



## CONSUMER WAITING BEHAVIOUR: PRIORITY PASSES IN TOURISM SERVICES

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Dipòsit Legal: T 1357-2015

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DOCTORAL THESIS

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UNIVERSITAT ROVIRA I VIRGILI

Reus, 2015

"...El tiempo es la sustancia de que estoy hecho.  
El tiempo es un río que me arrebató, pero yo soy ese río"

"... Time is the substance I am made of.  
Time is a river which carries me, but I am the river"

Jorge Luis Borges

## **Acknowledgements**

I would like to express the deepest appreciation to my advisor Dr. Gerard Ryan who has conveyed a spirit of adventure, enthusiasm and hard-work with regards to research. Without his guidance and persistent help this dissertation would not have been possible. Thanks to Dr. Mireia Valverde and Dr. Mar Pàmies for their constant support and guidance throughout these years.

A very special thanks to the Faculty of Business and Economics and the Business Department of the Rovira i Virgili University for providing me with human and economic resources that have made this thesis possible.

It's also my responsibility to thank everyone who knowingly or otherwise, has provided support, encouragement and assistance along the way. I gratefully acknowledge the tremendous support and motivation from my family, friends and especially my colleagues who had been of great help in the accomplishment of this thesis.

I also want to thank Dr. Miguel Majón for his help and guidance regarding the quantitative methodological issues and Dr. Michael Blazey for the opportunity he gave me to do my international research period at California State University, Long Beach, USA.

## Summary

### Consumer waiting behaviour: Priority passes in tourism services

Gilda Hernández-Maskivker

Waiting times are a common phenomenon in tourism contexts. Numerous examples and daily occurrences, such as waiting to check-in at a hotel, for a table at a restaurant, or to board a flight, demonstrate some of ways consumers spend their time waiting for tourism and hospitality services. Due to capacity limitations of a given service, waiting times may be unavoidable. For example, waiting in lines are normal components of enjoying rides and shows in a theme park. Added to this, waiting is associated with lower levels of customer satisfaction, lower service evaluations, loss of clients and bad reputation. Thus, correct management of waiting times is crucial to maintaining positive tourist experiences.

In spite of more than thirty years of research on waiting times, not much is known from a consumer behaviour perspective about those who are willing to pay extra to avoid waits and those who are not. Despite being a widely used system, little attention has been paid to priority systems and the factors that influence consumers when they purchase the service. There is a lack of empirical research in a natural setting that addresses this issue. From this identified gap, the main objective of this thesis is to determine in a theme park context factors that characterize consumers who are willing to pay extra to avoid waits (express pass holders) and consumers who are not (non-express pass holders). For this empirical work, a case study of the largest theme park in Spain, located in Catalonia, and their clients was performed.

Analysis of collected survey data using logit models was conducted in order to characterize both groups according to their factors of influence. Model A was designed to consider only external factors of influence, Model B only internal factors of influence, and finally Model C includes both groups of factors in order to have an integral view of purchase decisions. The results of the models show that Model C has a greater overall explanatory power to the other two models. In the more effective model (Model C), the visit day, how customers find out about the express pass, the number of people in the party, the culture, the attitude toward the express pass, the attitude toward waiting times, prior experiences purchasing an express pass, prior experience visiting theme parks, the expectation of average waiting time, the perception of waits shorter than expected and the visit motivation (thrill motivation and leisure visit motivation) appear as significant variables that allow characterization of both groups (pass and non-pass holders).

In this manner, not all consumers interpret waiting times and the systems to avoid them in the same way and, consequently, they should be addressed in different ways. Analysing the purchase behaviour of the express pass from an integral approach of the consumer behaviour leads a better characterisation of market segments and allows companies to rethink priority systems and marketing strategies.

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# CHAPTER 1

## INTRODUCTION



## CHAPTER 1: Introduction

### 1.0. Introduction

Waiting is a widely used word by people today. People wait daily for different things (Nie, 2000; Zhou & Soman, 2003). They may wait for someone or for something. People wait for love, for a better job, to make a decision, to get results, to meet a friend. People may also wait for products or services (M. Davis & Heineke, 1994; Koo & Fishbach, 2010; Ryan & Valverde, 2005). Waiting situations are everywhere in the commercial world and tourism is no exception (Gnoth, Bigné, & Andreu, 2006; Pearce, 1989).

As a consequence of the nature of tourist services, clients may be forced to wait for a restaurant, a train or a museum. Customers wait to enter to a sport event, to check in at the airport, to see a play in a theatre or to enjoy an attraction at a theme park (Dawes & Rowley, 1996). Although the service industry and science are constantly developing new ways to increase service speed, people spend seconds, minutes, hours or months to be served. For instance, there are customers who can wait months to have a table at an avant-garde restaurant (Sieteiglesias, 2010). Indeed, waiting times may become unavoidable as is a regular occurrence at theme parks (Heger, Offermans, & Frens, 2009; Heo & Lee, 2009; Matthew, MacLaren, O’Gorman, & White, 2012; Pearce, 1989).

It is necessary to understand that the presence of waiting times may overshadow the tourist experience. Tourists are highly sensitive to inconveniences (Wahab, Crampon, & Rothfield, 1976). Visitors usually travel looking for leisure, entertainment, relaxation, pleasure, excitement, socialization, distraction and primarily to break their daily routine and avoid conflictive situations such as queuing or waiting for a service. Paradoxically tourism contexts such as theme parks are often crowded and congested places where customers can spend a long time waiting (Álvarez & Mejía, 2012). Thus, waiting times can become a real problem both for service providers and for tourists (Bitner, Booms, & Tetreault, 1990; Hwang & Lambert, 2009; Lee & Lambert, 2000). The negative consequences of making visitors wait are widely known. Waiting times can annoy or upset tourists, leading to a devaluation of the tourist service.

To be at the forefront of the market, companies need to pay attention to customer’s requirements and expectations including those concerning waiting times. As customers play a fundamental role in the service industry, companies should be continuously seeking to improve the client experience. A deeper understanding of factors and events that influence tourist experiences of waiting times are required.

Although waiting phenomenon have been studied from different perspectives and disciplines for more than thirty years (Bergh, Ghijsen, Gelderman, & Tuninga, 2015; Jones & Peppiatt, 1996; Nah, 2004; Osuna, 1985), there are still issues that remain largely unexplored and that deserve our attention. For instance, the literature on waiting

has not sufficiently addressed systems designed to avoid waiting times from a customer perspective (Matthew et al., 2012). The different factors that influence tourists when they have to decide to wait or pay extra to avoid waiting and the resulting market segments are an unexplored issue.

Consequently, the current doctoral research aims to make a theoretical and empirical contribution in this area. The overall research question that will guide this project is:

**What factors characterize visitors who purchase an express pass to avoid waiting at theme parks and visitors who don't purchase an express pass, but instead to wait in regular lines?**

In order to operationalise this question, the next section develops the research objectives.

**1.1. Objectives of the study**

This section outlines the main research objective and secondary objectives of the present doctoral research thesis.

**Principal Objective**

In light of the current gap in the literature, the following research objective is proposed:

-To determine the factors that characterize consumers who are willing/not willing to pay in order to avoid waiting.

**Secondary Objectives**

In order to achieve the principal objective, secondary objectives are also outlined below. The first relates to factors that are present when the purchase decision occurs. The second deals with a methodological aspect of the study. The third objective is based on the resulting characteristics of both groups. Finally, the fourth objective deals with the effect this research may have on consumers and companies.

-To map the factors that influence customers when they make a decision regarding waiting times and priority pass in a theme park context.

-To test the hypotheses using logistic regressions.

-To identify the characteristics of holders and non-holders of express passes.

-To suggest practical implications related with this customer segmentation based on willingness/unwillingness to pay to avoid waiting at theme parks.

**1.2. Justification of the study**

Marketing studies have extensively investigated consumer behaviour in waiting situations (M. M. Davis & Vollmann, 1990; M. K. Hui & Tse, 1996; Kostecki, 1996). Many research questions on this area were answered but there are still others unresolved. In spite of the multiples academic and practical efforts, customers still wait

for services and therefore it is necessary to look for new insights for this persistent problem. For instance, methods to manage waiting times such as priority lines have been little analysed from a consumer behaviour perspective (Matthew et al., 2012).

In addition, priority systems have become common services in a wide range of contexts (Matthew et al., 2012). Thus, many theme parks around the world offer this service (Álvarez & Mejía, 2012; Heo & Lee, 2009). There is a market segment that demands it (Friedman & Friedman, 1997; Matthew et al., 2012) and priority lines are already part of the common landscape of the theme parks. A deeper understanding of this system and how customers deal with it is necessary. The subsequent sections outline the explanations for undertaking the present research project.

### **1.2.1. Theoretical and academic reasons**

#### **To contribute to theory building on waiting in tourism services**

This thesis attempts to contribute to theory building on waiting times because there is no study that explores how customers make decisions regarding an express pass. Prior studies on waiting are extensive regarding strategies to reduce real and perceive waiting times but little have been done to analyse the influence of priority systems on customers.

Added to this, this work contributes specially to theory building in tourism by analysing waiting experiences and priority systems in a tourism context. As much of the research related with priority systems has been done in fictitious situations controlled by the researcher (Álvarez & Mejía, 2012; Matthew et al., 2012), this study attempts to make an empirical contribution in the context of theme parks.

#### **To contribute to theory building in consumer behaviour**

In spite of more than thirty years of research in consumer behaviour and waiting in services, not all the dimensions of waiting experience have been analysed in depth. Many studies on consumer behaviour and tourist behaviour have suggested purchase decision's models with internal and external influencing factors (Mayo & Jarvis, 1981; Pizam & Mansfield, 1999; Solomon, 2008). However, the literature has not analysed in-depth the purchase decision of an express pass in a theme park context. Thus, different factors that influence consumers' behaviours regarding waiting times and priority systems are detected and empirically tested. This contributes to understanding the consumer behaviour regarding waiting times and the express pass system.

### **1.2.2. Practical reasons**

When companies make customers wait, customer satisfaction decreases (Bitner et al., 1990; Hensley & Sulek, 2007; Tom & Lucey, 1995) and the service receives worse evaluations (M. K. Hui & Tse, 1996; Taylor, 1994). Consumers may abandon the wait and not return to that provider (Carmon, Shanthikumar, & Carmon, 1995; Janakiraman, Meyer, & Hoch, 2011). The waiting times are one of the principal causes of complaints, displeasure and negative reactions in the relationship between service providers and

customers (M. Hui, Thakor, & Gill, 1998; Martin, 2013; Osuna, 1985; Zainol & Bashir, 2015). Long waiting times are one of the major impediments for companies to achieve high quality indexes and high customer satisfaction.

Time is a precious good both for customers and companies and any innovation related to how to achieve a more appropriately management of time is appreciated. Added to this, from a deeper analysis of waiting experience and methods to manage them, current tools may be improved and adapted to the needs of customers. Industry experts and academics alike suggest that the phenomenon of waiting should continue be studying.

### **1.2.3. Scope of the empirical study**

Since waiting at theme parks is a relatively recent but increasing phenomenon of study, the current project is based on previous research on waiting in services. Moreover, research on waiting is limited regarding express pass systems at theme parks and it has greatest interest from a commercial and marketing perspective.

For the purpose of the empirical work, the focus will be on the largest theme park in Spain, located in Catalonia, and their clients. This includes people who come to enjoy rides, shows, restaurants, shops or simply to accompany others. It includes people from different ages, cultures, economic levels and motivations. Moreover, this project considers visitors in general (tourists and day-trippers). ‘Tourists’ are defined as people who spend one night or more outside their place of residence. ‘Day-trips’ are people who visit a place only for hours. Both of them are relevant for researchers.

The study is interested in users and in non-users of a system that allows consumers to avoid waiting. In order to examine customers’ decisions regarding waiting times and express pass systems, characteristics of both groups are examined. The researcher is obliged to study the behaviour, feelings, motives, attitudes, perceptions and other dimensions of both types of clients.

### **1.3. Thesis organization**

The thesis is organised into several chapters, as described below:

#### **1.3.1. Part One: Introduction, objectives and contributions**

Part 1 contains the present Chapter 1. It introduces briefly the research topic: waiting times in tourism services. Added to this, principal and secondary objectives of the thesis are outlined. Finally, theoretical and practical reasons about how this subject was chosen and the scope of the empirical study are detailed.

#### **1.3.2. Part Two: Literature review**

Part 2 contains the Chapter 2. It analyzes the main bodies of knowledge on which this study is based. The study of Consumer Behaviour and Tourist Behaviour within Marketing’s discipline contextualizes the present research. Moreover, the chapter describes the state of the art of waiting times in services. It comprehends how prior literature have addressed the subject during the years and what are the research

questions that has not been answered yet. A gap in the literature is detected and detailed. From this, a principal research question that will guide the investigation is formulated.

### **1.3.3. Part Three: Hypotheses, methodology, research design, findings and discussion**

Part 3 of this thesis is structured into two chapters: Chapter 3 and Chapter 4. Chapter 3 discuss influencing factors on the purchase decision of an express pass. Internal and external influencing factors are identified and hypotheses are proposed. It also explains the methodology and the research design used for the empirical work. Logistic regressions are the statistical tools chosen to answer the research question. In Chapter 4 findings and discussion are exposed.

### **1.3.4. Part Four: Conclusions, implications and future research**

Part 4 correspond to Chapter 5. This chapter attempts to bring general conclusions about the theoretical and empirical contributions of this thesis. Practical implications and limitations of the present project are presented. Finally, future lines of research are suggested.



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## CHAPTER 2

# LITERATURE REVIEW



## CHAPTER 2: Literature Review

### 2.0. Introduction

This second chapter identifies and analyses the major bodies of knowledge on which this thesis is based. It also establishes a conceptual framework about waiting in services that guides the research project and presents the research question to be developed.

In order to contextualize the study, the first section of the chapter introduces briefly the key concepts of consumer behaviour and tourist behaviour. The second and third sections review the current state of the art. This is to explore what other authors have investigated about waiting times and particularly waiting in tourism services, which areas have received little attention and what research questions have not yet been answered by the current studies. Be aware of the recent studies on the subject leads to clarify ideas, refine the topic of interest and to approach it from the best perspective. Specific emphasis is placed on waiting times' studies from the perspective of marketing and consumer behaviour.

### 2.1. Consumer Behaviour and Tourist Behaviour

Many authors have defined the concept of Consumer Behaviour. For instance, consumer behaviour was explained as a marketing discipline responsible for analysing customer's needs and wishes (Schiffman & Kanuk, 1997). It was described as a simple expression of preferences (Samli, 1995) and it was also explained as a comprehensive and global analysis from multiple disciplines that allow understanding the person, the context and the consumption practices (Gil Hernández, Torres Estrada, & López Torres, 2013).

Swarbrooke & Horner (pp. 434, 2007) define consumer behaviour as 'the study of which products people buy, why they buy these products and how they make their purchasing decisions. Engel, Blackwell, & Miniard (pp.4, 1995) have also made a definition: 'consumer behaviour is those activities directly involved in obtaining, consuming and disposing of products and services including the decision processes that precedes and follows these actions.

However, Solomon's definition is probably the most widely used: "it is the study of the process involved when individuals or groups select, purchase, use or dispose products, services, ideas or experiences to satisfy needs and desires." (Solomon, 2008: 7)

On the one hand, literature highlights that the study of consumer behaviour includes the study both of individuals and groups (Swarbrooke & Horner, 2007). For individuals, this discipline enhances their levels of consciousness about decision making and the factors that influence on them. For groups, the study of their behaviours contributes for instance to protect them in legislation issues (Solomon, 2008). On the other hand, literature mentions that the ultimate goal of consumers is the satisfaction of needs and desires (Faison, 1977). Therefore, motivation and psychology are key aspects when studying consumer behaviour.

Finally, consumer behaviour is considered as a process and not as isolated phases (Swarbrooke & Horner, 2007). The study of consumer behaviour not only analyses the moment when someone purchases a product or a service, but also investigates the different stages through which the consumer passes. It is the analysis of behaviours before, during and after the purchase. It comprises a wide variety of actions such as finding information, comparing alternatives, choosing a product, response to marketing stimuli, complain about something or making future recommendation. Additionally, consumer behaviour also might analyse internal aspects of the consumer such as the reasons why people buy a particular product or service (Horner & Swarbrooke, 1996).

The purchase decision process includes different stages: customers recognize the problem (they recognize they have to satisfy a need), search information (internal information such as prior experiences and external information such as friends recommendations), evaluate alternatives (according to different criteria and preferences) and finally choice a product or service (Engel et al., 1995; Kotler, 2000).

Some purchase decisions are made regularly. For instance, customers almost every day have to choice what to buy to have dinner or lunch. These frequent purchases are related with low cost products, low customer involvement, low analysis and search of information. Other purchase decisions are made irregularly such as the decision to buy a car or to move to a new house. These infrequent purchases are associated with expensive goods, high customer involvement, a great analysis, information search and time spent on the purchase. Also, there are other purchase decisions that are in the middle of the two extremes. Customers look for a limited solution of the problem (Solomon, 2008).

Considering tourist behaviour, it may be different than other consumer behaviours (Moutinho, Ballantyne, & Rate, 2011; Moutinho, 1993; P L Pearce, 2005; Pizam & Mansfield, 1999; Swarbrooke & Horner, 2007). For example, tourists often make purchase decisions under high levels of insecurity, they make extensive search for information, they perceive high risk, they may be highly involved in the purchase process, they used to be influenced by other people, they make long-term decisions and emotional aspects have relevant importance in their purchases (Sirakaya & Woodside, 2005; Swarbrooke & Horner, 2007).

For instance, Philip L Pearce & Lee (2005) explain that when tourists plan and decide to make a travel they do this more often in advance than when a consumer buys a product in a supermarket. A family could spend months or years thinking about their next trip. Or if a tourist buys a service, remember that your purchase and experience for a period much longer than a consumer with no other tourist product time.

These behaviours may be related with the unique characteristics that service contexts and tourist contexts have. They are: intangibility (cannot see it, feel it, enjoy it before you buy), inseparability (it is produced and consumed simultaneously), heterogeneity (usually not standardized), perishability (cannot be stored) (Edvardsson, 2005; Gabbott & Hogg, 1994; Gronroos, 1978; Sasser, Olsen, & Wyckoff, 1978; Shostack, 1977),

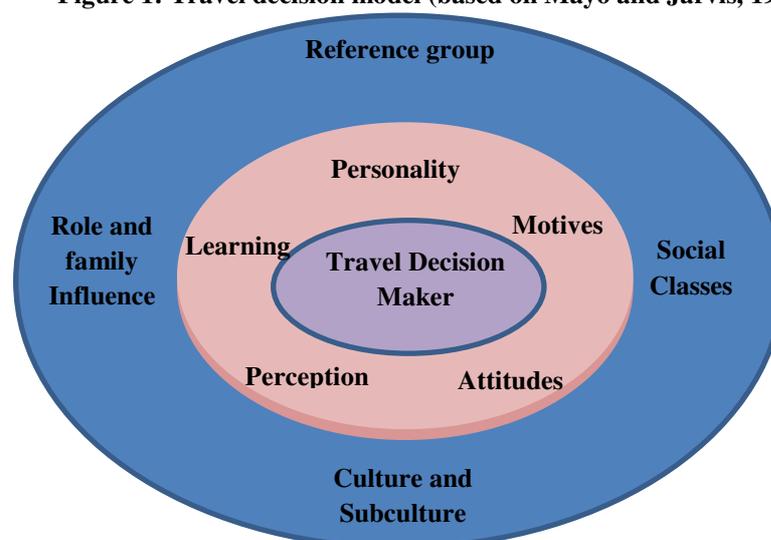
interconnectivity (with other products and services), dependence on external factors and subjectivity (the client participates in the quality of the service).

Purchase decisions are not isolated. They depend on personal factors and specific contexts. Prior literature has developed several theoretical models which explain this. According to Solomon (2008), there are previous antecedents (situational factors, contexts of use, time pressure, mood, purchase orientation), environmental factors (purchase experience, stimuli at the point of sale and interaction) and processes after purchase (customer satisfaction, waste product and alternative markets).

Most of these models have also been applied to study tourist behaviour (Gilbert & Cooper, 1991; Howard & Sheth, 1969; Mayo & Jarvis, 1981; Pizam & Mansfield, 1999; Wahab, Crampon, & Rothfield, 1976). These models suggest both internal factors (motivation, personality, attitudes and previous experiences) and external factors (culture, social class, reference groups) that influence the person throughout the buying process.

For example, Um & Crompton (1990) propose in their model different inhibitors and facilitators influencing the choice of destination. Mayo & Jarvis (1981) also suggest internal and external influences when making a travel decision.

**Figure 1: Travel decision model (based on Mayo and Jarvis, 1981)**



Therefore, these models allow companies to predict and to control behaviours of individuals and groups (Pizam & Mansfield, 1999; Solomon, 2008; Swarbrooke & Horner, 2007). The study of consumer behaviour seeks to understand why the consumer acts in a certain way in order to anticipate their actions regarding stimuli of marketing.

The detection and analysis of what customers want, what are their preferences, the causes of their actions and the factors that impact on them currently and in the future, permit companies to produce adequate and well positioned services (Swarbrooke & Horner, 2007). If companies know their client, they will be able to intervene, to improve

results, target the right market at the right time and satisfy their needs (Swarbrooke & Horner, 2007).

## 2.2. Waiting times in services: Background

Prior literature on waiting in services defines waiting time as “the time from which a customer is ready to receive the service until the time the service commences” (Taylor, 1994, pp.56). Waiting is a common daily occurrence associated with the customer acquisition of goods or services. Everyday customers face situations where they have to wait: at the bank, at the market, at the bus stop, at the grocery store or at the doctor's waiting room (Pamies & Ryan, 2011). As Min et al. (pp.1. 2014) explain, long queues may become a regular event, a ‘global norm’. In fact, waiting times may be the first experience between customers and service providers (M Davis & Heineke, 1998; McGuire, Kimes, Lynn, Pullman, & Lloyd, 2010).

Depending on when the wait happens, customers may wait before receiving the service (pre-process waiting), during (in process waiting) or after (post process waiting) receiving the service (Dubé-Rioux, Schmitt, & Leclerc, 1989; Maister, 1985; Taylor, 1994). For instance, in a restaurant context, pre-process waiting occurs when clients wait for a table, in process waiting occurs when customers have ordered food and post process waiting occurs when customers wait for the bill.

Taylor (1994) also suggests, pre-process waits may be classified in pre-schedule waits: when customers arrive before the appointed time to begin service (as when visitors wait to start the show), delays: when the service doesn't start at the time of the event (as when visitors wait because the show didn't start at the set time) and queue waits: when the system of first-come first-service is applied to manage wait times (as when visitors wait in regular lines to ride a roller coaster).

Figure 2: Different moments when waiting may occur

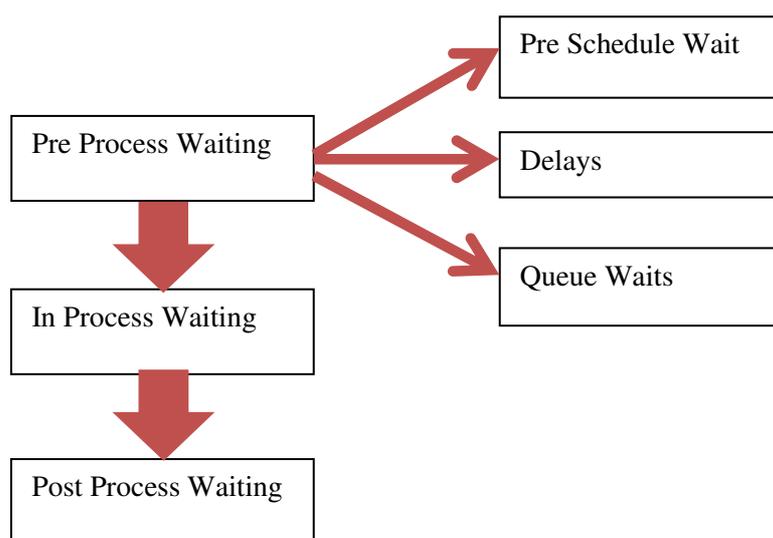


Table 1 reviews waiting time's literature in order to provide an overview on this issue. Literature was classified according to the topic of each paper. For instance, papers that

focus on how waiting time influence on the customer evaluation of the service, or papers that focus on how the music in the waiting environment affect the perceived waiting time. Thus, the studies reviewed were grouped by those different topics. The same study may appear in more than one theme group according to its relevance. Added to this, the table displays authors, years, titles, methods and contexts where the empirical studies were conducted.

**Table 1: Literature review on waiting times**

Topic	Author	Year	Title	Context	Approach
<b>Strategies to reduce real waiting times</b>	Pullman & Thompson	2002	Capacity-and Demand-Management decisions.	Ski-resort	Quantitative
	Sheu & Babbar	1996	A managerial assessment of the waiting-time performance for alternative service process designs.	Laboratory study	Quantitative
	Ho, Lau, & Li	1995	Introducing variable-interval appointment scheduling rules in service systems.		Quantitative
	Ahmadi	1997	Managing capacity and flow at theme parks.	Theme park	Quantitative
	Church & Newman	2000	Using simulations in the optimisation of fast food service delivery.	Restaurant	Theoretical
<b>An economic view of time</b>	Sheu, McHaney, & Babbar	2003	Service process design flexibility and customer waiting time.	Restaurant	Quantitative
	Solmaz, Akbas, & Turgut	2015	A Mobility Model of Theme Park Visitors.	Theme park	Quantitative
	Leclerc, Schmitt, & Dubé	1995	Waiting time and decision making: Is time like money?	Scenarios/ students (leisure events, bank, transport)	Quantitative
	Okada & Hoch	2004	Spending Time versus Spending Money.	Scenarios/students	Quantitative
	Lin, Xia, & Bei	2015	Customer's perceived value of waiting time for service events.	Scenarios/students (bank, vending machine, post office)	Quantitative
<b>Time Consumption</b>	Ittig	2002	The real cost of making customers wait	Supermarket	Quantitative
	Hornik	1992	Time Estimation and Orientation Mediated by Transient Mood.	Students (experimental situation)	Quantitative
	Hornik	1982	Situational effects on the consumption of time.	Household members	Quantitative
<b>Time Styles</b>	Durrande-Moreau & Usunier	1999	Time Styles and the Waiting Experience An Exploratory Study.	Public transport	Quantitative
	Usunier & Valette Florence	2007	The time styles scale - A review of developments and replications over 15 years.		Theoretical

<b>The influence of waiting times on customer satisfaction</b>	Hensley & Sulek	2007	Customer satisfaction with waits in multi-stage services.	Restaurant	Quantitative
	Lee & Lambert	2000	Impact of waiting time on evaluation of service quality and customer satisfaction in food service operation.	Café	Quantitative
	Lee & Lambert	2005	The effect of waiting time and affective reactions on customers' evaluation of service quality in a cafeteria.	Café	Quantitative
	Li	2010	Impact of waiting time on tourists' satisfaction in a theme park: An empirical investigation.	Theme park	Quantitative
	Tom & Lucey	1995	Waiting time delays and customer satisfaction in supermarkets.	Supermarket	Quantitative
	Pruyn & Smidts	1998	Effects of waiting on the satisfaction with the service: Beyond objective time measures.	Hospital	Quantitative
	Davis & Vollmann	1990	A framework for relating waiting time and customer satisfaction in a service operation.	Fast food restaurant	Quantitative
	Bitner, Booms, & Tetreault	1990	The service encounter-diagnosing favourable and unfavourable incidents.	Hotel, restaurant and airline	Quantitative
<b>The influence of waiting times on perceived quality</b>	Chebat, Filiatrault, Chebat, & Vaninsky	1995	Impact of waiting attribution and consumer's mood on perceived quality.	Bank	Quantitative
	Chebat & Filiatrault	1993	The impact of waiting in line on consumers.	Bank	Quantitative
	Dubé-Rioux et al.	1989	Consumers' reactions to waiting: when delays affect the perception of service quality.	Restaurant	Quantitative
	Rendeiro Martín-Cejas	2006	Tourism service quality begins at the airport.	Airport	Quantitative
<b>Customer satisfaction with waiting times</b>	Hensley & Sulek	2007	Customer satisfaction with waits in multi-stage services.	Restaurant	Quantitative
	Bielen & Demoulin	2007	Waiting time influence on the satisfaction-loyalty relationship in services.	Hospital	Quantitative
	Davis	1991	How long should a customer wait for service?	Fast food restaurant	Quantitative

	Davis & Heineke	1998	How disconfirmation, perception and actual waiting times impact customer satisfaction.	Restaurant	Quantitative
	Davis & Maggard	1990	An analysis of customer satisfaction with waiting times in a two-stage service process.	Restaurant	Quantitative
	Gudergan	1997	Individual's Choice Behaviour In Waiting Situations.	Services	Theoretical
	Pearce	1989	Towards the better management of tourist queues.	Customs- airport-restaurant-bus stop- theme park-theatre	Theoretical
<b>Influence of waiting times on service evaluation</b>	Taylor	1994	Waiting for service: The relationship between delays and evaluations of service.	Airport	Quantitative
	Taylor	1995	The effects of filled waiting time and service provider control over the delay on evaluations of service.	Computer program	Quantitative
	Dubé-Rioux et al.	1989	Consumers' reactions to waiting: when delays affect the perception of service quality.	Restaurant	Quantitative
	Friman	2010	Affective dimensions of the waiting experience.	Scenarios (public transport)	Quantitative
	Yan & Lotz	2006	The waiting game: The role of predicted value, wait disconfirmation, and providers' actions in consumers' service evaluations.	Theoretical	Theoretical
	Hui & Tse	1996	What to tell consumers in waits of different lengths: An integrative model of service evaluation.	Signing up for university courses	Quantitative
	Houston, Bettencourt, & Wenger	1998	The relationship between waiting in a service queue and evaluations of service quality: A field theory perspective.	Bank	Quantitative

	Fraser, Zahari, & Othman	2008	Customer reaction to service delays in Malaysian ethnic restaurants.	Restaurant	Quantitative
<b>Service stages and waiting</b>	Dubé-Rioux et al.	1989	Consumers' reactions to waiting: when delays affect the perception of service quality.	Restaurant	Quantitative
	Hui, Thakor, & Gil	1998	The effect of delay type and service stage on consumers' reactions to waiting.	Computer program	Quantitative
	Jain, Juneja, & Shimkin	2011	The concert queueing game: to wait or to be late.	Concert	Theoretical
<b>Psychological cost of waiting</b>	Osuna	1985	The psychological cost of waiting.		Theoretical
	Carmon, Shanthikumar, & Carmon	1995	A psychological perspective on service segmentation models: The significance of accounting for consumers' perceptions of waiting and service.		Theoretical
<b>Affective dimensions, reactions and waiting</b>	Friman	2010	Affective dimensions of the waiting experience.	Scenarios (public transport)	Quantitative
	Yan & Lotz	2006	The waiting game: The role of predicted value, wait disconfirmation, and providers' actions in consumers' service evaluations.		Theoretical
	Folkes, Koletsky, & Graham	1987	A field study of causal inferences and consumer reaction: the view from the airport.	Airport	Quantitative
	Rafaeli, Barron, & Haber	2002	The Effects of Queue Structure on Attitudes.	Computer program	Quantitative
	Fraser, Zahari, & Othman	2008	Customer reaction to service delays in Malaysian ethnic restaurants.	Restaurant	Quantitative
<b>Waiting perception</b>	Haynes	1990	Hating to wait: Managing the final service encounter.		Theoretical
	Maister	1985	The psychology of waiting lines.		Theoretical
	Hornik	1984	Subjective vs. Objective Time Measures: A Note on the Perception of Time in Consumer Behaviour.	Supermarket-bank-store	Quantitative

	Jones & Peppiatt	1996	Managing perceptions of waiting times in service queues.	Retail food outlet	Quantitative
	Taylor	1994	Waiting for service: The relationship between delays and evaluations of service.	Airport	Quantitative
	Taylor	1995	The effects of filled waiting time and service provider control over the delay on evaluations of service.	Computer program	Quantitative
	Katz, Larson, & Larson	1991	Prescription for the waiting-in-line blues-entertain, enlighten, and engage.	Bank	Quantitative
	Davis & Heineke	1994	Understanding the roles of the customer and the operation for better queue management.		Theoretical
	Dickson, Ford, & Laval	2005	Managing real and virtual waits in hospitality and service organizations.	Theme parks	Theoretical
	Antonides, Verhoef, & Van Aalst	2002	Consumer perception and evaluation of waiting time: A field experiment.	Telephone communication	Quantitative
	Li	2010	Impact of waiting time on tourists' satisfaction in a theme park: An empirical investigation.	Theme park	Quantitative
	McGuire et al.	2010	A framework for evaluating the customer wait experience.	Cafe- laboratory study	Quantitative
	Moore	2007	The Waiting game.	Hospitality services	Quantitative
	Nie	2000	Waiting: integrating social and psychological perspectives in operations management.		Theoretical
	Jones & Dent	1994	Improving service: managing response time in hospitality operations.	Restaurant and hotel	Quantitative
	Pearce	1989	Towards the better management of tourist queues.	Customs- airport-restaurant-bus stop- theme park-theatre	Theoretical
	Kostecki	1996	Waiting lines as a marketing issue.		Theoretical
	Voorhees, Baker, Bourdeau, Brocato, & Cronin	2009	It depends moderating the relationships among perceived waiting time, anger, and regret.	Restaurant, bank, haircutting, oil change center	Quantitative

<b>Information and perceived waiting times</b>	Antonides, Verhoef, & Van Aalst	2002	Consumer perception and evaluation of waiting time: A field experiment.	Telephone communication	Quantitative
	Chebat J.C, Salem N.H, Poirier	2010	Reactions to Waiting online by men and women.	Internet	Quantitative
	Hui & Tse	1996	What to tell consumers in waits of different lengths: An integrative model of service evaluation.	Signing up for university courses	Quantitative
	Osuna	1985	The psychological cost of waiting.		Theoretical
	Nah	2004	A study on tolerable waiting time: how long are web users willing to wait	Internet	Quantitative
<b>Waiting environment and perceived waiting times</b>	Baker & Cameron	1996	The effects of the service environment on affect and consumer perception of waiting time: an integrative review and research propositions.		Theoretical
	Hwang, Yoon, & Bendle	2012	Desired privacy and the impact of crowding on customer emotions and approach-avoidance responses: Waiting in a virtual reality restaurant.	Virtual restaurant	Quantitative
	Pruyn & Smidts	1998	Effects of waiting on the satisfaction with the service: Beyond objective time measures.	Hospital	Quantitative
<b>The effect of music on perceived waiting times</b>	Cameron, Baker, & Peterson	2013	Waiting for service: the effects of music volume and gender.	Students	Quantitative
	Antonides, Verhoef, & Van Aalst	2002	Consumer perception and evaluation of waiting time: A field experiment.	Telephone communication	Quantitative
	Chebat J.C, Salem N.H, Poirier	2010	Reactions to waiting online by men and women.	Internet	Quantitative
	Kellaris & Kent	1992	The influence of music on consumers' temporal perceptions: does time fly when you're having fun?	Students	Quantitative
	Oakes	2003	Musical tempo and waiting perceptions.	University-students	Quantitative
<b>Social facilitation and perceived waiting times</b>	Sommer & Sommer	1989	Social facilitation effects in coffeehouses.	Cafes	Quantitative

<b>Fairness when waiting</b>	Avi-Itzhak & Levy	2004	On measuring fairness in queues.		Theoretical
	Larson	1987	Perspectives on queues-social- justice and the psychology of queuing.		Theoretical
	Milgram, Liberty, Toledo, & Wackenhut	1986	Response to intrusion into waiting lines.	Railroad ticket counter	Quantitative
	Matthew, MacLaren, O’Gorman, & White	2012	Priority queues: Where social justice and equity collide.	Theme parks	Qualitative/ Quantitative
	Minton	2008	Waiting and queuing in the check-in hall: An ethnographic study of queuing and waiting for check-in services at Manchester Airport.	Airport	Qualitative
	Sulek & Hensley	2004	The relative importance of food, atmosphere, and fairness of wait.	Restaurant	Quantitative
	Zhou & Soman	2008	Consumers’ waiting in queues: The role of first-order and second-order justice.	Scenarios (restaurant and small business)	Quantitative
	McGuire & Kimes	2006	The perceived fairness of waitlist-management techniques for restaurants.	Scenarios (restaurant)	Quantitative
	Rafaeli, Kedmi, Vashdi, & Barron	2005	Queues and fairness: A multiple study experimental investigation.	Service station survey- computer program (simulated queues)	Quantitative
	Rafaeli, Barron, & Haber	2002	The Effects of Queue Structure on Attitudes.	Computer program	Quantitative
	Voorhees, Baker, Bourdeau, Brocato, & Cronin	2009	It Depends Moderating the Relationships Among Perceived Waiting Time, Anger, and Regret.	Restaurant, bank, haircutting, oil change center	Quantitative
<b>Queues as social systems</b>	Mann	1969	Queue culture- waiting line as a social system.	Sport event	Qualitative
	Brady	2002	Lining up for Star-Wars tickets: Some ruminations on ethics and economics based on an internet study of behaviour in queues.	Cinema	Qualitative

	Minton	2008	Waiting and queuing in the check-in hall: An ethnographic study of queuing and waiting for check-in services at Manchester Airport.	Airport	Qualitative
	Schmitt et al.	1992	Intrusions into waiting lines: Does the queue constitute a social system?	Scenarios (bank, tickets for events). Field study: train station	Quantitative
<b>Factors of influence: pre-process and in process</b>	Durrande Moreau	1999	Waiting for service: Ten years of empirical research.		Theoretical
<b>Internal Factors that influence on waiting experience</b>					
<b>Personality</b>	Bennett	1998	Queues, customer characteristics and policies for managing waiting-lines in supermarkets.	Supermarket	Quantitative
	Marquis, Dube, & Chebat	1994	Consumers' Response to Waiting Time: New Segmentation Bases Are Required for Service Industries.	Scenarios/students (restaurant- bank)	Quantitative
	Anitsal & Anitsal	2009	Impact of customers' personality traits in retail environments.	Scenarios/students	Quantitative
	Marquis	1998	Self-consciousness disposition sheds light on consumers' reactions to waiting.	Scenarios/students (theatre)	Quantitative
<b>Gender</b>	Cameron, Baker, & Peterson	2013	Waiting for Service: The Effects of Music Volume and Gender.	Students	Quantitative
	Zainol & Bashir	2015	Complaint behaviour on too long waiting or service delay: Analysis based on customer genders and occupations.	Restaurant	Quantitative
<b>Occupation</b>	Zainol & Bashir	2015	Complaint behaviour on too long waiting or service delay: Analysis based on customer genders and occupations.	Restaurant	Quantitative
<b>External Factors that influence on waiting experience</b>					
<b>Location</b>	Bennett	1998	Queues, customer characteristics and policies for managing waiting-lines in supermarkets.	Supermarket	Quantitative

<b>Location- Day-Hour</b>	Davis & Vollmann	1990	A framework for relating waiting time and customer satisfaction in a service operation.	Fast food	Quantitative
<b>Waiting and Culture</b>	Haynes, Nixon, & West	1990	Time perception and consumer behaviour: some cross-cultural implications.		Theoretical
	Rose, Evaristo, & Straub	2003	Culture and consumer responses to Web download time: A four-continent study of mono and polychronism	Internet	Quantitative
<b>Progress in queue</b>	Rafaeli, Barron, & Haber	2002	The Effects of Queue Structure on Attitudes.	Computer program	Quantitative
	Carmon & Kahneman	1996	The experienced utility of queuing: real time affect and retrospective evaluations of simulated queues.	Computer program (simulated queues)	Quantitative
<b>Waiting and Attributions</b>	Casado Diaz & Más Ruíz	2002	The consumer's reaction to delays in service.	Airport	Quantitative
	Chebat, Filiatrault, Chebat, & Vaninsky	1995	Impact of waiting attribution and consumer's mood on perceived quality	Bank	Quantitative
	Hui et al.	1998	The effect of delay type and service stage on consumers' reactions to waiting.	Computer program	Quantitative
<b>Recovery strategies</b>	McDougall & Levesque	1999	Waiting for service: the effectiveness of recovery strategies.	Scenarios (hotel and restaurant)	Quantitative
<b>Virtual queues</b>	Cope III, Cope, & Davis	2008	Disney's Virtual Queues: A Strategic Opportunity To Co-Brand Services?	Theme parks	Theoretical
	De Lange, Samoilovich, & Van der Rhee	2013	Virtual queuing at airport security lanes.	Airport	Theoretical
	Dickson, Ford, & Laval	2005	Managing real and virtual waits in hospitality and service organizations.	Theme parks	Theoretical
	Lutz	2008	The impact of virtual queues for amusement parks.	Theme parks	Quantitative
<b>Priority queues</b>	Matthew, MacLaren, O'Gorman, & White	2012	Priority queues: Where social justice and equity collide.	Theme parks	Qualitative/ Quantitative

	Alotaibi & Liu	2012	Average Waiting Time of Customers in a New Queue System with Different Classes.		Theoretical
	Álvarez & Mejía	2012	Simulation study of priority passes in a theme park in Colombia.	Theme parks	Quantitative
	Tone & Kohara	2007	A Study of the Effects of Congestion Information and a Priority Boarding Pass in a Theme Park with Multi-Agents.	Theme parks	Quantitative
<b>Willingness to Pay to avoid wait</b>	Anderson, Black, & Dunn	1997	Willingness to pay to shorten waiting time for cataract surgery.	Medicine	Quantitative
	Bishai & Lang	2000	The willingness to pay for wait reduction: the disutility of queues for cataract surgery in Canada, Denmark, and Spain.	Medicine	Quantitative
	Clark & Kim	2007	Paying vs. waiting in the pursuit of specific egalitarianism.		Theoretical
<b>Acceptable waiting times</b>	Houston, Bettencourt, & Wenger	1998	The relationship between waiting in a service queue and evaluations of service quality: A field theory perspective.	Bank	Quantitative
	Chebat & Filiatrault	1993	The impact of waiting in line on consumers.	Bank	Quantitative
	Chebat & Gelinas-Chebat	1995	The impact of mood on time perception, memorization, and acceptance of waiting.	Bank	Quantitative
	Durrande-Moreau & Usunier	1999	Time Styles and the Waiting Experience An Exploratory Study.	Public transport	Quantitative
	Hwang & Lambert	2009	The use of acceptable customer waiting times for capacity management in a multistage restaurant.	Restaurant	Quantitative
	Hwang & Lambert	2005	Customers' identification of acceptable waiting times in a multi-stage restaurant system.	Scenarios/students	Quantitative

