MEASURING AIR AND TERRESTRIAL TRANSPORT COMPANY REPUTATION: TOURISM INTANGIBLES EXPRESSED IN THE DIGITAL ENVIRONMENT

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ABSTRACT

The reputation of companies within the transport industry is influenced by competitive dynamics within the sector: low-cost flights, the attractiveness of destinations, online user-generated content about users' experiences, and more. At the same time, social media provides a means for companies to manage issues of tourism intangibles. Thus, it is relevant to analyse transport reputation in the digital environment, taking into consideration the resources for managing these intangibles. This paper presents a method for measuring transport reputation based on an analysis of tourism consumers' digital opinions and passengers' comments about their experiences with these firms. The use of social media, such as TripAdvisor and Facebook, conjugated with business intelligence tools and complemented by data mining techniques, can contribute to the development of metrics that consider intangibles like emotions and experiences, with the aim of measuring, analysing, and visualizing the complex relationships between these intangibles and transport companies' reputations. The results present the impacts of these intangibles through clusters and positioning maps focusing on these issues. This investigation contributes to our knowledge about airlines and terrestrial transport companies that seek to differentiate their positioning in tourism markets through their reputations.

Keywords: Air and Terrestrial Transport Reputation, Business Intelligence, Online Reputation, Social Media.

JEL Classification: E22, M15, M31, Z33, Z32

1. INTRODUCTION

In today's world, the Internet has made it difficult for companies to control the flow of data about their products, services, and brands, given the sheer number of user-generated comments that are produced daily in social networks. The tourism sector and its associated services depend on the opinions of consumers, which are increasingly expressed in the digital environment. These types of commentaries contribute to the process of decision making by other tourists as they plan their own travel. For companies involved in tourism transport, like other activities within the sector, competitive advantage requires analysis of their reputation, expressed through social networks, in relation to other companies. Transport markets are interconnected and involve hierarchical control by firms that are in the business

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of both terrestrial and air transport (Sezgin, 2016; Sigala, 2017). As consumers have gained more power and influence over brands, companies have come to operate in a more and more unstable environment (Schau & Gilly, 2003). Stakeholders wish to determine what is behind the services offered by transport companies, and they demand a greater level of transparency in these companies' activities.

However, this dialogue allows transport companies to adjust their strategy and to take decisions at high velocity, correcting inaccuracies or mistakes in their communication and actions before dissatisfaction grows and the noise in social media increases (Gurtner, 2016). The participative behaviour, ensuring that transport companies listen to their customers, is now a priority for companies as they define their strategies in the short, medium, and long term—at least for any companies that want to survive and compete at the local level and around the globe. Due to these considerations, companies have a vested interest in understanding stakeholders' perceptions of their reputations within the digital world (Liu & Shi, 2017).

Corporate reputation is the perception that stakeholders have of the behaviour of the company over time (Casado & Peláez, 2014). This perception is related to the capacity of the organization to achieve stakeholders' expectations and how the firm compares with other companies (Riel & Fombrun, 2007; Roberts & Dowling, 2002).

Although analysing corporate reputation is important for all activities, it is even more relevant in the tourist transport industry because there it helps to contribute to the image of a destination, and thus the definition of the excellence of an entire region or country (Tang, Weaver & Lawton, 2017). The integration of air and terrestrial transport information, in connection with market globalization and new ICT (Information and Communication Technologies) scenarios, is needed to generate sustainable and trusting relationships with companies' stakeholders in markets where operate or wish to operate. For these reasons, they have incorporated into their strategy the treatment of relational intangibles as a differential value, which gives them economic and social sustainability. Focusing on these relational intangibles is necessary for improving tourism transport companies' reputations (Min, 2015).

Many research studies have confirmed that management of corporate reputation is an intangible that brings a competitive advantage and provides multiple benefits, such as, reducing costs, raising prices and creating a barrier to competition. (Dolphin, 2004) multiplies trademark value (Black, Carnes & Richardson, 2000; Fan, 2005); products and services and constitutes a shield against crisis (Bartikowski & Walsh, 2011); transmits quality commitment to consumers (Berens, Riel & Bruggen, 2005); gives access to new markets (Fombrun & Riel, 2004); improves financial performance (Fombrun, 2001; De Quevedo, De la Fuente & Delgado, 2005); inactivates threats and attacks to the trademark (Interactive, 2002); attracts a quality workforce (Greening & Turban, 2000); and diminishes the impact of a crisis and promotes recovery from it (Eccles, Newquist & Schartz, 2007; Obloj & Capron, 2011). For these reasons, the analysis of the reputations of tourist transport companies as displayed in the digital environment is increasingly relevant, yet it lacks appropriate definition of methods and measures.

This study aims to achieve several objectives: (a) identify whether all users' experiences have the same influence on the relationship with tourism transport companies; (b) study whether the experiences and emotions of air transport users are the same as those for terrestrial transport users; (c) identify the characteristics of the transport reputation associated with good brand performance; and (d) determine whether the positioning of brands, in regard to intangibles, is characterized by heterogeneous performance in the experiences and emotions of transport users.

This paper presents an analysis of how air and terrestrial transport companies that operate in the Spanish market are perceived, taking into consideration the opinions of tourists and passengers within the digital realm about their experiences with these companies. First, it presents the concepts associated with the relational intangibles of users' experiences and emotions and examines evidence from the literature about these intangibles and their impacts. Second, we present the methodology based on business intelligence techniques and the sample of the field work. Third, we highlight the results and answer our hypotheses. Finally, we offer conclusions and recommendations for improving company reputation within the tourism transport sector.

