., 2009; Crucke and Knockaer,2020). The respondents were requested to respond to the question regarding the role played by the board detailing to what degree it plays it on a five-point Likert scale (the possible answers are strongly disagree, strongly agree). In particular, we requested respondents to answer the questions with regard to the extent to which the board (1) offers advice on management issues; (2) offers advice on financial issues; (3) offers advice on technical issues; (4) offers advice on market issues; (5) offers advice on legal issues; (6) offers linkages to the important external stakeholders; (7) offers the firm an external legitimacy and reputation; (8) proffers participation in the implementation stage of long-term strategic decision-making; (9) proffers the participation in the strategic decisions making stage;

#### ***Social performance:***

The social performance is defined as the measure of value creation by a social enterprise which could be community contribution, employment generation, and the delivery of social services, (Shin (2018)). In the assessment of the social performance of social enterprises, we considered a measure that was suggested by Shin (2018). The measurement of the social performance was done using a seven-point Likert scale where the respondents indicated to the extent to which they agreed with the statements as follows (1: strongly disagree, 5: strongly agree) (1) our company receives a positive mark among the local residents; (2) our company invests external revenues in raising employee pay or in research and development of services and products; (3) our company invests external revenues in enhancing community (4) the employees of our company can be proud of what they do; (5) our company invests external revenues in bringing positive

#### ***Economic performance***

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Similar to the past studies that investigated social enterprises (Battilana and Lee, 2014), we utilized a productivity measure in measuring the economic performance of social enterprises. We applied the scale that was created by (Shin (2018)). to determine the economic performance of social enterprises. The respondents were required to indicate either through a likert scale (1-7

points) that is (1) our turnover is constantly increasing; (2) our operating profit is constantly increasing; (3) our net profit is constantly increasing.

### **3.3.2. Independent variables**

#### **External social capital of the board:**

To measure this independent variable, we have applied the measure created by Kim and Cannella (2008), and adjusted by Crucke et al ( 2016) in terms of the bridging role of the board in relations with various stakeholder groups as well as various industries. To equally indicate the connectivity of the board to key social organizations, in this case, it is applicable in social enterprises.

Precisely, the respondents were requested to provide their response to the following statements concerning the board of directors on a five point scale of Likert (with the scale 1: strongly disagree to 5: strongly agree) to indicate the degree to which they concurred with the following statements; (1)The board of directors appoints key external representatives,(2)The board of directors is composed of members who are among the key customers of the organization, (3)The board of directors is composed of members who are among the key suppliers of the organization, (4)The board of directors is composed of members

#### **Internal social capital of the Board:**

Internal social capital of the board is conducted in four items designed by Kim and Cannella (2008). The respondents were requested to respond on five point Likert scale (scaling between 1: strongly disagree and 5: strongly agree), to the extent of their agreement with the following statements: (1) Directors have good relationship with the CEO, (2) Directors have firm specific knowledge, (3) Directors share beliefs of how much effort each should exert when asked to commit a task, (4) Each director is aware of the areas where other directors are strong.

### **3.3.3. Control variables:**

According to the available literature we adjust the size of the enterprise (SIZE) since the large enterprises are presumed to have the market presence, competition and high performance (Lin et al., 2019; Ju et al., 2021). Besides that, we also control the age of firms (AGE). Another important variable is age because old firms will acquire experience and be more likely to increase their performance (Zheng and Tsai, 2019; Huang et al., 2021).

## **3.4. Model specification**

The first phase, which was the exploratory stage, enabled us to delimit our variables and develop a sample of items to gauge our variables basing on review of the literature. In a second attempt to validate our conceptual model, we applied the method of assessing a conceptual model using structural equation modeling (SEM) and the artificial neural network construction method (RNA). All the statistical studies provided in this research were done using the STATA 13 and SPSS

software 25 statistical analysis. Due to its ability to combine latent variables, qualitative hypothesis of cause and effect structural equation modeling (SEM) is a statistical method of interest in management studies that is widely applied. There are three principal reasons that made the SEM the preferred tool used in this study. First, it allows estimating and testing the relationship among constructions (social capital, administrative council performance and organizational performance). Second, the SEM model allows finding out and rectifying measurement errors. The possible effects of neglecting measurement errors are that there is a possibility of bias in the estimation of the parameters. Thirdly, SEM allows using a great number of measurements to indicate the structures. Coefficient [?]2 can be used to comprehend the input of every clarification variable in the prediction of a dependent variable in consideration of the clarification of the extensive variance by endogenous variables as well as guaranteeing validity and profuseness of structural coefficients depicting the importance of influences.

$$M1: BP = \beta_0 + \beta_1 EXB + \beta_2 INB + \beta_3 age + \beta_5 size + \varepsilon_1 \quad (Eq1)$$

$$M2: SP = \alpha_0 + \alpha_1 EXB + \alpha_2 INB + \alpha_3 BP + \alpha_4 age + \alpha_5 size + \varepsilon_2 \quad (Eq2)$$

$$M3: EP = \alpha_0 + \alpha_1 EXB + \alpha_2 INB + \alpha_3 BP + \alpha_4 age + \alpha_5 size + \varepsilon_3 \quad (Eq3)$$

## 4. Results and discussions

### 4.1. Descriptive statistics

Regarding the characteristics of our sample, we chose an assortment of businesses that engage in economic activity in order to carry out social missions, representing a range in age and size. The social enterprises that play a significant role in the development and growth of the Tunisian economy make up the study's field of study. Our inventory is based on food products found in goods for widespread consumption. Despite the limited purchasing power of its six million customers with low incomes, the sector plays a significant role in the Tunisian economy. This means that most of the enterprise in our sample have been around longer than 10 years on average and that they may be anywhere between the startup and growth phases. So, it is reasonable to anticipate better performance from these businesses. Regarding the size of the enterprises in our survey, (46, 3%) of the enterprises surveyed employ less than 50 people, against (44,4%) with 50 to 250 employees.

### 4.2. Reliability and Validity

We evaluate the reflective measurement model, which is shown in Table 1, in order to determine the reliability and validity of the individual constructs. We use the following standard expected

thresholds to evaluate convergent validity, internal consistency reliability, and indicator reliability, in that order: Cronbach's alpha should be higher than 0.6 and the Kaiser-Meyer-Olkin (KMO) coefficient should be higher than 0.5. Explained Variance should be higher than 50%; Alpha of Cronbach >0.6). Indeed, the external social capital retained all of its components (Alpha of Cronbach =0,862; KMO=0,768; EV= 0,768).Also,the internal social capital kept 4 item (Alpha of Cronbach =0,785; KMO=0,537; EV= 60,815%). Board performance retained 10 item (Cronbach's Alpha=0,929; KMO= 0,809 ;EV= 59,024%). Economic performance is represented by 3 items (Cronbach's Alpha=0,817; KMO= 0,686; EV= 75,471%). Concerning the social performance, we were able to keep 6 items (Cronbach's Alpha=0.626; KMO =0,768; EV= 56,734%).We can draw a conclusion on the dependability of the internal coherence of our measurement scales.

**Table 1 : Reliability Analysis.**

<b>Construct</b>	<b>Items</b>	<b>Cronbach's alpha <math>\alpha</math></b>	<b>KMO</b>	<b>Explained variance (EV)</b>
External social capital	6	0,862	0,768	59,024%
Internal social capital	4	0,785	0,537	60,815%
Board performance	10	0,929	0,809	59,024%
Economic Performance	3	0,817	0,686	75,471%
Social Performance	6	0,834	0,768	56,734%

Source: Author's calculation based on collected data

#### **4.3. The results by the structural equation method**

The structural model is used to test the hypothesized relationships between the latent variables. Table 3 provides an overview of the results of the structural model. We first consider model 1. External and internal social capital have a positive effect on board performance ( $\chi^2 = 530.95 / p = 0.000/$ ), which confirms hypothesis H1 and H2.

H1 provides a positive causal link between external social capital and board performance. Indeed, the structural coefficient linking external social capital to board performance is (+2,197). As well as, the adjustment coefficient (+2.394) posted by STATA reveals a positive effect of internal social capital on the performance of the Board of Directors. Thus, the results indicate that firms with more equity capital have better-performing boards of directors.

These results are consistent with previous studies indicating that social capital has a significant and positive impact on board performance (Crucke, 2020; Ben Yousaf et al., 2021). The results support our proposal that social capital, with its dimensions (internal and external), has an impact on the performance of social enterprises. The findings indicate that the more a social enterprise has a board of directors with higher education, greater expertise, and strong ties to external boards, its performance will be higher. These results are consistent with the view from the top that the skills and background of management influence the results of the organization. These results are consistent with the view from the top that the skills and background of management influence the results of the organization (Hambrick and Mason, 1984).

**Table 2:** Results structural model (1)

<b>Models /variables</b>		<b>Coefficient</b>	<b>PValue</b>
<b>Model 1</b>	External board performance (EXB)	2.197519	0.000
	Internal board performance (INB)	2.394352	0.000
	AGE	.2455055	0.000
	SIZE	.0709567	0.044
	CONSTANTE	.4412428	0.002
Chi2		$\chi^2 = 530.95$	
P		0.000	

Source: Author's calculation based on collected data

In addition, board performance is significantly related significantly to the economic performance ( $\chi^2 = 11879.66 / P = 0.000$ ). The goodness of fit indices indicates a good fit of the model 2 with the data:  $\chi^2/df = \chi^2 = 11879.66$ . The third hypothesis ( $H_3$ ) assumes that the performance of the board would have a positive effect on the enterprise social performance. The structural coefficient indicates a positive value of (+5.417). The findings validate that board performance facets have a significant and positive effect on social performance, thereby supporting  $H_3$ . There is general agreement that both financial and social performance should be taken into account when evaluating the success of social companies (Chen et al., 2015; lotfi et al., 2022). The findings of

our study show that board performance is positively correlated with social enterprise performance. The findings of Crucke et Knockaert (2020) and the results of the present study are congruent. When the board has access to pertinent information on the stakeholder groups, social businesses should be better equipped to manage the divergent expectations of stakeholders (Huybrechts et al. 2014).