	Pruyn & Smidts	1998	Effects of waiting on the satisfaction with the service: Beyond objective time measures.	Hospitals	Quantitative
	Riganti & Nijkamp	2008	Congestion in popular tourist areas: a multi-attribute experimental choice analysis of willingness-to-wait in Amsterdam.	Museums and cafés	Quantitative
	Nah	2004	A study on tolerable waiting time: how long are web users willing to wait?	Internet	Quantitative
	Anitsal & Anitsal	2009	Impact of customers' personality traits in retail environments.	Scenarios/students	Quantitative
	Collier, Moore, Horky, & Moore	2015	Why the little things matter: Exploring situational influences on customers' self-service technology decisions.	Students	Quantitative
	Chuo & Heywood	2014	An Optimal Queuing Wait for Visitors' Most Favourite Ride at Theme Parks.	Theme park	Quantitative
<b>Willingness to Wait</b>	Riganti & Nijkamp	2008	Congestion in popular tourist areas: a multi-attribute experimental choice analysis of willingness-to-wait in Amsterdam.	Museums and cafés	Quantitative
	Rousseau & Rousseau	2012	Interactions between journal attributes and authors' willingness to wait for editorial decisions.	Academic Journals	Quantitative
	Nah	2004	A study on tolerable waiting time: how long are web users willing to wait?	Internet	Quantitative
	Okada & Hoch	2004	Spending Time versus Spending Money.	Scenarios/students	Quantitative
	Pyone & Isen	2011	Positive Affect, Intertemporal Choice, and Levels of Thinking: Increasing Consumers' Willingness to Wait.	Students	Quantitative
	Cheema & Bagchi	2011	The effect of goal visualization on goal pursuit: implications for consumers and managers.	Scenarios/students	Quantitative

<b>Abandon Waits</b>	Dabholkar & Sheng	2008	Perceptions of download delays: relation to actual waits, web site abandoning, and stage of delay.	Internet	Quantitative
	Janakiraman, Meyer, & Hoch	2011	The Psychology of Decisions to Abandon Waits for Service.	Call center	Quantitative
<b>Waiting on the internet</b>	Ryan & Valverde	2003	Waiting online: a review and research agenda.		Theoretical
	Ryan & Valverde	2005	Waiting for service on the internet: Defining the phenomenon and identifying the situations.	Internet	Qualitative
	Ryan & Valverde	2006	Waiting in line for online services: a qualitative study of the user's perspective.	Internet	Qualitative
<b>Waiting as part of the service</b>	Kostecki	1996	Waiting lines as a marketing issue.		Theoretical
	Dawes & Rowley	1996	The waiting experience: towards service quality in the leisure industry.	Theme park and airport	Qualitative
	Heger et al.	2009	Waiting as part of the fun: Interactive gaming in theme park queues.	Theme park	Qualitative
<b>Waiting increase perceived value</b>	Koo & Fishbach	2010	A silver lining of standing in line: queuing increases value of products.	Bars, theme park	Quantitative
	Gavilán-Bouzas & García de Madariaga-Miranda	2009	Do we wait if it's better, or is it better if we wait?	Scenarios (theme parks- restaurant)	Quantitative
	Fung	2006	A study of queue: consumers 'purchase intention trade-off between perceived product quality and perceived sacrifice.	Scenarios/students (shops)	Quantitative
	Buell & Norton	2011	The labour illusion: how operational transparency increases perceived value.	Online travel websites and online dating websites	Quantitative
	Giebelhausen, Robinson, & Cronin Jr	2011	Worth waiting for: increasing satisfaction by making consumers wait.	Scenarios/students (restaurant, nightclub, doctor, mechanic)	Quantitative
	Chuo & Heywood	2014	An optimal queuing wait for visitors' most favourite ride at theme parks.	Theme park	Quantitative

<b>Social comparison and accomplishment in queues</b>	Zhou & Soman	2003	Looking back: Exploring the psychology of queuing and the effect of the number of people behind.	ATM and scenarios (post office, university, bank, other services)	Quantitative
<b>Waiting and queues as source of information</b>	Debo, Parlour and Rajan	2005	The value of congestion.	Market	Theoretical
	Debo, Parlour and Rajan	2012	Signaling quality via queues.	Market	Theoretical
	Debo, Rajan & Veeraraghavan	2012	Signaling by Price in a Congested Environment.		Theoretical
	Dickson, Ford, & Laval	2005	Managing real and virtual waits in hospitality and service organizations.	Theme parks	Theoretical
	Giebelhausen, Robinson, & Cronin Jr	2011	Worth waiting for: increasing satisfaction by making consumers wait.	Scenarios/students (restaurant, nightclub, doctor, mechanic)	Quantitative
<b>Queues attract other customers</b>	Veeraraghavan & Debo	2009	Joining longer queues: Information externalities in queue choice.	Restaurant	Theoretical
	Veeraraghavan & Debo	2010	Herding in queues with waiting costs: Rationality and regret.		Theoretical
	Debo & Veeraraghavan	2009	Models of herding behaviour in operations management.		Theoretical
	Raz & Ert	2008	“Size Counts”: The Effect of Queue Length on Choice between Similar Restaurants.	Restaurant	Quantitative
	Mann	1977	The effect of stimulus queues on queue-joining behaviour.	Bus stop	Quantitative
	Becker	1991	A Note on Restaurant Pricing and Other Examples of Social Influences on Price.	Restaurant, theatre, events, others	Theoretical
<b>Waiting and savouring</b>	Loewenstein	1987	Anticipation and the valuation of delayed consumption.		Theoretical
	Chun	2009	Savouring future experiences: antecedents and effects on evaluations of consumption experience.	Event, video games	Quantitative
<b>Charge extra to avoid queues: increase firms revenues</b>	Heo & Lee	2009	Application of revenue management practices to the theme park industry.	Theme parks	Quantitative

	Friedman & Friedman	1997	Reducing the “wait” in waiting-line systems: Waiting line segmentation.		Theoretical
<b>Wait may help to cope with an aversive situation</b>	Miller, Kahn, & Luce	2008	Consumer wait management strategies for negative service events: a coping approach.	Students (scenarios)	Quantitative

### 2.2.1. Disciplines

As can be seen in the Table 1, different disciplines have studied waiting times in services in order to provide solutions to this issue. For instance, operations management’s studies have provided operational solutions based on how to manage different types of queues or how to organize the queues to improve company production or process capacity (Ho et al., 1995; M. E. Pullman & Thompson, 2002; M. Pullman & Rodgers, 2010; Sheu & Babbar, 1996).

Psychology has contributed to understand customer’s reactions, affective responses and psychological aspects in a waiting situation (Dubé, Bernd, & Leclerc, 1991; Dubé-Rioux et al., 1989; Larson, 1987; Oakes, 2003; Tom & Lucey, 1997). Sociology has also enhanced the understanding of waiting experiences for instance with studies related to social justice and queues as social systems (Mann, 1969, 1977). Economics has also made contributions for example regarding the real cost of waiting times (Ittig, 2002).

Finally, marketing studies have also contributed to understand and analysed waiting times but focusing on customer behaviour in a waiting situation, perceived waiting, customer satisfaction with waiting and the relation between waiting and customer evaluation of the service (M Davis & Heineke, 1998; Larson, 1987; Maister, 1985; Taylor, 1995). Thus, we can conclude that waiting time is a research topic that allows its analysis from different perspectives and approaches and that it remain an interesting topic for researchers of multiple disciplines.

### 2.2.2. Research methods and Contexts

Research on waiting is dominated by quantitative approaches. For instance, they have studied how waiting influence on perceived quality (J. C. Chebat & Filiatrault, 1993; JC Chebat et al., 1995; Dubé-Rioux et al., 1989) or how waiting affects customer satisfaction (Hensley & Sulek, 2007; Lee & Lambert, 2000, 2005; Li, 2010; Tom & Lucey, 1995). However, literature on waiting has also made relevant theoretical contributions. For instance, studies regarding psychological aspects of the waiting experience (Carmon et al., 1995; Larson, 1987; Maister, 1985; Osuna, 1985), strategies for a better queue management (MM Davis & Heineke, 1994; P L Pearce, 1989), the influence of waiting on consumers’ service evaluations (Yan & Lotz, 2006), the effect of waiting environment on perceived waiting (Baker & Cameron, 1996), fairness in queues (Benjamin Avi-Itzhak & Levy, 2004), how to manage real and virtual queues (Dickson et al., 2005), or about the waiting line segmentation between those who are willing to pay to avoid queues and those who don’t (H. H. Friedman & Friedman, 1997). Thus, despite more than thirty years of research on waiting, theoretical

frameworks and conceptual studies are still necessities for the understanding of the subject.

Regarding empirical works, Table 1 shows that researchers have analysed waits in a great variety of service contexts. Thus, the nature of each service determines the way researcher study the waiting phenomenon. Waiting on the internet is not address for the literature in the same way than waiting in a theme park. Banks (J. C. Chebat & Filiatrault, 1993; JC Chebat et al., 1995), hospitals (Bielen & Demoulin, 2007), internet (Ryan & Valverde, 2006), supermarkets (Bennett, 1998) and tourist services (Dawes & Rowley, 1996) appear as the most 'popular' contexts for waiting studies. We can see that in spite of the efforts, these contexts remain the most studied. This demonstrates that waiting times are still an issue to be resolved. Added to this, many service contexts such as theme parks have been widely addressed by operation management approaches but little addressed by consumer behaviour approaches. Thus, some service contexts are lacking a multidisciplinary view of the waiting phenomenon.

### **2.2.3. Negative and not so negative approaches**

As a rule, waiting times appear as an important problem for consumers (Bitner et al., 1990; Lee & Lambert, 2000; Pruyn & Smidts, 1998) and service companies (Nie, 2000; Barry Schwartz, 1978; Taylor, 1995). For consumers, waiting times are viewed as empty and wasted (Fung, 2006; M Hui & Tse, 1996; B Schwartz, 1975; Sheu et al., 2003) that could have been used for something more worthwhile (Leclerc et al., 1995). Time, is a scarce resource. It is a highly valued good by customers. When consumers wait, they are losing a valuable good that it is time. Additionally, waiting times provoke several negative feelings and emotions on clients (MK Hui et al., 1998; Nie, 2000; Osuna, 1985). They are usually associated with, frustration, anxiety (Carmon et al., 1995; Nie, 2000), boredom (Groth & Gilliland, 2001), nervousness, stress (Osuna, 1985), exhaustion (Setoodeh, 2004) and anger (Larson, 1987; Pruyn & Smidts, 1998; Rafaeli et al., 2002; Taylor, 1994). Some customers hate to wait (Yoh, Iseki, Smart, & Taylor, 2011).

For companies, waiting times are associated with an economic cost (Osuna, 1985; B Schwartz, 1975). A customer waiting means a customer who is not consuming. Added to this, waits may influence negatively on service quality perceptions. Consequently, they may cause consumer dissatisfaction (Bitner et al., 1990; Katz et al., 1991; Lee & Lambert, 2000; Pruyn & Smidts, 1998; Tom & Lucey, 1995) and poor service evaluations (Bitner et al., 1990; Lee & Lambert, 2000; Pruyn & Smidts, 1998; Taylor, 1994). In fact, waits may lead to lost clients (Bielen & Demoulin, 2007). A customer waiting may result in an angry consumer who abandon the wait (Carmon et al., 1995; Zhou & Soman, 2003) and will not purchase the service again (Bielen & Demoulin, 2007; Carmon et al., 1995; M M Davis & Vollmann, 1990; McDougall & Levesque, 1999). From this, many authors have analysed the phenomenon in order to provide solutions and practical advices to companies and marketers (M Davis & Heineke, 1998; Durrande-Moreau & Usunier, 1999; Hensley & Sulek, 2007; Lee & Lambert, 2005)

However, as we can see in Table 1, there is also literature that consider a ‘different way to interpret waiting’ and this leads us to reconsider how waiting times are addressed (Ahmadi, 1997; Dickson et al., 2005; Gnoth, Bigné, & Andreu, 2006; KostECKI, 1996). For instance, literature suggests that the strategies to manage waiting times should be different according if the customer is waiting for a negative event (to make a speech without previous preparation) or a positive event (only listen a speech) (Miller et al., 2008). Waiting time may be not so negative when people are waiting for a negative event: they may help to face the situation. In contrast, shorts waits may increase the level of stress in those aversive situations (Miller et al., 2008).

KostECKI (1996) also explains that waiting times may be considered as a necessary break and as a positive discretionary time. Time waiting (for example, at the airport) may become a fun and desired part of the tourist experience. Airports from different parts of the world such as London, Hong Kong or Copenhagen offer multiple activities to amuse travellers while waiting for their flights. Sophisticated food, fashion shops and luxury services may be enjoyed in that free time (Diariogastronomia.com, 2015).

Therefore, to notice the negative effect of waiting may be not the only alternative. Daily situations such as people forming long queues for an event, waiting months for a table in a restaurant, queuing hours for a new device also make think that waiting times may be not always so bad.

#### **2.2.4. Managing real and perceived waiting times in services**

Waiting times can be classified as the real waiting time (the actual time a customer is waiting) and the perceived waiting time (the time a customer perceives he is waiting and that may not coincide with real waiting time).

Companies have different options to manage both of them. On the one hand they can reduce the real waiting time for example by extending the opening hours, opening more checkouts, hiring more employees or implementing new technologies such as machines which sell products or assist customers (M M Davis & Vollmann, 1990; Pamies & Ryan, 2011; Yan & Lotz, 2006). Theme parks or airlines use systems where customers can pay extra to avoid queues (Biege, 2013; Cope III et al., 2008; Cope, Cope III, Bass, & Syrdal, 2011). Museums and galleries give the opportunity to buy tickets before arriving at the site. However, these operational solutions can also bring disadvantages. For instance, they can include large investments of money or it can be difficult for consumers to adapt to new technologies (Swartz & Iacobucci, 2000).

On the other hand, when real waiting time can't be modified, managers may attempt to reduce the perceived waiting time (subjective waiting time) (Dubé-Rioux et al., 1989; Maister, 1985; Pruyn & Smidts, 1998). Subjective waiting time may not match with real waiting times. For instance, a real waiting time to ride an attraction at a theme park may be 10 minutes. However one tourist may feel he waited during 20 minutes and another tourist may feel he waited during 5 minutes. Waiting times may be overestimated or underestimated depending on the strategies implemented to manage perceive waiting (Hornik, 1984; Jones & Peppiatt, 1996; Katz et al., 1991).

Maister's study, as one of the referents of how to manage perceived waiting times from a service marketing perspective, attempts to understand the psychological side of waiting lines. Several propositions were suggested (Maister, 1985):

1-“Unoccupied time feels longer than occupied time”. When waiting times are filled time instead of an empty time, customers feel they wait shorter (Larson, 1987; Maister, 1985; Miller et al., 2008). Television, music, magazines, entertainment, Internet access, are some of the options to fill the wait (Pamies & Ryan, 2011). When customers are spending a funny and productive time, time flies. Customers evaluations about the service are better when waits are high fill with activities related with the service (Park, Min, & Lee, 2014; Taylor, 1995)

2-“Pre-process waits feel longer than in-process waits”. An example of in process waiting is when restaurants let their clients wait for dinner in a pleasant bar at the entrance of the restaurant (Dubé, Renaghan, & Miller, 1994). As Maister (1985) explain customers response positively when they feel service has started and they perceive shorter waits.

3-“Anxiety makes wait seem longer”. As Maister (pp 4, 1985) explains, “there is a fear of being forgotten” that makes customers feel anxious and consequently they perceive waiting as longer. Unoccupied waiting times, unexplained waits and uncertain waits may lead to high levels of anxiety (Jones & Peppiatt, 1996). Thus, service providers may implement effective strategies to reduce the anxiety level of the customers and to reduce the perceived waiting time (Durrande Moreau, 1999; Jones & Peppiatt, 1996). For instance, Kostecki (1996) suggests reassuring customers with a reservation system.

4-“Uncertain waits are longer than certain waits”. When customers know how many minutes they have to wait to be served (waiting duration), they feel better and they wait in a more positive attitude (Larson, 1987; Taylor, 1994). When customers have information about the waits, they pay less attention towards the passage of time (M Hui & Tse, 1996). For instance, Disneyland provides information through different screens and signs about the waiting time for each ride (Larson, 1987). This feedback reduces perceived waiting times (Katz et al., 1991; Lee & Lambert, 2005).

5-“Unexplained waits are longer than explained waits”. When companies explain the reasons of the delay, customers react in a more positive way. This information reduces the overestimation of the delay. In contrast, if no reason was given, customers may perceive longer waiting times (MK Hui, Tse, & Zhou, 2006). Added to this, if customers attribute delays to the service providers, they will have a more negative attitude toward the situation (JC Chebat et al., 1995; Taylor, 1994).

6-“Unfair waits are longer than fair waits”. The feeling of injustice while waiting, for instance when someone who is not in the queue is served first, may lead to longer perceived waiting times. When this occur, customers satisfaction with waits decrease (Kostecki, 1996). Literature explains that systems that break with the ‘First in, first out’ rule (FIFO) (such as multiple queues) are considered as more unfair systems than others

where the principle is fulfilled (such as single queues structures) (Rafaeli et al., 2002). Thus, companies may control this factor in order to improve fairness perceptions and waiting experiences (MM Davis & Heineke, 1994; Kostecki, 1996).

7-“The more valuable the service, the longer the customer will wait”. Depending on the service, customer may be more or less tolerant with waiting times. As Maister (pp 7-8, 1985) exemplifies, “you wait ten minutes for an assistant professor, fifteen minutes for an associate professor and twenty minutes for a full professor”. Gavilán-Bouzas and García de Madariaga-Miranda (2009) explain that the value of the service makes that the customer assume the cost of waiting. Customers are willing to wait because they will be in a better situation after the wait.

8-“Solo waits feel longer than group waits”. The possibility to interact with others while waiting reduces the perceived waiting time. Anitsal and Anitsal (2009) also support Maister’s proposition saying that waiting in group increase tolerance with waiting times. From this, companies are recommended to promote social interaction instead of an isolating waiting experience.

As we can see, many further studies have attempted to deepen on these propositions. Some authors have also classified propositions according if they affect all users, frequent users or infrequent users (Jones & Peppiatt, 1996). Others include Maister’s propositions in different groups of influential factors: before or during the wait experience, and individual or situational factors. For instance, unfairness is classified as a situational factor during the wait, not related with the duration of the wait (Durrande Moreau, 1999). Davis & Heineke (1994) also differentiate Maister’s propositions between those factors that can be controlled by the firm, those that can be partially controlled by the firm and those that can’t be controlled by the firm. Additionally, they have gone further and add others propositions:

9-“Uncomfortable waits feel longer than comfortable waits”. Environmental elements such as lighting, aroma, temperature, colour, furniture may make a more or less comfortable wait and consequently customers perceive a shorter or longer waiting time. This is a factor that firms can control.

10-“Customer value systems”. There are people who are willing to pay for a fast service. Firms need to segment the market and offer alternatives for those who don’t want to waste time waiting.

11-“Customers’ current attitude”. As a factor that firms can’t control, the prior attitude of customers has to be also considered when evaluating the perception of the service. For instance, if a customer who is upset has to wait for a service, probably the waiting experience will be negative.

### **2.2.5. Influential factors on the waiting experience**

When managing perceived waiting time, it is also necessary to identify and manage several factors that influence on waiting experience. Those different factors may

influence on customers before waiting, during waiting (pre-process and in process waiting) and after waiting (post process waiting). A brief summary of these factors is developed.

*Influential factors before waiting:*

Customer's factors may influence on individuals before wait occurs (Pamies & Ryan, 2011). For instance, customer characteristics such as gender (Chebat J.C, Salem N.H, Poirier J.F, 2010; Grewal, Baker, Levy, & Voss, 2003), personality (Bennett, 1998; H. Friedman & Booth-Kewley, 1987), mood (J. Chebat & Gelinias-Chebat, 1995; MM Davis & Heineke, 1994), time style (Durrande-Moreau & Usunier, 1999; Usunier & Valette Florence, 2007), customer's expectations about service and waiting times (Bielen & Demoulin, 2007; Durrande-Moreau & Usunier, 1999; Tom & Lucey, 1995), time pressures (Bennett, 1998; Collier et al., 2015) and prior experiences (M M Davis & Vollmann, 1990; Kostecki, 1996; Kumar, 2008). For example, customers who are familiar with a service may feel the wait shorter than infrequent users (Jones & Peppiatt, 1996; Ryan, 2004).

In addition, customer expectations of the wait have a relevant influence on customer's reactions to the wait (Chebat & Filiatrault, 1993; Durrande Moreau, 1999; Haynes, 1990). This is about how long they think that they will wait to receive the service.

*Influential factors while waiting:*

Customer's related factors that influence during the wait are for instance humour (J. C. Chebat & Filiatrault, 1993; JC Chebat et al., 1995; Hornik, 1992), anxiety (Maister, 1985) or customer perceived value of the service (Gavilán-Bouzas & García de Madariaga-Miranda, 2009; Koo & Fishbach, 2010; Maister, 1985). When customers have a greater perception of service value, they have a more positive perception about waiting times (MM Davis & Heineke, 1994; Jones & Peppiatt, 1996). Attribution to causes of the wait may also affect customers during the wait. If customers associate waiting with causes outside service provider control, a more positive attitude towards waiting is possible (Folkes et al., 1987; Taylor, 1995).

Customer's external factors or situational factors that influence during the wait are multiples. Companies usually focus their efforts on managing these factors. One of these factors is the moment when waiting occur (pre-process, in process o post process waiting). Thus, literature suggests in process waiting is considered by customers from a more positive attitude than pre-process waiting (Mark M Davis & Maggard, 1990; M Hui & Tse, 1996; MK Hui et al., 1998; Maister, 1985). Customer satisfaction is strongly influenced by pre- process waiting (Lin et al., 2015; Taylor, 1994). Customers have a more negative attitude towards long pre-process waiting than long in process waiting (Dubé-Rioux et al., 1989). As Maister (1985) explains, customers want the service to start.

Waiting environment such as lighting, temperature, colour (Baker & Cameron, 1996) or furniture (Baker & Cameron, 1996; MM Davis & Heineke, 1994; Pamies & Ryan, 2011) is also another factor. Added to this, fill the wait with different elements influences on customers perceptions (M Hui, Dube, & Chebat, 1997; Katz et al., 1991; Taylor, 1994, 1995). Thus, customers who are busy doing something may have a more pleasant wait than customers doing nothing (Durrande Moreau, 1999; Maister, 1985; Taylor, 1994). Music (Chebat & Filiatrault, 1993; Kellaris & Kent, 1992; McDonnell, 2007; Oakes, 2003), electronic devices (Katz et al., 1991; Pruyn & Smidts, 1998) or promote social interaction (Baker & Cameron, 1996; Jones & Peppiatt, 1996; Maister, 1985) can help companies to fill the wait and reduce perceived waiting time.

Available information about waiting times also affects customer's experiences (Antonides et al., 2002; Chebat J.C, Salem N.H, Poirier J.F, 2010; M Hui & Tse, 1996; Maister, 1985). According to Pamies & Ryan (2011) companies may provide both direct information (for instance explicit information about how long customers have to wait) and indirect information (through physical queues or employee efforts). Strategies and aspects related with the attribution of wait and originating reasons of the wait are also influential factors on waiting experience (JC Chebat et al., 1995; Folkes et al., 1987; Taylor, 1994). The fact that companies give feedback about delays and waits may minimize negative feelings on customers (M Hui & Tse, 1996; Larson, 1987).

The design of the queue may also be a relevant factor that influence on customers during the wait (Rafaeli et al., 2005). Added to this, the level of fairness in the queue system (Baker & Cameron, 1996; Larson, 1987; Mann, 1969; Zhou & Soman, 2008) is one of the issues more studied on this area. For instance, single queues are considered as fairer systems than multiple queues (Rafaeli et al., 2005).

### ***Influential factors after waiting:***

Waiting times lead to several affective responses on customers (Pamies & Ryan, 2011; Ryan, 2004). Most of these responses are negative feelings such as stress, anxiety, frustration, anger or loss of control (Katz et al., 1991; Lee & Lambert, 2005; Maister, 1985; Rafaeli et al., 2002; B Schwartz, 1975; Taylor, 1994). However, literature also highlights some neutral feelings such as indifference (Ryan, 2004) and some positive feelings such as patience (Brynjarsdóttir, 2014), attractiveness (Kostecki, 1996) or perceptions of service quality (Chuo & Heywood, 2014; Gavilán-Bouzas & García de Madariaga-Miranda, 2009; Kostecki, 1996; Rafaeli et al., 2002). Waiting times also lead to other affective responses such as acceptability of waiting times (J. C. Chebat & Filiatrault, 1993; M Hui & Tse, 1996; Hwang & Lambert, 2005, 2009) and customer satisfaction. (M Davis & Heineke, 1998; M M Davis & Vollmann, 1990; Mark M Davis & Maggard, 1990; MM Davis & Heineke, 1994; Jones & Peppiatt, 1996; Katz et al., 1991; Tom & Lucey, 1997)

### **2.2.6. Acceptable waiting times**

Acceptable waiting time has received considerable attention from waiting researchers (J. C. Chebat & Filiatrault, 1993; M Hui & Tse, 1996; Hwang & Lambert, 2005, 2009).

However, there is no consensus on its definition and how to measure it. Different approaches have been used to conceptualize this dimension. Concepts such as tolerable waiting time (Nah, 2004), reasonable waiting time (Katz et al., 1991) and willingness to wait (Riganti & Nijkamp, 2008) also appear linked with acceptability of waiting time. A brief literature review on this topic is developed to remain understanding it.

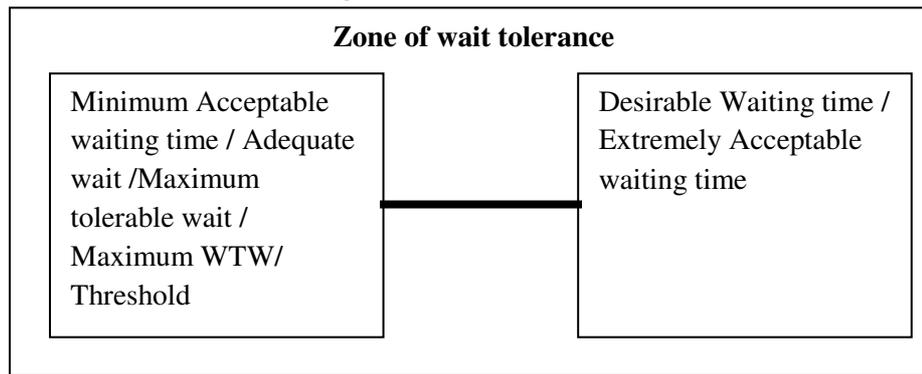
Prior literature measure acceptability of waiting times as a gradient from not at all acceptable to quite or extremely acceptable (J. C. Chebat & Filiatrault, 1993; Houston et al., 1998; M Hui & Tse, 1996). Related with this, (J. C. Chebat & Filiatrault, 1993; Houston et al., 1998; M Hui & Tse, 1996) analyse acceptable waiting times in restaurant contexts associating it with different levels of customer satisfaction with waits. They measure acceptability towards waiting asking customers how many minutes they will wait for a satisfactory, unsatisfactory or very unsatisfactory waiting.

Based on Zeithaml, Leonard, & Parasuraman (1993), Yan & Lotz (2006) suggest a zone of tolerance with waiting times considering desired expectations and acceptable expectations. On one hand, there is the most favourable waiting situation for customers (desirable waiting expectation). On the other hand, there is the least favourable situation a customer may expect about waiting times (adequate waiting expectation). Literature also explain this zone can vary and it is not static according to customers and situations (Nie, 2000; Yan and Lotz, 2006).

From another perspective, there are studies that measure acceptable waiting times not with a gradient of possibilities but also as a reference point, as an end point from which the wait becomes unacceptable. They establish the maximum minutes that a customer tolerates (Nie, 2000; Yan & Lotz, 2006). From this point of reference customers may evaluate their waiting experience (Antonides et al., 2002; Pruyn & Smidts, 1998). (Pruyn & Smidts, 1998) establish that there is a threshold according to at what level customers care or not care to wait. Authors highlight how difficult is to establish time thresholds compare to determine money thresholds. Chuo & Heywood (2014) also highlight the need to stablish an optimal queuing wait at theme parks contexts. They explain that this longest acceptable wait should be detected in order to promote visitors' quality perception.

In a similar way, literature also measure the amount of time that a person is willing to wait for a service (WTW: willingness to wait) (Chuo & Heywood, 2014). For instance, WTW was measured as the maximum waiting time (in minutes) that a tourist may accept for bars and museums in a tourist destination (Riganti & Nijkamp, 2008). Nah (2004) also analyse WTW but at internet contexts (measure in seconds). Willingness to wait for publish papers in journals was also studied (measure in months) (Poelmans & Roussea, 2015).

**Figure 3: Zone of wait tolerance**



Regarding factors of influence on acceptable waiting times, some authors explain that waiting duration information, queuing information (Hui and Tse, 1996) or service interruptions (M Hui & Tse, 1996) may impact on the different levels of acceptability with waiting. (J. C. Chebat & Filiatrault, 1993) also suggest perceived waiting, disconfirmation with wait expectations, waiting costs and transaction importance as influential factors. (Hwang and Lambert, 2005) conclude that acceptable waiting times may vary according to factors such as stage of service, gender or age. Thus, customers can have a more tolerant attitude for seating or serving stages but not for greeting, ordering, or paying (Hwang & Lambert, 2005).

Ryan (2004) also analyse factors that affect tolerance with waiting in internet contexts such as the experience of the user, economic costs, real and perceive waits, wait expectations, attitude towards delay, position of the wait, expected quality of the service, type of task and attributing the blame for delay.

Additionally, tourist incomes, travel costs, type of tourist (day-trip or tourist) (Riganti & Nijkamp, 2008), positive affect (Pyone & Isen, 2011), value of the service, extraversion, type of service (Anitsal & Anitsal, 2009) information about delay (Nah, 2004; Ryan, 2004) may influence on willingness to wait.

### **2.2.7. Wait Disconfirmation and Customer satisfaction with waiting times**

Similar to research on customer satisfaction (Oliver, 1980) and service quality (Zeithaml et al., 1993) disconfirmation models are considered in waiting contexts (M Davis & Heineke, 1998; Durrande Moreau, 1999; Pruyn & Smidts, 1998; Yan & Lotz, 2006).

Considering that satisfaction is the difference between expectations and perceptions (from a disconfirmation approach) (M Davis & Heineke, 1998; Parasuraman, Zeithaml, & Berry, 1994),

$$\text{Satisfaction} = (\text{Perception} - \text{Expectation})$$

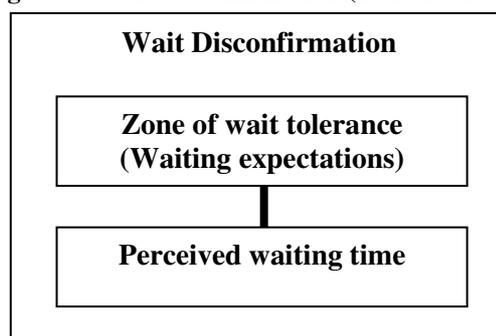
Waiting time disconfirmation is based on comparing customers' expectations and perceptions of waits (Houston et al., 1998; Lee & Lambert, 2000; Yan & Lotz, 2006).

Lee & Lambert (2000) suggest that when the perceived waiting is lower or equal than expected waiting, it doesn't influence negatively on perceived quality or on customer satisfaction (positive disconfirmation). In fact, positive disconfirmation may increase customers satisfaction (Bigné, Andreu, & Gnoth, 2005). Customers may feel happy with this situation (Lin et al., 2015). However, customers may perceive waiting longer than expected waiting. Thus, these people may evaluate negatively their waiting experience (negative disconfirmation).

In a similar way, Janakiraman et al. (2011) consider expectations and perceptions. They suggest waiting is tolerable when they are shorter than initial waiting expectations and unpleasant when it is longer than expected (exceeds the waiting threshold). Authors also suggest that waiting times may be considered as tolerable again when new waiting expectations are communicated.

Yan & Lotz (2006) also analyze expectations (zone of wait tolerance) with the perceived wait duration. They explain this may lead to positive or negative wait disconfirmation. Related with this, Pruyn and Smidts (1998) explain that when perceived waiting time is within the zone of tolerance, then a positive wait disconfirmation occurs.

**Figure 4: Wait disconfirmation (Yan and Lotz, 2006)**



### **2.3. Waiting Times in the tourism context**

Customers may wait everywhere: at a train station, at the doctor, at a bank, at the university for a teacher to arrive, on the internet. Customers also wait in tourism contexts. If we analyse the behaviour of a tourist, they may start waiting before to begin the trip, on the internet, to book a flight or a hotel. Then, tourists wait at the airline desk to dispatch baggage, on the plane to take off, at migration point to check their documentation to enter to another country. Tourists wait for check in at hotels, to visit a famous museum, a theatre or a theme park. Others may wait for a unique sport event or a concert. At restaurants, waiting times are often inevitable for a table, to order food or to ask for the bill. Finally, tourists wait for a taxi to take them back to the airport and start again waiting for the next holidays.

Tourist and leisure services are prone to long and frustrating periods of waiting (Gnoth et al., 2006). Yet tourists usually have limited time at destinations (time constraints) and they don't want to waste time waiting. They want to maximize their time. Added to this, considering that they look for pleasure activities such as shopping, sunbathing or

walking around, waiting time may appear as an unpleasant and stressfully time that not matches with their goals. Tourists make great planning and invest large money with high risks on their holidays. Due to this, they are highly sensitive to any problem or inconveniences (such as waiting times and queues) that spoil their experience (Wahab et al., 1976). Thus, waiting times are a big deal for companies. An effective management of waiting times may be the key for tourist providers.

As table 2 illustrates how researchers have studied waiting times in tourism contexts for more than 40 years (G. S. Becker, 1991; De Lange et al., 2013; P L Pearce, 1989). Currently, they remain understanding this phenomenon. Waiting times have been analyzed at several tourist contexts such as: airports (Dawes & Rowley, 1996; De Lange et al., 2013; Taylor, 1994), restaurants (M Davis & Heineke, 1998; Lee & Lambert, 2000; McGuire et al., 2010), cafes (Lee & Lambert, 2005; Riganti & Nijkamp, 2008), museums (Riganti & Nijkamp, 2008), nightclubs (Giebelhausen et al., 2011), ski resort (M. E. Pullman & Thompson, 2002), theatres (Marquis, 1998; P L Pearce, 1989), cinemas (Brady, 2002), hotels (Bitner et al., 1990; McDougall & Levesque, 1999), customs (P L Pearce, 1989) and leisure and sport events (Chun, 2009; Mann, 1969).

In the last 10 years numerous investigations were also conducted in the field of theme parks (Chuo & Heywood, 2014; Cope III et al., 2008; Dawes & Rowley, 1996; Dickson et al., 2005; Koo & Fishbach, 2010). This agrees with the growth and success of these entertainment services in recent decades (Wong & Cheung, 1999). Multiple topics have been analyzed. For instance, the acceptable waiting time (Chuo & Heywood, 2014), the impact of priority queues and virtual on perceptions of fairness and customer satisfaction (Lutz, 2008) and the influence of waiting on visitors behaviours.

**Table 2: Waiting times in tourism services**

Context	Authors	Year	Topic	Approach
<b>Airport-Airlines</b>	Bitner, Booms, & Tetreault	1990	Waiting-customer satisfaction (Service encounter and incidents)	Quantitative
	Taylor	1994	Waiting and service evaluation	Quantitative
	Folkes et al.	1987	Affective dimensions of waiting	Quantitative
	Minton	2008	Fairness when waiting	Qualitative
	Casado Diaz & Más Ruíz	2002	Waiting and attribution	Quantitative
	Dawes & Rowley	1996	Waiting as part of the service	Qualitative
	Rendeiro Martín-Cejas	2006	Waiting times influence on service quality perceptions	Quantitative
	De Lange, Samoilovich, & Van der Rhee	2013	Virtual queues	Theoretical
	Pearce	1989	Multiple and single queues	Theoretical
<b>Restaurants-Cafes</b>	Lee & Lambert	2000	Waiting-service quality-customer satisfaction	Quantitative

	Lee & Lambert	2005	Waiting-service quality-customer satisfaction	Quantitative
	Bitner, Booms, & Tetreault	1990	Service encounter and incidents	Quantitative
	Davis	1991	Satisfaction with waiting	Quantitative
	Davis & Heineke	1998	Satisfaction with waiting	Quantitative
	Davis & Maggard	1990	Satisfaction with waiting	Quantitative
	Dubé-Rioux et al.	1989	Waiting- quality perception	Quantitative
	McGuire et al.	2010	Waiting perception	Quantitative
	Jones & Dent	1994	Waiting perception	Quantitative
	Sulek & Hensley	2004	Fairness when waiting	Quantitative
	Marquis, Dube, & Chebat	1994	Personality and waiting (Type A/B)	Quantitative
	Davis & Vollmann	1990	Waiting-customer satisfaction-Influence of location, day and hour on waiting	Quantitative
	Hwang & Lambert	2009	Acceptable waiting	Quantitative
	Riganti & Nijkamp	2008	Acceptable waiting- WTW	Quantitative
	Koo & Fishbach	2010	Waiting and perceived value	Quantitative
	Gavilán-Bouzas & García de Madariaga-Miranda	2009	Waiting and perceived value	Quantitative
	Zainol & Bashir	2015	Complain about waiting: gender and occupation	Quantitative
	Hensley & Sulek	2007	Waiting -customer satisfaction	Quantitative
	Moore	2007	Waiting perception and customer satisfaction	Quantitative/Qualitative
	Hwang et al.	2012	Waiting environment	Quantitative
	Zhou & Soman	2008	Fairness when waiting	Quantitative
	McGuire & Kimes	2006	Fairness when waiting	Quantitative
	McDougall & Levesque	1999	Recovery strategies	Quantitative
	Giebelhausen, Robinson, & Cronin Jr	2011	Waiting increase perceived quality	Quantitative
	Veeraraghavan & Debo	2009	Queues attract other customers	Theoretical
	Becker	1991	Queues attract other customers	Theoretical
	Raz & Ert	2008	Queues attract other customers	Quantitative
	Pearce	1989	Multiple and single queues	Theoretical
	Fraser, Zahari, & Othman	2008	Attitude towards waiting and customer evaluation	Quantitative

	Church & Newman	2000	Simulations in the optimisation of fast food service delivery	Theoretical
	Sheu, McHaney, & Babbar	2003	Strategies to reduce real waiting time: service process design	Quantitative
	Voorhees, Baker, Bourdeau, Brocato, & Cronin	2009	Perception of waiting, fairness, affective dimensions and responses to waiting	Quantitative
	Sommer & Sommer	1989	Social facilitation	Quantitative
<b>Museums</b>	Riganti & Nijkamp	2008	Acceptable waiting- WTW	Quantitative
	Schmitt et al.	1992	Queues as social systems	Quantitative
<b>Nightclub</b>	Giebelhausen, Robinson, & Cronin Jr	2011	Waiting increase perceived quality	Quantitative
<b>Ski-resort</b>	Pullman & Thompson	2002	Ways to reduce real waiting times	Quantitative (simulation model)
<b>Theather-Cinema</b>	Marquis	1998	Personality and waiting	Quantitative
	Brady	2002	Queues as social systems	Qualitative
	Becker	1991	Queues attract other customers	Theoretical
	Pearce	1989	Multiple and single queues	Theoretical
<b>Events (sport and leisure)</b>	Becker	1991	Queues attract other customers	Theoretical
	Schmitt et al.	1992	Queues as social systems	Quantitative
	Mann	1969	Queues as social systems	Qualitative
	Jain et al.	2011	Operation model for queues before events	Theoretical
	Leclerc, Schmitt, & Dubé	1995	Time like Money	Quantitative
	Chun	2009	Waiting and savouring	Quantitative
<b>Theme parks</b>	Dawes & Rowley	1996	Waiting as part of the service	Qualitative
	Koo & Fishbach	2010	Waiting and perceived value	Quantitative
	Gavilán-Bouzas & García de Madariaga-Miranda	2009	Waiting and perceived value	Quantitative
	Heo & Lee	2009	Revenue management practices	Quantitative
	Chuo & Heywood	2014	Acceptable waiting times and perceived quality	Quantitative
	Li	2010	Waiting-customer satisfaction	Quantitative
	Dickson, Ford, & Laval	2005	Waiting perception: virtual queues	Theoretical

	Matthew, MacLaren, O’Gorman, & White	2012	Priority queues and fairness	Qualitative/ Quantitative
	Cope III, Cope, & Davis	2008	Virtual queues	
	Lutz	2008	Virtual queues	Quantitative
	Álvarez & Mejía	2012	Priority queues	Quantitative (simulation model)
	Tone & Kohara	2007	Priority queues	Quantitative (simulation)
	Heger et al.	2009	Waiting as part of the service	Qualitative (design case- user test)
	Pearce	1989	Multiple and single queues	Theoretical
	Ahmadi	1997	Managing Capacity and Flow at Theme Parks	Quantitative
	Solmaz, Akbas, & Turgut	2015	Mobility Model of Theme Park Visitors. Waiting times as part of the mobility model	Simulation model
<b>Hotel</b>	Bitner, Booms, & Tetreault	1990	Waiting-customer satisfaction (Service encounter and incidents)	Quantitative
	Jones & Dent	1994	Waiting perception	Quantitative
	Moore	2007	Waiting perception and customer satisfaction	Quantitative/Qualitative
	McDougall & Levesque	1999	Recovery strategies	Quantitative
<b>Customs</b>	Pearce	1989	Multiple and single queues	Theoretical

#### 2.4. Waiting times at theme parks

In view of the ubiquity of waiting time in theme parks contexts and the great influence of waiting on customer’s experience, it seems important to learn more about individuals’ attitudes and behaviours regarding this issue and the systems used to manage it.