2. INTANGIBLES AND THEIR RELATIONSHIPS WITHIN THE TOURISM TRANSPORT INDUSTRY

Air and terrestrial transport companies need to hear and know about public perceptions of their services (Casado, Méndiz & Peláez, 2013) in order to adjust their strategies in the short and long term (Zink, 2005). These companies are interested in controlling their reputations, but doing so has become extremely difficult. Due to rapid advances in digital technology, the reputations of transport brands are known worldwide, and tourism consumers' opinions about organizational strategies are expressed on social networks (Schwarz, 2012) as the consumers interact with other online users (Bernoff & Li, 2008), share their experiences (Shapiro, 1983), voice their opinions, and exert their influence quickly and forcefully on a wider audience.

This public perception about a brand and reputation is one of the most relevant intangibles with regard to relational capital. This intangible is determinant to corporate success and should be understood as a market asset (Daum, 2003; Kuhle, Smedley & Schmitt, 2009; Casado, Méndiz & Peláez, 2013).

Within the relational intangibles about brand perceptions, the most important are lived experiences (Mahon & Wartick, 2012) and emotions (Scherer, 2005). These intangibles are applicable to any portion of the public that has a relationship with the company.

2.1. Experiences

Multi-stakeholder experiences are understood as the experiences generated by stakeholders who are affected by business relationships with enterprises or their brands (MacMillan *et al.*, 2005; Mahon & Wartick, 2012). Depending on the familiarity and interest of stakeholders resulting from their experience, there will be greater or lesser impact or social reaction to the company, and thus a more or less favourable predisposition toward it (Tennie, Frith & Frith, 2010; Yao *et al.*, 2014; Ijzerman, Janssen & Coan, 2015). Multi-stakeholder experiences can include material or immaterial benefits received by the brands (McDonald, Chernatony & Harris, 2001); communication between the brand and stakeholders (Duncan & Moriarty, 1997); trust behaviours of the brand in the past; and a company's commitment to its stakeholders (Conway & Briner, 2002).

Stakeholder perceptions, especially when stakeholders perceive a disconnect between a company's brand and its promises (Roberson & Park, 2007), get moved swiftly to digital conversational environments where they are shared and viralized (Kozinets *et al.*, 2010; Van Laer & De Ruyter, 2010).

With respect to the dimensions of multi-stakeholder experiences, a great many authors (Highhouse, Brooks & Gregarus, 2009; Ponzi, Fombrun & Gardberg, 2011; Casado & Peláez, 2014) have studied which are the main variables explaining public evaluation of a first or ongoing experience with the enterprise. There has been general agreement about these

variables; those with the most multi-stakeholder application are defined by Fombrun and Gardberg (2000) and Ponzi, Fombrun and Gardberg (2011) as the following: innovation, work, integrity, citizenship, leadership, and finances. These dimensions are in turn broken down into 23 attributes.

2.2. Emotions

For Scherer (2005), emotions are expressed through feelings and arise as a reaction to any situation or thing. Feelings summarize whatever is experienced and can convey the meaning of that experience as a direct reaction to the individual's perception. Emotions are complex judgements of multiple dimensions and reflect a great deal of information about one's reaction with social and physical environments, as well as the inner thoughts regarding those relationships (Jalonen, 2014; Schweidel & Moe, 2014). However, as shown in Table 1, the literature includes a large number of definitions about the concept of emotion.

Scherer (2005) developed the first instrument on the dimensions of emotions, the Geneva Emotion Wheel (Figure 1), as well as a method to deal with the lexical aspect of emotions with granularity, called the GALC lexicon program (Scherer, 2005).

The emotions and the experience are intangible assets that have a relationship and contribute to defining the reputation associated with a product, service, or involvement.

Table 1. Definitions of Emotions

Discipline	Perspective of Emotion	Authors
Marketing	Positive and Negative emotions being fruit of some causes and they generate consequences Emotions in social Media	Coombs & Holladay (2005); Izard (2010); Morales, Wu & Fitzsimons (2012); Schweidel & Moe (2014); Thomson, MacInnis & Park (2005).
Psychology	Concepts of emotions: emotional attachment, passion (intensity) and affect.	Ekman & Cordaro (2011); Goleman (2007); Thomson, MacInnis & Park (2005).
	Characteristics of emotions: Extension, Duration and Feature; pleasantness dimension (polarity or valence: positive or negative); agitation dimension (intensity); and tension of that excitement (control when facing the event).	Gabay (2015); Kahn *et al.* (2007); Scherer (2005).

Source: Own Elaboration

Figure 1. Geneva Emotion Wheel
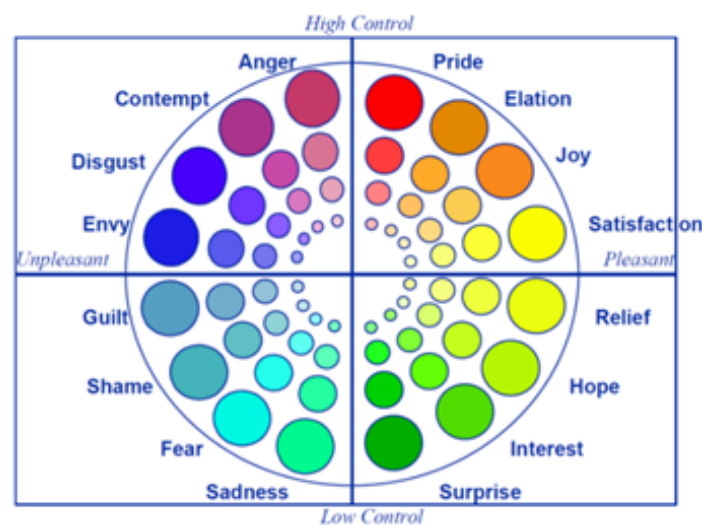
Source: Sacharin, Schlegel & Scherer (2012)

2.3. Relationships among Intangibles

Research provides evidence for not only the relationships among intangible relational capital assets (experiences and emotions) but also the relationships of those intangible assets with tangible business assets (Table 2). Many authors consider the importance of working with appropriate tools, which allow modelling precedents and effects of these activities on a dynamic, holistic, and transversal multidimensional construct (Lange, Lee & Dai, 2011).