**Table 3:** Results structural model (2)

<b>Models /variables</b>		<b>Coefficient</b>	<b>P Value</b>
<b>Model 2</b>	Board performance (BP)	4.461459	0.000
	AGE	.4237369	0.000
	SIZE	-.0154561	0.714
	CONSTANTE	.1219716	0.491
Chi2		$\chi^2 = 11879.66$	
P		0.000	

Source: Author’s calculation based on collected data

The board performance ( $\chi^2 = 2830.46 / P= 0.000$ ) is significantly related to economic performance which confirms hypothesis H4. The hypothesis (H<sub>4</sub>) assumes that the performance of the board would have a positive effect on the company's economic performance. The structural coefficient indicates a positive value of (+4.461) . The results of the current study are in line with the findings of (Annen; 2003; Cenciarelli et al., 2018; Rossoni and Gonçalves, 2019. ) . Social capital improves firm performance by promoting cost reduction in transactions, which ultimately leads to increased productivity. According to Moynihan and Pandey (2006), social enterprise strategic initiatives can perform better when social capital is used effectively. It takes time and other resources to invest in social capital. This allows for the creation and maintenance of the capital gained from the relationship.

**Table 4:**Results structural model (3)

<b>Models /variables</b>		<b>Coefficient</b>	<b>p Value</b>
<b>Model 3</b>	Board performance	5.417564	0.000

	AGE	.4360839	0.000
	SIZE	-.0340466	0.500
	CONSTANT	.2781319	0.190
E			
Chi2		$\chi^2 = 2830.46$	
P		0.000	

Source: Author's calculation based on collected data.

#### 4.4. The results by the neural networks method

In recent years, neural networks have gained increasing popularity as statistical and decision-making tools in applied contexts such as business and social sciences, (Shiruru, K. (2016); Rémi Bernhard et al., 2019)). Table 5 presents the results of the network neuron regarding the effect of capital on board performance. In fact, the standardized importance of external social capital for board performance in social enterprises is equal to 100.0%. Thus, the internal social capital variable has positive and significant values (with an average standardized importance equal to 89.5%). These results confirm the results of the method of structural equations and indicate that the facets of social capital are significantly related to board performance. They therefore confirm hypotheses H1 and H2.

**Table 5:** Standardized importance for the model (M1)

Variable	Importance (Imp)	Standardized importance (Imp N)
External board social capital	0,306	100,0%
Internal board social capital	0,274	89,5%
Age	0,219	71,5%
Size	0,200	65,3%

Source: Author's calculation based on collected data

Table 6 presents the results of the network method on the relationship between board performance and the economic performance of social enterprises. The performance of the board of directors has positive and significant mean values equal to 100%; this explains that the economic performance of the enterprise depends on the effectiveness and efficiency of the board of directors. The

findings validate that board performance has a significant and positive effect on social performance, thereby supporting H3.

**Table 6:** Standardized importance for the model (M2)

<b>Variable</b>	<b>Importance (Imp)</b>	<b>Standardized importance (Imp N)</b>
Board performance	0,249	100,0%
Age	0,163	65,5%
size	0,209	83,9%

Source: Author’s calculation based on collected data

These findings are consistent with earlier studies that found a connection between social performance and the effectiveness of the board of directors (Ben Youssaf; 2021), which supports hypothesis H4. The findings show that the board of directors is the mechanism by which the directors improve the social performance of the enterprise. These ties are crucial for social performance, along with their knowledge, expertise, and external connections.

Table 7 indicates a positive relationship between board performance and social enterprise. The board performance variable has positive and significant values and an average standardized importance of 87.9%. The introduction of temporal effects such as age and number of employees also has an important role in explaining the social performance of Tunisian social enterprises insofar as their standardized importance is greater than 50%. In addition, we find a positive relationship between board performance and economic performance. , thereby supporting H4. This is in line with the results of the study by (Kim and Cannella, 2008; Stevenson and Radin, 2009; Ben Youssaf , 2021), and it is incompatible with the results of the study by (Crucke and Knockaert ,2016), who studied the impact of board performance on the financial performance of non -profit organizations in Flemish social enterprises.

**Table 7:** Standardized importance for the model (M3)

<b>Variable</b>	<b>Importance</b>	<b>Standardized importance (Imp N)</b>
Board performance	0,197	87,9%
Age	0,174	77,5%
Size	0,215	95,6%

Source: Author's calculation based on collected data

## **5. Conclusion**

According to a growing amount of research on social enterprise, the board of directors plays a critical role in helping social enterprises, which are hybrid organizations; complete their dual objectives (Galindo. M et al., 2020). Board characteristics have been extensively studied for their effect on firm performance. Many foundations, including agency theory and resource dependence theory, have been used to highlight how boards stimulate better performance. In making decisions, the board of directors may be in charge of ensuring both financial viability and the accomplishment of the social objective (Crucke and Knockaert, 2020).

There is no dominant party in social enterprises. To our knowledge, but none have yet been conducted in Tunisia. This study addresses this issue by investigating the impact of social capital on the board performance and organizational performance of social enterprises. The findings of the study indicate that board performance and organizational performance are positively related. The results are in line with the literature on board capital-firm performance (Borroso-Castro et al., 2016 ; Crucke et Knockaert ,2020).To be successful, social enterprises must be open, organic, dynamic, and evolving; they must grow with their users and stakeholders. With respect to the effects of board performance on economic performance, this is also supported. This result of the current study is in agreement with (Castro et al. 2016 ; Ben Youssaf et al., 2021) .

In addition, the results of our research indicate that board performance is positively related to the social performance of social enterprises. Social enterprises are hybrid organizations that maintain social welfare logic and a business logic .However, social enterprises offer the promise of financially sustainable organizations that respond to the world's biggest problems (Teasdale et al., 2023). Therefore, the importance of a social capital board of directors has been emphasized to resolve the distrust of social enterprise sustainability and promote the success of social enterprises.

Based on information from earlier studies, we can conclude that if social enterprise wants their boards to be more productive, they should strive to make them more effective and productive, they should strive to increase the social capital of their directors (Johnson et al., 2011). In sum, social capital leads to board performance and board performance leads to economic and social performance.

***Theoretical implications:*** Our study contributes to the literature in several ways. First, it contributes to the literature on social enterprise, which has focused on the significance of the board of directors in addressing the unique challenges that social enterprises must overcome (Mair et al., 2015. Kamran et al., 2023). In addition, researchers in social enterprise have placed a focus on how stakeholders can participate in the governance of social enterprises in line with the democratic and participatory principles that underpin them (Huybrechts et al., 2014; Pestoff and Hulgrd, 2015).

This finding also has real-world ramifications for social enterprise and society. Our research contributes to the analysis of the impact of board characteristics on board performance and subsequent organizational performance. While most studies concentrate on an examination of the relationship between board characteristics and board performance or the relationship between board performance and organizational performance, to our knowledge, only a few studies have provided a more holistic picture by combining these elements (Zattoni et al., 2015). Our research highlights that boards in social enterprises should focus on improving their performance, and that the social capital of the board is a critical component of the enterprise's success.

***Managerial implications:*** In addition to growing the body of current knowledge, this study offers some important implications for the management of social enterprises. First, this study suggests that policymakers and managers of social enterprises give the growth of their social capital significant consideration on the board of directors and view it as an essential factor for strategic management and planning. Social enterprises must take into account the value of social capital because it has grown to serve as a reliable indicator of their capacity to perform continuously (Khan et al., 2021). This study also recommends that the social capital of the board of directors enhances the creation of social value for the benefit of the enterprise and the society. Thus, to improve social performance, the increase and accumulation of social capital should be integrated as a preferred component of the board of directors. Finally, this research also advocates that social enterprise managers should focus on the vital importance of relationships among board members. This can be difficult because board members with ties to specific stakeholder groups may have

different views on the decisions the board should make. This can lead to conflict and slow down decision making.

***Research limitations and recommendations for further investigation:*** Future studies should identify a number of limitations with this study. Firstly, it is important to mention that the study had a significant limitation because of relying solely on a quantitative research that had a structured questionnaire as its primary data-gathering instrument. The questionnaire provided as a standard one does not give the respondent the opportunity to explore relevant themes. Nevertheless, the entire tests of robustness were conducted in order to demonstrate the validity and reliability of obtained information. The second weakness of the research is the generalizability of the findings.

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# Smart Hotel as Intelligent Tourism Entrepreneurship: Insights from Tourist Perceptions in Tunisia

**Ichrak RIAHI** [riahi.ichrak@fsegt.utm.tn](mailto:riahi.ichrak@fsegt.utm.tn)

Doctor in marketing – University of Tunis El Manar – Faculty of Economic Sciences and Management of Tunis – ERMA Laboratory

ORCID: <https://orcid.org/0000-0002-5391-5314>

**Imen ZOUAOU** [zouaouiimen@yahoo.fr](mailto:zouaouiimen@yahoo.fr)

Assistant Professor of Marketing, Faculty of Law, Economics, and Management, University of Jendouba, Tunisia- VPNC Laboratory

**Fawzi DEKHIL** [Fawzi.dekhil@fsegt.utm.tn](mailto:Fawzi.dekhil@fsegt.utm.tn)

Full Professor of marketing – University of Tunis El Manar – Faculty of Economic Sciences and Management of Tunis – ERMA Laboratory

## Abstract

Situated at the heart of the Mediterranean, Tunisia is emerging as a strategic hub for tourism innovation. In the context of increasing regional competition, the transition toward smart tourism has become a priority to strengthen the destination's attractiveness. Smart hotels are not an exception and this will be a part of this trend, which is the type of smart entrepreneurship that will presuppose the use of digital innovation and artificial intelligence (AI) to transform services and make the guest experience more efficient, and develop new value propositions.

The paper will make use of the qualitative research approach to conceptualize and operationalize smart hotel notion within the Tunisian context. Employing a qualitative approach, we conducted twenty semi-structured interviews with tourists on Djerba Island to investigate their perceptions and experiences with AI-driven technologies. A thematic content analysis of the responses not only reveals how tourists engage with smart technologies but also identifies key organizational, technological, and human requirements for successful implementation. The primary contribution of this research is a novel typology of potential customers, segmented by their openness to and adoption of intelligent systems. This typology serves as a strategic tool to guide the design, management, and market positioning of smart hotels in Tunisia, ultimately facilitating the development of a more sustainable and innovative tourism ecosystem for the region.