As literature on waiting suggests, customers may wait before, during or after the service (Dubé-Rioux, Schmitt, & Leclerc, 1989; Maister, 1985; Taylor, 1994). Considering theme parks contexts, waiting times may be present before service commences (before entering the theme park, queuing for a ride or to order food), just after the service has started (waiting once you have ordered the food, waiting sitting in the train to start the ride or waiting in the pre-show to the main show begins) or after the service has finished (waiting to get off the ride or waiting to order a bill). Thus, waiting times are everywhere and every moment at theme parks contexts.

Added to this, waiting times and queues are inevitable for theme parks (Dawes & Rowley, 1996; Heo & Lee, 2009). Due to operational reasons and the nature of the service, sometimes theme parks can’t avoid waiting times: attractions and rides capacity is exceeded by visitors demand and queues and delays are unavoidable (Dawes &

Rowley, 1996; Heger et al., 2009; Heo & Lee, 2009; Matthew et al., 2012). Companies can't do anything to completely eliminate waiting times and because of that customers still spend a lot of time waiting (Kostecki, 1996; Zhou & Soman, 2003). For instance, Cornelis (2010) explains that even Disney (the giant of the theme parks) can't control the impact of new attractions: appear inevitably long queues and crowded areas.

Besides being ubiquitous and inevitable, waiting times and queues are a real issue for theme parks. For companies, waiting times make difficult the achievement of their goals. Theme parks are recreational areas oriented to entertain people, break their routine life (Anton Clavé, 2007), transport them in time and space in their free time (Álvarez & Mejía, 2012; Milman, 1991, 2010) and amuse customers all the time. If long waiting times are present, they can overshadow the customer experience (Baker & Cameron, 1996).

Thus, waiting times may be considered as interruptions in the enjoyment of that imaginary world that visitors paid for. Instead of having fun on the rides, clients may be just joining frustrating queues during large part of their time (Heger et al., 2009). They can only enjoy on average of 10 rides per day and the rest of the time is spent waiting in lines (Martin, 2013). Added to this, as attendance is increasing in some of the major theme parks around the world (Heo & Lee, 2009; Milman, 2010), the problem of long queues for rides is also increasing (Martin, 2013; Nip, 2014).

As was described before, waiting times impact negatively on customers and service providers and their undesirable results are widely recognized (Hwang & Lambert, 2005; Maister, 1985; Osuna, 1985; Rafaeli et al., 2002). For instance, waiting times may be associated with crowds and noisy places that managers should control in order to enhance the visitor experience at a theme park (Solmaz et al., 2015). Waiting times may make customers leave the service (Carmon et al., 1995; H. H. Friedman & Friedman, 1997; Zhou & Soman, 2003) and they may be the reason to not to choose that service provider again (H. H. Friedman & Friedman, 1997).

Customers want to use their time efficiently (Lew & McKercher, 2006) and they often consider waiting as a waste of time (Leclerc et al., 1995). They are one of the most important reasons for complains at theme parks (Martin, 2013). In contrast, when customers are satisfied with waiting times they are more willing to repurchase and recommend the service (Hensley & Sulek, 2007).

From these inevitable negative connotations, theme parks around the world have done great monetary and human efforts in order to manage waiting times and to make customer experience more effective and funnier (Anton Clavé, 2007; Kemperman, 2000; Martin, 2013; Xu, 2013). When customers purchase intangible service, such as a visit to a theme parks, they are buying promises (Levitt, 1981). Because of that theme parks are engage in providing a pleasant and memorable experience, without drawbacks like waiting times. Companies need to ensure that the high price of the leisure service worth it (Dawes & Rowley, 1996). Thus, minimizing delays, crowding and queuing are key issues regarding management strategies at theme parks (Anton Clavé, 2007).

Many of companies' efforts are related with reducing real waiting times. For instance, they try to minimize real waiting times opening more checkouts and ticket offices, increasing the number of service providers (Solmaz et al., 2015) or employing more service staff or extending opening hours (if in low season the theme park closes at 18, in high season closes at 24). Operating at maximum capacity level (with low attendance of visitors an attraction can operate with only two trains, with high attendance, the maximum of trains are implemented) and increasing the number of attractions available may be other solutions in a theme park context (Solmaz et al., 2015). Added to this, making previsions of attendance (in high season prevision of attendance are necessities in order to allocate resources and avoid excessive waiting times), reducing the length of the service (if in low season waiters can have time to talk with customers and slow down, in high season service delivery have to be quickly as they can) or persuading clients to move to less crowded areas (through promoting other less congested areas, popular and crowded areas receive less attendance and consequently less waiting times) can also be good strategies to reduce real waiting times. Finally, implementing priority queues real waits are reduced too (Biege, 2013; Cope III et al., 2008; Cope et al., 2011).

As Maister (1985) suggested in his work, other strategies may be oriented to reduce perceived waiting times. For instance, different technological apps were designed to have a more pleasant waiting experience reducing perceived waiting (Xu, 2013). Theme parks have implemented multiple strategies such as making the waiting environment more attractive with colours, music, plants, furniture, and more decoration, placing televisions, posters and mirrors to fill the wait, hiring actors to amuse visitors in queues (Martin, 2013), giving information and explanations about the wait (Dawes & Rowley, 1996), promoting social interaction among customers and designing the queue as part of the leisure experience (Dawes & Rowley, 1996). The design of the queues was also managed in different ways with the aim to reduce perceived waiting: multiple queues, single queues, winding queues (Carmon et al., 1995), hidden queues (M. Pullman & Rodgers, 2010), virtual queues (Dickson et al., 2005; M. Pullman & Rodgers, 2010; Tone & Kohara, 2007) are some examples of the different strategies.

The fact to analyse briefly how Disney face waiting times is considered appropriated for this literature review. Disneyland in Anaheim, California, gave rise to the theme park industry in 1955 (Anton Clavé, 2007) and since then it became in a referent for other theme parks around the world. Regarding waiting times and queues, Disney's parks have invested large amount of money in different ways to manage them (Martin, 2013). Assuming that they can't eliminate them completely, they have used multiple tools to reduce them (Dawes & Rowley, 1996). For instance, they have tried to reduce perceived waiting times making the waits funny, pleasant and in process: videos, interactive games and animators entertain customers in queuing (Martin, 2013).

One of the first innovations created by Disney to address long lines was the fastpass system in the beginning of 1999 (Dickson et al., 2005; Heo & Lee, 2009; Martin, 2013). This virtual system was a resounding success and currently more than 50 million of visitors use it at all the Disney Parks worldwide. This system allows customer to book a

specific hour to enjoy the rides (Dickson et al., 2005; Kostami & Ward, 2009). A computer determines the time when you can enjoy the attraction considering the ride capacity and the people that are already in the virtual queue (Dickson et al., 2005). Thus, customers don't need to wait in physical lines and they can visit another places until the scheduled time comes. This virtual queue is a free service for customers.

However, customers may only obtain one fastpass at a time and regular lines remain an option for customers at Disney (Heo & Lee, 2009; Vukadinovic, Dreier, & Mangold, 2011). On the one hand, there are people who wait in a regular line for a ride while they 'wait' for the fastpass attraction. On the other hand, there are other people who wait in regular lines basically because they are tolerant and do not mind waiting in line (Dickson et al., 2005). Added to this, regular lines also contribute to the right operation management. People queuing in regular lines guarantee that the ride capacity is not wasted when fast pass customers are no show at the appointed time (Kostami & Ward, 2009).

As can be seen in Table 3 theme parks contexts have been analysed by literature on waiting

**Table 3: Waiting times at theme parks**

Author	Year	Title	Country	Topic	Approach	Analysis
Moutinho	1988	Amusement park visitor behaviour- Scottish attitudes	Scotland	Amusement park visitor behaviour	Quantitative (not natural setting)	Surveys. Chi square
Pearce	1989	Towards the better management of tourist queues	Unknown	Multiple and single queues	Theoretical	
Dawes & Rowley	1996	The waiting experience: towards service quality in the leisure industry	USA	Waiting as part of the service	Qualitative	Case study
Ahmadi	1997	Managing capacity and flow at theme parks	USA	Managing Capacity and Flow at Theme Parks	Quantitative (natural field setting)	Surveys. Validation of models
Kemperman	2000	Temporal aspects of theme park choice behaviour	Netherlands	Temporal Aspects of Theme Park Choice Behaviour	Quantitative (natural field setting)	Surveys. Logit model and Poisson regression model
Milman	2001	The future of the theme park and attraction industry: a management perspective	USA and Canada	Management perspective of theme parks	Quantitative (natural field setting)	Surveys managers. Pearson correlation analysis. Regression analysis

Dickson, Ford, & Laval	2005	Managing real and virtual waits in hospitality and service organizations	USA	Managing real and virtual waits	Theoretical	
Tone & Kohara	2007	A study of the effects of congestion information and a priority boarding pass in a theme park with multi-agents	Japan	Priority queues	Quantitative	Simulation model
Cope III, Cope, & Davis	2008	Disney's virtual queues: a strategic opportunity to co-brand services?	USA	Virtual queues	Theoretical	
Lutz	2008	The impact of virtual queues for amusement parks	USA	Virtual queues	Quantitative (scenarios)	Scenarios. Surveys students. Anova. T-test
Gavilán-Bouzas & García de Madariaga-Miranda	2009	Do we wait if it's better, or is it better if we wait?	Unknown	Waiting and perceived value	Quantitative	Scenarios. descriptive analysis related with theme park
Heo & Lee	2009	Application of revenue management practices to the theme park industry	USA	Revenue management practices	Quantitative (not in natural setting)	Online surveys (students). T-value
Heger et al.	2009	Waiting as part of the fun: interactive gaming in theme park queues	Netherlands	Waiting as part of the service	Qualitative (not in natural setting )	Qualitative user-tests. Students and expert panel
Koo & Fishbach	2010	A silver lining of standing in line: queuing increases value of products	South Korea	Waiting and perceived value	Quantitative (natural field setting)	Surveys. Anova-Contrast analysis-
Li	2010	Impact of waiting time on tourists satisfaction in a theme park: an empirical investigation	China	Waiting-customer satisfaction	Quantitative (natural field setting)	Surveys. Correlation analysis. Multiple linear regression
Cornelis	2010	Impact of new attractions on theme park attendance	Europe	Impact of new attractions on theme park attendance	Quantitative	Econometric model

Cope et al.	2011	Innovative knowledge management at Disney: human capital and queuing solutions for services	USA	Queuing solutions at theme park: virtual queues	Qualitative	Case study
Vukadinovic et al.	2011	A simple framework to simulate the mobility and activity of theme park visitors	Theme parks around the world	Mobility at theme parks	Quantitative	Simulation model
Geissler & Rucks	2011	The overall theme park experience: a visitor satisfaction tracking study	USA	The theme park experience and customer satisfaction	Quantitative (natural field setting)	Mail survey (to theme parks). Linear multiple regression. Pearson correlation
Matthew, MacLaren, O’Gorman, & White	2012	Priority queues: where social justice and equity collide	UK and USA	Priority queues and fairness	Qualitative (natural field setting)/ Quantitative (scenarios)	Observation and informal interviews /Anova- Ancova tests
Álvarez & Mejía	2012	Simulation study of priority passes in a theme park in Colombia	Colombia	Priority queues	Quantitative	Simulation model
Xu	2013	Development of a new mobile application to predict theme park waiting time	USA	Mobile application to predict waiting time	Quantitative	Online surveys. Structural Equation Modelling (SEM)
Solmaz, Akbas, & Turgut	2015	A mobility model of theme park visitors	Unknown	Mobility Model of Theme Park Visitors. Waiting times as part of the mobility model	Quantitative	Simulation model
Chuo & Heywood	2014	An optimal queuing wait for visitors’ most favourite ride at theme parks	Taiwan	Acceptable waiting times and perceived quality	Quantitative	T test. Pearson correlation

The table shows that there are theoretical papers (Dickson et al., 2005; P L Pearce, 1989) and empirical papers (Chuo & Heywood, 2014; Koo & Fishbach, 2010) addressing waiting times in theme park contexts. Studies are situated at several theme

parks around the world such as Taiwan (Chuo & Heywood, 2014), Colombia (Álvarez & Mejía, 2012), United Kingdom or EEUU (Matthew et al., 2012).

Many empirical studies are conducted in natural settings. In these studies the waiting time appears as one aspect to be considered although it is not the main object of study. They analyze theme park's capacity (Ahmadi, 1997), the overall theme park experience (Geissler & Rucks, 2011) or the consumer choice of theme parks (Kemperman, 2000). However, there is a study in a natural setting that analyze in detail how waiting times increase the service value (Koo & Fishbach, 2010). On a descriptive level, we can see that these studies in natural settings are rather recent, appearing in 2000.

Quantitative methodologies are the most commonly used (Gavilán-Bouzas & García de Madariaga-Miranda, 2009; Lutz, 2008; Xu, 2013). The questionnaire was the most common tool for collecting data. Many of these studies use scenarios to reproduce a visit waiting experience at theme parks (Gavilán-Bouzas & García de Madariaga-Miranda, 2009; Lutz, 2008; Matthew et al., 2012). Methodological analyses include descriptive analysis, regressions (Li, 2010), correlation tests (Moutinho, 1988), Anova tests (Koo & Fishbach, 2010) or structural equations (Xu, 2013).

Qualitative studies at theme parks contexts are limited (Dawes & Rowley, 1996). The study of Matthew et al. (2012) is the only one that analyzes priority queues in a theme park context using a mix method (qualitative/quantitative). They use an initial qualitative collection data in order to explore customer behaviour (observation and informal interviews) and then they use a quantitative approach testing hypotheses. The initial qualitative analysis offers detailed information, deepen on the phenomenon and it help to set the basis for the quantitative analysis.

In brief, no Spanish theme park was detected as a natural context for a quantitative study on waiting times. Added to this, there is only one study in a natural setting that analyzes priority systems and social fairness (Matthew et al., 2012). Other aspects or consequences regarding priority systems at theme parks are unexplored issues. Finally, no studies were identified that use logistic regressions in order to analyze priority systems and consumer behaviour.

## **2.5. Express pass systems at theme parks**

As we can see in the literature review, priority systems (also called VIP queues, express pass systems, fast lines systems) have been recently addressed by waiting's studies (Matthew et al., 2012; Tone & Kohara, 2007). In spite of the little research on this subject, many theme parks around the world such as Universal Studios, Six Flags, Port Aventura, Knott's Berry Farm and Legoland have implemented these systems where the customer has to pay extra for avoiding waiting times. It is not a free service. Consumers have to pay a premium for belonging to the priority queue, separated from regular customers (Martin, 2013; Milman, 2001; Setoodeh, 2004). In other words, thanks to money customers can purchase the right to be served (Rafaeli et al., 2005).

Different modalities of priority passes exist at each theme park (See Table 4). The price of these passes may vary according the number of rides they are allowed to enjoy (such as Fast Lane at Knott’s Berry Farm that allow access to 10 rides), the wait time that it is reduced (such as the Flash Pass Platinum at Six Flags that reduces wait time by up to 90%), the number of times per rides (such as Universal Express Unlimited that allow unlimited number of access to attractions) or the access to the front row (such as Port Aventura Express Premium Gold that let ride in the first row on certain rides).

Thus, customers can choose between different priority systems according to how much they are willing to pay and what services they want to receive. For instance, Port Aventura has the Express Max (that allows only one fast access per attraction, does not provide access to the front row and it costs 27€), the Express Max Gold (that allows one fast access per attraction and lets you ride 1 single time in the first row on each of the three main attractions and it costs 32€), the Express Premium (that gives unlimited access to the main attractions but it does not provide access to the front row and it costs 48€) and finally the Express Premium Gold (bracelet that gives unlimited access to the main attractions without queuing and lets you ride 1 single time in the first row on each of the three main attractions and it costs 53€). As also happens in other theme parks, not all the attractions have the priority access. In the case of Port Aventura, customers can only enjoy the express access for the following attractions: Shambhala, Furius Baco, Dragon Khan, Templo del Fuego, Tutuki Splash, Stampida, Angkor, Silver River Flume, El Diablo, Tren de la Mina, Grand Canyon Rapids.

In brief, customers end up paying great amount of money for jump the line (Wallop, 2010). In fact, in some cases the price of the express pass is equal or superior to the entrance ticket. Actually, numerous tourism services such as theme parks and hotels are also implementing smart bracelets that allow jumping regular lines through a radio frequency system (RF system). In addition to decreasing waiting times, they improve the flow of visitors and contribute to the personalization of services (Hosteltur, 2015). In fact, Disney has also started to implement these VIP wristbands. They make queuing even more efficient by charging customers for it quick access to attractions (Strecker, 2013). Thus, Disney also designed a new, technology-based system to avoid lines based on the same premise of priority passes mentioned earlier: pay extra to obtain additional benefits such as avoiding waiting times.

**Table 4: Express pass systems at theme parks around the world**

Name of the Theme park	Name of the priority system	Description	Modalities of the priority service	Price
Six Flags Magic Mountain (EEUU)	FLASH PASS	Customer select an attraction, get the time to ride and receive an alert when it is the turn to ride. Priority line. Available for specific attractions.	-The flash pass platinum (reduces wait time by up to 90%) approx.	100 \$
			-The flash pass gold (reduce wait time by up to 50%)	70\$
			-The flash pass regular (time will be equal to the current wait time, you just don’t have to physically stand in line)	40 \$

<b>Universal Orlando (EEU)</b>	UNIVERSAL EXPRESS	Priority lines for express pass holders. Available for specific attractions.	-Universal Express Unlimited (unlimited number of times at participating rides and attractions) -Universal Express Pass (one time per ride only at participating rides and attractions)	60 \$  40\$
<b>Universal Studios Hollywood (EEU)</b>	FRONT OF LINE	One-time priority access at each ride and attraction. Reserved seating at each show. Includes 1-day Park admission	-Front of Line	150€
<b>Port Aventura (Spain)</b>	PORTAVENTURA EXPRESS	Priority lines for those express pass holders. Available for specific attractions.	-The Express Max (allows 1 fast access per attraction. Does not provide access to the front row). -The Express Max Gold (allows 1 fast access per attraction and lets you ride 1 single time in the first row on each of the three main attractions). -The Express Premium (bracelet that gives unlimited access to the main attractions without queuing. Does not provide access to the front row). -The Express Premium Gold (bracelet that gives unlimited access to the main attractions without queuing and lets you ride 1 single time in the first row on each of the three main attractions).	27€  32€  48€  53€.
<b>Knott's Berry Farm (EEU)</b>	FAST LANE	Fast Lane wristband allows to bypass the regular lines on 10 rides and attractions. Ride as many times as you want all day long.	-Fast Lane	35\$
<b>Legoland</b>	EXPRESS PASS	Quick access to as many as 10 of the most popular rides With an Express Pass, you follow an express lane directly to the ride and have priority boarding.	-There are two Express Passes: one for persons at least 100 cm tall and one for persons at least 120 cm tall	13€/24€

		An Express Pass can be used once per ride.		
<b>Warner (Spain)</b>	CORRECAMINOS	Priority lines for pass holders	-Correcaminos Premium (unlimited priority pass) -Correcaminos Silver (only one access for each ride) -Correcaminos Baby (specific for children attractions)	29 ,95€ 14 ,95€ 8 ,95€

### 2.5.1. Priority systems: advantages and disadvantages

These priority systems may have both positive and negative implications. Regarding negative implications, priority systems are usually associated with perceptions of injustice created by treating some customers as VIPs (Matthew et al., 2012; McGuire & Kimes, 2006; Rafaeli et al., 2005). Fairness in queuing systems is a significant concern among waiting consumers (B Avi-Itzhak, Levy, & Raz, 2008; Bennett, 1998) and these systems undermine this principle. Rafaeli et al. (2005) consider VIP queues as a specific multiple queue systems where money breaks the rule of “first come first serve” (FIFO). They explain that VIPs queues often leads to unfair situations as they can be considered as an institutional violation of justice. The violation of FIFO rules leads to social comparisons among consumers, which in turn leads to situations of discomfort between people who wait in regular lines.

Added to this, priority queues may be related with difficulties involved in properly implementing this type of systems. For instance, difficulties of separating the two types of consumers, complications when demand of the express pass exceeds the limited number of passes that is possible to sell, problems when priority lines are longer than regular lines. As there are a limited number of express passes (due to limited capacity), customers perceive scarcity and higher perceive value of the service. Consequently they are more willingness to pay for it (Heo & Lee, 2009). Thus, there is the irony that the more successful these systems, the more people purchase the priority pass and the more the likelihood that premium customers will also have to wait (Setoodeh, 2004). In others words, these systems become the victims of their own success.

Regarding positive implications, priority systems may benefit both express pass holders and no holders. On the one hand, this system allows satisfying a market segment who is willing to pay to bypass regular lines at several rides, avoiding unnecessary delays. The needs of this group regarding waiting times are covered with this service. Fast lines reduce customer dissatisfaction with lines (Heo & Lee, 2009). On the other hand, these systems also reduce waiting times for regular lines. If enough people pay the extra charge, then the regular line is also faster as the system improve customers mobility (H. H. Friedman & Friedman, 1997). Hence, fast lines help to reduce congestion at theme parks (Tone & Kohara, 2007) and facilitate improved queue management and customer’s flows around the premises (Heo & Lee, 2009). Moreover, priority queues contribute to the maximisation of the service capacity and operators may ensure demand is constant in some service points (Matthew et al., 2012).

In addition, fast lines also contribute to profitability as an important source of revenue for firms (Heo & Lee, 2009; Matthew et al., 2012). The growing demand for this priority service results into economic benefits for companies (H. H. Friedman & Friedman, 1997; Heo & Lee, 2009; Matthew et al., 2012). More waiting times are related with more sales of express passes and consequently with more revenues. Indeed, companies can adjust the price of the express pass according their needs (Heo & Lee, 2009) as long as it provokes a sufficient difference between the priority and the regular line and in turn this should provide benefits to cover the extra staff needed for the extra line (H. H. Friedman & Friedman, 1997).

### **2.5.2. Waiting time segmentation: Pay vs Wait situation**

One of the main needs of some individuals today is save time and because of that, priority systems have become a successful service. Customers want to use their time efficiently (Lew & McKercher, 2006) and they often consider waiting as a waste of time (Leclerc et al., 1995). If customers feel they are wasting time they may feel irritated and frustrated. In contrast, if they feel they save time, then positive responses are possible (Eroglu, Machleit, & Barr, 2005; Lin et al., 2015). Then, marketing innovations which help to allocate time in a correct way and avoid the loss of time are appreciated by customers (Solomon, 2008).

From an economic approach, time can be valued in the same way than money: both are exchange mediums. They are scarce and precious goods that should be spend cleverly (Durrande-Moreau & Usunier, 1999; P. J. Haynes, 1990; Okada & Hoch, 2004). However, 'time' presents some differences respect to 'money'. Time is more difficult to exchange than money, it is evaporable and it can't be stored (Lin et al., 2015; Okada & Hoch, 2004). Time usually depends on situational contexts (Leclerc et al., 1995; Lin et al., 2015) and its availability is fixed (Mayo & Jarvis, 1981). As (G. Becker, 1965) explains, time also has opportunity costs associated: once you spend time in one activity, it can't be used in another activity. Time, as an economic resource, needs to be shared between different activities. Consumers try to maximize their satisfaction allocating time to different activities (Solomon, 2008) and minimizing the time they loss, for instance, waiting for a service.

As a result, according to how consumers choose to spend their time and money, priority services segment the market (Chao & Wilson, 1987). Davis and Heineke (1994) suggest in one of their propositions that firms have to offer alternatives for those customers who don't mind paying for a fast service. As Alotaibi & Liu (2012) explains, many e-commerce firms such as Amazon.com also use this market segmentation: they offer faster or slower delivery times according to the customer's willingness to pay or to wait. Customers evaluate the trade-off between sacrifices (how much they pay in time or money) and benefits (the value of the experience) (Haahti & Yavas, 2004; Murphy, Pritchard, & Smith, 2000) and then make a choice.

### **2.5.3. Characteristics of ‘express pass holders’ and ‘non-express pass holders’**

When theme parks offer this ‘wait vs. pay’ situation with the express pass system (Matthew et al., 2012), different groups of customers appear: those who wait in regular lines (non-express pass holders) and those who are willing to pay to avoid lines (express pass holders). Additionally, there are various subgroups within the latter group, depending on the different modalities of express passes (different required waiting time and amount of money that customers are willing to pay) (Alotaibi & Liu, 2012; H. H. Friedman & Friedman, 1997).

Regarding those who are willing to pay to avoid or reduce lines (Martin, 2013), they are also called money-rich and time-poor consumers (Matthew et al., 2012). They are willing to ‘buy time’ in some purchase situations (P. J. Haynes, 1990). For them, time is more relevant than money (H. H. Friedman & Friedman, 1997; Rafaeli et al., 2005). They are highly sensitive to waiting times (time sensitive customers). This people are also called ‘time-hungry’ (Setoodeh, 2004). In the same way that some scarce products are associated with a great value (Lynn, 1991), the scarcity of time may also be linked with a great value and the need to save it.

Even though the willingness to pay (WTP) for an express pass to avoid waits at theme parks has never been analysed by research on waiting, WTP has been analysed by researchers in other areas and contexts. For instance, literature explores how much a person is willing to pay for a dinner in a restaurant (Homburg, Koschate, & Hoyer, 2005), for immediate versus delayed outcomes (Pyone & Isen, 2011), for a wait reduction at medical services (Bishai & Lang, 2000), for visit a natural sanctuary (Arin & Kramer, 2002), for an improvement of a coastal zone quality (Halkos & Matsiori, 2012), for a country-of-origin product (Koschate-Fischer, Diamantopoulos, & Oldenkotte, 2012), for a natural park fee (Mmopelwa, Kgathi, & Molefhe, 2007; Reynisdottir, Song, & Agrusa, 2008), for services and comfort inside airplanes (Balcombe, Fraser, & Harris, 2009; Correia, Pimpão, & Tão, 2012), for sustainable practices at hotels (Manaktola & Jauhari, 2007), for a theme park experience (Bigné et al., 2005). In general, willingness to pay (WTP) is measure as the maximum price customers are willing to spend for a product or service (T. A. Cameron & James, 1987; Homburg et al., 2005).

Regarding those customers who wait in regular lines, they are also called money-poor and time-rich customers (Matthew et al., 2012). These people tend to be highly sensitive to price (money sensitive customers) and very price conscious (Bennett, 1998). For them, money is more important than time (H. H. Friedman & Friedman, 1997; Heo & Lee, 2009). When theme parks charge or increase premium prices, they are forcing price-sensitive customers to make reservations, reschedule the visit (Heo & Lee, 2009) or they always have the option to wait in regular lines.

Thus, both market segments (those who are willing to pay extra to avoid queues: express pass holders, and those who don’t: non-express pass holders) are common

groups in theme park contexts. However, the factors that influence and characterize both groups are an unexplored subject.

## **2.6. Conclusions and Research Objectives**

During more than 30 years of research, waiting phenomenon has been analysed in different contexts and situations. Tourism services appear as common contexts where customers wait (Gnoth et al., 2006). Researchers on waiting have made theoretical and empirical contributions on this issue. Thus, there are conceptual studies such as those that make propositions about perceived waiting times (Maister, 1985) or empirical works that measure for instance the impact of waiting times on service evaluations (Lee & Lambert, 2000).

Literature has also suggested multiple strategies to manage waiting. From operations solutions that try to reduce actual waiting times toward marketing solutions based on reduce perceived waiting times and mixed solutions that include both approaches. As something usual, firms have focused their efforts on reducing or eliminating the problem. Thus, customers have alternatives to not to wait. A clear example of these alternatives is the express pass system. In spite there can be customers they're not really that bothered if they have to wait (Sundström, Lundberg, & Giannakis, 2011), there are others who prefer to avoid them and purchase an express pass. There are customers who are prepared to pay extra to jump regular lines for instance at theme parks contexts.

Theme parks contexts are a growing tourism sector where waiting times appear as an important issue to be managed. Thus, systems to avoid waits such as the express pass are implemented. However, few studies have analyzed those who are willing to pay to avoid queues and those who don't in a theme park context.

Thus, we will now outline the main conclusions of this chapter:

### **Value the Wait: There are people who are prepared to pay to avoid waiting.**

After the literature review and the state-of-the-art knowledge about waiting times in service contexts and especially in tourism services, the gap that has been found is presented. It has been detected that few studies were carried out at theme parks. The current state of knowledge on waiting in theme parks contexts is still at an early stage in its development. For instance, the literature has not been addressed in-depth analysis on how customers perceive waiting times and the systems to avoid them, or which factors impact on customer decisions regarding waiting times: how are those who want to avoid queues and how are those who wait in regular lines. New insights should be generated in order to remain understanding the phenomenon of waiting and the systems to manage them.

From this, the following research question is suggested:

**What factors characterize visitors who purchase an express pass to avoid waiting at theme parks and visitors who don't purchase an express pass but instead to wait in regular lines?**

The following specific objectives regarding this research questions will guide the remainder of the study:

- To map the factors that influence customers when they make a decision regarding waiting times and priority pass in a theme park context.
- To test the hypotheses using logistic regressions.
- To identify the characteristics of holders and non-holders of express passes.
- To suggest practical implications related with this customer segmentation based on willingness/unwillingness to pay to avoid waiting at theme parks.

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## CHAPTER 3

# **EXPRESS PASS: HYPOTHESES, METHODOLOGY & RESEARCH DESIGN**



## CHAPTER 3: Express Pass: Hypotheses, Methodology & Research Design

### 3.0. Introduction

Waiting times are a common phenomenon in theme park contexts. Theme parks manage them by implementing different strategies such as the express pass system. This system, as was explained in chapter 2, has been analysed in the marketing literature. Companies are aware of its advantages and disadvantages. It is a service that customers demand and additionally that increases companies' revenues. However, empirical studies in natural settings, using the consumer behaviour approach, are limited. There is no literature on the subject that considers the factors of influence on the purchase decision of an express pass at theme parks.

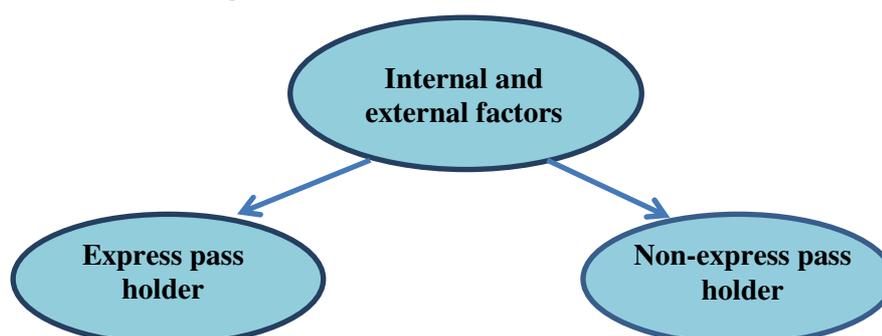
First, this chapter identifies and analyses the different factors of influence on the customer's purchase decision of an express pass in a theme park context. Then, it proposes a theoretical model with internal and external influencing factors. Third, the hypotheses to be tested are presented. Fourth, a methodology is selected in order to test these hypotheses. Logistic regressions are chosen as this method allows for characterization of both groups (express pass holders and express pass non-holders), as well as consideration of a number of influencing factors. Finally, the research design is developed and a descriptive analysis of the sample is explained.

### 3.1. Factors of influence on the express pass purchase decision and hypotheses

As marketing and consumer behaviour research explain, consumers act according to a set of factors of influence (Kotler, Cámara, & Grande Esteban, 1995; Solomon, 2008). (see also page 12 in Chapter 2). Customers do not act in isolation or without certain reasons. This chapter and the three that follow attempt to elucidate why or why not customers make the decision to purchase an express pass by investigation their influencing factors.

In order to identify the different factors that may influence the customer's decision on whether or not to pay to avoid a wait, literature on 'willingness to pay', 'waiting in services' and 'tourist and consumer behaviour' was analysed. Following prior literature on consumer behaviour (Mayo & Jarvis, 1981; Moutinho, 1993; Solomon, 2008), two major groups of factors that influence the consumer's purchase decision are identified: internal and external factors (Figure 5).

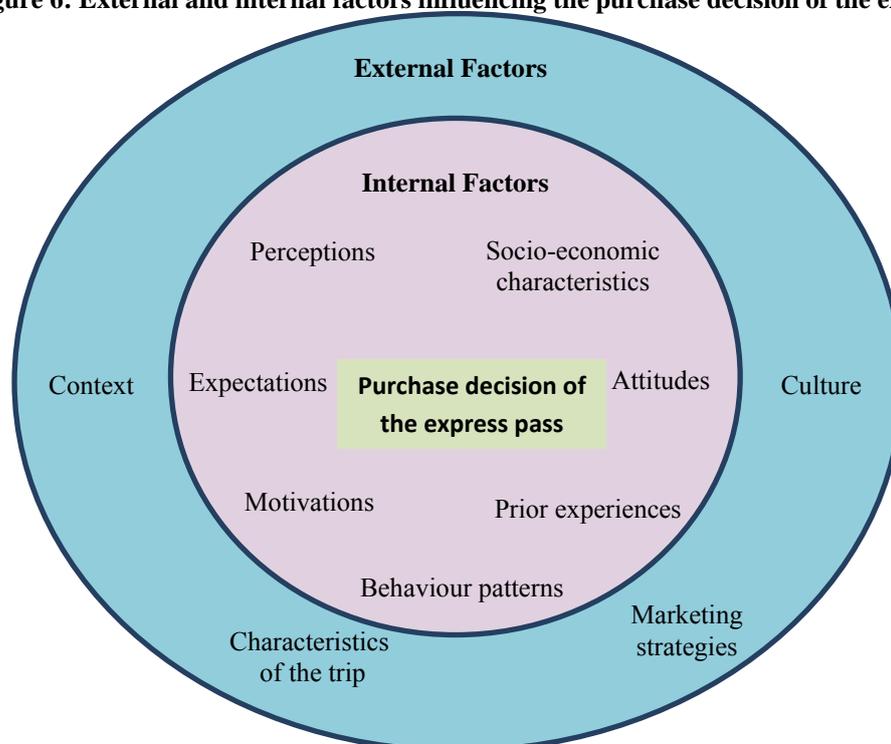
Figure 5: Factors influencing consumer decision



Internal factors include socio-economic characteristics (age, gender, household income), attitudes (attitude towards the express pass, attitude towards waiting times, willingness to pay for an express pass in the future), expectations (expected waiting times), perceptions (perceived waiting time), behaviour patterns, prior experiences (prior experiences with waiting times, prior experiences with express passes, prior experiences with theme parks, prior information on waiting times), and motivations (trip and visit motivation). External factors include several groups of factors such as characteristics of the trip (length and cost of the trip, length of the visit to the theme park, party size, party composition), culture, and context (day of the visit, weather, waiting environment) (Figure 6).

These different factors are briefly explained in the next section.

**Figure 6: External and internal factors influencing the purchase decision of the express pass**



### **3.1.1. Internal Factors**

#### **Socio-economic characteristics**

Customers' socio-economic characteristics are key factors when analysing tourist behaviour (Beerli & Martín, 2004; Bigné, Andreu, & Gnoth, 2005; A Pizam & Mansfield, 1999; Zhang, 2009). Of these characteristics, age, gender and household income were considered for this study.

#### **Age**

Prior studies in theme parks contexts considered age as a variable when analysing tourist behaviour (Bigné et al., 2005; McClung, 1991). Thus, age may influence how people act and whether or not they decide to purchase an express pass.

With regard to waiting times, elderly individuals may or may not be more tolerant to delays, depending on the service contexts. A study on tolerance for online delays shows

that older adults (60 to 88 years old) are more tolerant for delays than younger adults (18 to 30 years old). However, prior literature on tourism explains that young people demonstrate greater tolerance to waiting times at restaurants than elderly people (Hwang & Lambert, 2005). Ahmadi (1997) also suggested that young people are more tolerant to queuing at theme parks than elderly people.

In the literature on willingness to pay (WTP), researchers explain that WTP for some services may be negatively correlated to age (Arin & Kramer, 2002; Bowlter & Johnson, 1999; Halkos & Matsiori, 2012; Reynisdottir, Song, & Agrusa, 2008). For example, young people exhibited a higher WTP for an entrance fee at a natural reserve than elderly people (Mmopelwa, Kgathi, & Molefhe, 2007). The elderly are not accustomed to pay fees for certain services (Reynisdottir et al., 2008). However, other studies suggest that WTP and age are not related (G. Anderson, Black, & Dunn, 1997; Bishai & Lang, 2000; Mmopelwa et al., 2007).

Taking into account that fast lines are typically added to rides and attractions specifically designed for young people and that young people are more willing to pay for some services than seniors are, we suggest that:

***H1. Young people are more likely to be express pass holders.***

### **Gender**

Looking at previous research, some authors explain that men tend to have a less favourable attitude towards waiting than women (Mishra, Mokhtarian, & Widaman, 2014). Other authors did not find a relationship between gender and attitudes towards waiting (Bennett, 1998; Hwang & Lambert, 2005). Even though most consumer behaviour studies did not find gender to be a significant variable, prior literature does suggest taking it into account when analysing consumer's purchase decisions (Palan, 2001).

Regarding the relationship between gender and willingness to pay for services, prior results are inconclusive (Reynisdottir et al., 2008). Some studies suggest that these variables are not related (G. Anderson et al., 1997; Bishai & Lang, 2000; Mmopelwa et al., 2007). Others demonstrated that there is a significant correlation; specifically, males have a higher WTP (Halkos & Matsiori, 2012)

Because this study is interested in the demographic characteristics of customers, we decide to explore how gender relates to the purchase decision of an express pass. Following prior literature on willingness to pay, we suggest that:

***H2. Males are more likely to be express pass holders than females.***

### **Household Income**

Prior literature suggests that money may influence both a tourist's behaviours and their purchase decisions. Thus, the level of household income may influence tourist expenditures (X. Y. Lehto, Cai, O'Leary, & Huan, 2004). Money may act as a

constraint for a consumer's leisure behaviours (JR Crompton & Kim, 2004; Harrington & Dawson, 1995). For instance, tourists with lower incomes, such as young people, consider economic costs and financial situations as important constraints on travel abroad (Zhang, 2009). The lack of financial resources may also act as an inhibitor to the purchase of a product (Howard & Sheth, 1969) like an express pass.

According to the literature, WTP is positively correlated with income (Bishai & Lang, 2000; Clark & Kim, 2007; Halkos & Matsiori, 2012; Reynisdottir et al., 2008). People with higher incomes have a higher WTP than those with low incomes (Arin & Kramer, 2002; Matthew, MacLaren, O'Gorman, & White, 2012; Mmopelwa et al., 2007; Reynisdottir et al., 2008). For example, high-income commuters are more willing to pay to reduce travel time (Mishra et al., 2014).

Moreover, people with a higher economic status tend to choose services that offer no wait time (Clark & Kim, 2007), as they have a less favourable attitude towards waiting (Mishra et al., 2014). As Kostecki (1996) explains, higher-income individuals generally place a high value on their time, and thus a high cost on waiting and a high intolerance towards waiting times. As a result, they may be more likely to spend money to avoid waiting (Matthew et al., 2012). In contrast, people with lower levels of income place a lower value on their time and are more relaxed when they need to wait (Bennett, 1998). From this, we propose:

***H3. Customers with high household incomes are more likely to be express pass holders.***

### **Customers Motivations**

Motivation refers to a dynamic process of needs, wishes and objectives that generate an internal tension and that drives the person to act in a certain way to rebalance (JL Crompton & McKay, 1997; Fodness, 1994; Mayo & Jarvis, 1981; Schiffman & Kanuk, 2000; Zhang, 2009). For instance, trip motivations begin when people recognize a need and perceive that a certain destination can satisfy that need (Beh & Bruyere, 2007).

Motivations can be interpreted as the beginning of the decision-making process (JL Crompton & McKay, 1997; Howard & Sheth, 1969; Zhang, 2009), and they can be critical factors in explaining visitor's attitudes and behaviours. For example, prior studies have demonstrated that tourist motivations may affect tourist expenditures, and those motivated by relaxation and culture are more likely to have high expenditures than customers with other motivations (Alegre, Cladera, & Sard, 2011). Thus, by understanding a visitor's motivations, companies can help visitors to achieve their desires (Beh & Bruyere, 2007) and also improve their company's planning and marketing strategies (Alegre et al., 2011). In this study, we will consider both the general motivation of the trip, as well as the motivation to visit the theme park.

### **Trip Motivation**

Motivations can affect the customer's relationship with waiting times (Durrande Moreau, 1999) Thus, some tourists may be motivated by specific activities, like visiting

cultural facilities (Riganti & Nijkamp, 2008), and these individuals may interpret waiting times in a different way than customers with different motivations. Therefore, visitors whose principal trip motivation was culture are more willing to wait for entry to a museum, for example, than for a table at a restaurant (Riganti & Nijkamp, 2008). In effect, consumers may be more willing to wait for activities that match their primary motivations. In a similar way, Park (2000) suggested that customers who have a 'positive' motive to visit a place, such as a restaurant, a theme park or a luxury shop, may also have a positive response to waiting.

In addition, a customer's motivations may influence their price sensitivity and predisposition to pay (Masiero & Nicolau, 2012). Tourists may be more willing to pay for a service when it is in line with their motivations. In contrast, they may be less willing to pay for something that has no relation to their principal motivation. For example, tourists visit a certain destination looking for those attributes and activities that will benefit them. Thus, tourists will be willing to pay extra for those activities that they are looking for (Masiero & Nicolau, 2012). In the context of a theme park, when the possibility to pay to avoid a long waiting time exists; people motivated by entertainment are more likely to purchase an express pass. They are prepared to pay extra to obtain the utility they would gain from participating in those specific attractions.

***H4. Customers whose principal trip motivation is entertainment are more likely to be express pass holders.***

### **Visit Motivation**

Customers may be motivated to visit theme parks by several factors. For example, McClung (1991), in his study on theme park attendance, classifies and groups attractions according to the following factors: family, thrill and leisure.