Table 2. Types of Intangible Relational Assets

Type of Research	Relationships	Authors
Intangible Relational Assets	Experiences and Emotions	Bagozzi, Gopinath & Nyer (1999); Bigné, Ros & Andreu (2004); Pandey, Kumar & Soodan (2012); Park & Lee (2007).
Intangible Relational Assets with Tangible Assets	Emotions and Management	Bandelj (2014); Han, Duhachek & Agrawal (2014); Kuhle, Smedley & Schmitt (2009); Lord & Kanfer (2002); Lynch & De Chernatony (2004).
	Experiences and Business	Meyer & Schwager (2007); Thomson, MacInnis & Park (2005); Waddock (2008).
	Experiences and Emotion with Business	Black, Carnes & Richardson (2000); Boyd, Bergh & Ketchen Jr. (2010); Money & Hillenbrand (2006); Roberson & Park (2007); Scherer (2005); Wang, Smith & Taken (2010).

Source: Own Elaboration

Nevertheless, as illustrated in Table 2, no evidence has been found of a business intelligence methodology that allows establishing in a transversal way relationships between intangible relational capital assets (experiences and emotions) that the public has about transport enterprises within the tourism sector (Figure 2). However, it is important to investigate whether all users' experiences similarly influence their relationships with tourism transport companies. At the same time, it is also relevant to understand whether the experiences and emotions of air transport users are the same as terrestrial transport users.

For tourist transport organizations to survive and compete in today's world, considering all the technological applications that have emerged within society, they should have access to knowledge discovery as a way of gaining insight into the perceptions that transport users have about their brand and their competitors. Therefore, there is a need to develop a reputational model that can analyse, measure, and monitor the brand management of tourism transport, in the context of users' interactions and opinions, as a way to identify the perceptions about the company's stakeholders (Iglesias, Ind & Alfaro, 2013), and their relationships globally and transversally (by business areas).

Figure 2. Relationships between Experiences and Emotions

Source: Own Elaboration

A reputational model that considers knowledge extraction in regard to intangible resources around strategic company management can be a way to differentiate their operating mode in society and in the markets. Adoption of such a process can help companies to control their performance, solve problems, (Deng, Wang & Galliers, 2015), and position themselves in the reputation economy. The reputation model also should include business intelligence tools to find intelligence and insights in the data as a way to identify and develop new ideas and strategies to potentiate the reputational performance of these transport brands and their positioning in the intangible economy. In this study, this is also called a reputational intelligent model, which will be applied to the tourism transport sector.

3. METHODOLOGY APPLIED TO THE TOURISM TRANSPORT SECTOR

The methodology applied to measure the relationships among users' experiences and emotions to build up transport reputations and to define the reputational positioning of transport firms is defined by the application of business intelligence tools. Such tools can extract knowledge and insights from data warehouses (Olszak, 2016; Peters *et al.*, 2016; Santos & Ramos, 2009), complemented with data mining techniques, such as clusters using the naïve Bayes algorithm (Han, Pei & Kamber, 2011; Kelner & Lerner, 2012; Tsai *et al.*, 2016). The most relevant advantages of business intelligence tools are their potential to: (1) show reputational benchmarking of firms; (2) demonstrate the existing relationships and influences among the different variables (intangibles and tangibles) of the model; (3) delimit

the different clusters of reputational performance in the sector; and (4) classify and position the transport brands within the reputational performance clusters in this sector.

To develop a reputational intelligent model associated with tourism transport, it is necessary to follow an appropriate methodology, comprising three phases: (i) data gathering, divided among the three steps of location, capture, and semantic analysis; (ii) data warehousing, and (iii) data analysis.

For the location step within data gathering, it is necessary to search online for useful data, using the domain knowledge of the study as well as intuition and automatic mechanisms. Data capture involves known APIs (Application Programming Interface), which will provide data in different formats (e.g., Excel, XML, JSON, etc.) from external and internal sources, or through standard query languages. In addition, in the capture and storage step it will be necessary to guarantee the quality of the data (Kim, Huang & Emery, 2016). In the last step of data gathering, a semantic analysis process must be carried out for those data that need it. This process uses probabilistic techniques based on Kelner and Lerner (2012), naïve Bayes analysis, pattern-based techniques, or expression analysis. It can also be done through two types of supervised and unsupervised approaches (Neri & Raffaelli, 2005).

After the semantic analysis, the collected data are transformed by numeric values that can define performance metrics, followed by storage in a database created to support the decision-making process. Data warehousing (Wrembel & Koncilia, 2007) is characterized as a collection of integrated, non-volatile, and subject-oriented data, recorded over time, for the purpose of supporting the reputation analysis and measuring and managing the performance indicators.

In the data analysis phase, it is necessary to transform and select the data necessary to measure the indicators that contribute to reputation. The numeric data need to be converted and normalized into a scale that permits comparison of the different indicators or variables. Online analytical processing and data mining techniques are used to analyse the information according to different perspectives (dimensions) and to look for relationships, patterns, or models that are implicit in the data. This phase involves five steps: i) data validation; ii) normalization, to make possible the comparisons among different variables; iii) conversion to a scale that represents "digital emotion"; iv) application of the business intelligence tools to extract intelligence about the data, and v) data visualization through the development of tables and graphics that show the results of the key performance indicators associated with the activity.

Digital emotion, based on the work of Miller (1956), considers a 0–10 scale of values to express emotions: values between 0 and less than 2 express an emotion of hatred, values greater than or equal to 2 and less than 4 express an emotion of rejection, values greater or equal to 4 and less than 6 express an emotion of indifference, values greater than or equal to 6 and less than 8 express an emotion of acceptance, and values greater than or equal to 8 express an emotion of admiration.