**Keywords: Artificial Intelligence, Tourism, Smart Hotel**

## 1. Introduction

Artificial intelligence (AI) has become one of the key factors of economic, social, and scientific change. Although the current developments were driven by the progress in computing and the processing of data, the theoretical background of it can be traced back to 1950, when Alan Turing provided the notion of machine-based thinking and the Turing Test, the question of whether machines can also behave like humans. This was an early experiment, which gave the foundation to the comprehension of artificial cognition and non-human potential.

Nowadays, AI is widespread and disruptive, being considered in three complementary directions human imitation of intellectual capabilities, formation of analytical problems, and autonomous learning through the algorithm (Soudoplatoff, 2018). The converged dimensions form systems that are able to interpret, predict and respond to data streams of large scale. The nature of AI in which it is used to imitate human intelligence, identify concealed trends, and analyze massive data sets has led to its rising relevance in the academia and in professional practice. It helps organizations to make optimal decisions, improve efficiency, make experiences tailored, and rich in competitiveness in complex environments.

One of the sectors that are impacted by the integration of AI is the tourism sector, which is a vital source of economic, social and cultural value. There are several stakeholders involved in tourism who are public institutions, entertainment enterprises, online communities, local groups, and visitors whose relationships are constantly changing (Benckendorff et al., 2019; Xiang, 2022). AI has infiltrated all aspects of the traveler experience: inspiration, search of information, booking, in-site experience, evaluation of the post-trip, and loyalty (Dai et al., 2022; Tussyadiah and Park, 2023). Such developments as chatbots, recommendation systems, service robots, immersive technologies, and visual or voice recognition can make tourists more independent and simplify their experiences, besides allowing the destinations to share their identity and create hybrid experiences that blur the authentic character of the place with an advanced technological interface (El Bayed & Sedra, 2023).

Digitalization has now been turned into a competitive tool. Technologies such as generative AI, augmented reality, digital storytelling, and predictive analytics also enable destinations to become stronger through the brand, establish experiential narratives, and stand out even more in a highly competitive market (Aman et al., 2024). AI integration is not technological modernization therefore, it is a radical reconfiguring of the manner the destinations create, communicate and deliver value.

With this background, this paper will discuss the idea of smart hospitality in Tunisia a key Mediterranean destination that tries to update its tourism products to suit the new inclination as well as the international best practices of smart tourism. The study uses a qualitative design, which relied on visitors to Djerba, one of the symbolic tourist destinations in the country, to obtain the perception, expectations, and issues in relation to AI-introduced technologies in hotels. The research seeks to learn the trends of the usage as well as the subjective reasoning that support the acceptance and rating of such innovations by tourists.

The chapter addresses the ways in which intelligent technologies transform professional activities, organization design, and relations between providers and visitors and singles out AI, recommendation systems, chatbots, Internet of Things, and integrated management systems. It then talks about managerial possibilities of improving hotel performance with regards to personalized marketing, improved customer touch-points and interactive and adaptive services. Lastly, the paper discusses the issues related to the generative AI systems, such as ChatGPT, in transforming communication, service delivery, content creation, and the interaction between visitors and the provider, increasing the costs and environmental impact (Ben Massou, 2021; Buhalis and Amaranggana, 2022). The empirical evidence used in the research gives qualitative data of twenty tourists in two hotels in the town of Djerba to inform the theoretical, managerial and strategic implications as a basis to develop intelligent hospitality in the future in Tunisia.

## **2. Literature review**

Intelligent tourism entrepreneurship can be described as a type of entrepreneurship, which involves integration of technological advancement, especially artificial intelligence (AI), the Internet of Things (IoT), and information analytics in the tourism industry with value-generation. In this respect, the intelligent hotel project is not a technical hotel, but a model of the business where intelligent technologies are at the core of the entrepreneurial plan. It is based on the fact that proactive data usage and algorithm learning can ensure optimal availability of the operations at the time it provides more environmentally friendly services (Zhao and Shan, 2022; Khan et al., 2024). Intelligent hotels also enable guests with intelligent systems that are able to anticipate the intention of behavior and generate corresponding suggestions and provide quantitative feedback in real-time, and tourism organizations refine their unique selling proposition continuously (Belhaj-Soulami and Azmiousa, 2022).

In this context, chatbots (conversational) like ChatGPT have become promising high-potential intelligent agents. Created in 2021 by Open AI and an improved version of the previous GPT-1 (2018), GPT-4 (2023), these systems have also continuously developed in their language comprehension and creation capabilities (Bellaaj, 2023). The chatbots are now able to resolve complex scenarios, give context-specific solutions, and be helpful to the organizations to generate creative contents. They are instrumental in the customer assistance with natural, intuitive and continuous interactions (Deng & Lin, 2022). ChatGPT has two managerial advantages in the hospitality sphere. To start with, it improves the customer experience by offering real-time, contextual, 24/7 feedback, as well as increases service sensitivity and the quality of perceived service (Dwivediet al., 2023). Second, it also automates the operations like request processing and reservation management, personalised suggestions and complaint response, which saves money and increases productivity of the team (Burger et al., 2023). This efficiency as far as operation goes is highly beneficial especially within the competitive hospitality industry.

Moreover, ChatGPT has been identified as a potent instrument of reviewing and feedback analysis of online posts. It can detecte motional trends, emerging expectations and points of friction in the platforms examined by delving into user-generated content, like TripAdvisor or Booking.com, the tourist experience. Such an analysis can enhance the marketing practices and help in behavioral segmentation as well as designing more focused and appropriate advertising campaigns (Dwivedi et al., 2023). As a result, ChatGPT is compatible with the modern trends in the digital marketing campaign, which is focused on data-based personalization.

In a theoretical viewpoint, combining smart technologies would be helpful in creating mind-blowing, impressive and emotionally awakening experiences on the part of the tourists. According to Montargot (2021), AI is gradually moving closer to the affective aspect of human behavior, making it easier to comprehend and reason about emotions and empathetically even respond, which is a critical element in tourism, as it involves symbolic, sensual, and social experience.

The use of AI in the hotels their financial and overall sustainability not only enhances revenues (Leung, 2019), but also encourages eco-friendly approaches to the business, such as energy efficiency, waste minimization, anticipatory services and smart flows management. The technologies assist in the valorization of the destination socio-cultural specificity, in expression of innovation, sustainability and territorial identity (Kua & Lee, 2002).

Nevertheless, the digital revolution is threatening even the principles of hospitality. The advent of intelligent systems implies the need to reconsider the conventional way of service and guest

interactions. In this respect, Service-Dominant Logic (Vargo and Lusch, 2004) can be viewed as a conceptually applicable notion, which focuses on the idea that the value is developed in the form of relationships between the provider and the customer. Existing intelligent hospitality is too complex to cause functional automation; it is a people-based platform, where experiences are produced co-real-time by dynamically integrating digital and human resources.

Technology adoption models like Technology Acceptance Model (TAM) (Davis, 1989; Venkatesh et al., 2003) add more understanding on the factors leading the tourist to adopting the intelligent systems. Perceived usefulness, ease of use, technological trust and capability of technology to maintain the human aspect of the hospitality is a hallmark of the usage intention. These points are consistent with the literature on smart tourism ecosystems (Gretzel et al., 2015) in which the complexity of multi-stakeholder relationships and the significance of the contextual information are observed in the co-creation of tourist value.

The concept of intelligent tourism hospitality therefore needs specific consideration on the way the implementation of digital technology redefines the experience of the guest. Ensuring the consistency of the technological efficiency and service humanization as well as examining how these new configurations affect value creation, satisfaction, destination attachment, and overall performance of tourism establishments in modern settings is critical in a marketing perspective.

### **3. Research methodology**

The proposed qualitative research is expected to investigate the digitalization changes in the tourism industry, along with the potential of the artificial intelligence (AI) to help reorganize modern hospitality. Particularly, it explores the way postmodern tourists understand and conceptualize the concept of a smart hotel, which is a new ideology in the academic literature that is already taking central position in the innovation policies of tourist destinations.

The interview guide was created on the basis of a very large literature review which includes smart tourism, service technologies, automation, and technology acceptance models (Gretzel et al., 2015; Tussyadiah, 2020; Wirtz et al., 2018). The guide covered three major themes, including; (1) the perceptions of smart technologies in the tourism industry by tourists, (2) the perceived value of AI in the hotel experience, and (3) expectations, fears, or suspicions about smart hospitality devices. The interviews were semi-structured face-to-face interviews with the tourists visiting the island of Djerba, which is one of the most iconic touristic destinations in Tunisia with the growing digitalization of touristic services. The complexity of the representations, feelings, and appropriation of technological dimensions of the tourism in the view of in-depth interviews were selected due to the nature that is hard to reach with the use of

purely quantitative methods. The choice of the participants was based on the theoretical relevance and the maximum variation. The respondents all had an experience of attending Djerba on more than one occasion, which guaranteed them adequate acquaintance with tourism services in the area. They also had undergone no less than a single smart technology in an inn or travel setting, a circumstance that must be met to confirm the legitimacy of the information.

The sample was also culturally mixed consisting of four nationalities, both national and foreign tourists. This difference allowed the research of perceptions towards smart hospitality in different socio cultural systems, which added a deeper analytical level to the study. The selection of the final sample size was made based on theoretical saturation (Glaser and Strauss, 2017) studies were not further collected once the research did not yield any new concepts, which signifies that the emerging classes had reached stabilization. The analysis of data was done in two complementary steps. Manual thematic analysis with an inductive approach was first performed as it aimed to identify the units of meaning and build the categories in accordance with the research goals. Second, NVivo assisted computer analysis improved the validity of the results, led to the method triangulation, and the relationships between emerging themes were objectified. NVivo permitted viewing code co-occurrences, density, and conceptual networks visualizing concepts which supported the strength of interpretation.