Previous research suggests that there may be a link between the motivation of a visit and attitudes towards waiting times. Ahmadi (1997) explains that customers who prefer thrill attractions are less sensitive to waiting times. Instead, families are more sensitive to waiting times and are less tolerant of queuing. Therefore, families may be more likely to purchase the express pass.

It is also important to note that fast lines at theme parks are often only available for some thrill rides and typically have height limitations (Ahmadi, 1997). Because of this, express passes may not make sense for some customers motivated by the 'family' factor.

As was mentioned before in the 'trip motivation' section, customers may be more willing to pay extra for a service when it is in line with their motivations (Masiero & Nicolau, 2012). This could be the case for customers motivated by thrill, making them predisposed to pay extra for an express pass.

***H5. Customers whose principal visit motivation is thrill are more likely to be express pass holders.***

**Prior experiences**

Prior literature on tourist behaviour (Swarbrooke & Horner, 2007; Woodside & Lysonski, 1989), customer behaviour (Mayo & Jarvis, 1981; A Pizam & Mansfield, 1999) and waiting times (Davis & Vollmann, 1990; Houston, Bettencourt, & Wenger, 1998) have widely supported the influence of prior experiences on consumer behaviours.

**Prior purchase of express passes**

When customers are faced with a purchase decision, they first consider past purchase experiences before they make a decision (Murray, 1991). Thus, prior experiences may determine a customer's purchase patterns (Xinran Y Lehto, O'Leary, & Morrison, 2004). They may also have a positive influence on repurchase behaviour.

Prior experiences related to a history of paying fees may be positively related with WTP. People who are accustomed to pay may have a higher WTP (Kerr & Manfreda, 1991; Reynisdottir et al., 2008). Customers who have previously purchased express passes will thus be more likely to purchase an express pass at theme parks. In contrast, customers without prior experiences may be less likely to purchase the service.

Additionally, familiarity with a service or a brand may influence the decision to purchase a service. McGuire and Kimes (2006) explain that familiarity has to do with going through similar prior experiences over time. These authors explore customers' familiarity with a specific system to manage queues at restaurants. They said when customers experienced familiarity with the method; positive perceptions, such as fairness, increase (McGuire & Kimes, 2006). Arora and Stoner (1996) draw specific attention to how brand familiarity influences consumer behaviour towards choice products or services. Thus, customers who have prior experiences and are familiar with a brand's service will have a more positive attitude towards it. From this, the following hypotheses are proposed:

***H6. Customers who purchased an express pass in the past are more likely to be express pass holders.***

***H7. Customers who are frequent users of the express pass at theme parks are more likely to be express pass holders.***

***H8. Customers who were satisfied with the purchase of express passes on previous occasions are more likely to be express pass holders.***

**Prior visit to theme parks**

Customers may be regular or irregular users of a service according to their preferences, experiences, loyalty with the brand, etc. Literature on WTP explains, for example, that the frequency of visits to a given place may influence the WTP for fees related to this place. This is the case for natural parks, where the number of prior visits to a certain site

does not have a positive correlation with WTP. In contrast, frequent users may feel as though they are ‘owners’ of the site, which is incompatible with fees (Reynisdottir et al., 2008). Thus, regular customers may be less willing to pay extra for a service such as the express pass system.

From the literature on waiting times, queues and delays may be common occurrences in some service contexts (Chebat, Filiatrault, Chebat, & Vaninsky, 1995) and consequently normal situations for regular customers. These customers may expect and accept waiting (Giovanni, 1995; Mishra et al., 2014). This happens when customers are exposed for long periods of time to the same stimulus, like a crowded place, and customers may end up accustomed to and familiar with the situation (S. A. Eroglu, Machleit, & Barr, 2005). Thus, customers who are habituated to find queues at theme parks may consider waits as something natural, and they may have a lower WTP to avoid them. Customers are familiar with the service and know they will be faced with waiting times. In contrast, when customers are not familiar with theme parks contexts, waiting times are viewed as a real problem.

From this, we suggest that whether customers are regular or irregular visitors to theme parks may affect their behaviours regarding the express pass system.

***H9. Customers who are irregular visitors of theme parks are more likely to be express pass holders.***

#### **Prior experiences with waiting times at theme parks**

Addressing the previous hypothesis will require an analysis of whether previous positive or negative experiences with waiting times at theme parks influences decisions to purchase an express pass. For example, if in a previous visit a customer waited a long time in an uncomfortable context and without sufficient explanation or information, this customer will probably not repurchase the service or re-experience the same situation. As literature explains, waiting for a service is a negative experience that may lead to lower customer satisfaction and disloyal customers (Friman, 2010; Pruyn & Smidts, 1998). Thus, the express pass offers an alternative to these types of negative experiences (Álvarez & Mejía, 2012; Heo & Lee, 2009).

***H10. Customers with prior negative experiences with waiting times at theme parks are more likely to be express pass holders.***

#### **Prior information on waiting times**

Prior information on waiting times at theme parks may also influence the decision to be an express pass holder. As the literature explains, prior information may influence how customers make decisions (Clemons, 2008; Nelson, 1970). In addition, when companies provide information about a service or a situation (i.e. wait times for certain attractions), customers’ satisfaction and service evaluation enhance (Hui & Tse, 1996; Li, 2010; Maister, 1985).

Considering the negative effects of waiting on customers explained widely by literature, we can think that people who have prior information about the waiting times at the theme park may be willing to purchase the express pass in order to avoid them.

***H11. Customers who have prior information on waiting times at the theme park are more likely to be express pass holder.***

### **Expected waiting times**

In general, expectations of a given service are the result of prior experiences with it. Literature explains that expectations of waiting times should be managed by firms as they may have a greater influence on the overall wait and service experience (Davis & Heineke, 1998; Durrande Moreau, 1999; Durrande-Moreau & Usunier, 1999; Mishra et al., 2014). For example, companies may manage waiting expectations by informing customers about wait duration (Mishra et al., 2014).

The literature provides different definitions of expectations. For example, there are studies that distinguish between a desired expectation and a predicted expectation of the level of a service (R. Anderson, 1973; Davis & Heineke, 1998). A desired or anticipated level of expectation has to do with the ideal service level customers think they should receive (Zeithaml, Leonard, & Parasuraman, 1993). A predicted expectation can be considered as the level the customer believes to be adequate or tolerable (R. Anderson, 1973; Davis & Heineke, 1998; Zeithaml et al., 1993).

With regard to waiting times, Nie (2000) differentiates between the 'desired level' and the 'adequate level' of waiting times. The desired level of waiting has to do with those ideals that customers have about how much time they want to wait. Customers formulate their adequate or tolerable waiting time according to what they consider to be acceptable. Customers may recognize that service capacity limitations and unpredictable demand make it impossible to always have an optimal level of waiting. From this, they can set an 'adequate waiting time' for a specific service. For example, a family anticipates a waiting time of 30 minutes for a famous restaurant (desired/anticipated expectation). However, the group may be willing to wait up to 45 minutes before deciding to go elsewhere (tolerable waiting expectation) (Nie, 2000).

Visitors, before entering a theme park, may have certain expectations about waiting times. From these expectations, they can decide whether or not to purchase an express pass to avoid queues. By keeping in mind all the negative effects of waiting times, individuals who expect long waits may be more likely to purchase a priority pass in order to avoid them.

***H12. Customers who expect long waiting times are more likely to be express pass holders than people who expect medium or shorts waits.***

### **Perceived waiting times and Disconfirmation analysis**

Perception is considered to be a personal process in which customers select and interpret different stimuli, such as time, in order to understand their reality (Mayo &

Jarvis, 1981; Solomon, 2008). When considering waiting time, it is important to understand that there is an objective waiting time (based on reality) but also a subjective waiting time (based on perceptions) (Durrande Moreau, 1999). Subjective waiting time is flexible, elastic and may be under or overestimated by customers (Durrande-Moreau & Usunier, 1999). One minute of waiting time may be perceived as ten minutes or as a second, depending on the person or the context (Haynes, 1990). As Hornik (1984) explains, people tend to overestimate waiting times in general. In order to reduce perceived waiting times and overestimations, companies may fill the wait (Katz, Larson, & Larson, 1991; Kellaris & Kent, 1992; Larson, 1987; Maister, 1985; Taylor, 1994), promote social interaction among waiting customers and/or provide a pleasant and fair waiting environment (Baker & Cameron, 1996).

In the context of theme parks, waiting times may be perceived differently in regular lines versus priority lines. This is because the real wait is usually shorter in priority lines, the progress in the queue is often faster in the priority line, and the design of the queue, normally separated from the regular queue, may reduce perceived waiting. From this, we suggest that customers who wait in priority lines are more likely to perceive shorter waiting times than customers waiting in regular lines.

***H13. Customers who perceive the wait as shorter are more likely to be express pass holders.***

#### **Attitude toward waiting times**

Attitude may be described as a positive or negative feeling about something (A Pizam & Mansfield, 1999). For example, research that explores attitudes toward waiting times shows that not all people have the same attitude towards time (J. C. Usunier & Valette Florence, 2007) or waiting times (Mishra et al., 2014). Some customers consider waiting as a waste of valuable time that should be avoided, while others can have a positive attitude toward waiting and consider it an opportunity to relax (Mishra et al., 2014). Prior studies that analysed attitudes towards waiting in different service contexts suggest that customers can have a more positive and relaxed attitude towards waiting or, in contrast, a more negative attitude (Bennett, 1998; Rose, Evaristo, & Straub, 2003). Moreover, as Rafaeli et al. (2002) suggests, waiting can be associated with multiple attitudes such as helplessness, anxiety, complacency, agitation or irritability.

As attitudes are considered to be the step previous to actions (Fodness, 1994; Harrill & Potts, 2002), we hypothesize that a visitor's attitudes towards waiting times at theme parks are a key element in the decision to purchase an express pass. Those who have a negative attitude toward waiting times may be more willing to try to avoid them.

***H14. Customers with a more negative attitude toward waiting times are more likely to be express pass holders.***

### **Attitude towards the express pass**

Customer's attitudes are commonly analyzed by research as they are a relevant to market segmentation, marketing strategies (Voss, Spangenberg, & Grohmann, 2003) and the study of customer loyalty (Dick & Basu, 1994; Ruiz-Molina & Gil-Saura, 2008).

As Ruiz-Molina and Gil-Saura (2008, pp. 306) explain, "attitude refers to a learned predisposition to respond consistently favorably or unfavorably to an object". In addition to this, as attitudes are learned, they are the result of prior information and experiences (Ruiz-Molina & Gil-Saura, 2008). Literature also suggests considering psychosocial variables such as attitudes when predicting customers' behaviors like purchase intentions (M. Kim & Hunter, 1993; Kraus, 1995; Robinson & Smith, 2002; Vermeir & Verbeke, 2006). Positive attitudes towards certain products may be the starting point to stimulate their consumption (Vermeir & Verbeke, 2006). Thus, a positive or a negative attitude toward an express pass may determine customers' purchase decisions.

***H15. Customers with a more positive attitude toward express passes are more likely to be express pass holders.***

### **Willingness to pay for an express pass in a future visit**

The future intention to purchase an express pass may depend on several dimensions such as prior experiences, familiarity, attitudes, satisfaction and loyalty. For example, attitude appears as the most direct antecedent to behavioural intention. Thus, the initial and postpurchase attitude toward a service may influence a customer's future decision (Laroche, Kim, & Zhou, 1996; Oliver, 1980). In addition to this, satisfaction may influence attitudes and consequently repurchase intentions (Oliver, 1980). As the service profit chain explains, customer satisfaction determines customer loyalty and repurchase intentions (Hallowell, 1996; Heskett & Schlesinger, 1994). An unsatisfied customer may exhibit a non-repurchase behaviour.

Previous experiences and brand familiarity may also influence the intention to buy a service or product in the future (Bolton & Lemon, 1999; Laroche et al., 1996; J. Park & Stoel, 2005; Shankar, Smith, & Rangaswamy, 2003; Woodruff, Cadotte, & Jenkins, 1983). For example, a customer who is loyal to certain restaurant brand due to a specific set of values may be willing to revisit the place and pay extra for that brand (Chaudhuri & Holbrook, 2001). As Keller (1993) explains, a favorable brand attitude leads to a higher willingness to pay premium prices for certain brands.

From this, people who are willing to pay for an express pass in a future visit are most likely people who have experience with the service and are familiar with it.

***H16. Customers who are more willing to pay for an express pass in a future visit are more likely to be express pass holders.***

***H17. Customers who are more willing to repurchase an express pass in a future are more likely to be express pass holders.***

### **Type A and Type B behaviour patterns**

Studies on human behaviour analyse how individuals act and how several genetic, social, cultural factors influence these actions. Each person has different traits that determine their behaviours. Previous studies point out that individuals can be distinguished by certain time-related traits, and they highlight type A and B patterns as one of the most relevant distinctions (H. Friedman & Booth-Kewley, 1987; H. Friedman, Hall, & Harris, 1985; M. Friedman & Rosenman, 1974; Gastorf, 1980; Leclerc & Schmitt, 1999). In spite of several criticisms, Type A and Type B constructs are still used in research on medicine (Bortner, 1969; Palmero, Asensio, & Espinosa, 1994), road safety policy (Tay, Champness, & Watson, 2003), productivity at work (Frei, Racicot, & Travagline, 1999) and management of waiting lines (Bennett, 1998).

According to Strube (2007), the Type A behaviour pattern is a group of behaviours related with tension and hectic lives. People with a Type A personality have a strong sense of competitiveness, aggressiveness, hostility, need for control, and speed and time urgency (Palmero et al., 1994; Tay et al., 2003). They frequently think about time and they place a high value on saving time (Leclerc & Schmitt, 1999). They tend to always be in a rush (Bennett, 1998; Robbins, Judge, & Judge, 2008). They are usually impatient, intolerant and irritated by delays (Bennett, 1998). Research suggests they generally want more in less time and measure their success in terms of what they acquire (Frei et al., 1999; Robbins et al., 2008). In contrast, people with Type B personalities are the opposite of Type A. The characteristics mentioned above are generally not present in this archetype (Palmero et al., 1994). They do not measure their success in terms of things they acquire, rarely feel pressed for time and do not feel guilty for taking time to relax (Robbins et al., 2008).

For example, Bennett (1998), in his fieldwork on supermarkets, explained how people with Type A personalities reported greater negative responses, such as irritation and annoyance, when they had to wait compared to people with Type B personalities. Thus, certain types of customers such as those with Types B personalities are more likely to wait than others. Following the bulk of these studies, we suggest that:

***H18. Customers with a stronger Type A behaviour pattern are more likely to be express pass holders.***

### **3.1.2. External Factors**

#### **Characteristics of the trip**

Tourists do not act in isolation but instead react to their external factors. The specific characteristics of a trip, such as the total cost of the trip, number of people in the party, composition of the party, number of days on holiday, numbers of days and hours visiting the theme park and the day of the visit to the theme park, are considered when analysing tourist behaviour.

## **Cost of the trip**

Money invested in the trip is also a factor considered by the literature on consumer behaviour and waiting. For example, Palmero et al. (1994) and Tay et al. (2003) explain how tourists with higher trip costs tend to accept waiting times and are more willing to wait for some services.

However, tourists with higher trip costs may also have higher incomes. In cases where people do not disclose their financial status, tourists expenditures can serve as a proxy for the level of income (Arin and Kramer, 2002; Mmopelwa et al., 2007; Zhang, 2009a). Thus, a tourist's economic status may influence their WTP for some services, such as the express pass to avoid queues.

***H19. Customers who spend more on their trips are more likely to be express pass holders.***

## **Party**

Considering literature on waiting, the presence of others in a waiting situation may influence customers' behaviours (Arin & Kramer, 2002; Mmopelwa et al., 2007; Zhang, 2009). Waiting in groups may be more tolerable than waiting alone (Durrande Moreau, 1999; P. Jones & Peppiatt, 1996). Environments that promote socialization while people wait lead to reduced perceived waiting times (Anitsal & Anitsal, 2009; Maister, 1985). Customer satisfaction will increase if perceived waiting times decrease, increasing customer satisfaction (P. Jones & Peppiatt, 1996). Thus, larger groups may have a more positive attitude towards waiting and consequently may be less willing to pay for an express pass.

***H20. Customers who visit the theme park in small groups are more likely to be express pass holders.***

## **Group dynamics**

The presence of others may influence customers' behaviours (P. Jones & Peppiatt, 1996). For example, Gruenfeld et al., (1996) and Vermeir and Verbeke (2006) analyse how friends and relatives influence travel decision making. Moutinho (1988) also stated that family and friends are great informants and influencers on the decision-making process regarding amusement parks.

The presence of children in a family group also affects consumer behaviours. Moutinho (1988) explains that children may influence the decision to visit one theme park or another. Regarding waiting times, Mishra et al. (2014) demonstrated that the presence of children does not have a large influence on attitudes towards waiting times.

In addition to this, in the specific case of theme parks, families with young children may be limited by express passes facilities, as express passes are usually available for attractions with height restrictions. From this, we suggest that:

**H21. *Family with children below 13 are less likely to be express pass holders.***

### **Length of the holiday trip/visit**

Time pressures also influence customers' behaviours (Mayo and Jarvis, 1981; Eroglu et al., 2005), and more specially impact the waiting experience (S. A. Eroglu et al., 2005; Mayo & Jarvis, 1981). People who are under time pressure tend to be more impatient and think constantly about time (Durrande Moreau, 1999). Companies have tried to reduce this time pressure, as has been the case, for example, in emergency zones at hospitals (Holbrook, 1999).

For most tourists, the time budget, synonymous with time pressure, is normally a constraint (Durrande Moreau, 1999). According to some studies (JR Crompton & Kim, 2004; Lew & McKercher, 2006; Moutinho, 1993; Zhang, 2009), because the time at a destination is usually fixed ahead of time, the different ways to spend that time after arrival is the key. If a tourist has more time available, they will have a more relaxed attitude towards waiting. Accordingly, people with more time pressure may be more willing to pay to avoid queues.

Reinforcing this idea is the fact that the length of the visit may also influence tourist expenditures and their willingness to pay. Tourists may be more sensitive to price when the visit is longer. If they stay more days, they spend more money, and consequently, they have to pay greater attention to their economic resources (Masiero and Nicolau, 2012). In contrast, if the visit is shorter, tourists will be less sensitive to price, and they will be more willing to pay for services such as an express pass.

In the specific case of theme parks, the length of the trip (nights) and the length of the visit at the theme park (days and hours) may be both considered when analysing tourist behaviour. Additionally, for people holding an annual pass (unlimited access to the theme park during the year) time pressure may be not a problem, and they may be less willing to pay for an express pass.

**H22. *Customers whose trip is short are more likely to be express pass holders (length of the trip).***

**H23. *Customers whose visit to the theme park is short are more likely to be express pass holders (days at the theme park).***

**H24. *Customers who spend fewer hours visiting the theme park are more likely to be express pass holders (hours at the theme park).***

**H25. *Customers without annual pass are more likely to be express pass holders.***

## Visit day

Weekends, as they are busy periods, tend to be crowded days (Howcast, 2014; Vukadinovic, Dreier, & Mangold, 2011) and have long waiting times. Literature explains that crowding may be interpreted negatively by customers when it prevents them from accomplishing goals and/or when customers feel a loss of control and privacy (Byun & Mann, 2011; S. A. Eroglu et al., 2005; S. Eroglu & Machleit, 1990; Hwang, Yoon, & Bendle, 2012). For example, a crowded waiting environment can make customers feel tense, irritable and without control (Sulek & Hensley, 2004). Considering the negative effects of crowded waiting areas, we suggest that customers will be more likely to pay for an express pass during weekends.

***H26. Customers who visit the theme park during weekends are more likely to be express pass holders.***

## Context

On one hand, the context surrounding a tourist's experience at a theme park may influence their behaviour. For example, the waiting environment or the weather may determine whether or not the customer chooses to purchase an express pass. On the other hand, however, aspects of the context in which a customer lives may also influence their decisions. For example, the pace of their life or the size of the region in which they live are factors considered in this study.

## Comfort of the waiting environment

Prior literature on waiting times suggests that the waiting environment has a significant impact on how customers interpret waiting times (Masiero & Nicolau, 2012). A comfortable waiting environment may lead to greater customer satisfaction and a higher evaluation of service (Baker & Cameron, 1996; Bielen & Demoulin, 2007; Sulek & Hensley, 2004).

One of the premises that Bielen and Demoulin (2007) and Li (2010) explain is that 'uncomfortable waits feel longer than comfortable waits'. Thus, people may look for alternatives to reduce their waiting times and avoid these uncomfortable situations, such as the option to join priority lines. In addition, the literature describes that some people are willing to pay extra for quality and comfort for some services (Balcombe et al., 2009). This reinforces the following hypothesis:

***H27. Customers who perceive the waiting environment to be uncomfortable are more likely to be express pass holders.***

## Weather conditions

Weather may influence consumer behaviour. Studies have analysed how temperature affects individuals and their perceptions of waiting times. Higher temperatures are associated with an uncomfortable waiting environment and a longer perceived waiting

time (Balcombe, Fraser, & Harris, 2009). Accordingly, days with high temperatures may encourage customers to purchase an express pass to avoid stressful waiting times.

**H28. *Customers who visit the theme park during sunny and hot days are more likely to be express pass holders.***

### **Region size and pace of life**

The environment in which customers live may influence their behaviours. Region size and pace of life, specifically, are related aspects that may have an effect on the customer's attitude towards waiting times (Baker & Cameron, 1996; Bell & Baron, 1977).

Urban environments are often associated with a hectic pace of life (Davis & Vollmann, 1990; Nie, 2000), which is correlated with a lower tolerance towards waiting times (Lowin, Hottes, Sandler, & Bornstein, 1971). Rural areas tend to have a slower pace of life (Kostecki, 1996; Nie, 2000) and are associated with a higher tolerance towards waiting times (Lowin et al., 1971; Nie, 2000). Kostecki (1996) also explains that suburban customers tend to be less dissatisfied with delays.

**H29. *Customers who live in large cities are more likely to be express pass holders.***

**H30. *Customers who have a more hectic pace of life are more likely to be express pass holders.***

### **Culture**

Culture is defined as a set of beliefs, traditions, values and expectations that characterize a group of individuals and, in turn, may influence their behaviour as tourists (Bigné et al., 2005; Mayo & Jarvis, 1981; A Pizam & Mansfield, 1999; Abraham Pizam & Sussmann, 1995). Specifically, a customer's culture may have an influence on their perception and tolerance of waiting times (Rose et al., 2003; J. C. Usunier & Valette Florence, 2007).

In order to analyse this dimension, in terms of culture, individuals can be distinguished between monochronic and polychronic (Hall, 1983). For monochronic individuals, time has a monetary and economic value (J. C. Usunier & Valette Florence, 2007; J. Usunier, 1991). They tend to do one thing at a time and give special relevance to schedules (Frei et al., 1999). Polychronic individuals, however, prefer to do two or more things at the same time (Kaufman-Scarborough & Lindquist, 1999; Leclerc & Schmitt, 1999; Lindquist & Kaufman-Scarborough, 2007).

Because of their time preferences, monochronic and polychronic cultures have a different attitude towards waiting times (Rose et al., 2003). Rose et al. (2003) studied internet delays. They found that subjects from polychronic cultures had a more positive

attitude towards waiting times and were little concerned about them (even though they perceived waiting times as longer than monochronic subjects) (Rose et al., 2003). Because these individuals are more accustomed to waiting, they did not object to it. In contrast, monochronic subjects had a more negative attitude towards delays. Thus, the following hypothesis is proposed:

***H31. Customers from a monochronic culture are more likely to be express pass holders.***

### **Influence of promotional and marketing strategies**

Marketing strategies are crucial in tourism contexts (Morrison, 1996). Marketers and service advertisers should minimize the intangibility of services, explaining specific components and allowing customers to visualize service characteristics (Stafford, Stafford, & Day, 2002).

According to the literature, a marketing stimulus may persuade customers to purchase certain products. A stronger promotional and marketing influence corresponds to a higher awareness of the product or service and to a greater likelihood of consumption (Pickett-Baker & Ozaki, 2008). Consumers can obtain information from several sources such as friends or advertising, and this may influence their purchase behaviour (Nelson, 1970).

In a theme park context, customers may or may not be aware of the existence of an express pass system. Customers may learn about express passes in different ways, such as via the internet, information at a hotel, friends and family recommendations, travel agency recommendations, or an advertisement in the theme park. However, internet appears today as one of the most powerful promotional tools and medium for advertising (Belch & Belch, 2003). Internet has revolutionized the promotion and sale of services, creating a new shopping experience (Walsh & Godfrey, 2000). Taking these considerations into account, we suggest the following hypotheses:

***H32. Customers who are aware of express passes are more likely to be express pass holders***

***H33. Customers who find out the express pass through internet are more likely to be express pass holders.***

### **3.2. Methodology and research design**

The research question of this thesis: What factors characterize visitors who purchase an express pass to avoid waiting at theme parks and visitors who don't purchase an express pass, but instead to wait in regular lines? needs to be addressed and a methodology needs to be selected. As the literature suggests, the correct selection of a methodology will depend on the nature of the research question and the determination and evaluation of the final research goal (Li, 2010). The methods used in previous studies are analysed, and the most appropriate is selected and described. Next, the observation unit is

determined as is how data will be collected and analyzed. Finally, a descriptive analysis of the data and scale reliability tests are conducted.

### **3.2.1. Epistemological approach**

Epistemological perspectives or paradigms are sets of beliefs that guide actions and explain how people comprehend and interpret the world (Guba & Lincoln, 1994). Positivism and Constructivism are the two most relevant paradigms from which social sciences understand the world. On the one hand, Positivism considers there is a reality that is external and can't be altered. This reality can be segmented and explained independently, based on the law of cause and effect. Thus, positivism may attempt to discover reality and how things work through deductive methods: testing hypotheses in empirical contexts from general conceptualisations towards specific statements (Gill & Johnson, 2010; Labra, 2013). On the other hand, Constructivism interprets reality from multiple and subjective perspectives and pays special attention to how people modify and build the reality. This paradigm uses qualitative and ethnographic research methods to understand and create knowledge. It is based on inductive processes where theory is the outcome of initial empirical analysis and findings (Labra, 2013).

More than forty years on the study of consumer behaviour demonstrates that this discipline has evolved toward a broader view. Constructionist and multidisciplinary perspectives have been able to challenge traditional positivist and deductive approaches, extending and enriching the study of consumer behaviour (P. Anderson, 1983; Brown & Turley, 1997; Holbrook, 1995; Peter & Olson, 1983; Ryan, 2004). These new approaches have allowed marketing managers to understand consumer behaviours and not only to predict and influence them.

### **3.2.2. Methodological issues in previous studies**

Given the lack of empirical enquiry surrounding express passes and priority systems at theme parks, we adopt an empirical approach carried out in a natural field setting. This approach is ideal for this research, because there is limited knowledge of real-world situations in theme parks contexts. The use of scenarios was not considered to be an appropriate method, because we collect data about the behavioural aspects of visitors. Scenario-based studies are more appropriate when they are focused on cognitive aspects and not behavioural issues (Fuentelsaz Gallego, Ica Isern, & Pulpón Segura, 2006).

Because the intention of this research is to extrapolate and generalize the results obtained, a quantitative methodology is more appropriate. Generalizations at conceptual levels are also an input of quantitative studies. Added to this, quantitative method is the most appropriate when it is necessary to test models and several propositions. Thus, information about customer's behaviours at theme parks and practical implications for managers related to waiting times and priority systems can be obtained.

Regarding temporality, this is a transversal retrospective study. Transversal and retrospective studies are those where researchers inquire about events that occurred previously of the moment of study (Ayçaguer & Utra, 2004). Transversal studies estimate events that happen in a specific moment, where dependent and independent

variables are measured in the same moment and it can't be infer to future situations. It is more appropriate to analyse proportions, prevalence and degree of association for transversal studies (Jovell, 1995). In general, transversal studies have an exploratory and descriptive approach. In contrast, longitudinal studies may predict future events. As the present study attempts to characterize two groups and analyse factors of influence, probabilities are not calculated.

According to its goals, this is an explanatory study. Explanatory studies value the different predictors of a process or event. They attempt to identify causes of certain events, why some events happen and in which circumstances their likelihood of occurrence increase. In contrast, descriptive studies attempt to characterize a population and describe the process of study and predictive studies propose the creation of models capable of predicting the outcomes of a process (Gavilán-Bouzas & García de Madariaga-Miranda, 2009). Finally, and considering it is an explanatory study, it requires statistical analysis tools with explanatory power such as logistic regressions (Ayçaguer & Utra, 2004).

### **3.2.3. Logit analysis**

Firstly, it is necessary to clarify certain terms that may cause confusion such as logistic analysis and logit analysis. There are authors that use both terms interchangeably without paying attention to this differentiation. However, some literature suggests that 'logistic models' are models where all the independent variables are discrete and 'logit models' refers to models where independent variables may be discrete or continuous (Martín Martín, Cabero Morán, & de Paz Santana, 2008; Ramos Álvarez, n.d.). Other researchers explain that while logit reports coefficients, logistic reports odds ratios (odds ratios can also be computed in terms of coefficients as  $e^b$ ) (Enchautegui, 2005). Thus, health and behavioural researchers usually use the term logistic while economists, political scientists and sociologists prefer to talk about logit models and predicted probabilities (Abdon, 2010).

Logistic regression is a statistical tool for a bivariate or a multivariate analysis, with an explanatory or a predictive objective (MethodsConsultants, 2014). "Logistic regression can be used to test the predictive power of a set of variables and to assess the relative contribution of each individual variable" (Martín Martín et al., 2008; Pallant, 2013). Your predictor (independent variable) can be either categorical or continuous, or a mix of both in the one model (Pallant, 2013).

Pallant (2013) defines logistic regression as "a mathematical modelling approach that can be used to describe the relationship of several independent variables to a dichotomous dependent variable". The moment when that dependent variable occurs is not important. The important is to know whether is present or absent in each individual at the end of the study (Núñez et al., 2011).

According to Jovell (1995), three are the principal goals of logit regression models. On the one hand, they identify if there is a relationship or not between the independent variables and the dependent variable. On the other hand, logit regression models

measure the magnitude of that relationship. They assess whether certain explanatory variables are significant predictors of the likelihood to be part of a group or another (Brida et al., 2013). Finally, they allow estimating and predicting the likelihood of certain event (Brida, Disegna, & Scuderi, 2013). For instance, they measure the probability that an individual suffers a heart attack (the likelihood to belong to the group of people who suffer heart attacks) as a function of personal characteristics such as cholesterol level, age, gender, prior experiences and so on. Thus, a person who smokes and has high levels of cholesterol has higher likelihood of a heart disease than a person who doesn't smoke and who has low levels of cholesterol (Aguayo, 2007; Martín Martín et al., 2008).

#### **3.2.4. Fields of application**

Logit regression models have been widely used by medical research but they have also become popular among other disciplines. It is one of the inferential statistical techniques most applied by social research (Jovell, 1995). From the 80s science began to have a great interest for decision models, how behave certain variables and the effect on other variables. This led to an increasing use of logit models (De la Fuente Fernandez, 2011; StataCorp, 1985). For instance, prior literature on willingness to pay (Enchautegui, 2005) and studies that identify and analyse characteristics of different groups use logit models (Balcombe et al., 2009; Correia, Pimpão, & Tão, 2012; Tyrrell & Devitt, 1999). Indeed, tourism research also applied logistic regressions in order to explain or predict tourist behaviours such as which destination they will choose (Alegre et al., 2011; J. Kim, Woods, & Kim, 2013; Molera & Albaladejo, 2007).

In marketing, for example, logit analysis allows to quantify the potential sales of a product or the actual purchase intentions of customers. Marketers may measure the possible impact of certain event and design adequate and better oriented marketing tools (Baggio & Klobas, 2011). Thus, data provided by logistic regression leads to profile different customers segments (Jovell, 1995) in order to predict their actions (J. Kim et al., 2013; Molera & Albaladejo, 2007). Thanks to this information, practitioners may design adapted strategies to their clients' characteristics (De la Fuente Fernandez, 2011).

#### **3.2.5. Why to choose a logit model?**

In order to answer the research question of this project, a binary logit regression is conducted to differentiate the express pass holders ( $Y=1$ ) from the non-express pass holders ( $Y=0$ ) by associating the targeted independent variables with one or the other group. Thus, there is an observed single dichotomous outcome with only two possible answers (holder-no holder) and more than one independent variable (multivariate logistic regression: multiple independent variables).

##### *Why not to choose a linear regression model*

Linear regression models, similarly than logit regression models, analyse one or more explanatory variables (continuous or discrete) respect a dependent variable (Jovell, 1995). However, linear regression models and ordinary least square (OLS) present

limitations when analyzing dichotomy dependent variables (Bishai & Lang, 2000; Chen & Hsu, 1999; Crofts, 2004; Jovell, 1995; Molera & Albaladejo, 2007). Classification by lineal function and estimations by ordinary least square (OLS) are appropriate methods when the distribution of the independent variables is normal, with the same matrix of covariance and the dependent variable is quantitative (Jovell, 1995).

When there are only two possible answers, it is difficult to estimate by OLS (Lee, OLeary, Lee, & Morrison, 2002; Molina & Rodrigo, 2009). Firstly, the error term is not normal (breaking one of the principles of linear regression). Secondly, heteroskedasticity is present (the error term doesn't have constant variance). Thirdly, predictions are out of range (OLS method doesn't ensure values fall between 0 and 1) (De la Fuente Fernandez, 2011). Thus, the fact that the logistic function ranges between 0 and 1 is one of the reason it is so popular. The probabilities of occurrence (a number between 0 and 1) will always be in that range (Enchautegui, 2005). To be holder or no holder of an express pass is a qualitative categorical variable and the individual can only choose one option.

In brief, logistic regressions are recommended as they make fewer assumptions: variables don't need to be normally distributed and errors do not need to be homoscedastic (Ayçaguer & Utra, 2004; Kleinbaum & Klein, 2010).

#### *Why not to choose a multiple regression*

Logistic regression is used instead of multiple regressions when your dependent variable is categorical. For multiple regressions you need a continuous variable with normal distribution. Thus, multiple regressions are not suitable with categorical dependent variable (Baggio & Klobas, 2011).

#### *Why not to choose discriminant analysis*

Regarding logit analysis and discriminant analysis, they are similar in some points. Discriminant analysis also helps to recognize which variables differentiate the groups and how many of these variables are necessary to achieve the best possible classification. This statistical technique also distinguishes members of one group or another by identifying the distinguishing characteristics of each one as logit models. However, logit models have a superior ability for classification (Pallant, 2013) and they may be used in a wider range of situations compare with discriminant analysis (Lee et al., 2002) Additionally, logistic regressions not require so many assumptions and they are more robust methods (discriminant analysis only supports quantitative variables and assumes multivariate normal distributions) (Martín Martín et al., 2008).

#### *Why not to choose a Probit model*

Concerning to why to choose a Logit model instead of a Probit model, there are some points to highlight. In Logit and Probit models, the dependent variable is binary (value 0 or 1). Added to this, both of them lead to similar qualitative results. However, there are some differences between these two models. On the one hand, Probit is recommended

to analyse a latent continuous variable. Added to this, Probit models are better when the error of the dependent variable has normal distributions (Aguayo, 2007). On the other hand, Logit models are recommended as they permit an easy interpretation of the beta coefficients (Enchautegui, 2005). Logit models are also suggested when there is a big sample and there is a concentration of observations at the ends (Probit model is not recommended as it can classify those observations as unusual).

### **3.2.6. How to make the model?**

The first step to make the Logit model is to select independent variables which could be truly predictive variables (Lee et al., 2002). In general, researches look for models with the fewest number of independent variables as they are parsimonious models (better goodness of fit to the data and the greater predictive ability) (Baggio & Klobas, 2011). Added to this, build a model with many independent variables and fewer cases may lead to imprecise and unstable estimations (Aguayo, 2007). In brief, it will be a suitable model if it is appropriate to the research hypotheses, if it has a good goodness of fit, a good predictive power, does not violate the assumption of linearity, collinearity is absent and that there are no fit alterations (Jovell, 1995).

There are two possible ways to choose the independent variables for the model. On the one hand, the researcher can follow statistical modelling criteria: the model only accepts variables which have a prediction's capacity that is statistically significant. SPSS measures statistical significance of each coefficient with Wald statistics (Aguayo, 2007; Jovell, 1995). On the other hand, researchers can use substantive modelling: independent variables are chosen according the theoretical background and the research hypothesis (Aguayo, 2007; Jovell, 1995). Substantive approaches not only build theories from tested outcomes. They include several sources of information to check the theory (Jovell, 1995). Statistical and substantive procedures may be both applied to check models (Muthén, 2003). The present study has a substantive approach, considering not only the predictive capacity of the variables but also the theoretical background.

The second step is related with the control independent variables: confounding variables and modifying effect variables (Muthén, 2003). The confounding variables are those which are associated with the dependent variable (Y) and also with the independent variable (X) but that don't explain the relation between them (Jovell, 1995). They are outside the primary relationship (Aguayo, 2007). The distortion introduced by a confounding factor can lead to observe an effect does not exist, or to an excessive appreciation of some associations or, otherwise, to observe an effect incorrectly attenuated or with a contrary effect (Ayçaguer & Utra, 2004).

However, it is possible that a confounding variable presents a no significant relation with the dependent variable but once in the logit model it increases the level of fit of the model (indirect significant relationship). Thus, the absence of confounding variables may bias the estimation of the model (Aguayo, 2007; Jovell, 1995). Although their results are not interpreted, they should not be excluded from the model (De la Fuente

Fernandez, 2011). In order to know if it is correct to include or not a confounder factor, it is necessary to consider if it really influences on the relationship between the dependent variable and other factors. The literature review and the knowledge of the subject may guide the researcher on which variables to consider as confounding variables (Aguayo, 2007).

Unlike the confounding variables, the modifying effect variables explain the relationship between the dependent and the independent variables (Aguayo, 2007; Jovell, 1995). Researchers may decide to include or not these variables according to theoretical plausibility (related with prior studies and hypotheses) and level of significance (measuring the level of goodness of fit of the model with and without the variables) (Jovell, 1995).

The third step is the measurement of the level of association between each of the independent variables with the dependent variables. Bivariate analysis before the logistic regression is recommended by the literature. If the independent variable is a categorical variable, chi-square test is conducted. If the independent variable is quantitative, t-tests are conducted (Aguayo, 2007). Some literature suggests that those independent variables which show significant results should be included in the logit model (Aguayo, 2007).

The fourth step is the analysis of the correlation level between independent variables in order to avoid multicollinearity. Multicollinearity may lead to bias estimations and exaggerated standard errors (Martín Martín et al., 2008). Thus, it is necessary to determine the degree of association between variables and not only if they are related or not. Different statistical test should be conducted in order to measure association between variables. When variables with high correlation are detected, researchers may choose to keep the variable that is more relevant for the study and which contributes more to explain the dependent variable (Bello Parias, 2012). Literature also suggests that researchers may choose to keep the variable with less missing data (Ayçaguer & Utra, 2004).

The fifth step consists of apply modelling strategies. Forward, backward and entry methods are available in the SPSS software. Forward method is to incorporate independent variables progressively. The researcher only keeps in the model the statistical significant predictors. In general, the independent variables are included according to the level of significance (from lower levels of p value) and the inclusion's process finishes when a new independent variable doesn't improve the goodness of fit of the model (Jovell, 1995). The other method is called Backward and consists of eliminating progressively the variables that have lower levels of contribution to the goodness of fit of the model (independent variables with high significant levels  $p > 0.05$ ) (Jovell, 1995). Added to this, three different types of criteria for both forward and backward stepwise methods may be chosen: 'Conditional', 'LR' and 'Wald' (ESRC, 2011; Martín Martín et al., 2008). 'LR' stands for Likelihood Ratio which is considered the criterion least prone to error (ESRC, 2011).

Forward and Backward stepwise methods are recommended when there are no previous empirical data about the independent variables or researchers are developing a theory (ESRC, 2011). However, both Forward and Backward method have been criticised in logistic regressions because they can be heavily influenced by random variation in the data (Pallant, 2013).

Finally, the 'Entry method' consists of including variables step by step, keeping the significance levels and improving the goodness of fit of the model with data. It is a combination of both methods mentioned before (Jovell, 1995). Entry method assess predictive power introducing all the independent variables in one block and controlling the effects of other predictors (Pallant, 2013). Added to this, Entry method is applied when researchers have prior knowledge about the explanatory variables and their relevance (ESRC, 2011). From this, 'Entry method' is selected for the present study.

### 3.2.7. Model estimation

We define the estimated value of the dichotomous dependent variables as the predicted probability of being express pass holder, or  $P(H)$ . In logit form, the ratio of the probability of being express pass holder to being non-express pass holder, or  $P(H)/(1-P(H))$ , is the 'odds'. The logit model can be expressed as a linear function of the customer's independent variables as follows:

$$\text{Log} [P(H)/(1-P(H))] = \beta_0 + \beta_1 X_{i1} + \beta_1 X_{i2} + \beta_1 X_{i3} + \dots + \beta_n X_{in}, \quad (\text{Equation 1})$$

where  $P(H)$  is the probability of being express pass holder for the  $i$  customer;  $\beta_0$  is an intercept;  $X_1-X_n$  are the independent variables; and  $\beta_1-\beta_n$  are the unknown coefficients of the  $n$  independent variables (Ayçaguer & Utra, 2004; Baggio & Klobas, 2011; J. Kim et al., 2013)

As Liao (1994) suggests, we can transform Equation (1) into specification of the logit model of the event probability. By solving  $P(H)$  through the equation above, the predicted probability of being express pass holder can be expressed as: (Kim, Woods and Kim, 2013)

$$P(H) = 1 / [1 + e^{-y}], \quad (\text{Equation 2})$$

Where  $e$  is the base of the natural logarithm; and  $y = \beta_0 + \beta_1 X_{i1} + \beta_1 X_{i2} + \beta_1 X_{i3} + \dots + \beta_n X_{in}$ .