3.1 Sample of the Sector

The model is applied to the digital opinions regarding intangible assets — experiences and emotions — that stakeholders, mainly tourist passengers, express about the most relevant firms in the air and terrestrial transport sector. The firms are the three most relevant corporations in the Spanish transport sector, and those that have the most passengers. The data sources from which digital opinions are extracted comprise the most important digital ecosystems of the Spanish market: Twitter, Facebook, and YouTube, forums, websites, and social platforms. The study period is from January 1 to December 31, 2016. It has been

extracted 159,409 commentaries and the information data analysed for transports sector is a total of 85,758 observations from digital ecosystems.

3.2 Hypotheses

Based on the concepts associated with relational intangibles assets in tourism transport (users' experiences and emotions), and the methodology based on business intelligence techniques, the hypotheses that we consider through data analysis are these:

H1. All user experiences have the same influence on the relationship with user emotion in the tourism transport industry.
H2. In the tourism economy, user experiences and emotions with regard to air transport are different from those with regard to terrestrial transport.
H3: The reputational performance of corporate brands differentiates the clusters within a business sector.
H4: The positioning of brands in the intangible economy is characterized by a very heterogeneous performance among user experiences and emotions.

Taking into consideration the Spanish economic sector of tourism transport and the methodology presented above, the data were processed and structured in a way to extract intelligence about transport reputation.

The relationships among the intangible assets of user experience and emotions, as presented in Figure 2, take into consideration the work developed by Fombrun and Gardberg (2000) and Ponzi, Fombrun and Gardberg (2011). User experience was subdivided into product, labour, direction, ethics, profitability, and social dimensions, comprising the variables to be analysed by the business tools and data mining techniques.

4. RESULTS ANALYSIS

Descriptive analysis shows that: (1) user emotions about the air and terrestrial transport sector are concentrated around two feelings: acceptance and indifference; (2) with regard to profitability and direction, opinions are more positive than negative (Figure 3).

Figure 3. Reputational Behaviour of Tourism Transport
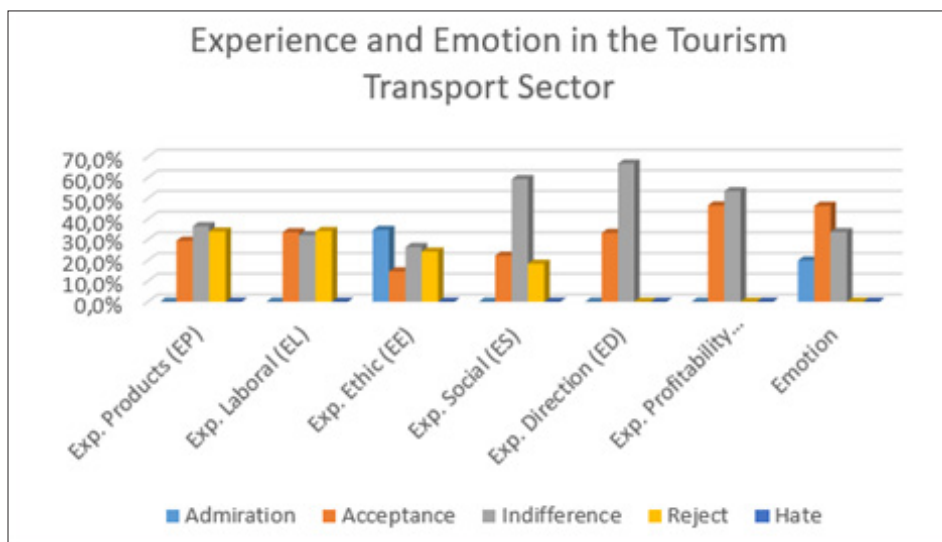
Source: Own Elaboration

Figure 4 shows that there is homogeneity in the sector with regard to negative experiences around products, labour, and ethical issues. Entity 4, an air transport firm, has more negative user experiences around products and labour. Entity 2, a terrestrial transport firm, has more negative user experiences around ethics.

Transport Tourism have more than 65% positive emotions with admiration and acceptance situations (see figure 5). There are not negative emotions for air and terrestrial transports expressed through social opinions on the digital environment. Only the emotions of the entity 2 are indifference in all the situations.

Figure 4. Reputational Behaviour of Tourism Transport by Types of Experiences

Exp. Products (EP)	Transport Sector	Entity #1	Entity #2	Entity #3	Exp. Laboral (EL)	Transport Sector	Entity #1	Entity #2	Entity #3
Admiration	0,0%	0,0%	0,0%	0,0%	Admiration	0,0%	0,0%	0,0%	0,0%
Acceptance	29,5%	0,0%	87,4%	1,1%	Acceptance	33,6%	22,7%	77,0%	1,1%
Indifference	36,5%	97,0%	12,6%	0,0%	Indifference	32,2%	73,8%	23,0%	0,0%
Reject	34,0%	3,0%	0,0%	98,9%	Reject	34,2%	3,6%	0,0%	98,9%
Hate	0,0%	0,0%	0,0%	0,0%	Hate	0,0%	0,0%	0,0%	0,0%
Exp. Ethic (EE)	**Transport Sector**	**Entity #1**	**Entity #2**	**Entity #3**	**Exp. Social (ES)**	**Transport Sector**	**Entity #1**	**Entity #2**	**Entity #3**
Admiration	34,7%	5,2%	0,0%	98,9%	Admiration	0,0%	0,0%	0,0%	0,0%
Acceptance	14,7%	44,0%	0,0%	0,0%	Acceptance	22,3%	66,9%	0,0%	0,0%
Indifference	26,4%	50,8%	28,4%	0,0%	Indifference	59,3%	33,1%	44,8%	100,0%
Reject	24,2%	0,0%	71,6%	1,1%	Reject	18,4%	0,0%	55,2%	0,0%
Hate	0,0%	0,0%	0,0%	0,0%	Hate	0,0%	0,0%	0,0%	0,0%
Exp. Direction (ED)	**Transport Sector**	**Entity #1**	**Entity #2**	**Entity #3**	**Exp. Profitability**	**Transport Sector**	**Entity #1**	**Entity #2**	**Entity #3**
Admiration	0,0%	0,0%	0,0%	0,0%	Admiration	0,0%	0,0%	0,0%	0,0%
Acceptance	33,2%	57,1%	41,5%	1,1%	Acceptance	46,5%	60,4%	78,1%	1,1%
Indifference	66,8%	42,9%	58,5%	98,9%	Indifference	53,5%	39,6%	21,9%	98,9%
Reject	0,0%	0,0%	0,0%	0,0%	Reject	0,0%	0,0%	0,0%	0,0%
Hate	0,0%	0,0%	0,0%	0,0%	Hate	0,0%	0,0%	0,0%	0,0%