This approach will give the full picture of the perception and interaction to intelligent technologies among the hosts of the tourism industry. The combination of high-quality data analysis techniques, conceptualization of the theoretical domain of sampling, and the use of sophisticated analytical instruments enable the study to have a solid foundation in conceptualizing smart hotels within the Tunisian context. Detailed sample characteristics, including socio demographic variables, are summarized in the following table 1:

**Table1:** Sample of the qualitative study

<b>Interviewees</b>	<b>Gender</b>	<b>Nationality</b>	<b>Occupation</b>
<b>1</b>	Female	French	IT Specialist
<b>2</b>	Male	French	Graphic Designer
<b>3</b>	Male	Swiss	Tattoo Artist
<b>4</b>	Male	French	Real Estate Developer
<b>5</b>	Female	Belgian	Flight Attendant
<b>6</b>	Female	Belgian	Flight Attendant
<b>7</b>	Female	Belgian	Flight Attendant
<b>8</b>	Female	Belgian	Flight Attendant
<b>9</b>	Male	French	E-commerce Professional
<b>10</b>	Female	French	Biologist
<b>11</b>	Male	Tunisian	Self-Employed Professional
<b>12</b>	Male	Tunisian	Self-Employed Professional
<b>13</b>	Male	Tunisian	Self-Employed Professional
<b>14</b>	Male	Tunisian	Self-Employed Professional
<b>15</b>	Female	Tunisian	Homemaker
<b>16</b>	Male	Tunisian	Digital Trainer
<b>17</b>	Female	Tunisian	Fashion Designer: Traditional Haute Couture
<b>18</b>	Male	Tunisian	Consultant
<b>19</b>	Female	Tunisian	Homemaker
<b>20</b>	Male	Tunisian	Cardiologist

#### **4. Results of qualitative research**

##### **4.1.Results of the Thematic Content Analysis**

The analysis of the qualitative corpus highlights six core themes, namely:

###### ***Theme1: Specificities of the Tourist Experience on the Island of Djerba***

The comparison of the verbatim accounts of the participants showed that there were five main aspects of the tourist experience identified as having a central dimension which include culture, tradition, relational aspects, nature, and religious dimension. All foreign and Tunisian visitors share these dimensions; however, their views are dissimilar based on their origins. Culture and tradition are considered as a means of exploration and exoticism to foreign tourists. They value local crafts, heritage and traditional architecture as a source of authenticity. The impression of nature and climate of the island is seen as something nice and soothing. The religious aspect is considered as the sign of intercultural coexisting.

Tunisian tourists in turn take a more identity-grounded and heritage-oriented view. Culture and tradition are viewed as the indicators on continuity and local pride. It takes nature as a measure of coziness and availability all year round. Although, the relational factors are valued in both

categories, local visitors perceive them in national and cultural context. Such results provide an insight into a mixed-blended picture of the tourist experience in Djerba. To foreign visitors, it is the amount of novelty and an escapist touch. Value to the Tunisian visitors will lie in identity and cultural attachments. These disparities are at the expense of the importance of hotel and tourism managers promoting differentiated strategies. Offers are to be combined with cultural valorization, immersion, and services, which can be expected, by particular groups of visitors. The specific features of the tourist experience on the island of Djerba are presented in the following table 2:

**Table 2:** Specificities of the Tourist Experience on the Island of Djerba

Categories	Foreign Visitors		Tunisian Visitors	
	Frequencies	Verbatim	Frequencies	Verbatim
<b>Cultural Dimension</b>	38	<i>"I see a cultural richness that encourages the discovery of the island of Djerba. It's a different culture, not mine, and as tourists we are naturally drawn to this culture."</i>	30	<i>"The culture and traditions of Djerba are a unique heritage, a cultural exception that personally attracts me, knowing that I am Tunisian."</i>
<b>Traditional Dimension</b>	27	<i>"The traditional architecture and this architectural style are found everywhere in Djerba. I think it is a very old Tunisian architecture, and the handcrafted elements and traditional clothing displayed in the souk... and that's it."</i>	22	<i>"It's the housing that gives charm to the island of Djerba, an architecture that is specific to us."</i>
<b>Relational Dimension</b>	20	<i>"I've visited several times, so I've had the chance to build warm relationships with the hotel staff and also with the people of Djerba. They are really warm... truly."</i>	20	<i>"Tunisians are warm; there is the relational aspect, the generosity towards tourists in all regions, and particularly in Djerba."</i>
<b>Natural Dimension of the Island</b>	19	<i>"This mix of the warm sun, the overall climate of Djerba, the beach, the symbolic places... well, it's just lovely."</i>	15	<i>"It's the Mediterranean climate. I prefer the nature of Djerba in all seasons, and I visit Djerba throughout the year. I don't have a single favorite season."</i>
<b>Religious Dimension</b>	8	<i>"Djerba is the Ghriba Synagogue; it's a Tunisian synagogue for the Jewish community. I'm Christian, and I appreciate the peaceful coexistence of different religions here in Djerba."</i>	3	<i>"There is the Ghriba religious event. I have participated once to see what it is about, and I saw Muslim people who wanted to experience the atmosphere."</i>

## ***Theme 2: Perception of the Digitalization of the Tourist Experience***

The qualitative analysis shows that there is a distinction of the views on the digitalization of the tourist experience based on the nationality of the visitors. Digitalization is perceived by foreign visitors as something that helps to establish contact and access information, as well as offers an easier and more individual experience. They refer to technologies as time-saving factors, sensual experience, and further control, regarding these tools as the engines of communication and gratification.

In the case of Tunisian visitors, digitalization is perceived to be more of access enhancement and the cost of tourism services reduction. Nonetheless, their zeal is checked by fears of safety, danger and the sacrifice of human intercourse. Digital tools will not be so harmful to human expertise and skills as to replace them.

This comparison reveals that digitalization is viewed as a chance by visitors and a fine line between effectiveness and distrust by the locals. It points to the necessity of differentiated digital strategies that consider technological innovation and at the same time maintain human experience.

**Table3:** Perception of the Digitalization of the Tourist Experience

<b>Categories</b>	<b>Subcategories</b>	<b>Frequencies</b>
<b>Foreign Visitors</b>	Easy Communication	25
	Information Accessibility	21
	Time and Effort Savings	19
	Sensory Stimulation	13
	Personalized	10
	Greater Control/Security	10
	Instant Response	9
	Tourism Brand	4
<b>Tunisian Visitors</b>	Accessibility	19
	Lower Cost / More Affordable	17
	Sensitive/Risky	17
	Doubt/Lack of Trust	12
	Loss of Human Interaction	10
	Comfortable Customer Service	9
	Mix of Real and Virtual	5
	Human Skills/ Expertise	3

### ***Theme3: Smart Technologies in the Tourist Experience***

According to the verbatim accounts, smart technology is in most cases sold as a solution to complement the tourism offering and bring about numerous benefits to the visitors. As an example, one of the participants commented: *"I observe that the tourist is made self-reliant, the huge physical staffing requirement is minimized, I do not have to wait at a hotel reception to check out, it is comfortable."*

Hence, the application of these revolutionary technologies can enable a visitor to have a customized experience that suits them. As another interviewee stated: *"I can plan in advance, select the monuments to visit, the restaurant, the menu, and book cultural events even before leaving my room, even if I'm French and don't have full information about the destination. This is achieved with the help of ChatGPT or smart hubs, e.g."*

Moreover, the artificial intelligence (AI) is a source of creativity and visual enrichment. Some of the innovative proposals that add to the attractiveness of tourists are also mentioned in our qualitative corpus. The AI-generated content has the potential to give the modern day consumer loyalty a strategic direction. One of the respondents remarked: *"I can scan my favorite meal using a smart application to identify its contents; either it has some fresh or organic goods. This can assist me in regulating the quality of the dishes."*

On a similar note, AI can facilitate the emotional connection to the destination. There are those, which underline the positive effects of AI and the power of it to evoke nostalgia: *"I believe that intelligent methods arouse my nostalgia. It is symbolic, unique. I cite the instance of easy recognition being done with something Tunisian something unique to this country. It enables me to experience certain nostalgia towards Djerba or Tunisia."*

Though, AI is even seen by reducing the actual experience of a tourist, especially in the opinion of Tunisian interviewees: *"I think the tourist experience is a social experience, and AI more or less The technologies are perceived by foreign visitors as means of independence and customization that helps people organize their trip, receive information leads to the decrease of human interaction. In this case, my experience does not make sense, as I am not a machine to spend a stay on applications and virtual world a few times."*

### ***Theme 4: The Concept of a Smart Hotel***

Visitors perception Analysis shows that the visitor and hotel experience is radically changing because of the digitalization and smart technologies., and handle services without engaging in too many interactions with employees. Service quality optimization with AI used as creative stimulation, service quality ChatGPT or smart hubs is perceived as the source of emotional

loyalty and production of direct control over options and an affective bond with the destination. Smart hotels are seen as a facility, which provides customized services, high levels of comfort, and environmental interaction, which raises the level of differentiation perhaps valued by the international visitor.

To the Tunisian visitors, the perception is more realistic and judgmental. The digitalization is linked to accessibility and time-saving, yet it seems that there are certain technologies that fail to be seen as realistic or applicable. Over automation is perceived as a measure of lack of human interaction and social authenticity of the tourist experience. Within the smart hotels perspective, the primary value of the Tunisians is more about luxury, comfort, and local interest of service in which technology is viewed not as an alternative to human interaction, but as a complement.

The given analysis has indicated a distinct cultural gap: foreigners are more likely to value the aspect of innovation, personalization, and autonomy which technology provides, and the locals prefer focus on safety, feasibility, and social aspect of the experience. These findings provide significant lessons to tourism managers, in that they need to apply differentiated plans that would incorporate AI and digitalization without causing an authenticity and human experience loss to achieve maximum visitor satisfaction and destination desirability.

**Table4:** Perception of a Smart Hotel

Categories	Subcategories	Frequencies
<b>Foreign Visitors</b>	Tailored/Customized Offers	26
	Premium/High-End	22
	Eco-Friendly/Environmentally Friendly	20
	Smartness Certification/Intelligence Label	15
	Monitoring/ Updates	10
	Well-Being	7
<b>Tunisian Visitors</b>	Luxury	20
	Comfort/Exceptional Comfort	17
	Not Feasible/Inapplicable	10
	Creative/ Innovative	10
	Tailored Offers/For a Different Target Segment	5

***Theme 5: How to Approach the Concept of a “Smart Hotel” as Intelligent Entrepreneurship in the Tunisian Context?***

Basically, as described in the verbatim narratives, the installation of a smart hotel in the Tunisian

in the island of Djerba means that it must have a huge infrastructure. The elements of the political will, and the economic orientation of the state, were highlighted by the participants of our qualitative study: *“It is a high level decision; it is the willing to tap into the talents of Tunisian engineers, provided we still have such a human resource in Tunisia because I think a lot of our talents have already left Tunisia.”*

Furthermore, the vision of a clever entrepreneur is also determined as the primary one involved in developing a smart hotel. Based on the qualitative analysis: *“A wise entrepreneur is a know-it-all creative entrepreneur who makes his offerings with intelligent methods in order to promote and market it.”*

The first thing, which foreigners visiting Djerba in the context of the study draw their attention to, is how well the society is technologically prepared: *“Artificial intelligence and its application to everyday life, it is more of a culture to me.”*

Likewise, Tunisian respondents emphasized that the fact that the local citizen mentality is the primary hindrance to the introduction of smart hotels: *“we do not have this mentality yet, we are still in the stage of doubt and fear of AI. I believe, however, there is a long way to go to this extent; we must have a more contemporary mindset.”*

#### ***Theme6: Typology of Smart Hotel Guests***

The verification of the verbatim accounts enabled us to come up with subtle typology of the possible smart hotel guests, unveiling three different tourist profiles, all of which are motivated and have their expectations.