Estimation of a model includes a set of statistical techniques that give an approximate value to an unknown parameter, from data provided by the sample. There are different procedures to estimate the coefficients of the model but the most used is the maximum likelihood method.

#### *Maximum likelihood estimated*

As it is necessary to use a non-linear method, logit models use maximum likelihood method (MLM) to estimate parameters instead of OLS (Lee et al., 2002). Added to this,

MLM is recommended with a sample of at least 100 observations (Enchautegui, 2005) and it is based on the assumption of fixed and unknown parameters (Lagares, 2007). The best values for the parameters of the model are those that make the likelihood function as large as possible (Ayçaguer & Utra, 2004).

Sometimes models may not reach convergence and they can't bring appropriate solutions. This may happen when there are a many independent variables compare to the number of cases, when there are unacceptable high correlation between predictors (multicollinearity), when there are many empty cells (sparseness) or when there are complete separation (predictors perfectly predict the criterion) (Menard, 2002; Peduzzi, Concato, Kemper, Holford, & Feinstein, 1996).

### **3.2.8. Model fit statistics**

The Omnibus Test of Model Coefficients gives us an overall indication of how well the model performs, over and above the results obtained for Block 0, with none of the predictors entered into the model (Pallant, 2013). This is referred to as a 'goodness of fit' test. For this set of results, we want a highly significant value (the sig. value should be less than 0.05).

Logarithmic likelihood ratio is used by logit models to contrast the validity of the estimated model (Enchautegui, 2005). The likelihood function measures the plausibility of a logistic regression model (Ayçaguer & Utra, 2004). This ratio may indicate which model is the most appropriated. For instance, this method allows comparing two models, one with only one new variable incorporated. A non-significant result leads to accept that the new variable incorporated doesn't improve the likelihood of the model and doesn't worth to include it.

As the natural logarithm of the likelihood is a small number,  $-2 \log$  Likelihood (less than twice the natural logarithm of the likelihood) is used as a positive number (De la Fuente Fernandez, 2011). It indicates the capacity of the regression function to correctly classify subjects in two groups. A lower  $-2 \log$  Likelihood indicates a better model estimation: the model fits the data (Aguayo, 2007).

SPSS also show summary measures of models in order to evaluate global validity (a  $-2LL$  and other two determination coefficients: Cox and Snell  $R^2$  and Nagelkerke  $R^2$ ). The ideal model should have a lower  $-2LL$  (near to 0) and  $R^2$  near to 1. Cox and Snell  $R^2$  indicate which percentage of the variation of the dependent variable is explained by the independent variable included in the model. Nagelkerke  $R^2$  adjusts the scale Cox and Snell  $R^2$  to cover the entire range from 0 to 1 (Aguayo, 2007). A greater Nagelkerke  $R^2$  means than the model fit is improved (Wulff, 2015).

The goodness-of-fit of the model may be determined by Hosmer and Lemeshow test. By assessing goodness of fit researcher can check the adequacy of the model (Pallant, 2013). A non-significant result indicates it resembles to an ideal logit regression: the observed and predicted classification lacked significant discrepancy. For this test, poor fit is indicated by a significance value less than 0.05.

### 3.2.9. Sensitivity and specificity of the model

A classification table (summary of accuracy of the classification of cases) should be examined in order to identify sensitivity and specificity of the model (Aguayo, 2007; Pallant, 2013). It provides an indication of how well the model is able to predict the correct category (express pass holder or no holder) for each case. Sensitivity and specificity levels should be higher than 75% in order to be considered acceptable (Aguayo, 2007). The specificity of the model is the percentage of the group without the characteristics of interest (non-express pass holder) that is correctly identified.

### 3.2.10. Interpretation of coefficients

The Exp(B) column shows the odds ratio (OR) for each independent variable. Logit regressions quantify the relationship of the independent variables to the binary dependent variable with odds ratios as measures of effect size. The odds ratio (Exp B) is defined as the ratio of the probability that the event occur divided by the probability that the event doesn't occur (Ayçaguer & Utra, 2004; Halkos & Matsiori, 2012). Odds ratio, as 'change in odds of being in one of the categories of outcome when the value of a predictor increases by one unit' (Tabachnick and Fidell 2013 in Pallant 2013, pp.184).

If the coefficients of the logistic model (OR) are statistical significant, then researchers have to analyse the strength of the statistical association (Martín Martín et al., 2008). Positive coefficients mean that the probability to belong the group of the express pass holders increases with that variable. In other words, a positive coefficient is associated with the increase of the possibility that the event occurs. Negative coefficients decrease the odds of the event occurring (Alegre et al., 2011; Enchautegui, 2005; Hoetker, 2007; Martín Martín et al., 2008) 2007) 2011. Positive or negative sign doesn't indicate the size of the effect. It only demonstrates the direction of the effect (Enchautegui, 2005).

For categorical variables with more than two categories each category is compared with the reference category (the first category). Added to this, for each of the odds ratios Exp(B) shown in the Variables in the Equation table, there is a 95 per cent confidence interval (95% CI for Exp(B) ) displayed, giving a lower value and an upper value. This is the range of values that we can be 95 per cent confident encompasses the true value of the odds ratio. The confidence interval doesn't have to contain the value of 1. If the confidence interval had contained the value 1, the odds ratio would not be statistically significant, indicating equal probability of the responses yes/no (Pallant, 2013).

### 3.2.11. Residuals

Once model is fit, there is another later analysis phase: the diagnosis of the model (Martín Martín et al., 2008). This is the exam of the residuals. Residual analysis in logistic regression allow researchers to test the assumption of linearity between the logit of the probability of the event and the independent variables (Ayçaguer & Utra, 2004). This is the study of the difference between observed data and data predicted by the model. There are crude residuals (observed answers minus expected answers by the model), standardized crude residuals or Pearson residuals (crude residuals divided

standard error) (Ayçaguer & Utra, 2004). Standardized residuals are one of the most used (Martín Martín et al., 2008).

Thus, the analysis of residuals detects the existence of extreme cases and leads to improve the goodness-of-fit of the model. It is also important to measure the influence that those extreme cases have on the logit model. Researchers need to evaluate if eliminating some case the rest of the model change or not (coefficients, constant, significance) (StataCorp, 1985).

### **3.3. Design and procedure**

#### **3.3.1. Sample justification**

The number of people involved in the study, how they were selected and whether they are representative of the wider group are key aspects in order to make future generalizations from the results of the study (Shirish, 2013).

As literature explains, the accuracy of the sample is the most important value in order to validate surveys' results (Hill & Alexander, 2000). In a probability sample every unit of the population has the same chance to be chosen. In other words, in a probability sample each member of the population has a known non-zero probability of being selected. Probability methods include random sampling, systematic sampling, and stratified sampling. In contrast, in non probability sampling, members are selected from the population in some non random manner. These include convenience sampling, judgment sampling, quota sampling, and snowball sampling. Non-random samples may not be as legitimate and representative as random samples. However, non-random samples also have some advantages: they are cheap and easy to carry out (Hill & Alexander, 2000).

For this study, a non-random sample, especially a convenience sample, is conducted. As the name implies, the sample is selected because they are convenient. It is often used to get a gross estimate of the results, without incurring the cost or time required to select a random sample.

As we don't have official data from the theme park, we conduct the fieldwork in the surroundings of Port Aventura Theme Park (Vilaseca, Spain). We want to ensure that they include a certain number of people with specific characteristics (express pass holders and non-express pass holders) and this would not be possible using random sampling methods (Shirish, 2013). This sample includes units from a convenient group, for instance passers-by near the theme park. We choose this kind of sample as visitors of theme parks are more easily to interview near the theme park than in another place. Added to this, we decide not to use a random sample as the identities of the visitors are multiple and unknown and they are difficult to identify. The place is considered as the most appropriate context to reach people from both groups.

The population encompasses all the visitors of the theme park passing through the sampling locations (sampling frame). They were selected at random (one in three

individuals). A unit represents one individual and all individuals are similar within the sample. Visitors of the theme park over the age of 16 were the responsible for completing the questionnaires as they are ‘conscious buyers’. In the case of families, only one member of the family can complete the survey. Both tourist (who spend one or more nights at the destination) and excursionists (who spend hours at the destination) are considered.

The data collection considers visitors of a theme park that actually is the largest in Spain and the second largest in Europe (Anton Clavé, 2010). Port Aventura was the first theme park in Spain in 1995 and up to now is the most profitable of all. As can be seen in Table 5, more than nine million of benefits in 2013 demonstrate its advantageous situation compare to other theme parks in Spain (Delgado, 2014). Added to this, Port Aventura is a theme park designed for everyone. Children, teenagers and adults, from international or national destinations, with different motivations may enjoy Port Aventura. All this characteristics make it an ideal place for a wide-ranging sample. Different profiles of visitors can be represented in the sample. Finally, we specially choose this theme park as it has a well-known priority system to avoid queues called ‘Port Aventura Express Pass’.

**Table 5: Spanish theme parks’ annual accounts (in million euros) (source: Delgado, 2014)**

	Port Aventura	Isla Mágica	Terra Mítica	Parque Warner
Financial Year	2013	Jan-Oct	2013	Jan-Oct
Income	164,50	7,96	14,44	32,58
Sales	60,09	2,89	13,32	13,34
Return on investment	32,60	13,32	0,79	1,44
Profits	9,96	13,34	0,79	0,94

### 3.3.2. Sample size

As literature suggests, a larger sample is always the best alternative (Evans, 1991; Hill & Alexander, 2000). For testing hypotheses, it is necessary to gather a sample big enough to enable research to observe anticipated differences between variables (Davies & Hughes, 2014).

One of the advantages of logistic regression is that allow managing many variables with few cases (Ayçaguer & Utra, 2004). As a “rule of thumb” (not formally founded rule), logistic regression models require a minimum of 10 events per explaining each covariable (Ayçaguer & Utra, 2004; Freeman, 1987; Peduzzi et al., 1996). In other words, we will need ten cases for each parameter to be estimated (for each category of each variable). Considering we want to test internal and external factors of influence, we will need to estimate 50 parameters. Thus, we will need at least 500 cases. For this study, we decided to stop collecting data when we arrived to 971 surveys as it was considered an adequate sample.

### **3.3.3. Imprecision and bias**

Imprecision and bias are a common problem of research and may be present in the design of the research, in the methodology, when data is collected and also when results are interpreted.

For instance, surveys imprecision may be the result of an incorrect formulation of the questions or a not enough size of the sample. Bias in surveys is the result of an incorrect selection of the sample and non-response. The first issue may be eliminated through a random sample. The second problem is impossible to complete eliminate as a 100% response rate can't be achieved in practice. A high response rate (more than 80%) is necessary. "Small random samples with high response rates are more valuable than large non-random samples or those with low response rates" (Evans, pp. 303, 1991).

Added to this, researchers need to control method variance as it may be a determinant of biasing effect. Method biases influence on results and the validity of conclusions (Podsakoff & MacKenzie, 2003). There are different sources of method biases such as when the predictor and criterion variables are obtained from the same source, when respondents are influenced by prior events or when respondents are consistent in all their answers. From this, procedural and statistical methods of control should be considered (Podsakoff & MacKenzie, 2003).

Regarding modeling stage of the logistic regression, different kinds of errors may be committed. Error type I occur when too much variables are included in the model. Error type II happens when relevant variables are not considered. Finally, error type III occurs when an incorrect associate direction is assigned to a variable. An adequate sample size may contribute to minimize these errors (Ayçaguer & Utra, 2004).

### **3.4. Measurement instruments**

Due to the well-established reputation of questionnaires to collect data (S. Jones, Murphy, Edwards, & James, 2008) and their advantages to evaluate large and wide-ranging groups of persons (Bennion & Adams, 1986), they were considered the most appropriate methodological tool to collect data about visitors' behaviours (see Annex I).

Questionnaires are one of the most used techniques to obtain information from almost any population. Despite they don't allow to analyze complex issues in depth, they let collecting information on past events of respondents. Finally, they have a great ability to standardize data, allowing the statistical analysis.

There are different types of questionnaires: by mail, by phone, online and personal interview. The inconvenient with questionnaires by mail o by phone is that is not possible to control the respondent answers. Added to this, questionnaires by mail can have a low response rate.

Regarding personal interviews, literature explains that they have some disadvantages such as the high cost to conduct them (time and money consuming), the interviewers' training required and the great control needed to obtain an accurate sample. Interviewer

bias should be minimized. Added to this, some personal questions may be difficult to answer (Hill & Alexander, 2000).

However, personal interviews have also some advantages such as the possibility to help respondent to understand questions or the visual prompts that interview can obtain. A face to face interview allows obtaining more and better customer's information (Hill & Alexander, 2000). Added to this, it allows interviewing people from any educational level, material support and the number of non respondents or evasive respondents are reduced. From these reasons the present study conducts personal interviews.

As questionnaires are carried out at some specific points in the street, they should be quite short (no more than 15 minutes) (Hill & Alexander, 2000). The anonymous questionnaire is available in Spanish, Catalan, English, French and Russian so language shouldn't be an impediment to complete it.

Two different questionnaires are developed. One oriented to those respondents express pass holders and the other one for non-express pass holders. Both questionnaires comprise 30 items. The first part of the questionnaire comprehends questions related with the express pass: awareness of existence, prior experiences and satisfaction with the priority service. Motivations to purchase or not purchase of the express pass were also asked with a descriptive goal, as a first approximation on this issue. Then, questions about waiting times appear: attitude towards waiting times, prior experiences and satisfaction with waits. Follow this, questions about the characteristics of the trip and the visit are asked: trip and visit motivation, length and cost of the trip, party trip. Finally, personal data is required: nationality, place of residence, age and household income.

The questionnaire includes different types of questions: open questions (age, nationality and cost of the trip) and closed questions. Regarding closed questions, there are dichotomous questions where respondent can only choose between two alternatives (have you purchased an express pass? yes/no) and there are also categorical questions: with suggested answers or rating scales such as Likert scale or semantic differential scale) (Hill & Alexander, 2000)

Sensitive or personal questions (such as the question related with household incomes) are introduced at the end of the questionnaire. In this way, they don't spoil the collection of other data. When people arrive to these questions and they don't want to answer them, then they just return the survey with the rest of information. It is important that interviewers clarify that people don't need to complete the entire survey if they don't want.

Added to this, it is necessary to consider tourist's subjectivity in some questions, whose veracity and reliability cannot be checked. In order to avoid these issues, effective measurement instruments and appropriate research design are necessities (Jovell, 1995).

A pilot survey was conducted in order to fully adapt the questionnaire to the conditions of the study area. The principal goal of this pre-test is to check if the questions are understood, if they are well formulated, if any question is difficult to answer or if some important question is not considered. The pilot study is conducted with members of the target public who are not part of the sample (Hill & Alexander, 2000) The results of this pilot study are not interpreted.

### **3.4.1. Independent Variables: measurement and codification in SPSS software**

Numerical, categorical (dichotomous and polytomous variables) and ordinal variables are considered for this study. The following paragraphs expand on the name of the constructs, the name of the variables (in brackets), how they will be measured and coded in Spss.

**Age (AGE):** It is measured with an open question. It is a quantitative variable.

**Gender (GENDER):** It is measured with a dichotomous closed question (Male-Female). It is a categorical variable. Score recoded to 0=Male; 1=Female.

**Nº of people in the household (PEOPLE):** An open question asks about how many people live in the household. It is a quantitative variable.

**Household incomes (HOUSEHOLD INCOME):** Household income per year (gross income) is measured as the sum of the incomes of each household member during 2013. A similar scale of Alegre, Cladera, & Sard (2011) was used. However, some countries like Spain usually measure household income per month (net income). Thus, questionnaires are adapted to this and equivalents of monthly incomes were then used for the analysis. All the data was all gathered in a single variable (Household Income per year). It is an interval variable (treated as an ordinal variable). Score recoded to: 1= Less than 20.000 euros, 2= Between 20.000 and 40.000 euros, 3= Between 40.000 and 80.000 euros, 4= More than 80.000 euros.

**Trip motivation (TRIP MOTIVATION):** Customers are consulted with a categorical question with suggested answers about their principal trip motivation. We decided to adapt the Beerli and Martín (2004) typology (based on Fodness (1994) typologies). We suggest four dimensions: knowledge of other cultures (intellectual improvement, to know new, different places, to attend cultural event), relaxation (rest and relaxation, to alleviate stress and tension), entertainment (to seek diversion and entertainment, to do exciting things) and other motivations (to tell friends about the experiences on vacation, because live near the theme park). It is a categorical polytomous variable. Score recoded to: 1=Culture, 2=Rest and relaxation, 3=Entertainment, 4= Others.

**Visit motivation (VISIT MOTIVATION):** In order to measure visit motivation, we adapted McClung (1991) classification in a categorical closed question with three suggested answers: family, thrill and leisure. The factor 'family' has to do with people who main motivations are related to sharing time with family, attractions for families and rides for children. The factor 'thrill' comprises people who main motives are related

with roller coasters, water rides and other thrilling rides. The factor 'leisure' includes people whose are principally motivated by shows, restaurants and shops. It is a categorical polytomous variable. Score recoded to: 1=Family, 2=Thrill, 3=Leisure.

**Prior purchase of express pass (PRIOR.PURCHASE):** Visitors were asked if they had had prior experience with express passes with a dichotomous question: 0=no, 1=yes. It is a categorical variable.

**Prior experiences with express pass (HOW OFTEN):** Added to this, for those who answered 'yes', the frequency of purchase was also asked (1=Never, 2=Just once or twice, 3=Seldom, 4=Often, 5=Normally I do). This is an ordinal variable called.

#### **Satisfaction with the purchase of the express pass on previous occasions**

**(SATISFACTION):** It was measured with a five-point scale from very dissatisfied to very satisfy. Hensley and Sulek (2007) used a similar scale to measure satisfaction with waiting times and the service. It is an ordinal variable (score recoded from 1 to 5, where 1 is very dissatisfied and 5 is very satisfied).

**Prior information on waiting times (PRIOR.INFORMATION):** People were asked if they had prior information on waiting times before to visit the theme park or not. It is a dichotomous question coded as: 0=no, 1=yes.

**Prior experiences with waiting times at theme parks (PRIEXW):** Visitors were asked how they evaluate prior experiences with waiting times at theme parks with a five-point scale, from strongly negative to strongly positive. It is an ordinal variable (score recoded from 1 to 5, where 1 is strongly negative and 5 is strongly positive).

**Prior visits to theme parks: irregular or regular visitors (PRIOR VISIT.THEME.PARK):** Frequency of visit to theme parks was also required through a categorical scaling with two options. Score recoded to 0=Once a year or less, 1=More than once a year.

**Expected waiting times (WAITING.EXPECTATION):** Similarly than Davis & Heineke (1998), we asked customers how long they had expected to wait at the theme park. We requested if they expect to wait long, medium or short waits at the theme park. It is a categorical polytomous variable.

**Perceived waiting times (WAITING.PERCEPTION):** Visitors were asked about how long they have perceived waiting times comparing with their expectations of waiting times. A categorical question with three suggested answers was formulated: 'longer than expected', 'shorter than expected' and 'as expected'. It is a categorical polytomous variable.

**Attitude towards waiting times (ATTITUDE TOWARDS WAITING):** Customer's attitude towards waiting may be measured in different ways. For instance, Nah (2004) suggests considering satisfaction and frustration to analyse attitude towards waiting times. Rose et al. (2003) in their research on web download time used a four point scale

from “not significant delay,” to “intolerable delay”. Mishra et al. (2014) analyse attitude toward waiting with a factor analysis of eleven items, with a five-point Likert-type scales. Bennett (1998) also explored attitude towards queuing in supermarkets considering aspects such as annoyance, stress and frustration.

For this study, attitude towards waiting times were measured through three questions about annoyance, stress and frustration (Bennett, 1998). Each question was measured with a five-point scale (from 1=not at all annoying to 5=very annoying; from 1=not at all stressful to 5=very stressful, from 1=not at all frustrating to 5=very frustrating). A factorial analysis will be conducted in order to group items in a single quantitative variable.

As Bennett (1998) suggests in his study about attitude towards queuing at supermarkets, a control question (five-point scale) was also required: “In general I really dislike having to wait in queues”. This question was included in the questionnaire but not following the previous questions about attitude.

**Attitude towards the express pass (ATTITUDE.PASS):** Attitude towards the express passes was measured with a five-point scale (from 1=strongly negative to 5=strongly positive attitude). Prior literature also measure attitude with a five-point Likert scale (Ruiz-Molina & Gil-Saura, 2008). It is an ordinal variable.

**Willingness to pay for an express pass in a future visit (WTP):** How much a visitor is willing to pay is measured with an open-ended question. It is a quantitative variable.

**Repurchase of the express pass (REPURCHASE):** Visitors were asked if they would be willing to repurchase an express pass on a future visit to the theme park. It is five-point scale from definitely not too definitely.

**Behaviour patterns (BEHAVIOUR.PATTERN):** As other prior studies Type A and Type B behaviour patterns were measured with "Bortner's Short Rating Scale of Pattern A" (Tay et al., 2003). Bortner (1969) developed a scale that had 14 items and each items had two opposite behaviours. The person should indicate whether he was closer to the pole B or A. In order to improve the reliability of the scale, only four items of the Bortner's Short Rating Scale were used: not competitive-very competitive, patient-impatient, take things one at a time- try to do many things at once, slow doing things-fast doing things (Tay et al., 2003). Five-point scales were used to measure each item of the scale (Bennett, 1998). Finally, a factorial analysis will be conducted in order to group items in a single quantitative variable.

**Cost of the trip (TOTAL COST TRIP):** The approximate total cost of trip (including transportation, lodging, entrance to the theme park and food) is measured with an open question. This question is also considered as a ‘proxy’ of level of income: some people don’t want to answer about incomes but are willing to answer about cost of the trip. For researcher this data is also valid in order to analyze how money influences on tourist

behaviour. Total cost of the trip per day and per person is calculated. It is a quantitative variable.

**Party (N° OF PEOPLE IN THE PARTY):** The number of people who are travelling together is also asked with an open question. This data is also useful in order to calculate the cost of the trip per person (when respondents provide the cost of the trip per party then we divide by the number of members of the group). It is a quantitative variable.

**Group dynamics (WITH WHOM):** Prior literature in tourism suggests that groups may be consisted of: visited alone, spouse/partner, children) and friends/relatives (Gitelson & Kerstetter, 1995). As groups of people that visit theme parks are multiples and varied, a similar classification is applied. People may visit the park with their friends, with their partners, with their families or even just alone. Regarding families, we believed desirable to distinguish families without kids, with kids under 13 years old and with kids over 13 years old. Families' behaviours may be different when children or teenagers are present. It is a categorical polytomous variable. Score recoded to: 1= Alone, 2= As a couple, 3= Family and/or friends without kids, 4= Family and/or friends with kinds under 13, 5= Family and/or friends with kinds over 13, 6= Family and/or friends with kinds of mixed ages, 7= Friends.

**Length of the holiday trip (LENGTH HOLIDAY TRIP):** An open question asked about the number of nights of the total trip of the visitant. All the nights spent away from their place of residence in the current trip are considered. For excursionists, they have to complete this question with '0'. It is a quantitative variable.

**Length of the visit (N° DAYS AT THEME PARK):** The number of days the person visit the theme park is also measured with an open question. It is a quantitative variable.

**Length of the visit (HOURS SPENT AT THEME PARK):** The number of hours the person visit the theme park is also measured with an open question. It is a quantitative variable.

**Annual pass (ANNUAL PASS):** If the person has or not a annual passes (unlimited access to the theme park) is measured with dichotomous questions (0=No, 1=Yes-). It is a categorical variable.

**Day of the visit (VISIT DAY):** The day when the respondent visited the theme park is also asked with a closed dichotomous question: weekend or weekday. If respondents explain they have visited the theme park many times, then the last time they visited the park will be the experience they have to take into account to answer the questionnaire. It is a categorical variable. Score recoded to 0=Weekday, 1=Weekend.

**Comfort of the waiting environment (COMF):** It is an ordinal question, where respondents have to measure how comfortable they perceive the waiting environment at the theme park. Score recoded from 1=not at all uncomfortable to 5=very uncomfortable.

**Weather conditions (WEATHER):** Respondents are asked about the weather conditions when they visited the theme park. It is a categorical variable, score recoded to 1=sunny comfortable, 2=sunny too hot, 3=cloudy, 4=rainy.

**Region size (REGION):** Region size is measured with a categorical question with four suggested answers: large city, small/medium city, town and rural area. It is a categorical polytomous variable. Score recoded to 1=large city, 2=small/medium city, 3=town and 4=rural area.

**Pace of life (PACE):** The pace of life of the respondent is measured with a semantic differential scale from 1='totally hectic pace of life' towards 5='totally slow pace of life'. It is an ordinal variable.

**Nationality (COUNTRY) /Culture (MONO.POLI):** In order to differentiate monochronic and polychronic culture, nationality of the respondent is asked with an open question. Anglo-Saxon and Scandinavian countries like Canada or England are classified as monochronic cultures. In contrast, Asian and Latin American countries are classified as polychronic cultures (Hall, 1983; Robbins et al., 2008; Rose et al., 2003; J. Usunier, 1991). It is a categorical variable. Score recoded to 0=monochronic and 1=polychronic.

Added to this, the variable **LOC** codify people from Spain with 0= from other country and with 1=from Spain. Finally, if the person is from Spain, the province was also asked with an open ended question (**PROVINCE**).

**Awareness of the express pass (AWARENESS):** Customers were asked if they are aware or not about the express pass system. It is a dichotomous variable recoded as: 0=no, 1=yes.

**Influence of promotional and marketing strategies (FIND.OUT):** In order to explore this dimension, respondents are asked about how they find out the express pass. This is a categorical variable with six suggested answers. Score recoded as 0=no aware it exists, 1=on the internet, 2=information at hotel, 3=friends and family recommendation, 4=travel agency recommendation, 5=advertisement in theme park.

### 3.5. Data collection

For personal interviews well-trained interviewers are required to ensure survey validity. Thus, students who are part of the research team were trained in advance in order to avoid influencing on the respondent and biasing the questions. This risk is particularly normal as interviewers were also visitors of the theme park.

Interviewers should be patient: if respondent does not understand the question they should try to explain the question in another way. Added to this, interviewers should find a way to make the respondent feel comfortable and don't invade the respondent's space. Finally, interviewers should always thank the person for the time given.

Four interviewers conducted the field work during weekdays and weekends in June, July and August of 2013 (peak season). Tourists were consulted when they left the park, between 5 and 8 pm. We think that it was the right moment to ask if they had purchased or not the express pass.

Most of the tourists were interviewed while they were waiting for the train. As literature explain, unfilled moments like waiting that something happen are adequate to interview people. It is an additional time people may focus on external things (Solomon, 2008). They are normally relaxed and available to answer in a positive attitude.

In the first place, interviewers introduce themselves to the possible candidate to be interviewed. A brief introduction about who are they, what is the aim of the study and clarifying that the survey will last a short time are necessary.

In second place, the respondent must meet certain characteristics to complete the survey (they must have visited Port Aventura and be over 16 years old). If respondents pass this first filter, then they continue completing the survey. People who have only visited the Aquatic park of Port Aventura (they have to pay a separate ticket) haven't been considered. Express pass system is only available at Port Aventura.

Thirdly, interviewers need to identify if respondents have purchased an express pass in Port Aventura. If they answered yes, then a specific questionnaire for express pass holder is selected. They have to continue answering the questionnaire keeping in mind their role as 'express pass holder'.

The data collection presents certain limitations. Tourists at low season were not considered for the present study. Added to this, tourists who travel by car or private buses were not captured as we didn't have access to the theme park's parking. Tourists who stay inside the theme parks' hotels were not able to be interviewed.

Table 6 shows the main characteristics of the present research.

**Table 6: Technical details of the present research**

Universe	Visitors of Port Aventura (express pass holders and no holders)
Geographical scope	International
Sample size	971 consumers (665 holders and 306 no holders)
Sample design	Personal survey to customers leaving the theme park
Data collection period	June-August 2013
Statistical techniques	Logit regression
Statistical software	SPSS

### 3.6. Preliminary analysis of the data

A preliminary examination of the data can be relevant in order to detect missing data and outliers. Missing data may appear for complete units or for certain variables. The first case may occur when some people included in the sample don't want to participate.

The second case may occur when researchers have information about certain questions but not for other questions for the same individual (the individual refuse to answer certain questions or the interviewer omitted information when collecting or entering data)(Ayçaguer & Utra, 2004). The loss of information may reduce the sample size and influence on the estimation process. For this study, the cut-off point was set at >11,7% missing data. The variables ‘length of the holiday trip’ (with 16,7% of missing data), ‘total cost of the trip’(with 30,3% of missing data) and ‘annual pass’(with 11,7% of missing data) have high percentages of non-response rate and researchers decided not to include them in the logit model.

Regarding outliers, it is also necessary to check the presence of them (Pallant, 2013). They may be the result of procedural errors or extraordinary events (Ayçaguer & Utra, 2004). The inspection of residuals may be key for detecting those cases (Pallant, 2013). As Ayçaguer and Utra (2004) suggest researchers may remove or keep outliers. In this study, there are observations that don’t follow the structural pattern of the rest of the data but that can be interesting for the research. From this, we will conduct the logistic model keeping and then removing outliers to compare the results.

### 3.6.1. Descriptive statistics

As we can see in Table 7, from the total sample (971), a 31.5 % of the respondents (306) purchased the priority service. The other 68,5% are non-express pass holder (665 people).

**Table 7: Frequency of Express pass holders/ no holder**

		Frequency	Percentage
Valid	Non-express pass holder	665	68,5
	Express pass holder	306	31,5
	Total	971	100,0

Regarding demographic aspects, the average age of the respondents is 28 years old. Considering these results, the public of the theme park tend to be young. Descriptive statistics about household incomes indicate that, for non-express pass holders, a 62,7% have between 40.000 euros and less than 20.000 euros. A 37,3% are customers with household incomes between 40.000 euros and more than 80.000 euros. For express pass holders, a 55,1% have household incomes between 40.000 euros and more than 80.000 euros. A 44,9% have between 40.000 euros and less than 20.000 euros. This shows that non-express pass holders have higher percentages of people with low household incomes.

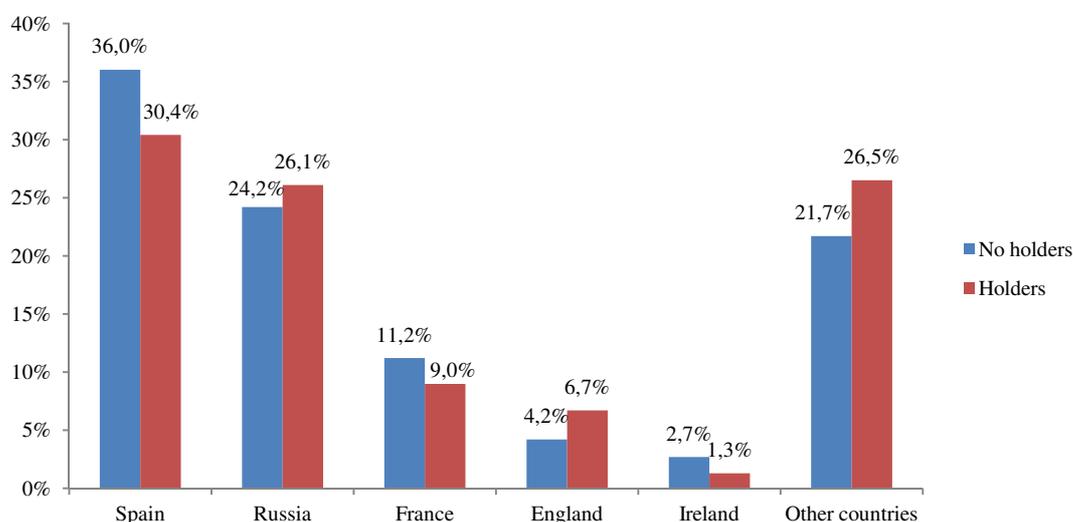
In relation to nationality, a 34,6 of the total sample is from Spain and the 65% from other countries (see Table 8 ).

**Table 8: Descriptive statistics: Nationality (total sample)**

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Other country	631	65,0	65,3	65,3
Spain	336	34,6	34,7	100,0
Total	967	99,6	100,0	
Missing	4	,4		
Total	971	100,0		

In both groups (express pass holders and non-express pass holders), Spain, Russia, France and England appear as the principal four countries of origin of respondents. These results coincides with what his manager in 2014 expressed: these countries are the most relevant markets of the theme park (Aldecoa, 2014). Regarding the express pass system, Russia and England have greater percentages of express pass holders than non-express pass holders. There is a 1,9% more of Russian people holders (26.1%) than Russian people no holders (24.2%). There is a 12.5% more of English people holders (6.7%) than English people no holders (4.2%). In contrast, Spain and France have greater percentages of non-express pass holders (see Figure 7) There is a 6% more of Spanish no holders than Spanish holders. There is a 2.2% more of French people no holders (11.2%) than holders (9%). There is a 1.4% more of Irish people no holders (2,7%) than holders (1,3%).

**Figure 7: Percentages of frequencies per country**



Added to this, from the total of non-express pass holders; there is a 41% from Barcelona and a 30.1% from Tarragona. Balearics and Biscay have the third place with a 3.5%. From the total of express pass holders, the major percentage is also people from Barcelona (39.2%) and Tarragona (26.8%). Las Palmas is the third province with more percentage (8.2%) and Balearics the fourth province (6.2%).

Regarding specific characteristics of the trip for the total sample, the media of the length of the holiday trip is 6 nights; visitors spend a media of 1 day at the theme park and the

visit last near 10 hours. The media of the total cost of the trip (per person and per day) is about 88 euros (see Table 9).

**Table 9: Descriptive statistics: characteristics of the trip (total sample)**

		length of holiday trip	total cost trip per day per person	number of people in the party	number of days at the theme park	hours spent at the park
N	Valid	809	677	952	907	920
	Missing	162	294	19	64	51
Mean		6,27	88,3502	4,36	1,23	9,82
Standard deviation		6,156	150,61848	7,731	,626	8,257

Regarding specific characteristics of the trip for express pass holders and non-express pass holders the media of the length of the holiday trip is for both groups 6 nights and they spend as average 1 day at the theme park. For non-express pass holders, the visit to the theme park last near 9 hours and for express pass holders near 11 hours. The media of the total cost of the trip (per person and per day) is about 84 euros for non-express pass holders, and 98 euros for express pass holders (see Table 10). Finally, non-express pass holders have an average of five people in the party and express pass holders an average of four people in the party. Thus, we can see that customers who have the express pass spend more time in the park than customers who wait in regular lines. Added to this, express pass holders spend more money in their trips than non-express pass holders.

**Table 10: Descriptive statistics: characteristics of the trip (non-express pass holders)**

		length of holiday trip	total cost trip per day per person	number of people in the party	number of days at the theme park	hours spent at the park
N		536	453	649	607	626
	Missing	129	212	16	58	39
Mean		6,31	83,5326	4,58	1,21	9,14
Median		5,00	44,4444	3,00	1,00	8,00
Standard deviation		5,624	170,08664	9,009	,577	6,338

**Table 11: Descriptive statistics: characteristics of the trip (express pass holders)**

		length of holiday trip	total cost trip per day per person	number of people in the party	number of days at the theme park	hours spent at the park
N		273	224	303	300	294
	Missing	33	82	3	6	12
Mean		6,19	98,0932	3,90	1,28	11,27
Median		5,00	66,6667	3,00	1,00	8,00
Standard deviation		7,094	99,95043	3,710	,714	11,182

Regarding with whom tourist visit the theme park, the highest percentage belongs to families and friends without kids (42%). Then, a 33,1% of the visitors visit the theme park with families and friends with kids. Finally, lower percentages are for couples (22,2%) and people who visit the theme park alone (1,6%). Analyzing families with kids, the highest percentages are for families for kids under 13 years old.

**Table 12: Descriptive statistics: with whom visit the theme park (total sample)**

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Alone	16	1,6	1,7	1,7
as a couple	216	22,2	22,4	24,1
family and/or friends without kids	214	22,0	22,2	46,3
family and/or friends with kids under 13	166	17,1	17,2	63,6
family and/or friends with kids 13 or over	82	8,4	8,5	72,1
family and/or friends with kids of mixed ages	74	7,6	7,7	79,8
Friends	195	20,1	20,2	100,0
Total	963	99,2	100,0	
Missing	8	,8		
Total	971	100,0		

Regarding descriptive statistics about the express pass, the majority of the respondents of the total sample were aware of the existence of the express pass (84.1%) (see Table 13). The greater percentage of the respondents said they have discovered the service through advertising in the theme park (31%). Family and friends recommendation (25,7) and internet (16,8) also appeared as relevant forms of how people find out the express pass (see Table 14). Added to this, for non holders, a 33,1% find out express pass advertisement in theme parks, a 22,9% through friends and family recommendation and a 16,3% find out the service on the internet. For holders, a 31% find out the express pass advertisement in theme parks, a 35,4% through friends and family recommendation and a 20,1% on the internet. Thus, advertising on the place, recommendation of partners and internet are important marketing channels associated with the purchase of the express pass.

**Table 13: Descriptive statistics: awareness of the express pass (total sample)**

	Frequency	Percentage	Percentage valid	Cumulative Percentage
No aware	141	14,5	14,7	14,7
Aware	817	84,1	85,3	100,0
Total	958	98,7	100,0	
Missing	13	1,3		
Total	971	100,0		

**Table 14: Descriptive statistics: how customers find out the express pass (total sample)**

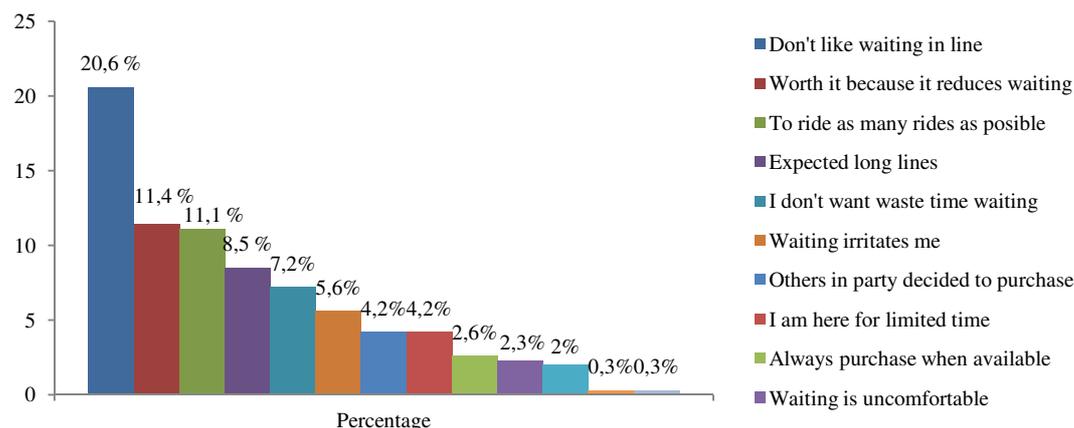
	Frequency	Percentage	Percentage valid	Cumulative Percentage
No aware it exists	141	14,5	15,1	15,1
On the internet	163	16,8	17,5	32,6
Information at hotel	48	4,9	5,2	37,8
Friends and family recommendation	250	25,7	26,8	64,6
Travel agency recommendation	28	2,9	3,0	67,6
Advertisement in theme park	302	31,1	32,4	100,0
Total	932	96,0	100,0	
Missing	39	4,0		
Total	971	100,0		

Regarding customer's attitude toward the express pass, more than half of the express pass holders (72,5%) have a positive or strongly positive attitude toward the express pass system. Only a 7,3% of the holders have a strongly negative or negative attitude toward the pass. In contrast, from the total of no holders, a 19,7% have a strongly negative or negative attitude toward the pass. Only a 28,7% of the total of express passes no holders have a positive or strongly positive attitude.

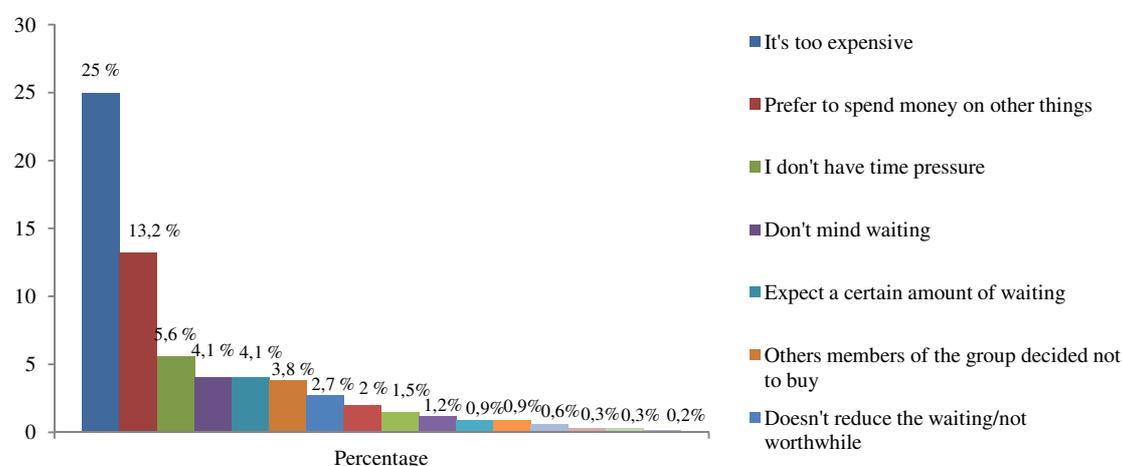
Descriptive statistics were also obtained related with customer's reasons to purchase or not purchase the express pass. Results showed that the most important reason to purchase the express pass was 'I don't like waiting in line' (20,6%). 'Worth it because it reduces waiting' (11,4%) and 'To ride as many rides as possible' (11,1%) were the other two reasons with higher percentages (see Figure 8). Related with the most important reason to decide not to purchase the express pass, it was: 'It's too expensive' (25%). 'I prefer to spend money on other things' (13,2%) and 'I don't have time pressure' (5,6%) were the other two reasons with higher percentages (see Figure 9).