Source:Own Elaboration

Figure 5. User Emotions for Tourism Transport

Emotion	Transport Sector	Entity #1	Entity #2	Entity #3
Admiration	19,9%	59,8%	0,0%	0,0%
Acceptance	46,4%	40,2%	0,0%	98,9%
Indifference	33,7%	0,0%	100,0%	1,1%
Reject	0,0%	0,0%	0,0%	0,0%
Hate	0,0%	0,0%	0,0%	0,0%

Source: Own Elaboration

4.1. Influences between the Intangibles of Tourism Transport

On the existing influences among user experiences and emotions, all of the experience variables influence each other transversally, with their impact value translating from experiences into emotions (Figure 6). Data mining has been used to analyse the key influences.

Figure 6 shows how the different values of experience variables exhibit different valence and intensity on customer emotions. The most important influences are these: (1) acceptable experiences produce an emotion of admiration in 100% of the situations; (2) An indifference profitability influences, an ethic experience of admiration and a laboral experience of rejection favours an acceptation emotion in more than 75% of the situations; (3) A products experience of acceptation and ethics experiences of rejection influences an indifference emotion in more than 70% of the situations. Therefore the results confirm that

user experiences regarding products and ethics have the most influence on the valence and intensity of user emotions.

**Figure 6. Holistic Influence of Experience Variables on User Emotions**

Experiences Variables	Value	% Impact	Favors an emotion of:
Social	Acceptation	100%	Admiration
Products	Indifference	58%	Admiration
Direction	Acceptation	53%	Admiration
Profitability	Indifference	100%	Acceptation
Ethics	Admiration	82%	Acceptation
Laboral	Rejection	80%	Acceptation
Products	Rejection	79%	Acceptation
Direction	Indifference	59%	Acceptation
Social	Indifference	56%	Acceptation
Products	Aceptation	100%	Indifference
Ethics	Rejection	73%	Indifference
Social	Rejection	51%	Indifference

Source: Own Elaboration

4.2. Behaviour of Intangibles in Air and Terrestrial Transport

Analysing the reputational benchmarking of tourism transport firms, we can observe differences dependent on user experiences (Figure 7). User experiences and emotions regarding air transport are different from those regarding terrestrial transport. There is a heterogeneous emotion with acceptance value between air transports; terrestrial and the entire sector, which have more than 70% with acceptance situations.