The **eco-conscious tourist** is the first profile that is identified by a high degree of attentiveness to the environmental problems and has an interest in eco-friendly practices in the hotel. These tourists appreciate such actions as effective energy control, minimization of waste, and advancement of responsible consumption. To them, travelling is not a form of leisure but an investment in making personal and moral commitment. The ecological aspect will be a major factor in the destination and accommodation selection as it increases their contentment and commitment on the long term.

The second profile is the **high-endtourist**, which focuses on comfort and luxury. They demand personal services and quality attention, unique experience in which technology is applied to generate the maximum well-being and efficiency of their visit. This kind of guest links innovation to service quality whereby technology should be seen as a way of increasing the exclusivity and the differentiation of the hotel service.

Lastly, the advanced familiarity and appropriation of digital technologies is one of the

characteristics of the **smart tourist**. As a rule, being the kinds of digital-native generations, they incorporate the use of smart tools throughout their stay extending to the booking and arrangement of a place to the activity management. With the use of AI, mobile apps, and smart hubs, they can optimize their experience, personalize their stay, and have more control over their stay, and they can find smooth and rewarding digital experiences.

This typology brings out the fact that the success of a smart hotel lies largely within whether the managers are able to tune the offering to the expectations of each client segment to ensure that it is sustainable, comfortable, luxurious, and technologically innovative. A strong insight into these segments enables the managers not only to design differentiated and targeted marketing plans. In addition, to create modular and adaptive services that would be maximized to client satisfaction and loyalty. It also serves as a point of assessment as to whether the technological innovation is effective or not, new differentiation opportunities, as well as enhancing competitiveness in the ever growing experience and digital-based global tourism environment. The key of smart hotel is that the personalization process, eco-responsibility, and technology optimization would enable the hotel to be a strategic motor of sustainable appeal, which can cater to the needs of an international and a local client base and solidify its market standing.

#### **4.2.Results of the NVivo Analysis**

The NVivo software analysis of our qualitative corpus agreement with the results of the manual analysis of the data through thematic analysis provided more support to the reliability and consistency of our observations. In order to demonstrate these differences in perceptions, we developed two separate graphical designs, which enabled making a comparison between the image we have in our mind of foreign visitors and the image of Tunisian visitors.

The initial currency, with regards to visitors who come to visit Djerba, emphasizes the dimensions that constitute the tourist experience in Djerba namely the traditional dimension, cultural dimension, the relational dimension and the religious symbolism. These factors shape their image of the destination with the focus on cultural and heritage diversity as a valuable source that facilitates the process of generating a more significant and memorable experience. NVivo allows discussing the perceptions of the process of events digitalization of the tourist experience, as it can be seen that foreign tourists highly appreciate the importance of facilitated communication, access to information and customized services, and these processes directly lead to a comfortable and independent experience.

As per the perception of a smart hotel, foreign visitors relate it to a luxurious hotel, which is a representation of the technological advancement and quality of service. This perception extends



The second NVivo graphic display, which relates to Tunisian visitors, tells us about an apperception of the tourist experience that dwells on the culture, heritage, history, and craftsmanship of the island of Djerba. The dimensions comprise the base of the local tourist experience in that there is appreciation of identity-based heritage and traditions. Tunisian tourists appreciate the digitalization of tourism, especially adopting smart technologies that allow access to information in a much shorter time and with reduced costs and enable allocating their stay more effectively. Such combination of digital tools makes its integration an amalgamation of real life and the digital allure, making the overall experience of the tourist more comfortable and independent and demanding a particular set of human capabilities to make the service quality.

Nevertheless, the NVivo discussion points to the fact that the extensive use of these technologies is associated with dangers. In this regard, smart devices can reduce the authenticity of the meaning of the tourist experience, especially among tourists who appreciate the social aspect of the experience and local cultural ways of doing things. In this respect, the most commonly used chatbot by tourists is ChatGPT where it provides automated guidance and streamlining the management planning of activities, as well as increasing personalized comfort and a sense of well-being understood as a magic.

The perception of smart hotels by the Tunisian visitors is one of a comfortable, innovative, and technologically advanced hotel. However, they are believed to be complicated in their implementation in Tunisia. NVivo identifies

4some of the challenges such as the local mindset, political rivets and structural infrastructure that may negatively affect the implementation of such establishments. This impression highlights the fact that despite appreciation of technological innovation, its assimilation should be well adjusted to local social-cultural, economic, and institutional reality.

Therefore, the implementation of a smart hotel in Tunisia should not be reduced solely to the implementation of modern technologies, as the development of innovation, cultural authenticity, and local responsiveness will be necessary to make the experience of the different segments of visitors as enriching and long-lasting as possible.

**Figure2:** NVivo Graphical Representation of Tunisian Tourists



## 5. Discussion

Reviewing the findings of the qualitative study of people visiting an island of Djerba, it would be relevant to place them into the frame of the available marketing literature. Moreover, it is desirable to offer marketers with corresponding recommendations, especially in the context of dealing with tourism marketing. Considering the qualitative corpus of our interview, the tourist experience peculiarities have been emphasized by the interviewee tourists. Specifically, cultural heritage was marked out as a source of an emotionally dense environment by emulating some concepts, such as traditions, architectural identity, and local history (Bourgeon-Renault and Jarrier, 2018). Experiential consumption is also capable of satisfying the requirements of modern tourism and contributes to guaranteeing the intention to revisit.

Based on the output of our qualitative study, we noticed the overall positive impression of the process of digitalization of the tourist experience, especially the utilization of smart technologies. Our findings provide the advantages of such a digital orientation. In theoretical perspectives, globalization will contribute to the competitiveness of the hotel industry by giving tourists a choice of sophisticated technologies to address human predicament in the

hotel industry (Kaur et al., 2024). Artificial intelligence (AI) is an important tool of optimization of marketing strategies in the sphere of tourism industry. With the help of AI, it becomes possible to target specific advertisements and promotions to individual customers based on their unique details, thus cutting down on the amount of resources spent on marketing them (Nugroho et al., 2024).

Our qualitative sample that targeted ChatGPT as a popular form of Chatbots amongst tourists is verbatim. Chatbots, in this case, are important in automating information operations, improving the consumption experience, and overall improvement of customer service (El Naby and Khalaf, 2024). The typologies of smart hotel guests were also raised in the responses provided by the participants. In fact, intelligent technologies may help to deploy a system of rewards basing on crypto currency to encourage sustainable actions of tourists and locals. As an example, this kind of system might give rewards to attempts to conserve water and energy in the places where they are staying or promote the use of environmentally friendly methods of transportation, like walking or biking, rather than driving. This system of incentives would contribute to the improvement of eco-friendly activities in tourist locations (Tyan et al., 2020).

Thus, the idea of smart hotel creates an entity of a new typology of clients, referred to, as the eco-conscious tourist. This kind of profile shows displays the consumers who value the sustainable and responsible activities and take advantage of the technological advancements provided by such smart establishments. The second typology based on the verbatim analysis is the one of the high-end tourist. These are tourists who come with a distinct population demographic that endears them to the tourism player. In most cases, they are members of upper classes, they tend to earn high incomes, have high educational levels. In most cases, they reside in large global cities and tend to be drawn to customized and intimate travel experiences that are usually predominated by a comfort urge and an interest in culture exploration (Tendengj & Diombera, 2024). Psychologically, these customers are drawn towards authenticity, faultless quality and are usually defined by a need to experience comfort and cultural exploration (Tendengj & Diombera, 2024). Another feature that can be mentioned about this demanding clientele is environmental consciousness and search of enriching experience that can be valued by the customers in terms of personalized and memorable service (Sawadogo et al., 2024).

The third typology that was determined by the qualitative analysis is the one that relates to the intelligent tourist. On the one hand theoretically, the resulting age of Tourism 3.0 is characterized by emerging customized technologies, the introduction of AI, and the ability

to be able to respond in real-time to the needs of tourists. Personalized tourist experiences are made possible through these developments, as well as amplifying dynamic interaction between the destinations and the travelers. The concept of intelligent tourism is, therefore, one of the main choices of the intelligent tourist (Hardy & Shoal, 2025).

Our main objective is to understand how to approach the concept of a smart hotel in the Tunisian context. To this end, we explored visitors' perceptions of this concept. The results of our research demonstrate the challenges of making this project even without the examples of the unprecedented introduction of AI into the everyday routine. No wonder, there exist always perennial discrepancies between intended practices and reality. Smart hotels are still unknown to tourists, and even the definition and the range of smart hotel services is not standardized and holistic. The idea of smart hotel is at its infancy (Yu & Hsu, 2024).

## **6. Conclusion**

The purpose of this study is to comprehend the way to tackle the concept of intelligent tourism hospitality in Tunisian context. The qualitative research proposed the importance of smart tourism as the driver of innovation, economic efficiency, and social development. The changing nature of the behavior of prospective tourists and extensive usage of intelligent applications in everyday human life results in new travelers (so-called intelligent tourists), which requires a specific reaction on the part of the hotel facilities (Femenia-Serra et al., 2019; Ye et al., 2020).

We find that the analysis results indicate that visitors perceive smart hotel as a beacon of luxury, comfort, and technologic perfection and have the potential to generate a competitive advantage and unique tourism presence to boost territorial branding of the Tunisian destination. Such valorization is very central in the Mediterranean region, the most popular culture, heritage, and beach, in which Tunisia is strategically located. The growth in the hotel revenue (increased by +8% in the first four months of 2024 with references to 2023) is an indicator of the growth potential and the necessity to harness the digital technologies and AI to improve tourism offer.