This means that in general people who decide to purchase an express pass are people who consider waiting as something negative for them, as something they have to avoid. In contrast, the reasons of the people who decided to not purchase the express pass have to do with money. Money constraint is the principal reason to not purchase. However, there are a lot of people who also mentioned they prefer to spend money in other things different than an express pass. They give more value to money than to save time. Added to this, for some customers who are on holidays waiting times don't have time pressures and they are not bother if they have to wait.

**Figure 8: Principal motivation to purchase the express pass**



**Figure 9: Principal motivation to NOT purchase the express pass**



Regarding the willingness to pay for an express pass in a future visit to the theme park, only a 10% of the total sample answered they are not willingness to pay for it. However, a 86,1% answered they are (see Table 15)

**Table 15: Descriptive statistics: willingness to pay for an express pass (total sample)**

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
No WTP	97	10,0	10,4	10,4
Yes WTP	836	86,1	89,6	100,0
Total	933	96,1	100,0	
Missing	38	3,9		
Total	971	100,0		

Considering the entire sample, the WTP (willingness to pay) for an express pass in a future visit to the theme parks fluctuated between 0 and 150 euros. The major percentage (21%) was willing to pay 10 euros for the express pass. The media was 17 euros (see Table 16).

**Table 16: Descriptive statistics: how much customers are willingness to pay for an express pass (total sample)**

	N	Median	Standard Deviation
How much is willingness to pay for an express pass?	933	17,1117	14,71482
Valid	933		

### 3.7. Factor Analysis and Scale reliability tests

Factor analysis is a ‘data reduction technique’. It is useful when researchers have different items forming a scale and they need to understand its structure. Thus, factor analysis allow to reduce a large number of related variables in smaller dimensions (Pallant, 2013).

Factor analysis may be exploratory (when researcher want to explore the interrelationships among variables) or confirmatory (used in more advanced stages of research to confirm certain structures underlying a set of variables) (Pallant, 2013). The exploratory factorial analysis (EFA) analyses interdependency of the scale. It studies the correlations between variables. If there is high correlation between items, it is necessary to take out one of them. The confirmatory factorial analysis (CFA) is used in order to check if it is useful to measure what I want to measure with certain scale (validity of the scale). Both factor analyses indicate how items or variables should be grouped. For this study, an exploratory (with SPSS) and confirmatory (EQS) analysis were conducted.

As Pallant (2013) suggests, researchers should first do a descriptive analysis of the data in order to detect irregularities. Then, a correlation analysis is conducted among the items of the scale. Coefficients higher than 0.3 show a strong intercorrelation and factor analysis is recommended (Pallant, 2013). Thus, items with high factor loadings can be grouped into a single factor.

When exploratory factor analysis is conducted in SPSS, measures of sampling adequacy are requested by checking the boxes for KMO (Kaiser-Meyer-Olkin) and Bartlett's test of sphericity. KMO's values greater than 0.8 lead to a good factor analysis. It is an indication that component or factor analysis will be useful for these variables. KMO values less than 0.5 require remedial action, either by deleting variables or by including other variables related. Added to this, Bartlett's test should be less than 0.05 (Pallant, 2013). Then, the most commonly extraction technique to identify the number of underlying dimensions is applied. It is called Principal Component Analysis (PCA).

Researcher will try to find a solution with few factors and that provide a great explanation of the variance (Pallant, 2013). For this study, rotation is not possible as we only have one factor.

Finally, Cronbach measures the reliability of the measurement scale. Researchers should test that all the items measure the same construct and if they have a good internal consistency. They need to remove or add items for a better reliability. Usually indexes are considered to be satisfactory when they are higher than 0.6 (Malhorta, 1993 in Halkos & Matsiori, 2012) or 0.7 (Nunnally, 1978 in Halkos & Matsiori, 2012).

Reliability analysis of the scale to measure ‘Attitude towards waiting’ revealed that Cronbach was 0.877. The value shows an acceptable internal consistency. The factor analysis revealed the Kaiser-Meyer-Olkin (KMO) criterion for sampling adequacy was equal to 0.732 and the Bartlett’s test of sphericity was equal to 1453.141 (with a P-value of 0.000 and 3 degrees of freedom). This shows the procedure is appropriate in this case. The factor ‘Attitude towards waiting’ explains the 80.3 % of the total variation in the data (see Table 17).

**Table 17: Factorial Analysis: Attitude towards waiting (Factor 1)**

	ATTITUDE TOWARDS WAITING
Stressfull	,874
Frustrating	,915
Annoying	,899
Cronbach’s	,877
Total variance explained (%)	80,3%
Kaiser-Meyer-Olkin measure	,732
Bartlett’s test of sphericity	X <sup>2</sup> =1453.141, df=3, Sig.=0.000

a. Extraction method: Principal Component

Reliability analysis of the scale to measure ‘Behaviour Pattern’ is displayed. It revealed that Cronbach was 0.588. Although lower than the Cronbach’s alpha values of other scales the value noted here is considered acceptable given the fewer number of items in this particular scale (Phongsavan, McLean, & Bauman, 2007; Sesso, Kawachi, Vokonas, & Sparrow, 1998). In addition, reliability estimates have ranged from 0.5 to 0.68 for the Bortner scale (Bortner, 1969; Edwards, Baglioni, & Cooper, 1990). The Kaiser-Meyer-Olkin (KMO) criterion for sampling adequacy was equal to 0.689 and the Bartlett’s test of sphericity was equal to 320,583 (with a P-value of 0.000 and 6 degrees of freedom). This shows the procedure is appropriate in this case (KMO higher than 0.5). The factor ‘Behaviour pattern’ explains the 44.8% of the total variation in the data (see Table 18).

**Table 18: Factorial Analysis: Behaviour Pattern (Factor 2)**

	BEHAVIOUR PATTERN
Competitive	,658
Patient	,646
Take things one at time	,733
Slow doing things	,637
Cronbach's	,588
Total variance explained (%)	44,84%
Kaiser-Meyer-Olkin measure	,689
Bartlett's test of sphericity	$X^2$ 320.583,df=6, Sig.=0.000

a. Extraction method: Principal Component.

Additionally, confirmatory analysis (CFA) using robust method and discriminant validity were conducted with EQS (Structural Equation Software) in order to check the multi-item scales for unidimensionality and reliability (Satorra & Bentler, 1994) (see Table 19). Results show that the scale items load on their respective factors. Discriminant validity test also show that these two factors are different from each other and don't overlap. These results demonstrate the validity of the previously factorial structure obtained by EFA. Due to the EQS software limitations, we tested both factors in a two-factor pooled model. For discriminant validity we used the same model where the correlation between the factors was constrained to 1; the chi –squared difference was dramatically greater than the established threshold of 3.84 (Bagozzi & Phillips, 1982).

**Table 19: Confirmatory analysis**

Construct	Unidimensionality					Convergent validity BBNFI	Discriminant Validity $\Delta \chi^2$
	Y-B $\chi^2$	d.f	Y-B p-value	CFI	RMSEA		
'Attitude towards waiting' 'Behaviour Pattern'	54.824	13	0.000	0.974	0.060	0.959	198.875 - 54.824= 144.051

### 3.8. References

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## CHAPTER 4

# **EXPRESS PASS: FINDINGS & DISCUSSION**



## **CHAPTER 4: Express Pass: Findings & Discussion**

### **4.0. Introduction**

The present chapter presents the results and finding of the empirical work on the theme park. Several steps are performed before to conduct the logistic regression. Firstly, different statistic procedures are conducted in order to measure association with the dependent variable. Contingency tables and chi square tests are used to analyze the relationship between the categorical dependent variable and qualitative independent variables. Quantitative independent variables are contrasted by t-test.

Secondly, different statistical tests were conducted among the independent variables in order to reduce collinearity. In this study, independent variables may be categorical, ordinal or numerical variables. As many independent variables may be explaining the same concept (two or more independent variables may be highly correlated), it is necessary to determine this situation before a future analysis. Unacceptable levels of multicollinearity need to be resolved.

Finally, logistic regression models were developed using SPSS software. Entry method was applied. Several logistic regression models were conducted incorporating only external factors, only internal factors and finally a model with both internal and external factors of influence. The results of the different models were interpreted, compared and discussed in relation with prior literature on the subject.

### **4.1. Measurement of the level of association between each of the independent variables with the dependent variables**

The independence chi square test allows determining if there is a relationship or not between the two categorical variables. This test assumes that variables are independent and there is no influence between them (null hypothesis). If it is a significant result, then variables are related (and null hypothesis is rejected).

T-tests are conducted for quantitative variables. This test assumes as null hypothesis that the two groups of the dependent variable respond in the same way with the independent variable. If result is significant then the two groups are different according to the quantitative independent variable (reject the null hypothesis).

For this study, we consider different levels of significance: 0.1 (10%), 0.05 (5%) and 0.01 (1%) (see Table 20). Chi-square test and t-students test were conducted to identify differences in independent variables between the two groups: no holders and holders of the express pass.

**Table 20: Significance levels: independent variables-dependent variable holder/no holder**

<b>0.01</b>	COUNTRY (0.004) PROVINCE (0.001) HOUSEHOLD INCOME (0.000) HOURS SPENT AT THEME PARK(0.000) VISIT DAY (0.000) WTP (0.000) AWARENESS (0.000), FIND OUT (0.000), ATTITUDE.PASS (0.000) PRIOR PURCHASE (0.000) HOW OFTEN (0.000) REPURCHASE (0.000) ATTITUDE TOWARDS WAITING (0.000) BEHAVIOUR PATTERN (0.000) WAITING EXPECTATION (0.000) PRIEXW (0.006) VISIT MOTIVATION (0.000)
<b>0.05</b>	REGION (0.024) SATISFACTION (0.020) PRIOR INFORMATION (0.019) MONO.POLI (0.015)
<b>0.1</b>	COMF (0.069) WAITING PERCEPTION (0,053) TRIP MOTIVATION (0.057) PACE (0.061)
<b>No sig.</b>	AGE (0.763) GENDER (0.108) LOC (0.288), PEOPLE (0.106) N° OF PEOPLE IN THE PARTY (0.205) N° DAYS AT THEME PARK (0.127) WEATHER (0.522) WITH WHOM (0.443) PRIOR VISIT THEME PARK (0.367).

As can be seen in the table, there are variables more significant than others. For instance, the variable ‘Attitude.pass’ has a p-value  $<0.01$  and the variable ‘Pace’ has a p-value  $<0.1$ . This means there are independent variables with higher levels of association with the dependent variable than others. According to literature, those independent variables that show statistically significant association with the dependent variable should be considered for the logit model (Aguayo, 2007). Added to this, some variables such as Age or Gender appear as non significant variables. However, researcher decide to also consider these variables for the logit model. As was explained in chapter 4, substantive procedures not only build models from tested outcomes but also considering theoretical backgrounds (Aguayo, 2007; Jovell, 1995).

#### **4.2. Analysis of the correlation level between independent variables in order to avoid multicollinearity**

In this section, independent variables are tested in order to avoid collinearity with different statistical tests. From the results, certain variables are considered for the logit

model and others are not considered as they present high levels of correlation. The decision to keep some variables and remove others was also taken considering their relevance for the study and the level of significance with the dependent variable (Bello Parias, 2012).

In order to measure association between quantitative variables, Spearman correlation and Pearson correlation were conducted. Results indicated that the variable 'days' had a high correlation with variable 'hours spent at theme park' (sig. 0.000, Spearman coefficient 0.523. Pearson correlation 0.523). Of these variables, researcher decided to include 'hours spent at theme parks' in the logit model. The rest of the quantitative variables didn't show a high correlation between them.

Spearman correlation was conducted between ordinal and quantitative variables in order to measure association. The variables 'attitude.pass' and 'WTP' present high correlation (sig. 0.000, Spearman correlation 0.417). Of these variables, the research maintains the variable 'attitude.pass'. The rest of the variables don't present high levels of correlation.

Point biserial correlation was used to measure correlation between quantitative and nominal or ordinal dichotomous variables. The results show that the variable 'WTP' and the variable 'repurchase' have a high correlation (sig.0.000, 0.440 Pearson, Spearman correlation 0.528). The researcher decides not to consider these variables for the logit model.

In order to measure association between ordinal variables, Spearman correlation was also conducted. A high correlation (more than 0.5) indicates that variables are highly associated and they may be explaining the same concept. The variable 'satisfaction' presents high correlation with the variable 'repurchase' (sig. 0.000. Spearman correlation 0.436) and with the variable 'attitude.pass' (sig. 0.000. Spearman correlation 0.408). The variables 'repurchase' and the variable 'attitude.pass' also have a high correlation (sig. 0.000, Spearman correlation 0.614). Of these variables, the research maintains the variable 'attitude.pass'.

Phi and Cramer's V are the measures of association chosen to calculate the strength and the direction of the relationship between qualitative variables. Phi is only used for variables with two categories. Cramer's V is applied when variables have more than two categories (Alarcón & Parella, 2013; Fletcher, n.d.). A Cramer's V near to 0 demonstrates a poor association between variables. Instead, a Cramer's V near to 1 demonstrates a high level of association. They may be measuring the same concept. A Cramer's V higher than 0.35 means a very strong relationship between variables.

The results show that the variable 'awareness' presents significant relation with the variable 'find out' (sig. 0.000. Phi 0.996. V de Cramer 0.996), with the variable 'province' (sig. 0.001. Phi 0.408. V de Cramer 0.408), and 'country' (sig. 0.000. Phi 0.314 V de Cramer 0.314). Of these variables, the research decides to keep the variable 'find out' for the logit model and don't consider the other variables.

The variable ‘find out about the express pass’ presents significant relation with the variable ‘loc’ (sig. 0.000. Phi 0.304. V de Cramer 0.304). From this, the variable ‘find out’ is chosen for the logit model. The variable ‘prior purchase’ presents significant relation with ‘how often’ (sig. 0.000. Phi 1. V de Cramer 1) and ‘repurchase’ (sig. 0.000. Phi 0.304. V de Cramer 0.304). The researcher maintains the variable ‘prior purchase’ for the logit model. Finally, the variable ‘visit motivation’ presents high correlation with ‘with whom’ (sig. 0.000. Phi 0.536. V de Cramer 0.379). The variable ‘visit motivation’ is maintained in the model.

The following Table 21 shows the independent variables not considered for the logit model as they present high levels of correlation with other independent variables

**Table 21: Independent variables not considered for the logit model (multicollinearity)**

Independent variables not considered for the logit model
– number of days at the theme park (DAYS)
– how much is willing to pay (WTP)
– satisfaction with prior purchases (SATISFACTION)
– repurchase the express pass (REPURCHASE)
– awareness of the express pass (AWARENESS)
– province (PROVINCE)
– country (COUNTRY)
– loc other country/Spain (LOC)
– how often purchase an express pass (HOW OFTEN)
– with whom visit the theme park (WITH WHOM)

### 4.3. Evaluation of the linearity assumption and outliers

Logistic regression does not make assumptions regarding linearity, normality, homoscedasticity and measurement level (Pallant, 2013). However, outliers may influence on the results. From this, before to conduct the logistic regression at the SPSS, Pallant (2013) suggest to tick the box ‘No scientific notation for small numbers in tables’.

### 4.4. Apply modelling strategies: Entry method

For this study, Entry method was chosen. Researcher prefers to go introducing variables to the model. As literature suggests, the decision to maintain or eliminate a variable depend on the researcher (Jovell, 1995). We conducted separated models with only external factors (Model A) and internal factors of influence (Model B). We also conducted a logit model with both internal and external independent variables (Model C).

Independent categorical variables with two or more categories should be specified in SPSS. A reference category will be coded with 0. The SPSS program codifies by default the latter category as the reference category (Aguayo, 2007). However, Pallant (2013) suggests changing this option and putting the first category as the reference category. From this, Model A, B and C were conducted with the first category as the reference category. We also conduct the three models selecting last category as the ‘reference

category' as better interpretations may be obtained (Baggio & Klobas, 2011). They appear in Annex II: Model A.1, Annex III: Model B.1 and Annex IV: Model C.1.

Some literature suggests that ordinal variables may be treated as a quantitative variable (from 1 to 5) or as a nominal variable with dummy variables (Pallant, 2013). The problem with the last option is that may lead to loss of information (Ayçaguer & Utra, 2004). Indeed, Baggio and Klobas (2011) consider ordinal variables as quantitative variables to achieve better interpretations of the odds ratio. Thus, Model A, Model B and Model C consider ordinal variables as quantitative variables. Three versions of these models were also conducted with ordinal variables as categorical variables and appear in Annex V: Model A.2, Annex VI: Model B.2 and Annex VII: Model C.2.

#### 4.4.1. Model A

The predictors have been incorporated by Entry method taking into account theoretical justification of causal relations between variables. Regarding ordinals variables, they are considered as quantitative variables. Nominal variables are introduced as categorical data in SPSS. As Pallant (2013) suggests, first category was chosen as the reference category.

Logit model resulting with the following external variables (Model A): WEATHER, VISIT DAY, FIND OUT, COMF, HOURS SPENT AT THE THEME PARK, N° OF PEOPLE PARTY, MONO.POLI, REGION AND PACE.

The B column contains the regression coefficient. Wald statistics are used to test statistical significance of each coefficient (Sig. column). Exp(B) is the odds ratio.

**Table 22: Model A 'Logit model with external variables'**

**Table 22.1: Case Processing Summary**

Unweighted Cases		N	Percent
Selected cases	Included in analysis	858	88,4
	Missing	113	11,6
	Total	971	100,0
Unselected cases		0	,0
Total		971	100,0

**Table 22.2: Dependent Variable Encoding**

Original value	Internal value
non-express pass holder	0
express pass holder	1

**Table 22.3: Categorical Variables Coding**

		Frequency	Parameter coding				
			(1)	(2)	(3)	(4)	(5)
find out about express pass	no aware it exist	131	,000	,000	,000	,000	,000
	on the internet	141	1,000	,000	,000	,000	,000
	information at hotel	40	,000	1,000	,000	,000	,000
	friends and family recommendation	234	,000	,000	1,000	,000	,000
	travel agency recommendation	25	,000	,000	,000	1,000	,000
	advertisement in theme park	287	,000	,000	,000	,000	1,000
	Weather	sunny comfortable	359	,000	,000	,000	
	sunny too hot	459	1,000	,000	,000		
	Cloudy	36	,000	1,000	,000		
	Rainy	4	,000	,000	1,000		
region-city size	large city	361	,000	,000	,000		
	small/medium city	336	1,000	,000	,000		
	Town	144	,000	1,000	,000		
	Rural	17	,000	,000	1,000		
mono.poli culture	Mono	135	,000				
	Poli	723	1,000				
visit day	Weekday	671	,000				

Weekend	187	1,000				
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**Table 22.4: Omnibus Tests of Model Coefficients**

		Chi-square	df	Sig.
Step 1	Step	171,842	17	,000
	Bloque	171,842	17	,000
	Modelo	171,842	17	,000

**Table 22.5: Model Summary**

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	893,745	,181	,255

**Table 22.6: Hosmer-Lemeshow Test**

Step	Chi-square	Df	Sig.
1	3,432	8	,904

**Table 22.7: Classification Table**

Observed			Predicted		
			non-express pass holder-holder		Percentage Correct
			non-express pass holder	express pass holder	
Step 1	non-express pass holder-holder	non-express pass holder	541	49	91,7
		express pass holder	200	68	25,4
Overall Percentage					71,0

**Table 22.8: Variables in the Equation**

	B	Standard Error	Wald	df	Sig.	Exp(B)	95% C.I. para EXP(B)	
							Inferior	Superior
Step 1 VISIT.DAY(1)	,861	,200	18,531	1	,000	2,366	1,599	3,502
FINDOUT			30,207	5	,000			
FINDOUT(1)	4,237	1,024	17,128	1	,000	69,167	9,301	514,338
FINDOUT(2)	4,989	1,067	21,865	1	,000	146,739	18,131	1187,565
FINDOUT(3)	4,722	1,017	21,563	1	,000	112,437	15,321	825,172
FINDOUT(4)	4,433	1,099	16,261	1	,000	84,213	9,762	726,447
FINDOUT(5)	4,205	1,017	17,106	1	,000	67,024	9,137	491,644
COMF	,099	,072	1,878	1	,171	1,104	,958	1,271
HOURS.SPENT.AT.THEME.PARKS	,023	,011	3,953	1	,047	1,023	1,000	1,046
N°.OF.PEOPLE.PARTY	-,070	,031	5,096	1	,024	,933	,878	,991
MONO.POLI(1)	-,865	,230	14,118	1	,000	,421	,268	,661
REGION			6,889	3	,076			
REGION(1)	-,287	,181	2,512	1	,113	,751	,526	1,070
REGION(2)	-,619	,248	6,205	1	,013	,539	,331	,876
REGION(3)	,019	,608	,001	1	,976	1,019	,309	3,355
PACE	-,173	,080	4,626	1	,031	,842	,719	,985
WEATHER			1,853	3	,603			
WEATHER(1)	-,001	,169	,000	1	,994	,999	,717	1,391
WEATHER(2)	,429	,395	1,179	1	,278	1,535	,708	3,329
WEATHER(3)	-,906	1,194	,576	1	,448	,404	,039	4,199
Constant	-4,026	1,077	13,974	1	,000	,018		

**Table 22.9: Casewise List**

Case	Selected Status	Observed	Predicted	Predicted Group	Temporary Variable	
		non-express pass holder-holder			Resid	ZResid
120	S	1**	,103	0	,897	2,945
195	S	1**	,119	0	,881	2,719
364	S	1**	,012	0	,988	8,994

#### 4.4.2. Model B

Logit model resulting with the following internal variables (Model B): GENDER, AGE, HOUSEHOLD INCOME, PEOPLE, PRIOR PURCHASE, PRIOR INFORMATION, PRIOR VISIT THEME.PARK, PRIEXW, ATTITUDE.PASS, ATTITUDE TOWARD WAITING, WAITING EXPECTATION, WAITING PERCEPTION, TRIP MOTIVATION, VISIT MOTIVATION AND BEHAVIOUR PATTERN.

Ordinals variables are considered as quantitative variables. For categorical variables, first category is considered as the reference category.

**Table 23: Model B ‘Logit model with internal variables’**

**Table 23.1: Case Processing Summary**

Unweighted Cases		N	Percent
Selected cases	Included in analysis	736	75,8
	Missing	235	24,2
	Total	971	100,0
Unselected cases		0	,0
Total		971	100,0

**Table 23.2: Dependent Variable Encoding**

Original value	Internal value
non-express pass holder	0
express pass holder	1

**Table 23.3: Categorical Variables Codings**

		Frequency	Parameter coding		
			(1)	(2)	(3)
trip motivation	Culture	77	,000	,000	,000
	rest and relaxation	161	1,000	,000	,000
	entertainment	392	,000	1,000	,000
	Others	106	,000	,000	1,000
visit motivation	Family	143	,000	,000	
	Thrill	469	1,000	,000	
	leisure attractions	124	,000	1,000	
how long perceive waiting times	longer than expected	333	,000	,000	
	as expected	332	1,000	,000	
	shorter than expected	71	,000	1,000	
waiting expectation	long waits	208	,000	,000	
	medium waits	431	1,000	,000	
	short waits	97	,000	1,000	
prior information on waiting times	No	374	,000		
	Yes	362	1,000		
prior purchase of express pass	No	507	,000		
	Yes	229	1,000		
prior visit to theme parks	Once a year or less	535	,000		
	More than once a year	201	1,000		
Gender	Male	360	,000		
	Female	376	1,000		

**Table 23.4: Omnibus Tests of Model Coefficients**

		Chi-square	df	Sig.
Step 1	Step	285,524	20	,000
	Bloque	285,524	20	,000
	Modelo	285,524	20	,000

**Table 23.5: Model Summary**

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	642,398	,322	,449

**Table 23.6: Hosmer-Lemeshow Test**

Step	Chi-square	Df	Sig.
1	9,605	8	,294

**Table 23.7: Classification Table**

Observed		Predicted			Percentage Correct
		non-express pass holder-holder		Percentage Correct	
		non-express pass holder	express pass holder		
Step 1	non-express pass holder-holder	non-express pass holder	450	47	90,5
		express pass holder	97	142	59,4
Overall Percentage					80,4

**Table 23.8: Variables in the Equation**

	B	Standard Error	Wald	df	Sig.	Exp(B)	95% C.I. para EXP(B)	
							Inferior	Superior
Step 1 GENDER(1)	-,088	,202	,192	1	,661	,915	,617	1,359
AGE	,006	,011	,344	1	,557	1,006	,985	1,028
PEOPLE	-,132	,084	2,452	1	,117	,877	,743	1,034
HOUSEHOLD.INCOME	,242	,115	4,411	1	,036	1,274	1,016	1,597
ATTITUDEPASS	,862	,123	49,057	1	,000	2,369	1,861	3,015
ATTITUDE.TOWARDS.WAITING	,432	,117	13,613	1	,000	1,541	1,225	1,939
PRIOR.INFORMATION(1)	,414	,205	4,073	1	,044	1,513	1,012	2,263
PRIOR.PURCHASE(1)	1,797	,215	69,883	1	,000	6,032	3,958	9,193
PRIEXW	-,173	,137	1,580	1	,209	,841	,643	1,101
PRIOR.VISIT.THEME.PARK(1)	-,715	,242	8,754	1	,003	,489	,305	,786
WAITING.EXPECTATION			5,757	2	,056			
WAITING.EXPECTATION(1)	-,343	,232	2,182	1	,140	,709	,450	1,119
WAITING.EXPECTATION(2)	,318	,334	,904	1	,342	1,374	,714	2,647
WAITING.PERCEPTION			7,250	2	,027			
WAITING.PERCEPTION(1)	,337	,229	2,176	1	,140	1,401	,895	2,193
WAITING.PERCEPTION(2)	,973	,366	7,063	1	,008	2,646	1,291	5,424
TRIP.MOTIVATION			3,167	3	,367			
TRIP.MOTIVATION(1)	,268	,385	,485	1	,486	1,307	,615	2,780
TRIP.MOTIVATION(2)	,216	,354	,373	1	,542	1,241	,620	2,482
TRIP.MOTIVATION(3)	-,293	,435	,453	1	,501	,746	,318	1,750
VISIT.MOTIVATION			9,699	2	,008			

VISIT.MOTIVATION(1)	,896	,296	9,192	1	,002	2,451	1,373	4,374
VISIT.MOTIVATION(2)	,878	,352	6,205	1	,013	2,405	1,206	4,797
BEHAVIOR.PATTERN	,064	,107	,353	1	,552	1,066	,864	1,316
Constant	-5,299	,840	39,816	1	,000	,005		

Table 23.9: Casewise List

Case	Selected Status	Observed	Predicted	Predicted Group	Temporary Variable	
		non-express pass holder-holder			Resid	ZResid
10	S	1**	,022	0	,978	6,606
11	S	1**	,066	0	,934	3,758
27	S	1**	,076	0	,924	3,475
30	S	1**	,101	0	,899	2,977
63	S	1**	,129	0	,871	2,595
84	S	1**	,118	0	,882	2,729
129	S	1**	,128	0	,872	2,605
151	S	1**	,041	0	,959	4,864
154	S	1**	,089	0	,911	3,197
195	S	1**	,136	0	,864	2,523
198	S	1**	,083	0	,917	3,318
199	S	1**	,045	0	,955	4,587
214	S	1**	,017	0	,983	7,670
223	S	1**	,099	0	,901	3,022
232	S	1**	,118	0	,882	2,729
251	S	1**	,035	0	,965	5,288
254	S	1**	,111	0	,889	2,826
255	S	1**	,029	0	,971	5,830

503	S	0**	,917	1	-,917	-3,316
673	S	0**	,941	1	-,941	-3,994
830	S	0**	,901	1	-,901	-3,019
966	S	1**	,059	0	,941	3,984
968	S	1**	,116	0	,884	2,759

#### 4.4.3. Model C

The following section shows the logit model resulting with both internal and external variables: GENDER, AGE, HOUSEHOLD INCOME, PEOPLE, PRIOR PURCHASE, PRIOR INFORMATION, PRIOR VISIT THEME.PARK, PRIEXW, ATTITUDE.PASS, ATTITUDE TOWARD WAITING, WAITING EXPECTATION, WAITING PERCEPTION, TRIP MOTIVATION, VISIT MOTIVATION, BEHAVIOUR PATTERN, WEATHER, VISIT DAY, FIND OUT, COMF, HOURS SPENT AT THE THEME PARK, N° OF PEOPLE PARTY, MONO.POLI, REGION AND PACE. For categorical variables, first category is chosen as the reference category. Ordinal variables are introduced as quantitative variables.

**Table 24: Model C ‘Logit model with external and internal variables’**

**Table 24.1: Case Processing Summary**

Unweighted Cases		N	Percent
Selected cases	Included in analysis	675	69,5
	Missing	296	30,5
	Total	971	100,0
Unselected cases		0	,0
Total		971	100,0

**Table 24.2: Dependent Variable Encoding**

Original value	Internal value
non-express pass holder	0
express pass holder	1

**Table 24.3: Categorical Variables Codings**

		Frequency	Parameter coding				
			(1)	(2)	(3)	(4)	(5)
find out about express pass	no aware it exist	107	,000	,000	,000	,000	,000
	on the internet	101	1,000	,000	,000	,000	,000
	information at hotel	33	,000	1,000	,000	,000	,000
	friends and family recommendation	171	,000	,000	1,000	,000	,000
	travel agency recommendation	15	,000	,000	,000	1,000	,000
	advertisement in theme park	248	,000	,000	,000	,000	1,000
	Weather	sunny comfortable	285	,000	,000	,000	
	sunny too hot	358	1,000	,000	,000		
	Cloudy	28	,000	1,000	,000		
	Rainy	4	,000	,000	1,000		
trip motivation	Culture	72	,000	,000	,000		
	rest and relaxation	144	1,000	,000	,000		
	Entertainment	361	,000	1,000	,000		
	Others	98	,000	,000	1,000		
region-city size	large city	279	,000	,000	,000		
	small/medium city	269	1,000	,000	,000		
	Town	112	,000	1,000	,000		
	Rural	15	,000	,000	1,000		
waiting expectation	long waits	193	,000	,000			
	medium waits	392	1,000	,000			
	short waits	90	,000	1,000			

visit motivation	Family	126	,000	,000			
	Thrill	436	1,000	,000			
	leisure attractions	113	,000	1,000			
how long perceive waiting times	longer than expected	304	,000	,000			
	as expected	306	1,000	,000			
	shorter than expected	65	,000	1,000			
prior information on waiting times	No	350	,000				
	Yes	325	1,000				
prior purchase of express pass	No	463	,000				
	Yes	212	1,000				
prior visit to theme parks	Once a year or less	491	,000				
	More than once a year	184	1,000				
mono.poli culture	Mono	112	,000				
	Poli	563	1,000				
visit day	Weekday	528	,000				
	Weekend	147	1,000				
Gender	Male	332	,000				
	Female	343	1,000				

**Table 24.4: Omnibus Tests of Model Coefficients**

		Chi-square	df	Sig.
Step 1	Step	360,501	37	,000
	Bloque	360,501	37	,000
	Modelo	360,501	37	,000

**Table 24.5: Model Summary**

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	484,259	,414	,580

**Table 24.6: Hosmer-Lemeshow Test**

Step	Chi-square	Df	Sig.
1	4,550	8	,804

**Table 24.7: Classification Table**

Observed		Predicted			
		non-express pass holder-holder		Percentage Correct	
		non-express pass holder	express pass holder		
Step 1	non-express pass holder-holder	non-express pass holder	419	41	91,1
		express pass holder	63	152	70,7
Overall Percentage					84,6

**Table 24.8: Variables in the Equation**

	B	Standard Error	Wald	df	Sig.	Exp(B)	95% C.I. para EXP(B)	
							Inferior	Superior
Step 1 GENDER(1)	-,067	,239	,079	1	,779	,935	,585	1,494
AGE	,006	,013	,236	1	,627	1,006	,981	1,033
PEOPLE	-,091	,105	,759	1	,384	,913	,744	1,121
HOUSEHOLD.INCOME	,149	,141	1,110	1	,292	1,160	,880	1,529
ATTITUDEPASS	1,013	,150	45,379	1	,000	2,755	2,051	3,700
ATTITUDE.TOWARDS.WAITING	,510	,147	12,091	1	,001	1,665	1,249	2,220

PRIOR.INFORMATION(1)	,008	,250	,001	1	,973	1,008	,618	1,647
PRIOR.PURCHASE(1)	1,497	,253	35,039	1	,000	4,468	2,722	7,335
PRIEXW	-,133	,166	,641	1	,423	,876	,633	1,212
PRIOR.VISIT.THEME.PARK(1)	-,725	,290	6,279	1	,012	,484	,274	,854
WAITING.EXPECTATION			6,909	2	,032			
WAITING.EXPECTATION(1)	-,499	,280	3,177	1	,075	,607	,351	1,051
WAITING.EXPECTATION(2)	,329	,387	,723	1	,395	1,389	,651	2,964
WAITING.PERCEPTION			5,456	2	,065			
WAITING.PERCEPTION(1)	,427	,280	2,322	1	,128	1,532	,885	2,652
WAITING.PERCEPTION(2)	,954	,428	4,980	1	,026	2,597	1,123	6,003
TRIP.MOTIVATION			,522	3	,914			
TRIP.MOTIVATION(1)	,319	,456	,491	1	,484	1,376	,563	3,361
TRIP.MOTIVATION(2)	,272	,422	,415	1	,519	1,312	,574	3,000
TRIP.MOTIVATION(3)	,263	,531	,246	1	,620	1,301	,460	3,682
VISIT.MOTIVATION			8,830	2	,012			
VISIT.MOTIVATION(1)	1,098	,371	8,738	1	,003	2,998	1,448	6,207
VISIT.MOTIVATION(2)	,750	,429	3,055	1	,081	2,117	,913	4,907
BEHAVIOR.PATTERN	,100	,126	,630	1	,427	1,105	,863	1,415
VISIT.DAY(1)	,998	,303	10,833	1	,001	2,712	1,497	4,913
FINDOUT			24,044	5	,000			
FINDOUT(1)	4,565	1,083	17,774	1	,000	96,084	11,506	802,394
FINDOUT(2)	4,967	1,159	18,381	1	,000	143,612	14,826	1391,093
FINDOUT(3)	4,788	1,069	20,062	1	,000	120,018	14,770	975,212
FINDOUT(4)	5,169	1,276	16,395	1	,000	175,670	14,393	2144,044
FINDOUT(5)	4,244	1,065	15,878	1	,000	69,668	8,640	561,771

COMF	,176	,112	2,457	1	,117	1,192	,957	1,485
HOURS.SPENT.AT.THEME.PARKS	,018	,017	1,058	1	,304	1,018	,984	1,054
N°.OF.PEOPLE.PARTY	-,131	,043	9,119	1	,003	,878	,806	,955
MONO.POLI(1)	-,607	,368	2,719	1	,099	,545	,265	1,121
REGION			1,744	3	,627			
REGION(1)	-,160	,266	,362	1	,547	,852	,505	1,436
REGION(2)	-,477	,377	1,596	1	,206	,621	,296	1,301
REGION(3)	-,437	,938	,217	1	,641	,646	,103	4,059
PACE	-,194	,122	2,550	1	,110	,824	,649	1,045
WEATHER			2,047	3	,563			
WEATHER(1)	-,310	,252	1,516	1	,218	,734	,448	1,201
WEATHER(2)	,267	,608	,192	1	,661	1,306	,397	4,297
WEATHER(3)	-,511	1,600	,102	1	,749	,600	,026	13,809
Constant	-9,139	1,593	32,915	1	,000	,000		

Table 24.9: Casewise List

Case	Selected Status	Observed	Predicted	Predicted Group	Temporary Variable	
		non-express pass holder-holder			Resid	ZResid
10	S	1**	,006	0	,994	12,855
84	S	1**	,102	0	,898	2,965
103	S	1**	,120	0	,880	2,703
151	S	1**	,050	0	,950	4,340
154	S	1**	,068	0	,932	3,701
195	S	1**	,033	0	,967	5,441
198	S	1**	,116	0	,884	2,756

199	S	1**	,083	0	,917	3,332
214	S	1**	,020	0	,980	6,977
232	S	1**	,059	0	,941	3,986
251	S	1**	,114	0	,886	2,791
254	S	1**	,140	0	,860	2,476
255	S	1**	,087	0	,913	3,243
364	S	1**	,039	0	,961	4,959
448	S	0**	,906	1	-,906	-3,097
474	S	0**	,706	1	-,706	-1,551
673	S	0**	,981	1	-,981	-7,194
830	S	0**	,935	1	-,935	-3,782
835	S	0**	,850	1	-,850	-2,376
885	S	1**	,108	0	,892	2,869
968	S	1**	,223	0	,777	1,865

## 4.5. Interpretation of results

### 4.5.1. Interpretation of results Model A

The goodness-of-fit of Model A is ascertained using a Hosmer and Lemeshow goodness-of-fit test, producing a Chi-square ( $x^2$ ) value of 3,432 (with significance equal to 0,904). The non-significance of this value at the 0.05 level means that the fit is appropriate as the observed and predicted classification lacked significant discrepancy. Next, the Ómnibus test of the model's overall Chi-square value ( $x^2 = 171,842$ ) produces a significance of 0,000, meaning overall fitness is significant as well. These results demonstrate the efficacy of the model to differentiate fast line pass holders-no holders with an assurance of statistical significance.

As Pallant (pp.178, 2013) suggests, “logistic regression allows you to assess how well your set of predictors variables explains your categorical dependent variable”. From this, the effects of the significant variables on the Model A are analysed:

The positive coefficient for the variable ‘Visit Day’ indicates that customers who visit the theme parks during weekends are more likely to be express pass holders (B: 0,861). These results may be explained by the fact that on weekends, theme parks tend to be crowded, making the waiting environment unpleasant. Crowded waiting environment are associated with negative feelings such as frustration (Machleit, Eroglu, & Mantel,

2000; Sulek & Hensley, 2004). From this, it may be logic that customers who visit the theme parks during those days try to avoid waits and their negative consequences purchasing the express pass.

The positive coefficients for all the categories of the variable 'Find Out' (on the internet, B: 4,237); information at the hotel, B: 4,989; friends and family recommendation, B: 4,722; travel agency recommendation, 4,433 and advertisement in the theme park, 4,205) indicate that customers who are aware of existence of the express pass are more likely to be express pass holders than those unfamiliar with the service. The category of reference was: no aware it exists. As literature explains, the level of awareness that a consumer has about a product influences on customers purchase decisions (Pickett-Baker & Ozaki, 2008). Within categories, people who find out the express pass through information at the hotel (B:4,989) are more likely to be express pass holders than to be non-express pass holders, compared with the reference category (on the internet). Results show that hotels are promoting express pass and that their marketing strategies regarding this service are working. As Bardi (2003) explains, one of the most important functions of a hotel front office is to communicate and provide information to the guest. Hotels realized the importance of responding to customers needs and from this they improve their procedures (Baum & Odgers, 2001).

The positive coefficient for the variable 'Hours spent at the theme park' (B: 0,023) indicates that customers who spend more hours at the theme park are more likely to be express pass holders. Thus, we can see that people who have the priority access spend more hours enjoying attractions and rides. In contrast, people who are non-express pass holder spend fewer hours at the theme park. This can occur as people who wait in regular lines may perceive waiting times as longer and this negative situation can lead to leave the service before. When customers perceive long waiting times they can abandon the service (Dabholkar & Sheng, 2008; Janakiraman, Meyer, & Hoch, 2011).

'Nº of people in the party' shows negative coefficient (B: -0,070). This means that if the number of people in the party increases the likelihood to be an express pass holder decrease. As literature on waiting explains, when people wait in group they tend to have a more positive attitude toward waiting: they perceive lower waiting time (Jones & Peppiatt, 1996; Maister, 1985). Consequently, people in large groups are less likely to pay to avoid queues as the waiting environment in regular lines is not so unpleasant for them.

'Mono.Poli' variable has negative coefficient (B: -0,865). This indicates that people who have a polychronic culture are less likely to be express pass holders. In contrast, people who have a monochronic culture are more likely to be express pass holder. These findings support the largely conventional wisdom that polychronic cultures perceive waiting in a different way than monochronic cultures. Monochronic people have a more negative attitude towards waiting times than polychronic people: they are less accustomed to wait, they place high value on time, they value schedules and punctuality (Arnesen, Erikssen, & Stavem, 2002; Bennett, 1998).

Only the category 'Town' for the variable 'Region' has a significant negative coefficient (B: -0,619), compared with the reference category (large city). This indicates that people who live in towns are less likely to be an express pass holder than people who live in large cities. This agrees with prior literature on waiting. Consumers from suburban places are less dissatisfied with waiting times than customers from downtown (Hall, 1983; Leclerc & Schmitt, 1999; Rose, Evaristo, & Straub, 2003; J. C. Usunier & Valette Florence, 2007; J. Usunier, 1991).

Consistent with this, the variable 'Pace' (B: -0,173) also present a negative coefficient. This indicates that people who have a slower pace of life are less likely to be an express pass holder than to be non-express pass holder. There is also literature on waiting and pace of life that can help to understand this relationship. Nie (2000) explains that people who live in quiet places have a more positive attitude towards waiting than people who live in places with hectic pace of life. From this, people who have slower pace of life may be more tolerant to waits and less likely to pay to avoid waits.

#### 4.5.2. Interpretation of results Model B

The goodness-of-fit is ascertained using a Hosmer and Lemeshow goodness-of-fit test, producing a Chi-square ( $\chi^2$ ) value of 9,605 (with significance equal to 0,294). The non-significance of this value at the 0.05 level means that the fit is appropriate as the observed and predicted classification lacked significant discrepancy. Next, the Ómnibus test of the model's overall Chi-square value ( $\chi^2 = 285,524$ ) produces a significance of 0,000, meaning overall fitness is significant as well. These results demonstrate the efficacy of the model to differentiate fast line pass holders-no holders with an assurance of statistical significance.

The effects of the significant variables on the **Model B** are analyzed:

The variable 'Household Income' (B: 0,242) present a positive coefficient. This indicates that people with greater household incomes are more likely to be an express pass holder than to be a non-express pass holder. These results reinforce prior studies that suggest money influence on customer's willingness to pay for a service (Howard & Sheth, 1969). Money-rich people tend to avoid waiting situations (Bishai & Lang, 2000; Haynes, 1990). Thus, the use of a priority queue is associated with customers with higher incomes (Matthew, MacLaren, O'Gorman, & White, 2012).