Figure 7. Reputational Behaviour of Tourism Transport
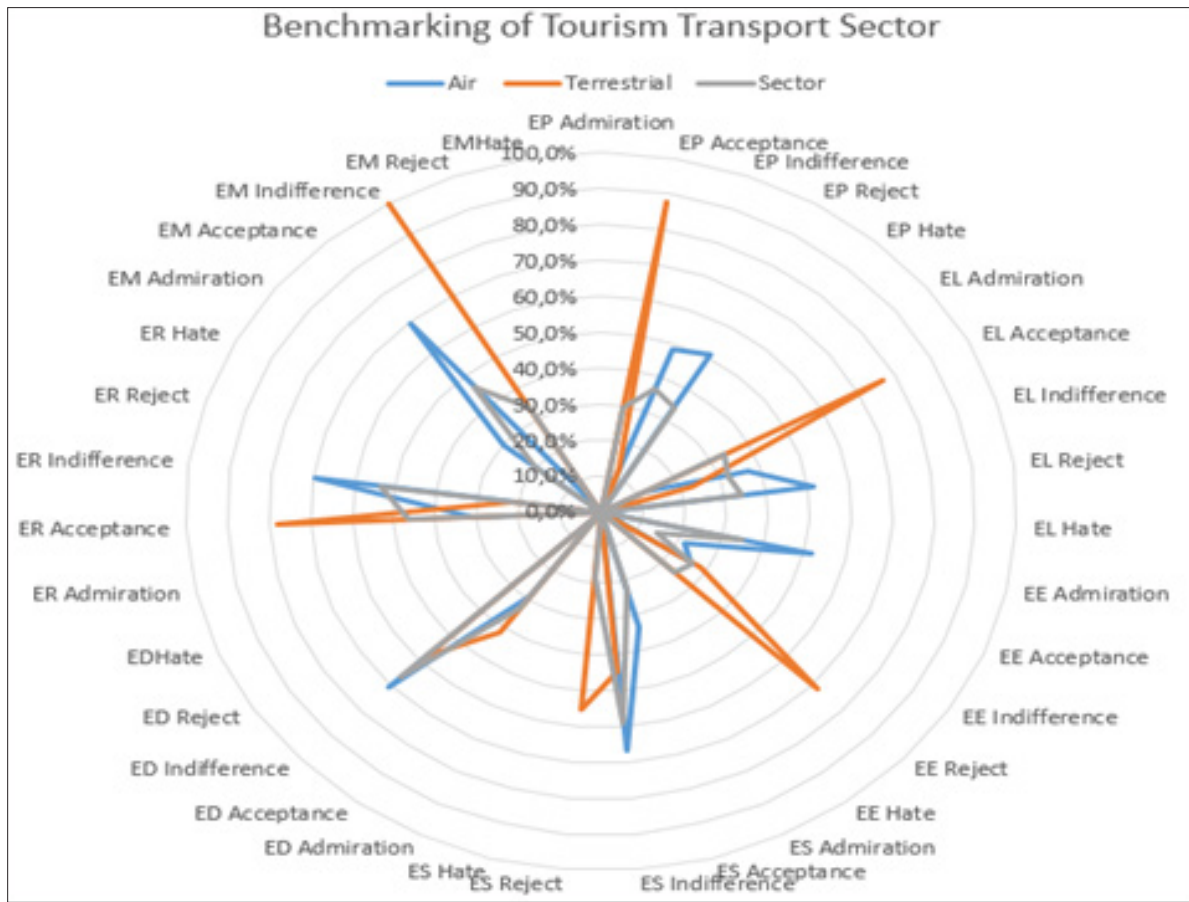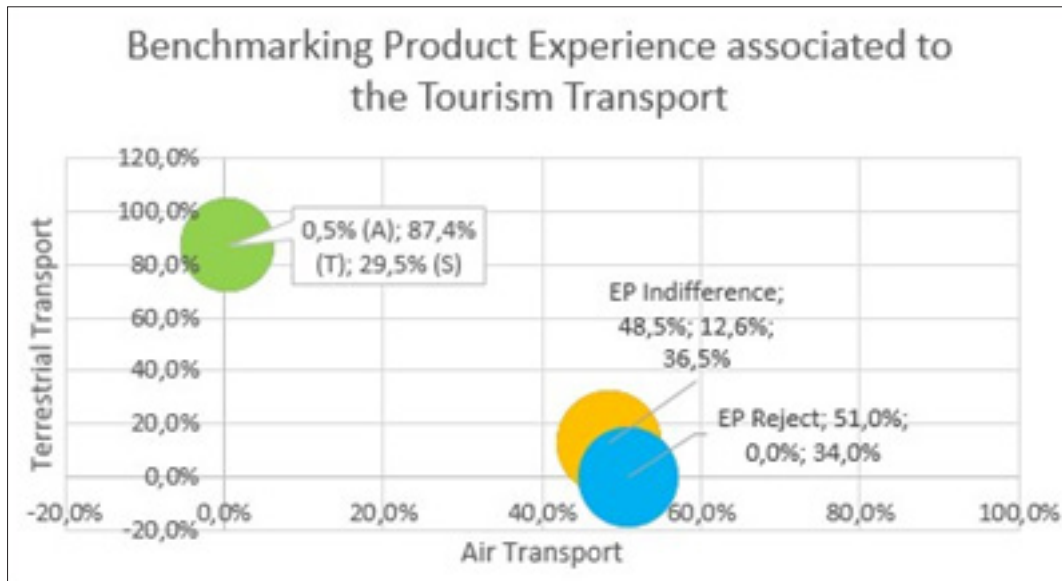

Source: Own Elaboration

The society has a 100% of indifference emotions about Terrestrial transports (Figure 7). Otherwise, air and terrestrial transport brands are more homogenous with regard to two experiences: (1) social responsibility experiences have around 60% of situations with the indifference value; (2) Direction experiences have more than 60% of situations with reject value. With respect to ethics, behaviours are less homogenous. In air transports, ethical experiences have less than 50% of situations with admiration value and in terrestrial transports more than 70% of situations with reject value. Labour Experiences are also a heterogeneous behaviour.

4.3. Positioning of Transport Brands in the Intangible Economy

The reputational benchmarking of the tourism transport sector is visualized through a mapping technique that shows the positioning of air and terrestrial transport (Figure 8 and 9).

Figure 8. Map of Reputational Positioning Associated with Tourism Transport. Experience associated with the product with value of acceptance is higher in the terrestrial transport; with rejection value is higher in air transport.

**(Product Experiences for Air and Terrestrial Firms)**

Source: Own Elaboration

For product experiences: (1) terrestrial transports position has more situations of acceptances (87%) than air transports. In Ethical Experiences; (2) There are some similar product experiences between terrestrial transports and some synergies between companies of air transports.

For ethical experiences: (1) There are not homogeneous performance between air and terrestrial transports brands; (2) Experiences of air transports are more positive, two of them has admiration and acceptances situations; (3) Terrestrial transports only have reject situations of ethical experiences. Figure 8 and 9 shows that the experiences around product and ethics have a heterogeneous performance.

The positioning of brands in the intangible economy is characterized by very heterogeneous performance with regard to emotions. Figure 10 shows that user emotions for air transport are more positive than for terrestrial transport. More than 60% of air transport emotions display acceptance.