There are however challenges involved in integrating these technologies. Massive application of AI can minimize the interaction with human beings and diminish the social and authentic aspect of the tourist experience. In addition, the structural setbacks cited by the locals include, Tunisian mentality, political barriers, and availability of infrastructure which offers barriers to the viability of smart hotels.

These results have a great managerial and entrepreneurial impact on the Tunisian tourism industry. The stakeholders need to come up with business models that are flexible and innovative, and which at the same time incorporate technology, sustainability, and the cultural authenticity. It is necessary to train the staff both digital and interpersonal to guarantee the quality of the tourist experience and human contact with the automation.

Smart entrepreneurship is a business prospect of Tunisia. It can stimulate the development of the AI-based startups and hotel projects and increase competition and distinctiveness of the destination on the Mediterranean market. It is highly important to comprehend what should be delivered to particular customer groups because, in this way, it is possible to develop personalized offerings that would utilize the full potential of AI and at the same time would not lose authenticity and human aspect of the experience.

In the end, collaborative action such as intelligent hospitality development may become a strategic force that will turn the Tunisian tourism into an innovative, appealing, and differentiated destination in the center of the Mediterranean. The effective implementation of the model is anchored on the delicate expression between a technological breakthrough and a humanistic customer experience.

In this study, there are some shortcomings. It is devoted to Djerba as one of the particular locations of the seaside and cultural tourist attraction. As such, the findings cannot be used to generalize to the higher levels of digitalization, desert, mountainous, or urban settings in Tunisia with the rest of the tourism industry because the configuration, culture, and infrastructure are varied. The sample also is not extensive enough to include all the diversity in tourist perceptions as it is confined to four nationalities. The constructions however leave room to future studies. To prove and elaborate on the results of this exploratory study, it would also be pertinent to adopt a qualitative and quantitative methodology and make comparative analyses.

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# **Effects of Visual Advertising Creativity on Cognitive Responses and Purchase Intention: The Influence of Subjective Norms**

**Marwa ZOUAOUI**

[marwa.zouaoui@fsjegj.u-jendouba.tn](mailto:marwa.zouaoui@fsjegj.u-jendouba.tn)

Doctor in marketing – University of Tunis El Manar – Faculty of Economic Sciences and Management of Tunis

ORCID: <https://orcid.org/0009-0006-3520-3782>

**Fawzi DEKHIL**

[Fawzi.dekhil@fsegt.utm.tn](mailto:Fawzi.dekhil@fsegt.utm.tn)

Professor in marketing – University of Tunis El Manar – Faculty of Economic Sciences and Management of Tunis

## **Abstract**

Creativity of figurative advertising has become a strategic instrument of receiving the focus of consumers, especially in very visual digitized context like Instagram. This paper explores the issue of consumer attitude that is formed by figurative Instagram advertisements in the Tunisian context. Participants were online surveyed using two forms of creativity, one of them was developed on the basis of a trope, and the other on the basis of a scheme and sent to 350 active Instagram users. The results show the perceptions towards divergence and relevance by the consumers have a strong impact on attitudes towards figurative ads. Besides, the positive attitudes towards Instagram advertisements have a strong impact on the positive attitudes towards the relevant brand. I will hypothesize that subjective norm positively influences the purchase intention since the perceived social expectations make people buy the desired behavior. It is also found that there is a moderation effect based on gender: the effects of figurative advertising creativity on ad attitude are greater in women compared to men. As a manager, I could use this study to offer managerial suggestions on how a marketer would create more engaging, coherent and audience sensitive figurative advertisements in the Instagram.

**Keywords:** Visual Creativity, Instagram Advertising, Consumers Attitudes, Purchase Intention, Subjective Norms.

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## 1. Introduction

Throughout the years, advertising industry has focused more on creativity, which has been noted to be a performance driver in an ever-competitive market. The academic literature, as well as professional practice, reveal that the significance of advertising creativity in a competitive marketplace is one of the widely accepted facts (Smith et al., 2008, p. 47), because it is one of the true sparks that can increase the effectiveness of a campaign (Zinkhan, 1993, p. 3; Ang and Low, 2000, p. 835).

The market in the advertising industry is highly growing, according to Interactive advertising bureau (IAB). However, it can be projected that in 2024, the digital advertising will mark more spending than the traditional mass media at more or less USD 258.6 billion, which is 39.8 percent of the entire digital market. The internet, social media and digital platforms remain there at double-digit growth with the centralisation of their position in modern day advertising tactics.

In this regard, the theories of persuasion and rhetoric have been inserted in various research works to check the effectiveness of online advertising. The past studies have mainly concentrated on the perceived advertising creative (Guerin, 2005, 2008; Yang, 2006). Nevertheless, online advertising innovation is being the focus of the current research as the particular and functional facet of digital communication (McStay, 2010; Weisberg, 2015).

In Tunisia, the total amount of advertising investments is estimated at TND 235 million in 2020 (Open Sigma, 2022), and the growth of the digital advertising investments is expected to be about USD 6.95 billion in 2024 (IAB MENA). Besides, the use of social media is still popular, and 84.9% of Tunisians frequently use social networking sites (MediaNet, 2020; DataReportal - Global Digital Insights).

It is on this basis that the figurative advertising creativity, which is the visual organizational structure, like tropes and schemes, is developed as a strategic tool of attention, cognitive spark, and consumer desirable reaction induction. The goals of the study therefore focus on testing how figurative creativity of advertising affects the attitude and purchase intentions of consumers on the Instagram platform and the moderating effect of gender toward advertising perception and reception. This study will help to better understand the processes in which

figurative creativity can be used to increase effectiveness in advertising social media given the visual-based and dynamic online space.

The use of digital advertising has acquired a primary strategic element to the brands in a drive to compete in a competitive scene where the audience has been fragmented. This has been brought about by the promotion of visually-based sites, particularly Instagram, which has altered the concept of advertising where innovation of visual content is central to the perception of attention, eliciting cognitive and emotional stimulation, purchase intentions.

Although the role of figurative advertising creativity has become more significant due to the necessity to use tropes, schemes, and other visual patterns, the existing body of literature is scarce in its power to affect consumer attitudes and purchase intentions especially in some young but developing economic environment of Tunisia. In addition, very little research has investigated the moderating effect of gender that, perhaps, increases or reduces the perception and effectiveness of figurative advertising messages.

## **2. Review of the Literature and Hypothesis Formulation.**

### ***2.1. Ad Creativity, definition and dimensions.***

Advertisements are considered to be creative because they are associated with a good feeling and a positive attitude to the advertisement whenever they have novelty (as well as relevance) and are associated with a good feeling and a positive attitude to the advertisement (Ang et al. 2007). Various researchers have established the positive and significant correlation between perceived advertising creativity and attitude towards the advertisement (Guerin, 2005). Smith and Yang (2004) found that advertising creativeness is designed in two general dimensions including divergence and relevance. Divergence is part of originality and not following the traditional advertisement constructions and consists of the five subdimensions, including: flexibility, originality, elaboration, synthesis, artistic value and general creativity (Smith et al., 2007, 2008; Yang, 2006). Relevance however has two components which include ad relevance and brand relevance (Smith et al., 2007; Yang, 2006).

In addition, visual rhetorical figure in advertisement increases consumer cognitive and emotional participation, which leads to more favorable attitudes towards the advertisement (Petty et al., 1981; Stern, 1990; Tanaka, 1992, 1994; Mcquarrie and Mick, 1992, 1996, 1999, 2003 and 2009; Meyers-Levy and Malaviya, 1999; Toncar and Munch, 2 Recent studies also prove that rhetorical techniques like the visual metaphors and wordplay and schemes of

figurative impressions enhance recall, lead to cognitive elaboration, and give a more positive analysis of advertisements (Phillips and McQuarrie, 2010). Besides this, recent researches indicate that digital platforms and visual oriented frameworks like Instagram enhance the effectiveness of creative figurative content, because it prompts more interaction with visual stimuli (Stathopoulou and Balabanis, 2019; Yu, 2022).

In general, the modern literature approaches the same issue and comes to the conclusion that advertising creativity, and especially application of rhetorical figures, is among the main forces that shape positive attitudes towards ads and brands, which is especially important in the media world where visual and interactive communication prevails today.

### ***2.1.1. Rhetoric Figures***

Rhetorical figures can also be said to be the advanced structure of words or images, which are abnormal when compared to the normal or expected use in making a given influence (McQuarrie and Mick, 1996). A number of traditional studies have proved that these deviations produce a strong impact on the cognitive processing of advertisements, and subsequently, the attitudes of the consumers (McQuarrie and Mick, 1993, 1996, 1999). Specifically, studies have established that tropes, having more originality and complexity, can result in higher elaboration and reflection than schemes and therefore the more positive attitude toward the advertisement and correspondingly the brand (McQuarrie and Mick, 1992, 1996, 2003; Mothersbaugh et al., 2002; Huhmann and Albinsson, 2012).

In the framework of this paper, we would like to find out, under exposure to a creatively perceived commercial, which figurative rhetorical figure (trope vs. scheme) elicits the most desirable consumer reactions. In this regard, the hypotheses we put forward will be as follows:

*H1a. Attitudes towards an advertisement using a figurative trope will be more positive when exposed to a creatively perceived figurative advertisement on Instagram compared to the attitudes towards an advertisement using a figurative scheme.*

*H1b. Attitudes towards the brand with a figurative tropism will be made more favorable than the ones with a figurative scheme when exposed to a creatively perceived figurative advertisement on Instagram.*

Tropes have recently been confirmed in studies regarding visual rhetoric in advertisement as having an advantage in the persuasive power in commercial advertising. As an example, McQuarrie and Mick (1999) showed that visual figures, like the visual metaphors or puns, can

be more cognitively elaborated and positively attitudes were expressed on the condition that the audience was competent enough in their cultures to decipher the visual figures.