The variable 'Attitudepass' (B: 0,862) has a positive coefficient. People with a more strongly positive attitude toward the express pass are more likely to be express pass holders. This is consistent with prior studies explaining that a positive or negative attitude influence on purchase intentions (Kim & Hunter, 1993; Kraus, 1995; Robinson & Smith, 2002; Vermeir & Verbeke, 2006).

As for 'Attitude towards waiting' (factor 1), the estimated parameters are positive (B: 0,432). Consequently, the greater the negative attitude towards waiting times, the higher the probability of customers being express pass holders. These findings follow the results shown by prior research: there are customers with different attitudes towards

waiting times (Bennett, 1998; Durrande-Moreau & Usunier, 1999; Rose et al., 2003). Thus, customers with stronger negative attitude towards waits times are more likely to avoid them. In contrast, people with a more positive attitude towards waiting may be more tolerant with queuing in regular lines.

The estimated parameters are positive for the variable 'Prior information' (B: 0,414). Thus, people with prior information on waiting times (before to arrive to the theme park) are more likely to be express pass holders than people without information on waiting times. When customers have prior information, then they can make decisions according to that. For instance, if customers know that it will be a crowded day with long waiting times, then they can choose to purchase the express pass.

The variable 'Prior purchase' is also a significant explanatory variable in the model. For the dummy variable representing people who had purchased express passes in prior visits to theme parks, the estimated parameters are positive (B:1,797). These results indicate that customers who had previously purchased express passes are more likely to be express pass holders compare with customers who had never purchased an express pass at theme parks. Our finding is consistent with previous studies that demonstrate customer's prior experiences with a specific service increase the probability to repurchase the service (Anderson, Fornell, & Lehmann, 1994; Patterson & Spreng, 1997; Seiders, Voss, Grewal, & Godfrey, 2005). In contrast, when customer's prior experiences are uncertain, they prefer to invest time instead of money (Okada & Hoch, 2004).

The negative sign of 'Prior visit to theme park' (B: -0,715) indicates that customers who visit 'More than once a year' the theme parks are less likely to be express pass holder than those who visit theme parks only once in a life or once a year. These findings can be based on Rose et al. (2003) findings: people who are accustomed to wait, they have better attitudes toward delays than those who usually don't do it. In fact, repetitive customers show greater index of customer satisfaction than customers who visit the theme park for first time (Geissler & Rucks, 2011).

For the variable 'Waiting Expectation', when the last category (Shorts waits) is selected as the reference category, 'Medium waits' appears with a significant negative coefficient (B: -0,661) (see Model B.1 in Annex III). Thus, people who expect medium waits are less likely to be express pass holders compare with people who expect short waits.

Regarding 'Waiting perception', the category 'shorter than expected' presents positive coefficient (B: 0,973) compare with the reference category ('longer than expected'). People who perceived waiting times as 'shorter than expected' are more likely to be express pass holder. This means that the priority system worth it: people who purchased the express pass perceived short waiting times. When last category ('shorter than expected') is selected as reference category we can see that the categories 'longer than expected' (B: -0,973) and 'as expected' (B:-0,636) present negative coefficients: they are more likely to be non-express pass holder (see Model B.1 in Annex III). Thus, we

can say that the system don't reduce perceive waiting times for non-express pass holders.

In the case of 'Visit motivation' variable, the estimated parameters are positive for 'Thrill' (B: 0,896) and 'Leisure' (B: 0,878). We put the first category 'Family' as the reference category. This means that people motivated by thrill and people motivated by leisure are more likely to be express pass holders compare with the reference category. When reference category is the last one (Leisure), 'Family' appear as a significant category with negative coefficient (B: -0,878) (see Model B.1 in Annex III). The coefficients suggest the category 'Family: to share time with family and children' are customers less likely to be express pass holders. The main reason for these results can be explained as express passes are only available for some thrill rides with height limitations and they don't worth for families. In contrast, customers motivated by 'leisure' are more likely to be express pass holders.

#### **4.5.3. Interpretation of results Model C**

The goodness-of-fit is ascertained using a Hosmer and Lemeshow goodness-of-fit test. The results shown in the table headed Hosmer and Lemeshow Test also support our model as being worthwhile, producing a Chi-square ( $\chi^2$  4,550) value of (with significance equal to 0,804). The non-significance of this value at the 0.05 level means that the fit is appropriate as the observed and predicted classification lacked significant discrepancy. Next, the Ómnibus test of the model's overall Chi-square value ( $\chi^2=360,501$ ) produces a significance of 0,000, meaning overall fitness is significant as well. These results demonstrate the efficacy of the model to differentiate fast line pass holders-no holders with an assurance of statistical significance.

As Model C groups both external and internal factors of the previous models, we can see that some variables appear again as significant variables and others cease to be significant variables. The following variables appear again as significant variables:

The variable 'Visit day' shows a positive coefficient (B: 0,998). It demonstrates again that customers who visit the theme parks during weekends are more likely to be express pass holders.

The variable 'Find out' shows again positive coefficient for all their categories: on the internet (B: 4,565); information at the hotel (B: 4,967); friends and family recommendation (B: 4,788); travel agency recommendation (B: 5,169); advertisement in the theme park (B: 4,244). Thus, people who are aware of existence of the express pass are more likely to be express pass holders compared with the reference category (no aware it exists). However, in this Model C and unlike Model A, people who find out the express pass through travel agency recommendation are more likely to be express pass holders than the other categories. Added to this, when the first category (no aware it exists) is the reference category, the rest of the categories are statistically significant. All the four categories are similar to each other but they are significantly different in relation to the reference category. However, when the last category (advertisement at the theme park) is selected as reference category for categorical variables, we can see

that the variable 'find out: no aware it exists' appears as a significant variable with negative sign (B:-4,244). This confirms that the category 'no aware' is statistically different than the others. People who are not aware of the existence of the express pass are less likely to be express pass holder.

The variable 'N° people in the party' shows again negative coefficient (B: -0,131). This means that if the number of people in the party increases the likelihood to be an express pass holder decrease.

The variable 'Mono.Poli' is also significant variable with negative sign (B:-0,607). People who have a polychronic culture are less likely to be an express pass holder.

The variable 'Attitude.pass' has again a positive coefficient (B: 1,013). Thus, people with a more strongly positive attitude toward the express pass are more likely to be express pass holders.

The variable 'Attitude towards waiting' presents positive sign (B: 0,510). This means that a greater negative attitude towards waiting times corresponds with a higher probability of customers being express pass holders.

The variable 'Prior purchase of the express pass' appears again as a significant explanatory variable with positive sign (B: 1,497). People who have experience purchasing an express pass are more likely to be an express pass holder than a non-express pass holder.

'Prior visit to theme park' has again a negative sign (B: -0,725). It shows again that customers who usually visit theme parks are less likely to be express pass holder.

Regarding 'Waiting expectation', the category 'Medium waits' is again a significant variable with negative coefficient (B: -0,728). In this way, people who expect mediums waits are less likely to be an express pass holder compare with the reference category (people who expect long waits).

The variable 'Waiting perception' has one significant category with positive sign as happens in Model B: the category 'shorter than expected' (B: 0,954). Thus, people who perceive waits 'shorter than expected' are more likely to be express pass compare with people who perceive waits 'longer than expected'.

The variable 'Visit motivation' shows again two categories with significant positive coefficients (thrill motivation, B: 1,098, leisure motivation, B: 0,750) compared with the reference category: Family). When last category is selected as reference category (see Model C.1 in Annex IV), we can see that the variable 'Family' presents a negative sign (B: -0,750). In brief, people motivated by 'Family' are less likely to be express pass holder than people motivated by thrill or leisure.

Finally, 'hours spent at the theme park', 'region' (town category), 'household income' and 'prior information' are no longer significant variables in Model C.

#### 4.5.4. Model C without outliers (see Annex VIII: Model C.3)

As literature suggests, researchers need to check if eliminating residuals the model change or not (StataCorp, 1985). From this, Model C (with internal and external factors) was run without studentized waste cases larger than 2 (see Annex). The results show a better model estimation (a lower -2 log Likelihood compare with the original model: 202,037). Added to this, the model has a better explanatory power (91,3% non-express pass holders, 84,4% express pass holders, 89,1% global percentage) From this we can see it is a robust model. It is a reliable model to measure the variables under study. A process is robust when deviations occur and the model remain working well (Ródenas & Barberis, 2003)

#### 4.6. Comparing models and hypotheses testing:

As we have seen, in the first model only external variables are introduced (Model A). During the second model, only internal variables of influence are considered (Model B). Finally, the third model incorporates both groups of variables (Model C). The following Table 25 allows comparing the different models:

**Table 25: Comparing logistic regression models**

	<i>MODEL A EXTERNAL</i>		<i>MODEL B INTERNAL</i>		<i>MODEL C (MA+MB)</i>	
	<i>B</i>	<i>Wald</i>	<i>B</i>	<i>Wald</i>	<i>B</i>	<i>Wald</i>
Constant	-4,026	13,974***	-5,299	39,816***	-9,139	32,915***
Weekend(1)	,861	18,531***			,998	10,833***
Reference: No aware it exists		30,207***				24,044***
On the internet(1)	4,237	17,128***			4,565	17,774***
Information at hotel(2)	4,989	21,865***			4,967	18,381***
Friends and family recommendation(3)	4,722	21,563***			4,788	20,062***
Travel agency recommendation(4)	4,433	16,261***			5,169	16,395***
Advertisement in the theme park(5)	4,205	17,106***			4,244	15,878***
Comfort of the waiting environment	,099	1,878			,176	2,457
Hours spent at the theme park	,023	3,953**			,018	1,058
Nº of people in the party	-,070	5,096**			-,131	9,119***
Polychronic culture(1)	-,865	14,118***			-,607	2,719*
Reference: Large city		6,889*				,1,744
Small/medium city	-,287	2,512			-,160	,362
Town	-,619	6,205**			-,477	1,596

Rural area	,019	,001			-,437	,217
Pace of life (from totally hectic to totally slow)	-,173	4,626**			-,194	2,550
Reference: Sunny comfortable		1,853				2,047
Sunny too hot(1)	-,001	,000			-,310	1,516
Cloudy(2)	,429	1,179			,267	,192
Rainy(3)	-,906	,576			-,511	,102
Female(1)			-,088	,192	-,067	,079
Age			,006	,344	,006	,236
People in the household			-,132	2,452	-,091	,759
Household income			,242	4,411**	,149	1,110
Attitude toward the express pass			,862	49,057***	1,013	45,379***
Attitude toward waiting times			,432	13,613***	,510	12,091***
Prior information on waiting times(1)			,414	4,073**	,008	,001
With prior experience purchasing an express pass (1)			1,797	69,883***	1,497	35,039***
With prior experience with waiting at theme parks (1)			-,173	1,580	-,133	,641
With prior experience visiting theme parks (1)			-,715	8,754***	-,725	6,279**
Reference: Long waits expected				5,757*		6,909**
Medium waits expected (1)			-,343	2,182	-,499	3,177*
Short waits expected(2)			,318	,904	,329	,723
Reference: Perceived waits longer than expected				7,250**		5,456*
Perceived waits as expected(1)			,337	2,176	,427	2,322
Perceived waits shorter than expected(2)			,973	7,063***	,954	4,980**
Reference: Culture motivation				3,167		,522
Rest and relaxation(1)			,268	,485	,319	,491
Entertainment(2)			,216	,373	,272	,415

Other motivations(3)			-,293	,453	,263	,246
Reference: Family visit motivation				9,699***		8,830**
Thrill visit motivation(1)			,896	9,192***	1,098	8,738***
Leisure visit motivation(2)			,878	6,205**	,750	3,055*
Behaviour Pattern (Type A/ B)			,064	,353	,100	,630
Nagelkerke's R <sup>2</sup> /		,255		,449		,580
Cox and Snell		,181		,322		,414
-2 Log likelihood		893,745		642,398		484,259
Hosmer and Lemeshow		X <sup>2</sup> 3,432 df 8 Sig. ,904		X <sup>2</sup> 9,605 df 8 Sig. ,294		X <sup>2</sup> 4,550 df 8 Sig. ,804
Overall Percentage Correctly Classified		<b>71,0</b>		<b>80,4</b>		<b>84,6</b>

\*p < 0.1; \*\*p < 0.05; \*\*\*p < 0.01

Looking at the model fit statistics, we observe that the -2 log. likelihood ratio in the Model A is significant, meaning that at least a subset of the predictors have non-zero effects (p<.000; -2 log. Likelihood 893,745, Nagelkerke R<sup>2</sup> of 0,255). Model B presents a p<.000; a -2 log. Likelihood of 642,398 and a Nagelkerke R<sup>2</sup> of 0,449. Thus, Model A shows a better model estimation than Model B. Finally, Model C presents a p<.000, a -2 log. Likelihood of 484,259 and a Nagelkerke R<sup>2</sup> of 0,580. We can see that when both internal and external variables are considered, the model estimation is better (Model C has a lower -2 log Likelihood compare with the other two models).

Added to this, Model A only correctly classifies 25,4% of the express pass holders and a 91,7% of the non-express pass holders. Model A has a general explanatory power of 71%. Considering overall percentage, Model B demonstrates an increased explanatory power (80,4%) over Model A. It correctly classifies 59,4% of the express pass holders and a 90,5% of the non-express pass holders. Finally, Model C shows a greater overall explanatory capacity compared with the other two models (84,6%,). It correctly classifies 70,7% of the express pass holders and a 91,1% of the non-express pass holders. Thus, Model C is the model with more overall explanatory power over the other models.

In general, all three models present a good exploratory power. However, all models classify better non-express pass holders than express pass holders. In other words, these groups of variables help to explain better the behaviour of non-express pass holders than the behaviour of the express pass holders.

Regarding coefficients of the Model A, visit day (weekend), how the customer find out the express pass (all categories), hours spent at the theme park, n° of people in the party, polychronic culture, town as region size and the pace of life are determining factors (significant factors) in being an express pass holder. As we can see, there are negative

effects among some variables such as n° of people in the party, polychronic culture, town as region size and pace of life on the likelihood to be express pass holders. Conversely, the others variables adopt positive values in their likelihood to be express pass holders.

In Model B, the household income, the attitude toward the express pass, the attitude toward waiting time, the prior information on waiting times, the prior experience purchasing an express pass, the prior experience visiting theme parks, the perception of waits shorter than expected, and the motivation of the visit to the theme park (thrill motivation, leisure motivation) are determining factors (significant factors) in being an express pass holder or not. As we can see, there is a negative effect with the variable prior experience visiting theme parks on the likelihood to be express pass holders. Conversely, the others variables adopt positive values in their likelihood to be express pass holders.

Finally, in Model C, visit day, how customer find out (all categories), n° of people in the party, polychronic culture, attitude toward the express pass, attitude toward waiting times, prior experience purchasing an express pass, prior experience visiting theme parks, expectation of medium waits, perceived waits shorter than expected and visit motivation (thrill motivation and leisure motivation) are determining factors (significant factors) in being an express pass holder or not. As we can see, there are negative effects among variables such as n° of people in the party, prior experience visiting theme parks and the expectation of medium waits on the likelihood to be express pass holders. Conversely, the others variables adopt positive values in their likelihood to be express pass holders.

The following Table 26 shows hypotheses and results. Some hypotheses are accepted, others only accepted in one model and others are rejected. There are also hypotheses that couldn't be tested due to their high rate of missing data or collinearity.

In conclusion, from the hypotheses suggested, H5, H6, H9, H13, H14, H15, H20, H26 and H31 are accepted in models with only external (Model A) or internal factors (Model B) and also in the integral model (Model C). Regarding H3 and H11, they are accepted only for the partial model with only internal factors (Model B). Regarding H29 and H30, they are only accepted for the partial model with only external factors (Model A).

**Table 26: Hypotheses Testing**

Hypotheses	Model A	Model B	Model C
1. Young people are more likely to be express pass holders.		Rejected (no sig.)	Rejected (no sig.)
2. Males are more likely to be express pass holders than females.		Rejected (no sig.)	Rejected (no sig.)
3. Customers with high household incomes are more likely to be express pass holders.		Accepted	Rejected (no sig.)
4. Customers whose principal trip motivation is entertainment are more likely to be express pass holders.		Rejected (no sig.)	Rejected (no sig.)
5. Customers whose principal visit motivation is thrill are more likely to be express pass holders.		Accepted	Accepted

6. Customers who purchased an express pass in the past are more likely to be express pass holders.		Accepted	Accepted
7. Customers who are frequent users of the express pass at theme parks are more likely to be express pass holders.		Rejected (collinearity)	Rejected (collinearity)
8. Customers who were satisfied with the purchase of express passes on previous occasions are more likely to be express pass holders.		Rejected (collinearity)	Rejected (collinearity)
9. Customers who are irregular visitors of theme parks are more likely to be express pass holders.		Accepted	Accepted
10. Customers with prior negative experiences with waiting times at theme parks are more likely to be express pass holders.		Rejected (no sig.)	Rejected (no sig.)
11. Customers who have prior information on waiting times at the theme park are more likely to be express pass holder.		Accepted	Rejected (no sig.)
12. Customers who expect long waiting times are more likely to be express pass holders than people who expect medium or shorts waits.		Rejected (no sig.)	Rejected (no sig.)
13. Customers who perceive the wait as shorter than expected are more likely to be express pass holders.		Accepted	Accepted
14. Customers with a more negative attitude toward waiting times are more likely to be express pass holders.		Accepted	Accepted
15. Customers with a more positive attitude toward express passes are more likely to be express pass holders.		Accepted	Accepted
16. Customers who are more willing to pay for an express pass in a future visit are more likely to be express pass holders.		Rejected (collinearity)	Rejected (collinearity)
17. Customers who are more willing to repurchase an express pass in a future are more likely to be express pass holders.		Rejected (collinearity)	Rejected (collinearity)
18. Customers with a stronger Type A behaviour pattern are more likely to be express pass holders.		Rejected (no sig.)	Rejected (no sig.)
19. Customers who spend more on their trips are more likely to be express pass holders.	Rejected (missing)		Rejected (missing)
20. Customers who visit the theme park in small groups are more likely to be express pass holders.	Accepted		Accepted
21. Family with children below 13 are less likely to be express pass holders.	Rejected (missing)		Rejected (collinearity)
22. Customers whose trip is short are more likely to be express pass holders (length of the trip).	Rejected (missing)		Rejected (missing)
23. Customers whose visit to the theme park is short are more likely to be express pass holders (days at the theme park).	Rejected (collinearity)		Rejected (collinearity)
24. Customers who spend fewer hours visiting the theme park are more likely to be express pass holders (hours at the theme park).	Rejected		Rejected (no sig.)
25. Customers without annual pass are more likely to be express pass holders.	Rejected (missing)		Rejected (missing)

26. Customers who visit the theme park during weekends are more likely to be express pass holders.	Accepted		Accepted
27. Customers who perceive the waiting environment to be uncomfortable are more likely to be express pass holders.	Rejected (no sig.)		Rejected (no sig.)
28. Customers who visit the theme park during sunny and hot days are more likely to be express pass holders.	Rejected (no sig.)		Rejected (no sig.)
29. Customers who live in large cities are more likely to be express pass holders.	Accepted		Rejected (no sig.)
30. Customers who have a more hectic pace of life are more likely to be express pass holders.	Accepted		Rejected (no sig.)
31. Customers from a monochronic culture are more likely to be express pass holders.	Accepted		Accepted
32. Customers who are aware of express passes are more likely to be express pass holders	Rejected (collinearity)		Rejected (collinearity)
33. Customers who find out the express pass through internet are more likely to be express pass holders	Rejected		Rejected



#### 4.7. References

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## CHAPTER 5

# **CONCLUSIONS, IMPLICATIONS & FUTURE RESEARCH**



## **CHAPTER 5: Conclusions, Implications & Future Research**

### **5.0. Introduction**

This final chapter summarises the results obtained in Chapter 4 provides overall conclusions, explains the limitations and suggests guidelines for future research. Section 5.1 outlines the interpretations and conclusions of the research question. Section 5.2 outlines how the objectives of the research project have been achieved. Section 5.3 outlines contributions and implications of the research. Section 5.4 outlines the conceptual and statistical limitations of the study. Finally, recommendations for future research are suggested in section 5.5.

### **5.1. Interpretation and conclusions of the research question**

As widely literature explain, the primary goal of manage waiting times is to reduce them in order to maximize visitors' satisfaction. However, the outcomes suggest not all the visitors behave in the same way when face waiting times and systems to avoid queues. Both prior literature and the findings of this thesis illustrate that the express pass is an effective systems of market segmentation. As Chen and Hsu (1999) suggest, market segmentation can help practitioners identify mutually exclusive segments based on characteristics, which are likely to differ among customers. The act of identifying homogeneous customers may enhance tourist service encounters and reduce negative occurrences (Bennett and Strydom 2001). From this thesis, two different groups of consumers with their own features are observed: consumers who are express pass holders (they are willing to pay extra to avoid waits) and consumers who are non-express pass holders (they are not willing to pay for the service and they wait in regular lines).

The literature reviewed on willingness to pay and waiting explain that these two groups of customers are the result of their levels of wealth or poverty in terms of money and time (Bennett 1998; Matthew et al. 2012). However, as was observed in our results, the way that these two groups deal with a 'wait vs pay situation' is determined by multiple influential factors. Prior studies on consumer behaviour suggest considering internal and external factors. Considering our results, even though the purchase decision of the express pass can be predicted from only internal factors (Model B: perceptions, expectations, attitudes, experiences, motivations) or only external factors (Model A: culture, characteristics of the trip, context), a better explanatory capacity is achieved when all factors are considered (Model C). Thus, inclusive models are recommended in order to understand and explain behaviours regarding waiting times and priority system in a theme park context.

The different models conducted explain how certain variables influence on customers and determine if somebody is likely to be in one group or the other. Most variables considered in partial models (Model A or B) appear also as significant variables in the integral model (Model C). Thus, the same variables explain the consumer behavior in

the different models. Only 'hours spent at the theme park', 'region', 'household income' and 'prior information' are no longer significant variables in Model C.

In the more effective model (Model C), the visit day, how customers find out about the express pass, the number of people in the party, the culture, the attitude toward the express pass, the attitude toward waiting times, prior experiences purchasing an express pass, prior experience visiting theme parks, the expectation of average waiting time, the perception of waits shorter than expected and the visit motivation (thrill motivation and leisure visit motivation) appear as significant dimensions influencing the customer purchase decision of the express pass. These internal and external factors have the power to distinguish express pass holders from non-express pass holders.

If we focus on the effect that several factors have on the probability of belonging to express pass holders or no holders, we can characterize both groups. It is worth highlighting that visitors who have a more positive attitude toward the express pass, who have a more negative attitude towards waiting times, who have previously purchased an express pass, who visit theme parks once a year or less, who expect short or long waits, who perceive short waits, who main visit motivation is thrill or leisure, who visit the theme park during weekends, who are aware of the existence of the express pass, who have a monochronic culture and who visit the theme park in small groups are more likely to be express pass holders. In contrast, visitors who have a more negative attitude toward the express pass, who have a less negative attitude towards waiting times, who have not previously purchased an express pass, who visit theme parks more than once a year, who expect medium waits, who perceive waits longer than expected and as expected, who main visit motivation is family, who visit the theme park during weekdays, who are not aware of the existence of the express pass, who have a polychronic culture and who visit the theme park in large groups are more likely to be non-express pass holders.

## **5.2. Achievement of objectives**

As was mentioned in Chapter 1, the principal objective of this thesis is to determine the factors that characterize consumers who are willing to pay in order to avoid waiting. In other words, this research project attempts to identify those variables which determine the purchase behaviour of an express pass holder in a theme park.

Next we outline how the secondary objectives, also presented in Chapter 1, have been achieved in this thesis.

*-To map the factors that may influence customers when they make a decision regarding waiting times and priority systems in a theme park context.*

This objective was achieved. The present study has identified several internal factors (attitudes, perceptions, expectations, behaviours patterns, prior experiences and motivation) and external factors (characteristics of the trip, culture and context) that may influence tourists in a theme park context, from a consumer behaviour approach.

*-To test hypotheses using logistic regressions*

This objective was achieved as logistic regressions allow characterize both groups. All the different models conducted presented high overall explanatory levels. Thus, logistic regressions are an effective statistical tool in order to predict purchase behaviour of an express pass.

*-To identify the characteristics of holders and non-holders of express passes.*

This thesis achieved this objective. As the result of several logit models conducted, specific characteristics of express pass holders and non-holders are detailed. Not all variables considered allow characterizing individuals. However, all the influential dimensions of the purchase decision are represented in the global model C. Added to this, the two models (Model A with external factors and Model B with internal factors) work well separately and they work even better when merged (Model C).

*-To suggest practical implications related with this customer segmentation based on willingness/unwillingness to pay to avoid waiting at theme parks.*

This objective has been also achieved by this research. Several practical implications are suggested in order to help professionals to improve waiting management from a marketing perspective. Practical recommendations are made to managers regarding priority and regular lines.

### **5.3. Practical implications**

Analysing the purchase behaviour of the express pass leads to discover that consumers don't act in isolation. Consumer's decisions are conditioned to certain variables that managers can't ignore. Understanding how customers act allow companies to rethink priority systems and marketing strategies implemented. Not all consumers interpret waiting times and priority systems in the same way and, consequently, they should be addressed in different ways. Therefore, companies should concentrate on optimizing rather than eliminating waiting time. As Gavilán-Bouzas & García de Madariaga-Miranda (2009) argue, we should distinguish between the experience of waiting and the meanings associated with waiting. In this sense, we should do whatever we can to make the waiting experience more comfortable as suggested in the seminal article by Maister (1985).

The industry of theme parks continues to grow and companies should continue to analyse customers' needs and to improve visitor's experiences (Milman 2010). As waiting times will persist at theme parks, companies must to continue understanding how customers experience waiting. By exploring express systems, mapping the several forces that influence each segment and understanding the preferences of different groups may help managers:

- i. to be better equipped to provide attractive facilities and design effective services (Bennett 1998; Molera and Albaladejo 2007; Reynisdottir, Song, and Agrusa 2008). For instance, users of the express pass should remain perceiving short

waits compare with customers waiting in regular lines. Companies should ensure priority lines worth it: customers must note a real difference between waiting times for regular lines and for priority lines. Added to this, managers should minimize perceived waiting times also in regular lines.

- ii. to adapt services to the real needs of customers and to a better management of customer experiences (Durrande Moreau 1999). Design more appropriate products and services for those who are more sensitive to wait and for those who are less sensitive to wait. For those who want to pay to avoid queues should exist several types of express passes with different fees (as actually exist in most theme parks) (Chao and Wilson 1987). For those who are not willing to pay extra and have a more positive attitude toward waiting, regular lines' environment should be improved and optimized. Waiting times may be considered as part of the attraction and not always as something negative. Waiting time can be a moment to relax, to think, to talk with others, to share experiences and increase savouring of future events. Finally, companies should develop strategies for people who is upset with queuing (they are not familiar with waits, they have not a positive attitude towards waiting) and they have to wait in regular lines. Theme parks may offer a cheaper express pass, entertainment environment, information before arrive to the theme park. The goal is that people don't complain about waiting and that waiting doesn't affect customer satisfaction with the overall experience.
- iii. design/adapt systems to manage waiting times according to needs of families. Actually, most families can't enjoy all the express pass' advantages as most rides that offer this service have height limitation. Waiting can be really unpleasant situations for families with children and theme park should bring solutions to this segment market. Priority systems or other tools to reduce waits in rides for children should be also designed.
- iv. provide information that could be used to update express systems. Detecting customer's characteristics may realize what really customers want and how satisfy them. The express pass appears as an effective system that satisfy the needs and wishes of customers with hectic pace of life, who live in large cities and have monochronic culture. Thus, this segment market can't be ignored and new innovations that meet their desires should be offered.
- v. to implement effective promotions (Bennett 1998; Molera and Albaladejo 2007; Reynisdottir et al. 2008). Theme parks should manage the sale of the express pass, manipulating its price and implementing promotions in order to balance demand and minimizing waiting times for both groups of consumers. Potential market segments should be addressed. For instance, express pass should be promoted among regular visitants of theme parks. In spite they may be accustomed to wait, marketers can offer them special promotions. The same

happen with large groups: special prices may be stipulated in order to promote the service and its benefits. Added to this, promotions can be applied during weekdays and low season in order to enhance sales of the service.

Finally, marketing strategies should be oriented to promote the express pass between those who never have purchased an express pass. As the results showed, people without prior experiences are less likely to be express pass holders. Thus, companies should highlight express pass' advantages for those who have never used it and remain persuading those who are regular users of the express pass. The same happen with customers are not aware of the existence of the express pass. Companies should offer different ways to obtain clear information and access to purchase it.

- vi. target those market segments that offer the highest potential earning capacity. To identify the type of visitors those are more profitable for theme parks such as customers motivated by thrill. This could be a key objective target for a specific priority system as these customers seems to be more willing to pay extra to avoid queues. People with higher incomes are also a market segment willing to pay extra compare with people with lower incomes.
- vii. improve marketing strategies in order to increase sales of the pass express. For instance, companies should give information on waiting times before consumers arrive to the theme park. Results showed that people with prior information on waiting are more likely to be express pass holders. Informed customers can make decisions such as purchase the express pass before they arrive to the theme park. Marketing strategies should be also oriented to reduce negative connotations regarding the express pass. Thus, customers can have a positive attitude toward the express pass.

In brief, companies should focus their efforts more on customer's characteristics and what they really need instead on focus on how much customers are willing to pay and price elasticity. Negative sensations like unfairness in relation with priority lines should be reduced or eliminated. Hide the priority line may be a good option to avoid comparisons. Also, highlight benefits to queuing in regular lines (additional information, stories as part of the ride, entertainment, social interaction) that other priority lines don't have.

Thus, some customers invest time and others prefer to invest money when visiting a theme park and they have to make a decision regarding waiting times. However, the investment in time or money may be not being as important if the client receives an exciting and unforgettable service. As Hwang et al. (2012) suggest, when visitors have fun and they experience positive sensations they are more willing to spend their time and their money. At the end, they will remember the global experience with the service and companies should focus their efforts on this. They should enhance client's benefits enriching tourist experience with emotional, intellectual and spiritual values (Haahti and

Yavas 2004). If it is inevitable that customers wait or simply customers are not agree to join a priority line, then firms should also be able to provide an excellent experience for these visitors. Companies should keep ticket prices and priority passes at a reasonable price and remain improving waiting environment and reducing perceived waiting times for both groups in order to increase customer satisfaction.

## **5.4. Limitations**

### **5.4.1. Conceptual Limitations**

Several internal and external factors have been considered in this study when analyzing purchase decision. However, conceptual limitations exists as others factors could be also considered such as perceptions about fairness when waiting, perceived value of the service, economic, social and technological trends, risks when make a decision, physical, economic or social constraints, influence of social groups such as family, price sensitivity, price variability or brand influence. Added to this, some factors could be also analyzed in a different way. Culture dimension could be addressed not only regarding time and waiting time. Personality traits such us extraversion, openness, conscientiousness, agreeableness, neuroticism could be also considered.

Thus, theoretical factors that influence on customer purchase decision may be measured in different ways and therefore can be objectionable the measures used for this study. Our independent variables were measured post-wait, after the overall service process. Preferably, expected waiting time should be measured pre-wait and pre-process. Perceived waiting time should be measured in-process waiting or just after the wait. However, measure these variables in those moments may have many complications for the interviewer. It would have been difficult to survey customers while they were visiting the theme park as they were anxious to enjoy attractions. Measure dimensions post-wait and post-service process permit to measure other variables (Durrande-Moreau and Usunier 1999). For instance, attitudes and motivations were measured post-wait, which makes sense because these dimensions may vary during the global service process. Behaviour patterns and prior experiences were also measured post-wait because they are stable aspects that don't change. Additionally, variables were measured post service process because it was easy to detect express pass holders and non-express pass holders: customers may purchase the express pass during the entire visit.

### **5.4.2. Statistical Limitations**

Sample size may be limited if more independent variables are included in the models. Large variances in the effects estimated could be reduced by more observations (Tyrrell and Devitt 1999). Added to this, the sample is not balanced between express pass holders and non-express pass holders. Statistical techniques could be used to rebalance it. Finally, as a convenient sample, not all segments of visitors were sampled. For instance, visitors who arrived by car or by other transports, at other times of the day, or during other season of the year would most likely have different purchase behaviours.

Another statistical limitation is related with the effects of factors. A different design of the questionnaire and a different statistic tool would be required to estimate interactions between effects. Added to this, the use of many independent variables may lead to high levels of collinearity. Thus, group variables and make common factors and dimensions may be an alternative. Finally, logistic regressions were conducted only by entry method but forward and backward could be also applied in order to compare results.

### **5.5. Future research**

Deeper analyses like this one are necessities in order to understand how customers interpret waiting and the systems to avoid them. Future research can be oriented to test other independent variables in order to advance understanding waiting experience and purchase decisions in theme parks. In addition, future studies can explore the customer's decision to pay or to wait in other tourism contexts such as airports, museums, nightclubs, theatres, events. Specific factors of influence should be detected and analyzed in each service context.

Moreover, future studies could be oriented to: analyze which services and conditions are susceptible to a 'wait vs pay' situation, examine new ways to manage people who are willing to pay to avoid queues and people who are not willing to pay extra, explore on market segment who is not bother to wait and highlight positive aspects of waiting, examine the positive and negative effects of priority queues on customers and companies. There is a significant literature on the social psychology of queuing from which we know that equity is vital in any queuing system (Ahmadi 1997). Future research should examine the effect of priority queues, in particular, on social justice and the evaluations of consumers who are unwilling or unable to pay. Compatibility management, as a process where physical environment and customer-to-customer encounters are managed in order to satisfy clients (Martin and Pranter 1989) may help to analyze the relationship between express pass holders and non-express pass holders.

Finally, the use of priority passes in tourism may provide a substantial and beneficial source of revenue for companies. We know very little about what managers think about this issue, how they lead with this and the consequences for companies. Is really negative for companies making customers wait or are there positive connotations associated with this phenomenon?



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# ANNEXES



## NON-EXPRESS PASS HOLDER

Annex I

1. What was the weather like the day you visited the park? ENV  
 Sunny, comfortable  Sunny, too hot  Cloudy  Rainy   
 2. What day was it? DAY      Weekday       Weekend   
 3. Gender: GENDER Male       Female

5. How did you find out about Port Aventura express? AWARE/ FINDOUT  
 I wasn't aware it existed (Go to question 7)   
 On the internet   
 Promotional information at hotel   
 Friends and family recommendation   
 Travel agency recommendation   
 I saw it advertised in Port Aventura

6. Why did you choose Not to purchase the Port Aventura express? Circle Yes or No for each answer. Then place an X indicating the MAIN reason for your NOT purchase. YES 1 NO 0- PCIPALNO

There were none left <small>NOAVAILAB</small>	No	Yes	
It's too expensive for me <small>NOPRICE</small>	No	Yes	
Prefer to spend money on other things <small>NOPREFER</small>	No	Yes	
Don't mind waiting <small>NOMIND</small>	No	Yes	
Waiting relaxes me <small>NORELAX</small>	No	Yes	
Doesn't reduce the waiting/not worthwhile <small>NOWORTH</small>	No	Yes	
Others members of group decided not to buy <small>NOOTHERS</small>	No	Yes	
Embarrassing because feel like cutting the line <small>NOEMBA</small>	No	Yes	
Enjoy the in-queue entertainment <small>NOENJOY</small>	No	Yes	
Prefer to share waiting time with family/friends <small>NOSHA</small>	No	Yes	
Few or no queues so it's not necessary <small>NONEC</small>	No	Yes	
Because the weather is good for wait in line <small>NOWEATH</small>	No	Yes	
I am on holiday, I don't have time pressure <small>NOTPRESS</small>	No	Yes	
Expect a certain amount of waiting <small>NOEXPECT</small>	No	Yes	
It is an unfair system <small>NOJUST</small>	No	Yes	
Other reason:			

7. My overall attitude towards the express pass systems in general is: ATTITUDEPASS

Strongly negative	Negative	Neutral	Positive	Strongly positive
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8. How often have you purchased an express pass in previous visits to theme parks? PRIOR/ OFTEN  
 If NEVER, go to question 10.

Never	Just once or twice	Seldom	Often	Normally I do
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9. Were you satisfied with the purchase of express pass on previous occasions? SATIS

Very dissatisfied	Moderately dissatisfied	Neither satisfied or dissatisfied	Moderately satisfied	Very satisfied
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10. Would you be willing to purchase an express pass on a future visit to Port Aventura? REPURCH

Definitely not	Probably not	Maybe	Probably	Definitely
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- 10.1. How much would you be willing to pay for an express pass at Port Aventura? .....WTPHW

11. How would you rate the comfort of the waiting environment in Port Aventura? COMF

Not at all uncomfortable	1	2	3	4	5	Very uncomfortable
--------------------------	---	---	---	---	---	--------------------

12. Did you have any information on waiting times in Port Aventura before arriving to the park? INFOFOWI

No       Yes

13. How long did you EXPECT to wait before arriving to the park? EXPECTW

Long waits       Medium waits       Short waits

14. How would you rate the waiting times at Port Aventura? PERCE

Longer than expected   
 As expected   
 Shorter than expected

15. What's your general attitude towards waiting?

Not at all stressfull <small>STRES</small>	1	2	3	4	5	Very stressfull
Not at all frustrating <small>FRUS</small>	1	2	3	4	5	Very frustrating
Not at all annoying <small>ANNO</small>	1	2	3	4	5	Very annoying

16. According to your previous experiences, in general how would you rate waiting times at theme parks? PRIEXW

Strongly negative	Negative	Neutral	Positive	Strongly positive
-------------------	----------	---------	----------	-------------------

17. How do you see yourself according to the following statements?

Not competitive <small>COMP</small>	1	2	3	4	5	Very competitive
Can wait patiently <small>PAT</small>	1	2	3	4	5	Impatient when waiting
Take things one at a time <small>THIN</small>	1	2	3	4	5	Try to do many things at once
Slow doing things <small>FAS</small>	1	2	3	4	5	Fast (eating, walking, etc)

18. Indicate to what extent you agree with this statement: "In general I really dislike having to wait in queues", where 1 is strongly disagree and 5 is strongly agree. DISLIKE

Strongly disagree	1	2	3	4	5	Strongly agree
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## NON-EXPRESS PASS HOLDER

### About your trip

19. What was the general purpose of your trip? Select one only.<sup>MO</sup>

To know different cultures/ways of life	<input type="checkbox"/>
Rest and relaxation	<input type="checkbox"/>
To seek diversion and entertainment	<input type="checkbox"/>
Others	<input type="checkbox"/>

20. How many DAYS is your holiday trip? <sup>HOLIDAY</sup>

21. Approximately, what was the total cost per person for all your trip (included transportation, lodging, food)? <sup>COST</sup> \_\_\_\_\_

### About your visit to Port Aventura

22. What was the MAIN purpose of your visit to Port Aventura?

Select one only. <sup>MOTIV</sup>

**Family** (share time with family, rides for small children and cartoons characters)

**Thrill** (roller coasters, water rides and several thrill rides)

**Leisure attractions** (general entertainment, restaurants, shops, shows)

23. How many days did you spend in the park? <sup>DAY</sup>

Annual pass holder <sup>SEASONPAS</sup> No  Yes

24. How many hours did you spend in the park in total? <sup>HOUR</sup>

25. With whom did you visit Port Aventura? <sup>WHOM</sup>

Alone

As a couple

Family and/or friends without kids

Family and/or friends with kids under 13

Family and/or friends with kids 13 or over

Family and/or friends with kids of mixed ages

Friends

26. How many people were in your group? <sup>PARTY</sup> \_\_\_\_\_

### About yourself

27. Where are you from? <sup>LOC/ LOCPAIN/LOCWORLD</sup>

Spain  Province \_\_\_\_\_

Other country  Country \_\_\_\_\_

28. Would you describe where you live as being.... <sup>REGION</sup>

Large city

Small/medium city

Town

Rural

29. How do you consider your pace of life? <sup>PACE</sup>

Totally hectic pace of life	1	2	3	4	5	Totally slow pace of life
--------------------------------	---	---	---	---	---	------------------------------

30. How often do you visit theme parks? <sup>VISITHEME</sup>

Once a year or less	More than once a year
------------------------	--------------------------

31. Age <sup>AGE</sup> \_\_\_\_\_

32. Nº of people in household: <sup>PEOPLE</sup> \_\_\_\_\_

33. Annual HOUSEHOLD income <sup>INCOANUAL</sup>

Less than 20.000 € (less than 17200 £)

Between 20.000 € and 40.000 € (17200—34400 £)

Between 40.000 € and 80.000 € (34400—68800£)

More than 80.000 € (More than 68800£)

## EXPRESS PASS HOLDER

Annex I

1. What was the weather like the day you visited the park? ENV

Sunny, comfortable  Sunny, too hot  Cloudy  Rainy

2. What day was it? DAY Weekday  Weekend

3. Gender: GENDER Male  Female

4. Did you purchase the Port Aventura express? COMPRADO

No, it was included with my holiday package

Yes

5. How did you find out about Port Aventura express? AWARE/ FINDOUT

On the internet

Promotional information at hotel

Friends and family recommendation

Travel agency recommendation

I saw it advertised in Port Aventura

6. Why did you choose to purchase the Port Aventura express?

Circle Yes or No for each answer. Then place an X indicating the MAIN reason for your purchase. YES 1 NO 0-PCIPALYES

Always purchase when available <small>YESALWAY</small>	No	Yes	
Because it's cheap <small>YESCHEAP</small>	No	Yes	
Expected lines would be long <small>YSEEXPECTL</small>	No	Yes	
Don't like waiting in line <small>YESDONTL</small>	No	Yes	
Waiting irritates me <small>YESIRRI</small>	No	Yes	
Worth it because it reduces waiting time <small>YESWORTH</small>	No	Yes	
Others in party decided to purchase <small>YESOTHERS</small>	No	Yes	
To ride as many rides as possible <small>YESRIDE</small>	No	Yes	
Health related condition <small>YESHEALTH</small>	No	Yes	
Waiting in Port Aventura is uncomfortable <small>YESUNCO</small>	No	Yes	
The lines were longer than expected <small>YESLONGER</small>	No	Yes	
I don't want to waste time waiting <small>YESWASTE</small>	No	Yes	
I'm here for a limited time <small>YESLIMIT</small>	No	Yes	
Other reason:			

7. My overall attitude towards the express pass system in general

is: ATTITUDEPASS

Strongly negative	Negative	Neutral	Positive	Strongly positive
-------------------	----------	---------	----------	-------------------

8. Have you also purchased an express pass in previous visits to theme parks? PRIOR / OFTEN

Never	Just once or twice	Seldom	Often	Normally I do
-------	--------------------	--------	-------	---------------

If NEVER, go to question 10.