Figure 9. Map of Reputational Positioning Associated with Tourism Transport. Experience associated with the ethics with value of admiration is higher in the air transport; with rejection value is higher in terrestrial transport.
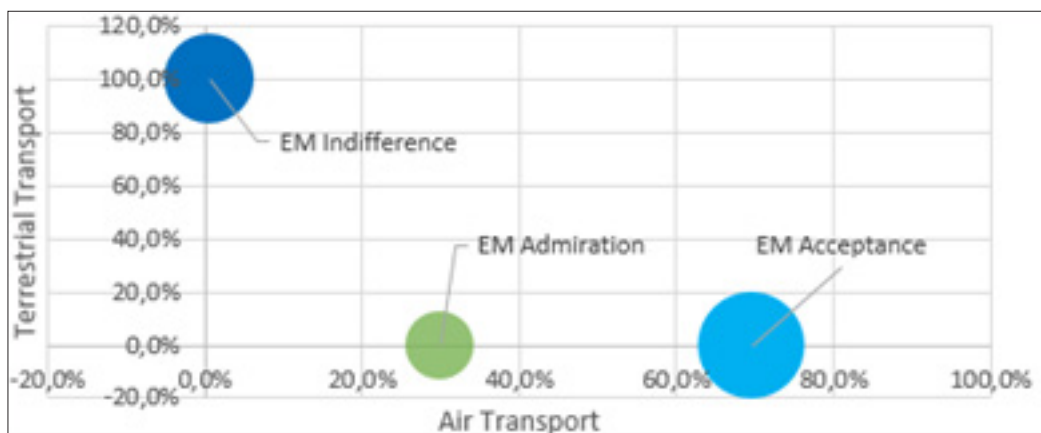
(Ethics Experiences for Air and Terrestrial Firms)
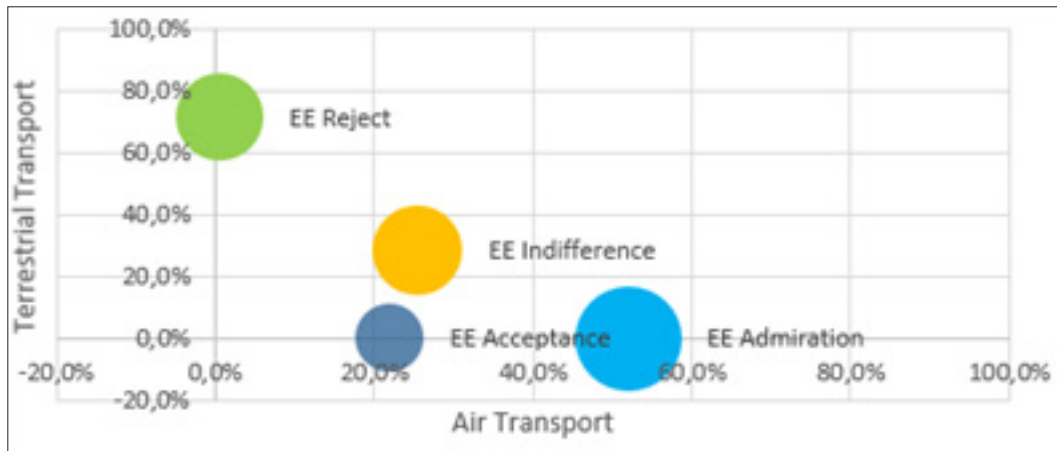
Source: Own Elaboration

Figure 10. Map of Reputational Positioning Associated with Tourism Transport. Emotion with a value of acceptance and admiration is higher in the air transport; with indifference value is higher in terrestrial transport.
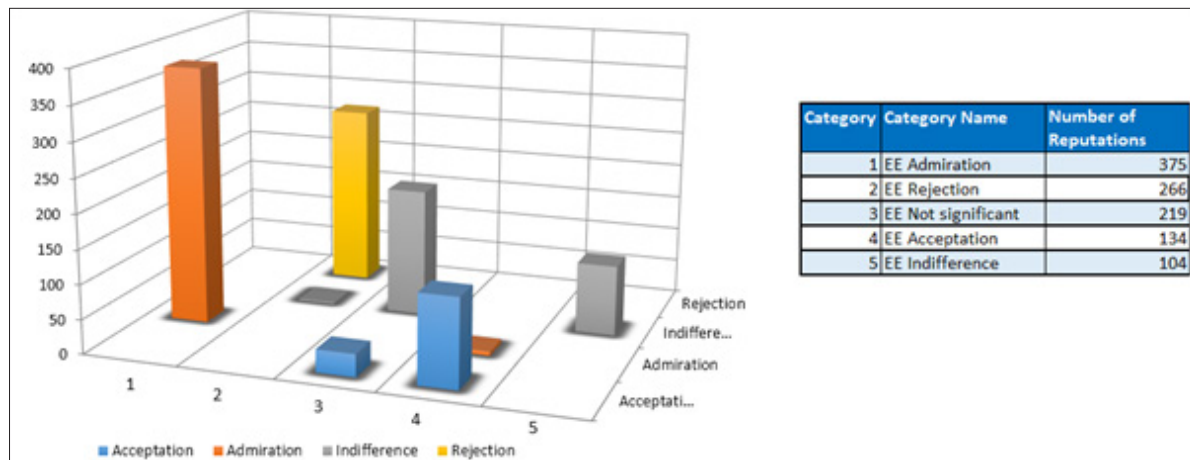
(Emotions)

Source: Own Elaboration

4.4. Clusters through Reputational Performance of Tourism Transport

To delimit the different clusters for reputational performance in the tourism transport sector, clustering techniques are applied to find situations with homogeneous relationships between intangible and tangible variables and to define heterogeneous groups. In Figure 11, five different transport reputation clusters can be distinguished.

Figure 11. Transport Reputation Clusters of Tourism Transport (Ethical Experiences). The reputation associated with ethics was enlightening in the transport sector that was used to create categories. (Clusters)

Category	Category Name	Number of Reputations
1	EE Admiration	375
2	EE Rejection	266
3	EE Not significant	219
4	EE Acceptation	134
5	EE Indifference	104

Source: Own Elaboration

As can be seen in Figure 11, ethical experiences in every cluster are distinguished by their valence and intensity compared to other variables.

Tourism transports were analysed according to the percentage of different situations for ethical experiences, the main category to make clusters in the transport sector (see figure 12). In cluster 1, ethical admiration, air transport entity #3 received a rating of admiration for 98.91% of situations over 362 days. In cluster 2, terrestrial transport entity #2 has 71.58% of rejection situations in 262 days and this entity 2 has 28.24% of indifference situations in cluster 5. The air transport entity 1 is relevant in two types of clusters: During 219 days, in cluster 3 this entity 1 has 59.84% of not significant situations; and during 134 days, it has 36.61% of acceptation situations in cluster 4.