### ***2.1.2. Influence of Advertising Creativity on Authoritarianism toward the Instagram Advertising.***

The creativity in advertising has been confirmed to have a significant contribution to the attitude of consumers towards online advertisements, especially on platforms that are visual like Instagram. Advertisements of creative character will have more success in attracting attention and encouraging cognitive elaboration, as well as positive emotional reactions due to their originality, relevance, aesthetic appeal and meaningful executions of the message (Smith and Yang, 2004; Smith et al., 2007). On an Instagram where users are constantly bombarded with extremely visual and interactive content, creativity emerges as a factor that may distinguish an advert among the social posts (Stathopoulou and Balabanis, 2019). The latest research shows the promotion of more positive attitudes to the advertisement through the promotion of perceived enjoyment, informativeness, and engagement with creative Instagram advertisements in consumers (Casalo et al., 2020; De Veirman and Hudders, 2020). Moreover, visual creative features, including figurative imagery, bright metaphors, and aesthetical compositions, enhance appreciation of ads by adding the sense of authenticity and qualities of a storyteller (Djafarova and Trofimenko, 2019). Generally, the literature narrows down to the point that the creative advertising advertising quality positively influences the consumer attitude towards the Instagram advertisements by adding more visual content and increasing the persuasiveness of the message. So, the formulated hypothesis is the following:

*H2. An imaginative visualized ad on Instagram influences the attitude of the consumers towards the ad.*

### ***2.1.3. Brand Attitude response to Ad creativity.***

Innovative advertising has been found to successfully produce positive brand attitude on two grounds (Smith and Yang, 2004). To begin with, when creative advertisements are performed to create positive cognitive change like elaboration or perceived informational change, consumers are more likely to develop positive brand evaluation. Second, since creative ads are considered to be more pleasurable, entertaining, and emotional, the positive influence that they have is transferred directly to the brand attitudes. In line with this, previous studies have established a strong positive correlation between the acceptance of advertising creativity and attitude towards the brand (Guerin, 2005). Nevertheless, other researchers have reported that

even the super-imaginative advertisements can even produce negative brand reactions in cases where the level of such creativity distracts brand information or confuses the consumer (Till and Baack, 2005).

Moreover, it was evidenced that the use of rhetoric devices, including metaphors, visual analogies, stylistic tropes, and others in the advertising messages, contributes to the improvement in brand judgments of consumers in circumstance of deeper mental processing and greater appreciation of message (Mothersbaugh et al., 2002; Huhmann and Albinsson, 2012). More current research indicates the convincing quality of visual rhetoric in framing brand attitudes in online arena. As an example, the research demonstrated that rhetorical complexity enhances brand related elaboration by Phillips and McQuarrie (2010), figurative and metaphorical images raise brand favorability by increasing perceived creativity and emotional resonance in the study conducted in the context of social media (Stathopoulou and Balabanis, 2019). According to this literature, we are able to come up with the following hypothesis:

*H3. Instagram figurative creative advertisement positively impacts brand attitudes.*

#### **2.1.4. Purchase Intention as a result of Ad creativity.**

In a meta-analysis, Rosengren et al. (2020) prove the positive and significant effect of advertising creativity on cognitive variables (including the attention and the recall) on advertising attitudes and behavioral intentions. Prior to buying a product, majority of consumers will find themselves perusing product specifications by use of online advertising, or they will search online advertisement and cross-examine the products they plan to buy (Keller, 1993). The attitude of consumers can be determined as the human assessment of the online advertisement (Casalo et al., 2020). In particular, the hypothesis presented is the following:

*H4. The perceived figurative creativity of advertising through Instagram positively influences the purchase intention.*

#### **2.2. Ad Attitude Effect (Brand Attitude) (Dual Mediation).**

The attitude towards the advert is instrumental in brand attitude, as it is one of the major ways in which advertisement impacts on consumer attitude towards the brand. The dual mediation model (MacKenzie et al., 1986; Pieters et al., 2002) postulates that cognitive and affective reactions to the ad directly influence brand attitudes, but indirectly have an influence on

behavioral intentions. The particular finding is that consumers, the larger the perception that an advertisement is creative, relevant or emotionally captivating; the more potentially they are to appraise the ad in a positive manner. Such a positive attitude to the brand, in its turn, is transferred via affective and cognitive channels to the brand, sustaining brand favorability (Smith and Yang, 2004; Guerin, 2005). Experimental research has discovered that the magnitude of such an effect of transference can be influenced by the intensity of the consumer interacting with the advertisement: very involving or image-satisfying advertisements produce greater ad-brand attitude correlates (Phillips and McQuarrie, 2010; Casalo et al., 2020). This mediation effect is especially salient in online environments, including Instagram, where visual richness and interactivity increase the attention of the user, indicating that attitudes on the ad are an extremely important channel in influencing brand perceptions and, subsequently, purchase intentions. Accordingly, the hypothesis will be developed as follows:

*H5. A creative figurative advertisement on Instagram has a positive effect on consumers' attitudes toward the brand.*

*H6. Brand attitude has a positive effect on purchase intention.*

### **2.3. Impact of Subjective Norms on Purchase Intention**

According to the Theory of Planned Behavior (Ajzen, 1991), an individual's intention to perform a behavior is determined by three key factors: a favorable or unfavorable evaluation of the behavior (attitude toward the behavior), the perceived social pressure to perform or not perform the behavior (subjective norm), and the perceived ease or difficulty of performing that behavior (perceived behavioral control). Thus, the more favorable the attitude and subjective norm are, and the greater the perceived behavioral control, the stronger the individual's intention to engage in the behavior. Drawing on the foundations of social psychology, Fishbein and Ajzen (1975) define the subjective norm as "a person's perception that most people who are important to him or her think he or she should or should not perform the behavior in question" (Fishbein & Ajzen, 1975, p. 302; see also Davis et al., 1989; Ajzen, 1991). Based on this theoretical perspective, we propose the following hypothesis:

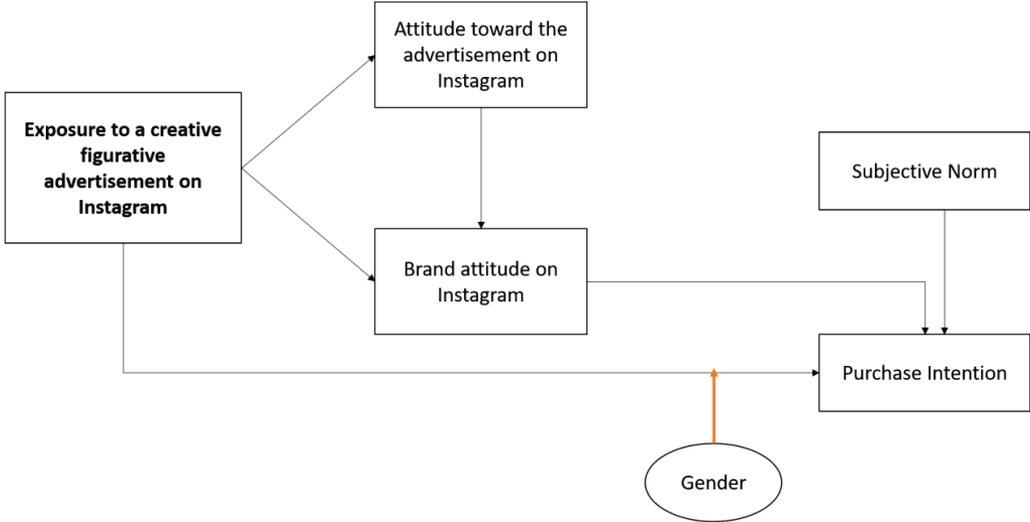
*H7. Subjective norm has a positive effect on purchase intention.*

### **2.4. Effect of moderating role of Gender**

Recent studies indicate that gender can moderate the perception and impact of visual advertising content. Women tend to respond more favorably to creative and figurative messages, which may translate into stronger attitudes toward the advertisement and higher

purchase intentions (Guérin, 2008; recent studies on Instagram). Given that women are generally more susceptible to the influence of others' recommendations than men, it can be assumed that the use of online consumer reviews as a form of digital endorsement has a stronger effect on women. Consequently, women may develop more favorable online attitudes that shape their purchase decisions. This reasoning leads to the following hypothesis:

*H8. The positive effect of figurative advertising creativity on purchase intention is stronger for women than for men.*



**Figure 1.** Conceptuel model (Smith et al. 2007;Casaló et al. 2020)

**3. Research Methodology**

A web-based survey was conducted among Tunisian users of the Instagram application. The study involved exposure to two advertisements (see Appendix 1) presented to a sample of 350 Instagram users, consisting of 219 women (62.57%) and 131 men (37.43%). Respondents were first asked to view two advertisements from the automobile brand AUDI. The selection of these two ads was based on a comparative evaluation of five advertisements from different brands.

In this quantitative study, we used measurement instruments widely validated in the literature and adapted to our research context. Rhetoric figure was assessed using a multidimensional scale comprising 5 items on a 5-point Likert scale, based on the works of McQuarrie and Mick (1996, 1999). Ad creativity was assessed using a multidimensional scale comprising 27 items on a 5-point Likert scale, based on the works of Smith et al, 2008; 2009. Ad Attitude of

Alsaleh et al. 2019 was measured using the scale consisting of 4 items on a 5-point Likert scale. Brand Attitudewere assessed through 4 items of Gaber et al, 2019, rated on a 5-point Likert scale. Purchase intention was measured using the scale proposed by Haiti Fakhri Subhana (2019), comprising 6 items on a 5-point Likert scale. Finally, subjective norm was evaluated using the validated scale by Venkatesh and Bala, 2008, consisting of 4 items on a 5-point Likert scale.

In the first stage, the reliability of the measurement scales was examined through Principal Component Analysis (PCA) and Cronbach's alpha using SPSS 24. In the second stage, the validation of the measurement model and the estimation of the structural model were performed using AMOS 24.

## **4. Empirical Results**

### **4.1. Results of the Exploratory Analyses**

Construct validity was also determined by examining the internal consistency, convergent validity and discriminant validity. The analysis findings were considered to be satisfactory.

### **4.2. Findings of the Exploratory Analytical Tests.**

The outcomes of the Principal Component Analysis (PCA) and the reliability indices (Cronbachs alpha) at this point of the analysis process are used to ascertain the strength of the measures that have been chosen. To begin with, the Kaiser- Meyer-Olkin (KMO) values are greater than the value of 0.5, which will mean that the data was sufficient to perform factor analysis. The test of sphericity of the Bartlett is significant in the 5 percent level, which proves the applicability of the factorial structure. When the values are more than 0.5, item representation is deemed to be satisfactory; all the items in our case addressed this requirement. In addition, the items cluster sensibly under each variable and the eigenvalues are larger than 1 which is a confirmation of the factorial solution. Lastly, estimating exploratory reliability, the factors of internal consistency of the scales are proven by all Cronbach Alpha coefficient ( $\alpha$ ) being over the value of 0.7. The result of the detailed exploratory analyses is shown in the table below (see Appendix 2).

**Table 1.** Results of the Exploratory Analyses

Variables	Eigenvalues	(KMO)	Bartlett's Test	Cronbach's Alpha ( $\alpha$ )
<b>Divergence</b>	4167,202	0,936	,000	0,973
<b>Relevance</b>		0,918	,000	0,965
<b>Artistic deviation</b>		0,936	,000	0,973
<b>Complexity</b>		0,918	,000	0,965
<b>Ad Attitude</b>	1341,364	0,861	,000	0,944
<b>Brand Attitude</b>	795,010	0,829	,000	0,889
<b>Purchase intention</b>	2218,494	0,869	,000	0,948
<b>Subjective norm</b>	1647,977	0,860	,000	0,961

Our results indicate that attitudes toward a scheme figurative advertisement have a mean of 0.09971135, whereas attitudes toward a trope figurative advertisement have a mean of 0.08263979. The difference between the two means is 0.01707156, which allows for the calculation of the t-value associated with significance. Indeed, the value of this difference is not significant ( $t = 0,000$ ;  $p = 0.000$ ). Therefore, there is **statistically significant difference** between the two means. Consequently, hypothesis H1a is supported.

Regarding brand attitudes toward a perceived creative figurative advertisement, we found that the mean of brand attitudes for a scheme figurative advertisement is 0.10304926, while the mean for a trope figurative advertisement is 0.09797190. The difference between these two means is 0.00507736. Moreover, the mean difference allows for the calculation of the t-value associated with significance. In fact, the mean difference between brand attitudes toward a scheme figurative advertisement and those toward a trope figurative advertisement is not significant ( $t = 0,000$ ;  $p = 0.000$ ). Thus, there is **statistically significant difference** between the two means. Therefore, hypothesis H1b is supported.

#### **4.2. The results of the confirmatory analyses**

In accordance with the recommendations of Fornell and Larcker (1981), the reliability of the latent variables was assessed using Jöreskog's Rho, with all observed values consistently exceeding the threshold of 0.7, indicating satisfactory internal consistency. Reliability of the scales considered as the requirement to be sensible in describing the construct under study was also reviewed. The findings indicate that convergent validity achieved values exceeding the accepted mean of 0.5, therefore providing the measure of relevance of the adopted measures. According to the indicators as shown in the table below, it was deduced that the

measurement model used to measure the different variables in the conceptual framework is reliable and validated.

**Table 2:** Results of the Confirmatory Analyses

	<b>Reliability (Jöreskog's Rho)</b>	<b>Convergent Validity (pvc)</b>
CREATIVITY_DIVERGENCE	0,977	0,702
CREATIVITY_RELEVANCE	0,961	0,737
ATTITUDE TOWARD ADS	0,944	0,809
BRAND ATTITUDE	0,944	0,801
PURCHASE INTENTION	0,945	0,737
SUBJECTIVE NORM	0,958	0,851

## 5. Discussion

The current research determined the impacts of figurative advertising creativity on consumer attitudes towards advertisements, brand attitudes, subjective norm and purchase intentions on Instagram but also evaluated the moderating role of gender. By and large, the results are quite conducive to the theoretical framework that draws a parallel between the advertising creativity and the consumer response in a digital setting.

In line with the previous study findings (Ang and Low, 2000; Smith and Yang, 2004; Casalo et al., 2020), H2 was verified and revealed that perceived figurative advertising creativity has a positive impact on the feelings of the advertisement. The original advertisements successfully attracted the attention of users and produced positive cognitive and affective feedback, which proves that the originality and relevance is a major factor in the appreciation of ads on visually-based applications such as Instagram. Likewise, H3 was confirmed, which posits the creativity as influencing the brand attitudes positively which agrees upon the prior studies that points at the transfer of the positive affect and mental absorption of the advertisement to the brand (Guerin, 2005; Phillips and McQuarrie, 2010).

The results also supported H4, which showed that there was a positive correlation between the perceived advertising creativity and purchase intention. This helps affirm that creative advertisements do not only positively impact attitudes but they also inspire behavioral intentions, which is also supported by the Theory of Planned Behavior (Ajzen, 1991) and results that found a connection between creativity and decisions (Rosengren et al., 2020). Also, the high correlation of brand attitude and purchase intention (H6) and the impact of subjective norms to purchase intention (H7) point to the possibility of thinking of the

combined effect of cognitive and social influence on consumer behavior in online marketplaces.

To the contrary, H1a and H1b that assumed the difference in tropes and schemes in their ability to induce attitude change towards ads and brands were supported. Even though the earlier studies proposed that tropes might trigger a more vigorous degree of cognitive elaboration and affective reaction than schemes (McQuarrie and Mick, 1992, 1996, 1999), the latest findings allow stating that, in the Instagram situation, both forms of figurative creativity led to the similar consumer reaction. This could be due to the scroll-based, rapid nature of Instagram, where one could be exposed to much information but in a limited amount of time to develop the ability to distinguish tropes and schemes, as there is not enough time to process as much information as possible.

Lastly, the H8 was accepted which means that women are more responsive to creative figurative advertisements as compared to men. It goes in line with previous research that indicated women are more susceptible to aesthetics related to an advertisement, social context, and emotional messages (Guerin, 2008; Stathopoulou and Balabanis, 2019). The implication on this finding is practical in regards to targeting and personalization of ad content using gender differences.

Overall, it must be stated that this research proves that figurative advertising creativity is an effective source of consumer attitudes and purchase intentions in Instagram. Another valuable lesson learned here is that social influence and demographics are the aspects one should take into account when creating digital advertising campaigns. There is no differentiation between tropes and schemes thus, indicating that there is a need to conduct further research to investigate the boundary conditions in which certain forms of figurative creativity will have greater persuasive influence.

### **Discussion and Recommendations.**

This paper has investigated how figurative advertising creativity influences consumer attitudes towards advert and brand attitudes and the purchase intention on Instagram and how the subjective norms and gender influence the findings. The findings are solid proofs of the positive effects that innovative figurative advertisement has on ad and brand consideration, and intent to buy. It was also found that attitudes towards advertisement, brand positively

mediated the relationship between perceived creativity and purchase intention and thus the consumers assessment played a paramount role in digital advertising situations.

Also, the research established that subjective norms are a significant determinant of purchase intentions, and that the creative figurative advertisements receive a stronger positive reaction amongst female customers than male customers. Surprisingly, no major differences were detected in terms of tropes, and schemes in terms of their influence on attitudes, indicating that the format of figurative creativity is not as critical of the overall novelty, relevance, and aesthetic value in the fast social media settings.

The findings add to the theoretical knowledge about the advertising creativity as the report illustrates that the persuasive effect of the advertisement is achievable on Instagram, which is a highly visual and interactive platform. In terms of management, the research offers practical implications on the part of the marketers: by investing on visual creative and emotionally enriching content, the attitude of consumers can be improved, the existing brand perceptions strengthened, and consequently, the intention to purchase the products can be stimulated.

Regardless of the contributions, the study has some limitations and they include the utilization of one specific brand, a given cultural setting, and self-reported measures. These results can be extended in the future through studies on a wide array of brands, cross-cultural samples, or studies using experimental designs and exploring a wider array of moderators, including age, existing brand familiarity, or platform-specific engagements factors.

Finally, figurative advertising creativity turns out to be one of the primary strategic tools of digital marketing, which can alter the perceptions and behavior of consumers, especially on the domain of the visual platform, such as Instagram.

**Limitations and Future directions of the research:** Regardless of the important results obtained in this research, there are some weakness points that must be stated. To start with, the study based on a convenience group of Tunisian users of Instagram which can limit the ability to generalize the findings to other groups or cultural settings. Second, the research comprised only one brand and two creative adverts, and this might fail to reflect all the variety of advertisement creativity in industries. Third, there is a risk of response bias (and social desirability or common method variance) since the instruments employed are self-reported and online surveys.

The possible solutions are to extend the sample to a broader variety of cultural and demographic groups, to experiment with different brands and advertising formats and to introduce a certain experiment or longitudinal studies in order to trace the changes in attitudes and purchase intentions throughout the time. Also, further research might consider other forms of moderation including age, previous brand interactions, or personality and the contribution of new digital mediums, including TikTok or YouTube Shorts, to enhancing the manipulations of figurative creative advertising. A study of the interaction effect of visual creativity, interactive features, and user-generated content could also offer more information on the mechanisms influencing the consumer engagement and behavior in online advertisement settings.

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## Appendix 1 : Ads on Instagram



Ad« Scheme »



Ad« Trope »

## Appendix 2: Results of the Exploratory Analyses

### Ad Creativity

	Initiales	Extraction
DIV1	1,000	,745
DIV2	1,000	,658
DIV3	1,000	,797
DIV4	1,000	,759
DIV5	1,000	,829
DIV6	1,000	,790
DIV7	1,000	,698
DIV8	1,000	,722
DIV9	1,000	,764
DIV10	1,000	,630
DIV11	1,000	,544
DIV12	1,000	,781
DIV13	1,000	,860
DIV14	1,000	,724

DIV15	1,000	,871
DIV16	1,000	,869
DIV17	1,000	,726
DIV18	1,000	,742
PAN1	1,000	,850
PAN2	1,000	,845
PAN3	1,000	,830
PAN4	1,000	,843
PAN5	1,000	,795
PM1	1,000	,822
PM2	1,000	,891
PM3	1,000	,854
PM4	1,000	,794

### Brand Attitude

	Initiales	Extraction
ATTM1	1,000	,676
ATTM2	1,000	,760
ATTM3	1,000	,768
ATTM4	1,000	,800

### Ad Attitude

	Initiales	Extraction
ATTA1	1,000	,854
ATTA2	1,000	,807
ATTA3	1,000	,866
ATTA4	1,000	,900

### Subjective Norm

	Initiales	Extraction
NS1	1,000	,909
NS2	1,000	,885
NS3	1,000	,902
NS4	1,000	,888

### Purchase Intention

	Initiales	Extraction
INTA1	1,000	,736
INTA2	1,000	,842
INTA3	1,000	,782
INTA4	1,000	,851
INTA5	1,000	,836
INTA6	1,000	,739