Figure 12. Transport Reputation Clusters of Tourism Transport (Ethics)

Entity	EE Acceptation Category % Category	Days Number:	EE Admiration Category % Category	Days Number:	EE Indifference Category % Category	Days Number:	EE Not significant Category % Category	Days Number:	EE Rejection Category % Category	Days Number:
Entity #1	36,61%	134	3,55%	13	0,00%		59,84%	219	0,00%	
Entity #2	0,00%		0,00%		28,42%	104	0,00%		71,58%	262
Entity #3	0,00%		98,91%	362	0,00%		0,00%		1,09%	4

Source: Own Elaboration

Faced with these ethical experience situations, the reputational performance of corporate brands differentiates the tourism transport clusters. Entity #3 is the company with the most homogenous behaviour of ethical with admiration value, associated to the reputational performance.

5. DISCUSSION

Sustainable relations between transport companies and consumers are only possible if the companies: (1) align the interests of the company with the perceptions of the company held by stakeholders; and (2) integrate ethical and professional corporate values into the company's behaviour with consumers, which in time can generate an atmosphere of trust and credibility.

In the particular case of air and terrestrial transport companies, trust and reputation can't be bought. Stakeholder perceptions are composed of multiple factors, which are not always under the companies' control. The success or failure of tourism transport companies depends not only on themselves, but also on the trust relations generated with the public. Stakeholders see inconsistency between the messages that they receive and their own experiences, which affects their level of trust in the company and generates negative feelings about reputation.

Analysing the reputational benchmarking of tourism transport companies, we find that tourists' opinions about ethical experiences with air transport companies are positive. However, their opinions about ethical experiences with terrestrial transport companies are negative; the transports firms have more than 70% of situations with reject value. In both types of tourism transports, tourists evaluated direction experiences with more than 60% of reject situations.

When we applied a reputational map to tourists' digital experiences, the main differences between air and terrestrial transport companies' positioning in the intangibles economy are the performance of these firms in products and ethics. Terrestrial transports has a better positioning in product experiences than airlines companies. Otherwise, air transports has a better positioning in ethical experiences than terrestrial transports. The entity #3 airline has the best positioning in the intangible tourism economy with 362 days of the year an ethic experiences with a value of admiration expressed by their passengers and users.

Clustering techniques were used to extract knowledge about the five groups of tourism transport with the best and worst performance around intangibles. The most influential factor when defining the differences in the five clusters of tourism transports reputations is the valence and the intensity of the ethical experiences. In the tourism transport sector, we discovered the following brand position strategies in the tourism intangible economy of the sector: airline – entity #3 - is the transport firm with the biggest value associated to the ethic experiences (see cluster 1) and positive emotions; the positioning of terrestrial transport – entity #2 - in the tourism intangibles is distinguished by ethical experiences (cluster 2) with reject value. And finally airline – entity #1, the ethic experiences are not relevant experiences in their tourists' opinions (more than 50% (see cluster 3)).

Faced with this situation, we specifically recommend that terrestrial transport companies improve their reputational performance around ethics, aiming to change the valence and intensity of emotions from indifference to acceptance and admiration. In the case of airlines, they must continue to retain their ethics positioning and improve their product experiences with customers.

Our results confirm the acceptance of two hypotheses: **H3:** The reputational performance of corporate brands differentiates the clusters within a business sector. **H4:** The positioning of brands in the intangible economy is characterized by a very heterogeneous performance among user experiences and emotions. The other two hypotheses are rejected: **H1.** All user experiences have the same influence on the relationship with user emotion in the tourism transport industry (Figure 2); **H2.** In the tourism economy, user experiences and emotions with regard to air transport are different from those with regard to terrestrial transport.

In summary, the present investigation can contribute to analyse the tourism intangibles expressed in the digital environment, offering to the air and terrestrial transports companies: (1) an exhaustive measurement of relational intangibles; (2) identify types of behaviour of these relationships between brands and users or customers; (3) extract knowledge about the intangibles of the tourism companies, to difference their brands, in the tourism economy, versus their competitors; and (4) define its brand positioning in its sector through its tourism intangible relational assets.

6. CONCLUSION

This investigation has analysed the relationships among aspects of intangible relational capital: user experiences and emotions. This study has revealed challenges associated with new digital channels that affect companies' ability to manage these intangibles. (1) Great complexity is associated with the automatic collection and analysis of large volumes of data extracted from user opinions expressed in the digital environment. (2) No evidence has been found for a business intelligence method that can be applied to the relationships and influences among the intangible relational capital assets of user experiences and emotions. (3) Classify and positioning Tourism Transports companies within clusters of performance based on intangible relationships.

We proposed a business intelligence method to apply to user experiences with air and terrestrial transport companies within the tourism sector. In applying data mining techniques and Business intelligence tools for information treatment and analysis, it is observed that: (1) not all user experiences have the same influence on user emotions; (2) experiences and emotions around air transport are different from those for terrestrial transport; (3) reputational performance for corporate brands differentiates the clusters in this sector; and (4) tourism transport brand positioning is characterized by very heterogeneous performance regarding user experiences and emotions.

This research is a starting point to understand whether transport companies generate contradictory perceptions among stakeholders, resulting in a lack of consumer trust. The same stakeholders have experiences with different areas of the company: points of sale, customer relations, etc. All major air and terrestrial transport companies currently have large communications departments that position the company's products and manage its brand and global communication strategies. However, the development of the ICT has changed the rules of the game, and now the stakeholders can recommend or reject company behaviour through expressing opinions about their experiences and emotions in the digital environment. For this reason, tourism transport companies need to measure their reputation with business intelligence methods and techniques. The application of these techniques will simplify the collection of social data so that the companies can best position their brands and make decisions to guarantee their economic sustainability.

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