9. Were you satisfied with the purchase of express pass on previous occasions? SATIS

Very dissatisfied	Moderately dissatisfied	Neither satisfied or dissatisfied	Moderately satisfied	Very satisfied
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10. Would you be willing to purchase an express pass on a future visit to Port Aventura? REPURCH

Definitely not	Probably not	Maybe	Probably	Definitely
----------------	--------------	-------	----------	------------

10.1. How much would you be willing to pay for an express pass at Port Aventura? ..... WTPHW

11. How would you rate the comfort of the waiting environment in Port Aventura? COMF

Not at all uncomfortable	1	2	3	4	5	Very uncomfortable
--------------------------	---	---	---	---	---	--------------------

12. Did you have any information on waiting times in Port Aventura before arriving to the park? INFOVAL

No  Yes

13. Before you decided to purchase the express pass, what was your expectation of waiting times at Port Aventura? EXPECTW

Long waits  Medium waits  Short waits

14. After you purchased the express pass, how would you describe the waiting times at Port Aventura? PERCE

Longer than expected

As expected

Shorter than expected

15. What's your general attitude towards waiting?

Not at all stressful <small>STRES</small>	1	2	3	4	5	Very stressful
Not at all frustrating <small>FRUS</small>	1	2	3	4	5	Very frustrating
Not at all annoying <small>ANNO</small>	1	2	3	4	5	Very annoying

16. According to your previous experiences, in general how would you rate waiting times at theme parks? PRIEXW

Strongly	Negative	Neutral	Positive	Strongly
----------	----------	---------	----------	----------

17. How do you see yourself according to the following statements?

Not competitive <small>COMP</small>	1	2	3	4	5	Very competitive
Can wait patiently <small>PAT</small>	1	2	3	4	5	Impatient when waiting
Take things one at a time <small>THIN</small>	1	2	3	4	5	Try to do many things at once
Slow doing things <small>FAS</small>	1	2	3	4	5	Fast (eating, walking, etc)

18. Indicate to what extent you agree with this statement: "In general I really dislike having to wait in queues", where 1 is strongly disagree and 5 is strongly agree. DISLIKE

Strongly disagree	1	2	3	4	5	Strongly agree
-------------------	---	---	---	---	---	----------------

## EXPRESS PASS HOLDER

### About your trip

19. What was the general purpose of your trip? Select one only.<sup>MO</sup>

To know different cultures/ways of life	<input type="checkbox"/>
Rest and relaxation	<input type="checkbox"/>
To seek diversion and entertainment	<input type="checkbox"/>
Others	<input type="checkbox"/>

20. How many DAYS is your holiday trip? <sup>HOLIDAY</sup>

21. Approximately, what was the total cost per person for all your trip (included transportation, lodging, food)? <sup>COST</sup> \_\_\_\_\_

### About your visit to Port Aventura

22. What was the MAIN purpose of your visit to Port Aventura?

Select one only. <sup>MOTIV</sup>

Family (to share time with family, rides for small children and cartoons characters)

Thrill (roller coasters, water rides and several thrill rides)

Leisure attractions (general entertainment, restaurants, shops, shows)




23. How many days did you spend in the park? <sup>DAY</sup>

Annual pass holder <sup>SEASONPAS</sup> No  Yes



24. How many hours did you spend in the park in total? <sup>HOUR</sup>

25. With whom did you visit Port Aventura? <sup>WHOM</sup>

Alone

As a couple

Family and/or friends without kids

Family and/or friends with kids under 13

Family and/or friends with kids 13 or over

Family and/or friends with kids of mixed ages

Friends








26. How many people were in your group? <sup>PARTY</sup> \_\_\_\_\_

### About yourself

27. Where are you from? <sup>LOC/LOCSPAIN/LOCWORLD</sup>

Spain

Province \_\_\_\_\_

Other country

Country \_\_\_\_\_

28. Would you describe where you live as being.... <sup>REGION</sup>

Large city

Small/medium city

Town

Rural





29. How do you consider your pace of life? <sup>PACE</sup>

Totally hectic pace of life	1	2	3	4	5	Totally slow pace of life
--------------------------------	---	---	---	---	---	------------------------------

30. How often do you visit theme parks? <sup>VISITHEME</sup>

Once a year or less	More than once a year
------------------------	--------------------------

31. Age <sup>AGE</sup> \_\_\_\_\_

32. Nº of people in household: <sup>PEOPLE</sup> \_\_\_\_\_

33. Annual HOUSEHOLD income <sup>INCOANUAL</sup>

Less than 20.000 € (less than 17200 €)

Between 20.000 € and 40.000 € (17200—34400 €)

Between 40.000 € and 80.000 € (34400—68800€)

More than 80.000 € (More than 68800€)

**ANNEX II: MODEL A.1 (External variables)**

Ordinal variables measured as quantitative variables

Categorical variables: last category as the reference category

**Regresión logística**

**Resumen de procesamiento de casos**

Casos sin ponderar		N	Porcentaje
Casos seleccionados	Incluido en el análisis	858	88,4
	Casos perdidos	113	11,6
	Total	971	100,0
Casos no seleccionados		0	,0
Total		971	100,0

**Codificación de variable dependiente**

Valor original	Valor interno
express pass no holder	0
express pass holder	1

**Codificaciones de variables categóricas**

	Frecuencia	Codificación de parámetro					
		(1)	(2)	(3)	(4)	(5)	
find out about express pass	no aware it exist on the internet	131	1,000	,000	,000	,000	,000
	information at hotel	141	,000	1,000	,000	,000	,000
	friends and family recommendation	40	,000	,000	1,000	,000	,000
	travel agency recommendation	234	,000	,000	,000	1,000	,000
	advertisement in theme park	25	,000	,000	,000	,000	1,000
weather	sunny comfortable	287	,000	,000	,000	,000	,000
	sunny too hot	359	1,000	,000	,000		
	cloudy	459	,000	1,000	,000		
	rainy	36	,000	,000	1,000		
region-city size	large city	4	,000	,000	,000		
	small/medium city	361	1,000	,000	,000		
	town	336	,000	1,000	,000		
	rural	144	,000	,000	1,000		
mono.poli culture	mono	17	,000	,000	,000		
	poli	135	1,000				
visit day	weekday	723	,000				
	weekend	671	1,000				
		187	,000				

**Bloque 0: Bloque de inicio**

**Tabla de clasificación**

Observado			Pronosticado		
			express pass no holder-holder		Porcentaje correcto
			express pass no holder	express pass holder	
Paso 0	express pass no holder-holder	express pass no holder	590	0	100,0
		express pass holder	268	0	,0
Porcentaje global					68,8

**Variables en la ecuación**

		B	Error estándar	Wald	gl	Sig.	Exp(B)
Paso 0	Constante	-,789	,074	114,763	1	,000	,454

**Las variables no están en la ecuación**

			Puntuación	gl	Sig.
Paso 0	Variables	VISIT.DAY(1)	20,847	1	,000
		FINDOUT	85,177	5	,000
		FINDOUT(1)	66,837	1	,000
		FINDOUT(2)	,971	1	,324
		FINDOUT(3)	13,475	1	,000
		FINDOUT(4)	19,809	1	,000
		FINDOUT(5)	,272	1	,602
		COMF	,213	1	,645
		HOURS.SPENT.AT.THEME.PARKS	11,414	1	,001
		N°.OF.PEOPLE.PARTY	2,274	1	,132
		MONO.POLI(1)	6,739	1	,009
		REGION	8,141	3	,043
		REGION(1)	7,407	1	,006
		REGION(2)	2,731	1	,098
		REGION(3)	2,474	1	,116
		PACE	7,169	1	,007
		WEATHER	2,122	3	,547
		WEATHER(1)	,381	1	,537
		WEATHER(2)	,009	1	,926
		WEATHER(3)	1,904	1	,168
Estadísticos globales			134,083	17	,000

**Bloque 1: Método = Entrar**

**Pruebas ómnibus de coeficientes de modelo**

		Chi-cuadrado	gl	Sig.
Paso 1	Paso	171,842	17	,000
	Bloque	171,842	17	,000
	Modelo	171,842	17	,000

**Resumen del modelo**

Paso	Logaritmo de la verosimilitud -2	R cuadrado de Cox y Snell	R cuadrado de Nagelkerke
1	893,745	,181	,255

**Prueba de Hosmer y Lemeshow**

Paso	Chi-cuadrado	gl	Sig.
1	3,432	8	,904

**Tabla de contingencia para la prueba de Hosmer y Lemeshow**

		express pass no holder-holder = express pass no holder		express pass no holder-holder = express pass holder		Total
		Observado	Esperado	Observado	Esperado	
Paso 1	1	86	85,568	0	,432	86
	2	81	79,820	5	6,180	86
	3	70	67,762	16	18,238	86
	4	62	64,067	24	21,933	86
	5	62	60,817	24	25,183	86
	6	55	57,616	31	28,384	86
	7	53	54,207	33	31,793	86
	8	46	49,879	40	36,121	86
	9	44	43,307	42	42,693	86
	10	31	26,958	53	57,042	84

**Tabla de clasificación**

Observado			Pronosticado		
			express pass no holder-holder		Porcentaje correcto
			express pass no holder	express pass holder	
Paso 1	express pass no holder-holder	express pass no holder	541	49	91,7
		express pass holder	200	68	25,4
Porcentaje global					71,0

**VARIABLES EN LA ECUACIÓN**

	B	Error estándar	Wald	gl	Sig.	Exp(B)	95% C.I. para EXP(B)	
							Inferior	Superior
Paso 1 VISIT.DAY(1)	-,861	,200	18,531	1	,000	,423	,286	,626
FINDOUT			30,207	5	,000			
FINDOUT(1)	-4,205	1,017	17,106	1	,000	,015	,002	,109
FINDOUT(2)	,031	,231	,019	1	,892	1,032	,656	1,624
FINDOUT(3)	,784	,379	4,274	1	,039	2,189	1,042	4,602
FINDOUT(4)	,517	,194	7,077	1	,008	1,678	1,146	2,456
FINDOUT(5)	,228	,457	,249	1	,618	1,256	,513	3,079
COMF	,099	,072	1,878	1	,171	1,104	,958	1,271
HOURS.SPENT.AT.THEME.PARKS	,023	,011	3,953	1	,047	1,023	1,000	1,046
Nº.OF.PEOPLE.PARTY	-,070	,031	5,096	1	,024	,933	,878	,991
MONO.POLI(1)	,865	,230	14,118	1	,000	2,376	1,513	3,731
REGION			6,889	3	,076			
REGION(1)	-,019	,608	,001	1	,976	,982	,298	3,232
REGION(2)	-,306	,611	,250	1	,617	,737	,222	2,440
REGION(3)	-,637	,634	1,009	1	,315	,529	,152	1,833
PACE	-,173	,080	4,626	1	,031	,842	,719	,985
WEATHER			1,853	3	,603			
WEATHER(1)	,906	1,194	,576	1	,448	2,475	,238	25,713
WEATHER(2)	,905	1,191	,577	1	,448	2,471	,239	25,527
WEATHER(3)	1,335	1,244	1,151	1	,283	3,799	,332	43,546
Constante	-,713	1,428	,249	1	,618	,490		

**Lista por casos**

Caso	Estado seleccionado	Observado	Pronosticado	Grupo pronosticado	Variable temporal	
		express pass no holder-holder			Resid	ZResid
120	S	1**	,103	0	,897	2,945
195	S	1**	,119	0	,881	2,719
364	S	1**	,012	0	,988	8,994

**ANNEX III: MODEL B.1 (Internal variables)**

Ordinal variables measured as quantitative variables

Categorical variables: last category as the reference category

**Regresió logística**

**Resumen de procesamiento de casos**

Casos sin ponderar		N	Porcentaje
Casos seleccionados	Incluido en el análisis	736	75,8
	Casos perdidos	235	24,2
	Total	971	100,0
Casos no seleccionados		0	,0
Total		971	100,0

**Codificación de variable dependiente**

Valor original	Valor interno
express pass no holder	0
express pass holder	1

**Codificaciones de variables categóricas**

		Frecuencia	Codificación de parámetro		
			(1)	(2)	(3)
trip motivation	culture	77	1,000	,000	,000
	rest and relaxation	161	,000	1,000	,000
	entertainment	392	,000	,000	1,000
	others	106	,000	,000	,000
visit motivation	family	143	1,000	,000	
	thrill	469	,000	1,000	
	leisure attractions	124	,000	,000	
how long perceive waiting times	longer than expected	333	1,000	,000	
	as expected	332	,000	1,000	
	shorter than expected	71	,000	,000	
waiting expectation	long waits	208	1,000	,000	
	medium waits	431	,000	1,000	
	short waits	97	,000	,000	
prior information on waiting times	no	374	1,000		
	yes	362	,000		
prior purchase of express pass	no	507	1,000		
	yes	229	,000		
prior visit to theme parks	Once a year or less	535	1,000		
	More than once a year	201	,000		
gender	male	360	1,000		
	female	376	,000		

**Bloque 0: Bloque de inicio**

**Tabla de clasificación**

Observado			Pronosticado		
			express pass no holder-holder		Porcentaje correcto
			express pass no holder	express pass holder	
Paso 0	express pass no holder-holder	express pass no holder	497	0	100,0
		express pass holder	239	0	,0
Porcentaje global					67,5

**Variables en la ecuación**

		B	Error estándar	Wald	gl	Sig.	Exp(B)
Paso 0	Constante	-,732	,079	86,506	1	,000	,481

**Las variables no están en la ecuación**

			Puntuación	gl	Sig.
Paso 0	Variables	GENDER(1)	3,054	1	,081
		AGE	1,409	1	,235
		PEOPLE	2,397	1	,122
		HOUSEHOLD.INCOME	20,746	1	,000
		ATTITUDEPASS	109,668	1	,000
		ATTITUDE.TOWARDS.WAITING	34,836	1	,000
		PRIOR.INFORMATION(1)	5,916	1	,015
		PRIOR.PURCHASE(1)	140,191	1	,000
		PRIEXW	1,096	1	,295
		PRIOR.VISIT.THEME.PARK(1)	1,650	1	,199
		WAITING.EXPECTATION	20,091	2	,000
		WAITING.EXPECTATION(1)	12,789	1	,000
		WAITING.EXPECTATION(2)	19,958	1	,000
		WAITING.PERCEPTION	5,466	2	,065
		WAITING.PERCEPTION(1)	4,997	1	,025
		WAITING.PERCEPTION(2)	2,114	1	,146
		TRIP.MOTIVATION	10,187	3	,017
		TRIP.MOTIVATION(1)	1,060	1	,303
		TRIP.MOTIVATION(2)	,107	1	,743
		TRIP.MOTIVATION(3)	5,383	1	,020
		VISIT.MOTIVATION	8,253	2	,016

VISIT.MOTIVATION(1)	8,249	1	,004
VISIT.MOTIVATION(2)	3,671	1	,055
BEHAVIOR.PATTERN	17,992	1	,000
Estadísticos globales	253,835	20	,000

**Bloque 1: Método = Entrar**

**Pruebas ómnibus de coeficientes de modelo**

		Chi-cuadrado	gl	Sig.
Paso 1	Paso	285,524	20	,000
	Bloque	285,524	20	,000
	Modelo	285,524	20	,000

**Resumen del modelo**

Paso	Logaritmo de la verosimilitud -2	R cuadrado de Cox y Snell	R cuadrado de Nagelkerke
1	642,398	,322	,449

**Prueba de Hosmer y Lemeshow**

Paso	Chi-cuadrado	gl	Sig.
1	9,605	8	,294

**Tabla de contingencia para la prueba de Hosmer y Lemeshow**

		express pass no holder-holder = express pass no holder		express pass no holder-holder = express pass holder		Total
		Observado	Esperado	Observado	Esperado	
		Paso 1	1	69	71,942	
	2	71	69,771	3	4,229	74
	3	68	67,109	6	6,891	74
	4	65	63,993	9	10,007	74
	5	64	60,703	10	13,297	74
	6	52	54,319	22	19,681	74
	7	47	46,076	27	27,924	74
	8	31	34,855	43	39,145	74
	9	25	20,514	49	53,486	74
	10	5	7,716	65	62,284	70

**Tabla de clasificación**

Observado			Pronosticado		
			express pass no holder-holder		Porcentaje correcto
			express pass no holder	express pass holder	
Paso 1	express pass no holder-holder	express pass no holder	450	47	90,5
		express pass holder	97	142	59,4
Porcentaje global					80,4

**VARIABLES EN LA ECUACIÓN**

	B	Error estándar	Wald	gl	Sig.	Exp(B)	95% C.I. para EXP(B)	
							Inferior	Superior
Paso 1 GENDER(1)	,088	,202	,192	1	,661	1,092	,736	1,622
AGE	,006	,011	,344	1	,557	1,006	,985	1,028
PEOPLE	-,132	,084	2,452	1	,117	,877	,743	1,034
HOUSEHOLD.INCOME	,242	,115	4,411	1	,036	1,274	1,016	1,597
ATTITUDEPASS	,862	,123	49,057	1	,000	2,369	1,861	3,015
ATTITUDE.TOWARDS.WAITING	,432	,117	13,613	1	,000	1,541	1,225	1,939
PRIOR.INFORMATION(1)	-,414	,205	4,073	1	,044	,661	,442	,988
PRIOR.PURCHASE(1)	-1,797	,215	69,883	1	,000	,166	,109	,253
PRIEXW	-,173	,137	1,580	1	,209	,841	,643	1,101
PRIOR.VISIT.THEME.PARK(1)	,715	,242	8,754	1	,003	2,043	1,273	3,281
WAITING.EXPECTATION			5,757	2	,056			
WAITING.EXPECTATION(1)	-,318	,334	,904	1	,342	,728	,378	1,401
WAITING.EXPECTATION(2)	-,661	,302	4,791	1	,029	,516	,285	,933
WAITING.PERCEPTION			7,250	2	,027			
WAITING.PERCEPTION(1)	-,973	,366	7,063	1	,008	,378	,184	,775
WAITING.PERCEPTION(2)	-,636	,344	3,420	1	,064	,529	,270	1,039
TRIP.MOTIVATION			3,167	3	,367			
TRIP.MOTIVATION(1)	,293	,435	,453	1	,501	1,340	,571	3,143
TRIP.MOTIVATION(2)	,561	,362	2,401	1	,121	1,752	,862	3,561
TRIP.MOTIVATION(3)	,509	,314	2,623	1	,105	1,663	,899	3,077
VISIT.MOTIVATION			9,699	2	,008			
VISIT.MOTIVATION(1)	-,878	,352	6,205	1	,013	,416	,208	,829
VISIT.MOTIVATION(2)	,019	,279	,005	1	,947	1,019	,590	1,761
BEHAVIOR.PATTERN	,064	,107	,353	1	,552	1,066	,864	1,316
Constante	-2,014	,916	4,835	1	,028	,133		

Lista por casos

Caso	Estado seleccionado	Observado	Pronosticado	Grupo pronosticado	Variable temporal	
		express pass no holder-holder			Resid	ZResid
10	S	1**	,022	0	,978	6,606
11	S	1**	,066	0	,934	3,758
27	S	1**	,076	0	,924	3,475
30	S	1**	,101	0	,899	2,977
63	S	1**	,129	0	,871	2,595
84	S	1**	,118	0	,882	2,729
129	S	1**	,128	0	,872	2,605
151	S	1**	,041	0	,959	4,864
154	S	1**	,089	0	,911	3,197
195	S	1**	,136	0	,864	2,523
198	S	1**	,083	0	,917	3,318
199	S	1**	,045	0	,955	4,587
214	S	1**	,017	0	,983	7,670
223	S	1**	,099	0	,901	3,022
232	S	1**	,118	0	,882	2,729
251	S	1**	,035	0	,965	5,288
254	S	1**	,111	0	,889	2,826
255	S	1**	,029	0	,971	5,830
503	S	0**	,917	1	-,917	-3,316
673	S	0**	,941	1	-,941	-3,994
830	S	0**	,901	1	-,901	-3,019
966	S	1**	,059	0	,941	3,984
968	S	1**	,116	0	,884	2,759

**ANNEX IV: MODEL C.1 (Internal and External variables)**

Ordinal variables measured as quantitative variables

Categorical variables: last category as the reference category

**Regresión logística**

**Resumen de procesamiento de casos**

Casos sin ponderar		N	Porcentaje
Casos seleccionados	Incluido en el análisis	675	69,5
	Casos perdidos	296	30,5
	Total	971	100,0
Casos no seleccionados		0	,0
Total		971	100,0

**Codificación de variable dependiente**

Valor original	Valor interno
express pass no holder	0
express pass holder	1

**Codificaciones de variables categóricas**

	Frecuencia	Codificación de parámetro					
		(1)	(2)	(3)	(4)	(5)	
find out about express pass	no aware it exist on the internet	107	1,000	,000	,000	,000	,000
	information at hotel	101	,000	1,000	,000	,000	,000
	friends and family recommendation	33	,000	,000	1,000	,000	,000
	travel agency recommendation	171	,000	,000	,000	1,000	,000
	advertisement in theme park	15	,000	,000	,000	,000	1,000
weather	sunny comfortable	248	,000	,000	,000	,000	,000
	sunny too hot	285	1,000	,000	,000		
	cloudy	358	,000	1,000	,000		
	rainy	28	,000	,000	1,000		
trip motivation	culture	4	,000	,000	,000		
	rest and relaxation	72	1,000	,000	,000		
	entertainment	144	,000	1,000	,000		
	others	361	,000	,000	1,000		
region-city size	large city	98	,000	,000	,000		
	small/medium city	279	1,000	,000	,000		
	town	269	,000	1,000	,000		
	rural	112	,000	,000	1,000		
		15	,000	,000	,000		

waiting expectation	long waits	193	1,000	,000			
	medium waits	392	,000	1,000			
	short waits	90	,000	,000			
visit motivation	family	126	1,000	,000			
	thrill	436	,000	1,000			
	leisure attractions	113	,000	,000			
how long perceive	longer than expected	304	1,000	,000			
waiting times	as expected	306	,000	1,000			
	shorter than expected	65	,000	,000			
prior information on	no	350	1,000				
waiting times	yes	325	,000				
prior purchase of	no	463	1,000				
express pass	yes	212	,000				
prior visit to theme	Once a year or less	491	1,000				
parks	More than once a year	184	,000				
mono.poli culture	mono	112	1,000				
	poli	563	,000				
visit day	weekday	528	1,000				
	weekend	147	,000				
gender	male	332	1,000				
	female	343	,000				

**Bloque 0: Bloque de inicio**

**Tabla de clasificación**

Observado	Pronosticado				
	express pass no holder-holder		express pass holder		Porcentaje correcto
	express pass no holder	express pass holder	express pass no holder	express pass holder	
Paso 0	express pass no holder-holder	express pass no holder	460	0	100,0
	holder-holder	express pass holder	215	0	,0
Porcentaje global					68,1

**Variables en la ecuación**

	B	Error estándar	Wald	gl	Sig.	Exp(B)
Paso 0 Constante	-,761	,083	84,760	1	,000	,467

**Las variables no están en la ecuación**

	Puntuación	gl	Sig.
Paso 0 Variables GENDER(1)	4,099	1	,043
	AGE	1	,160
	PEOPLE	1	,162

HOUSEHOLD.INCOME	19,579	1	,000
ATTITUDEPASS	106,242	1	,000
ATTITUDE.TOWARDS.WAI TING	32,407	1	,000
PRIOR.INFORMATION(1)	3,003	1	,083
PRIOR.PURCHASE(1)	131,695	1	,000
PRIEXW	,489	1	,484
PRIOR.VISIT.THEME.PARK( 1)	1,992	1	,158
WAITING.EXPECTATION	17,820	2	,000
WAITING.EXPECTATION(1)	12,745	1	,000
WAITING.EXPECTATION(2)	17,323	1	,000
WAITING.PERCEPTION	7,108	2	,029
WAITING.PERCEPTION(1)	6,909	1	,009
WAITING.PERCEPTION(2)	3,663	1	,056
TRIP.MOTIVATION	9,059	3	,029
TRIP.MOTIVATION(1)	1,108	1	,292
TRIP.MOTIVATION(2)	,399	1	,527
TRIP.MOTIVATION(3)	3,960	1	,047
VISIT.MOTIVATION	7,902	2	,019
VISIT.MOTIVATION(1)	7,754	1	,005
VISIT.MOTIVATION(2)	4,388	1	,036
BEHAVIOR.PATTERN	15,609	1	,000
VISIT.DAY(1)	21,523	1	,000
FINDOUT	80,898	5	,000
FINDOUT(1)	55,995	1	,000
FINDOUT(2)	2,502	1	,114
FINDOUT(3)	13,216	1	,000
FINDOUT(4)	23,524	1	,000
FINDOUT(5)	,016	1	,901
COMF	,761	1	,383
HOURS.SPENT.AT.THEME. PARKS	8,604	1	,003
N°.OF.PEOPLE.PARTY	2,483	1	,115
MONO.POLI(1)	3,419	1	,064
REGION	7,591	3	,055
REGION(1)	7,326	1	,007
REGION(2)	3,249	1	,071

REGION(3)	1,588	1	,208
PACE	11,540	1	,001
WEATHER	1,480	3	,687
WEATHER(1)	1,285	1	,257
WEATHER(2)	,977	1	,323
WEATHER(3)	,201	1	,654
Estadísticos globales	279,298	37	,000

**Bloque 1: Método = Entrar**

**Pruebas ómnibus de coeficientes de modelo**

		Chi-cuadrado	gl	Sig.
Paso 1	Paso	360,501	37	,000
	Bloque	360,501	37	,000
	Modelo	360,501	37	,000

**Resumen del modelo**

Paso	Logaritmo de la verosimilitud -2	R cuadrado de Cox y Snell	R cuadrado de Nagelkerke
1	484,259	,414	,580

**Prueba de Hosmer y Lemeshow**

Paso	Chi-cuadrado	gl	Sig.
1	4,550	8	,804

**Tabla de contingencia para la prueba de Hosmer y Lemeshow**

		express pass no holder-holder = express pass no holder		express pass no holder-holder = express pass holder		Total
		Observado	Esperado	Observado	Esperado	
Paso 1	1	68	67,918	0	,082	68
	2	66	67,133	2	,867	68
	3	64	65,037	4	2,963	68
	4	64	62,549	4	5,451	68
	5	60	58,182	8	9,818	68
	6	52	51,435	16	16,565	68
	7	42	40,870	26	27,130	68
	8	24	27,880	44	40,120	68
	9	17	14,831	51	53,169	68
	10	3	4,165	60	58,835	63

**Tabla de clasificación**

Observado			Pronosticado		
			express pass no holder-holder		Porcentaje correcto
			express pass no holder	express pass holder	
Paso 1	express pass no holder-holder	express pass no holder	419	41	91,1
		express pass holder	63	152	70,7
Porcentaje global					84,6

**VARIABLES EN LA ECUACIÓN**

	B	Error estándar	Wald	gl	Sig.	Exp(B)	95% C.I. para EXP(B)	
							Inferior	Superior
Paso 1 GENDER(1)	,067	,239	,079	1	,779	1,070	,669	1,710
AGE	,006	,013	,236	1	,627	1,006	,981	1,033
PEOPLE	-,091	,105	,759	1	,384	,913	,744	1,121
HOUSEHOLD.INCOME	,149	,141	1,110	1	,292	1,160	,880	1,529
ATTITUDEPASS	1,013	,150	45,379	1	,000	2,755	2,051	3,700
ATTITUDE.TOWARDS.WAITING	,510	,147	12,091	1	,001	1,665	1,249	2,220
PRIOR.INFORMATION(1)	-,008	,250	,001	1	,973	,992	,607	1,619
PRIOR.PURCHASE(1)	-1,497	,253	35,039	1	,000	,224	,136	,367
PRIEXW	-,133	,166	,641	1	,423	,876	,633	1,212
PRIOR.VISIT.THEME.PARK(1)	,725	,290	6,279	1	,012	2,066	1,171	3,643
WAITING.EXPECTATION			6,909	2	,032			
WAITING.EXPECTATION(1)	-,329	,387	,723	1	,395	,720	,337	1,536
WAITING.EXPECTATION(2)	-,828	,353	5,489	1	,019	,437	,219	,873
WAITING.PERCEPTION			5,456	2	,065			
WAITING.PERCEPTION(1)	-,954	,428	4,980	1	,026	,385	,167	,890
WAITING.PERCEPTION(2)	-,528	,407	1,681	1	,195	,590	,266	1,310
TRIP.MOTIVATION			,522	3	,914			
TRIP.MOTIVATION(1)	-,263	,531	,246	1	,620	,769	,272	2,175
TRIP.MOTIVATION(2)	,056	,442	,016	1	,899	1,058	,445	2,516
TRIP.MOTIVATION(3)	,009	,383	,001	1	,982	1,009	,476	2,139
VISIT.MOTIVATION			8,830	2	,012			
VISIT.MOTIVATION(1)	-,750	,429	3,055	1	,081	,472	,204	1,095
VISIT.MOTIVATION(2)	,348	,331	1,109	1	,292	1,416	,741	2,707
BEHAVIOR.PATTERN	,100	,126	,630	1	,427	1,105	,863	1,415

VISIT.DAY(1)	-,998	,303	10,833	1	,001	,369	,204	,668
FINDOUT			24,044	5	,000			
FINDOUT(1)	-4,244	1,065	15,878	1	,000	,014	,002	,116
FINDOUT(2)	,321	,350	,843	1	,359	1,379	,694	2,740
FINDOUT(3)	,723	,545	1,764	1	,184	2,061	,709	5,995
FINDOUT(4)	,544	,276	3,874	1	,049	1,723	1,002	2,961
FINDOUT(5)	,925	,743	1,548	1	,213	2,522	,587	10,826
COMF	,176	,112	2,457	1	,117	1,192	,957	1,485
HOURS.SPENT.AT.THEME.PARKS	,018	,017	1,058	1	,304	1,018	,984	1,054
N°.OF.PEOPLE.PARTY	-,131	,043	9,119	1	,003	,878	,806	,955
MONO.POLI(1)	,607	,368	2,719	1	,099	1,836	,892	3,778
REGION			1,744	3	,627			
REGION(1)	,437	,938	,217	1	,641	1,548	,246	9,728
REGION(2)	,277	,945	,086	1	,770	1,319	,207	8,411
REGION(3)	-,040	,982	,002	1	,968	,961	,140	6,586
PACE	-,194	,122	2,550	1	,110	,824	,649	1,045
WEATHER			2,047	3	,563			
WEATHER(1)	,511	1,600	,102	1	,749	1,668	,072	38,402
WEATHER(2)	,202	1,589	,016	1	,899	1,223	,054	27,556
WEATHER(3)	,778	1,688	,212	1	,645	2,177	,080	59,529
Constante	-2,445	2,245	1,187	1	,276	,087		

Lista por casos

Caso	Estado seleccionado	Observado	Pronosticado	Grupo pronosticado	Variable temporal	
		express pass no holder-holder			Resid	ZResid
10	S	1**	,006	0	,994	12,855
84	S	1**	,102	0	,898	2,965
103	S	1**	,120	0	,880	2,703
151	S	1**	,050	0	,950	4,340
154	S	1**	,068	0	,932	3,701
195	S	1**	,033	0	,967	5,441
198	S	1**	,116	0	,884	2,756
199	S	1**	,083	0	,917	3,332
214	S	1**	,020	0	,980	6,977
232	S	1**	,059	0	,941	3,986
251	S	1**	,114	0	,886	2,791
254	S	1**	,140	0	,860	2,476
255	S	1**	,087	0	,913	3,243
364	S	1**	,039	0	,961	4,959

448	S	0**	,906	1	-,906	-3,097
474	S	0**	,706	1	-,706	-1,551
673	S	0**	,981	1	-,981	-7,194
830	S	0**	,935	1	-,935	-3,782
835	S	0**	,850	1	-,850	-2,376
885	S	1**	,108	0	,892	2,869
968	S	1**	,223	0	,777	1,865

**ANNEX V: MODEL A.2 (External variables)**

Ordinal variables measured as categorical variables

Categorical variables: first category as the reference category

**Regresión logística**

**Resumen de procesamiento de casos**

Casos sin ponderar		N	Porcentaje
Casos seleccionados	Incluido en el análisis	858	88,4
	Casos perdidos	113	11,6
	Total	971	100,0
Casos no seleccionados		0	,0
Total		971	100,0

**Codificación de variable dependiente**

Valor original	Valor interno
express pass no holder	0
express pass holder	1

**Codificaciones de variables categóricas**

		Frecuencia	Codificación de parámetro				
			(1)	(2)	(3)	(4)	(5)
find out about express pass	no aware it exist on the internet	131	,000	,000	,000	,000	,000
	information at hotel	141	1,000	,000	,000	,000	,000
	friends and family recommendation	40	,000	1,000	,000	,000	,000
	travel agency recommendation	234	,000	,000	1,000	,000	,000
	advertisement in theme park	25	,000	,000	,000	1,000	,000
pace of life	advertisement in theme park	287	,000	,000	,000	,000	1,000
	totally hectic pace of life	95	,000	,000	,000	,000	,000
	2	225	1,000	,000	,000	,000	,000
	3	344	,000	1,000	,000	,000	,000
	4	136	,000	,000	1,000	,000	,000
	5 totally slow pace of life	58	,000	,000	,000	1,000	,000
comfort of waiting environment	1 no at all unfomfortable	86	,000	,000	,000	,000	,000
	2	161	1,000	,000	,000	,000	,000
	3	331	,000	1,000	,000	,000	,000
	4	148	,000	,000	1,000	,000	,000

weather	5 very uncomfortable	132	,000	,000	,000	1,000
	sunny comfortable	359	,000	,000	,000	
	sunny too hot	459	1,000	,000	,000	
	cloudy	36	,000	1,000	,000	
region-city size	rainy	4	,000	,000	1,000	
	large city	361	,000	,000	,000	
	small/medium city	336	1,000	,000	,000	
	town	144	,000	1,000	,000	
mono.poli culture	rural	17	,000	,000	1,000	
	mono	135	,000			
	poli	723	1,000			
visit day	weekday	671	,000			
	weekend	187	1,000			

### Bloque 0: Bloque de inicio

Tabla de clasificación

Observado	Pronosticado				
	express pass no holder-holder		express pass holder		Porcentaje correcto
	express pass no holder	express pass holder	express pass no holder	express pass holder	
Paso 0	express pass no holder-holder	express pass no holder	590	0	100,0
	holder-holder	express pass holder	268	0	,0
Porcentaje global					68,8

Variables en la ecuación

	B	Error estándar	Wald	gl	Sig.	Exp(B)
Paso 0 Constante	-,789	,074	114,763	1	,000	,454

Las variables no están en la ecuación

	Puntuación	gl	Sig.
Paso 0 Variables VISIT.DAY(1)	20,847	1	,000
FINDOUT	85,177	5	,000
FINDOUT(1)	,971	1	,324
FINDOUT(2)	13,475	1	,000
FINDOUT(3)	19,809	1	,000
FINDOUT(4)	,272	1	,602
FINDOUT(5)	,324	1	,569
COMF	6,280	4	,179
COMF(1)	5,376	1	,020
COMF(2)	1,698	1	,193

COMF(3)	,541	1	,462
COMF(4)	,207	1	,649
HOURS.SPENT.AT.THEME. PARKS	11,414	1	,001
Nº.OF.PEOPLE.PARTY	2,274	1	,132
MONO.POLI(1)	6,739	1	,009
REGION	8,141	3	,043
REGION(1)	2,731	1	,098
REGION(2)	2,474	1	,116
REGION(3)	,133	1	,715
PACE	9,708	4	,046
PACE(1)	,625	1	,429
PACE(2)	,269	1	,604
PACE(3)	4,468	1	,035
PACE(4)	,107	1	,743
WEATHER	2,122	3	,547
WEATHER(1)	,009	1	,926
WEATHER(2)	1,904	1	,168
WEATHER(3)	,073	1	,787
Estadísticos globales	143,651	23	,000

**Bloque 1: Método = Entrar**

**Pruebas ómnibus de coeficientes de modelo**

		Chi-cuadrado	gl	Sig.
Paso 1	Paso	185,017	23	,000
	Bloque	185,017	23	,000
	Modelo	185,017	23	,000

**Resumen del modelo**

Paso	Logaritmo de la verosimilitud -2	R cuadrado de Cox y Snell	R cuadrado de Nagelkerke
1	880,570	,194	,273

**Prueba de Hosmer y Lemeshow**

Paso	Chi-cuadrado	gl	Sig.
1	7,274	8	,507

**Tabla de contingencia para la prueba de Hosmer y Lemeshow**

		express pass no holder-holder =		express pass no holder-holder =		Total
		express pass no holder		express pass holder		
		Observado	Esperado	Observado	Esperado	
Paso 1	1	86	85,606	0	,394	86
	2	83	80,889	3	5,111	86
	3	68	69,800	18	16,200	86
	4	63	64,803	23	21,197	86
	5	62	60,799	24	25,201	86
	6	55	57,521	31	28,479	86
	7	60	54,130	26	31,870	86
	8	42	49,046	44	36,954	86
	9	41	41,624	45	44,376	86
	10	30	25,782	54	58,218	84

**Tabla de clasificación**

Observado			Pronosticado		Porcentaje correcto
			express pass no holder-holder		
			express pass no holder	express pass holder	
Paso 1	express pass no holder-holder	express pass no holder	533	57	90,3
	holder-holder	express pass holder	184	84	31,3
Porcentaje global					71,9

**Variables en la ecuación**

	B	Error estándar	Wald	gl	Sig.	Exp(B)	95% C.I. para EXP(B)	
							Inferior	Superior
Paso 1 VISIT.DAY(1)	,869	,204	18,171	1	,000	2,385	1,599	3,558
FINDOUT			30,573	5	,000			
FINDOUT(1)	4,318	1,026	17,722	1	,000	75,046	10,051	560,315
FINDOUT(2)	5,083	1,071	22,524	1	,000	161,313	19,768	1316,366
FINDOUT(3)	4,811	1,019	22,295	1	,000	122,845	16,675	904,975
FINDOUT(4)	4,446	1,104	16,209	1	,000	85,295	9,793	742,925
FINDOUT(5)	4,302	1,019	17,838	1	,000	73,838	10,030	543,594
COMF			10,800	4	,029			
COMF(1)	-,553	,325	2,900	1	,089	,575	,304	1,087
COMF(2)	,157	,285	,303	1	,582	1,170	,669	2,046
COMF(3)	,284	,327	,757	1	,384	1,329	,700	2,521

COMF(4)	-,086	,339	,064	1	,800	,918	,473	1,782
HOURS.SPENT.AT.THEME.PARKS	,023	,012	3,987	1	,046	1,024	1,000	1,047
N°.OF.PEOPLE.PARTY	-,074	,030	6,064	1	,014	,929	,875	,985
MONO.POLI(1)	-,938	,236	15,875	1	,000	,391	,247	,621
REGION			6,482	3	,090			
REGION(1)	-,214	,186	1,331	1	,249	,807	,561	1,161
REGION(2)	-,636	,251	6,396	1	,011	,530	,324	,867
REGION(3)	-,121	,615	,039	1	,844	,886	,266	2,958
PACE			8,157	4	,086			
PACE(1)	-,397	,287	1,915	1	,166	,672	,383	1,180
PACE(2)	-,573	,275	4,332	1	,037	,564	,329	,967
PACE(3)	-,898	,330	7,397	1	,007	,407	,213	,778
PACE(4)	-,376	,403	,872	1	,350	,686	,312	1,512
WEATHER			2,411	3	,492			
WEATHER(1)	,045	,172	,070	1	,791	1,046	,747	1,465
WEATHER(2)	,491	,401	1,499	1	,221	1,634	,745	3,587
WEATHER(3)	-1,092	1,198	,832	1	,362	,335	,032	3,508
Constante	-3,768	1,084	12,080	1	,001	,023		

**Lista por casos**

Caso	Estado seleccionado	Observado	Pronosticado	Grupo pronosticado	Variable temporal	
		express pass no holder-holder			Resid	ZResid
120	S	1**	,154	0	,846	2,342
127	S	1**	,137	0	,863	2,510
364	S	1**	,009	0	,991	10,612

**ANNEX VI: MODEL B.2 (Internal variables)**

Ordinal variables measured as categorical variables

Categorical variables: first category as the reference category

**Regresió logística**

**Resumen de procesamiento de casos**

Casos sin ponderar		N	Porcentaje
Casos seleccionados	Incluido en el análisis	736	75,8
	Casos perdidos	235	24,2
	Total	971	100,0
Casos no seleccionados		0	,0
Total		971	100,0

**Codificación de variable dependiente**

Valor original	Valor interno
express pass no holder	0
express pass holder	1

**Codificaciones de variables categóricas**

		Frecuencia	Codificación de parámetro			
			(1)	(2)	(3)	(4)
prior experiences with waiting times at theme parks	strongly negative	54	,000	,000	,000	,000
	negative	307	1,000	,000	,000	,000
	neutral	306	,000	1,000	,000	,000
	positive	60	,000	,000	1,000	,000
attitude toward express pass system	strongly positive	9	,000	,000	,000	1,000
	strongly negative	32	,000	,000	,000	,000
	negative	73	1,000	,000	,000	,000
	neutral	307	,000	1,000	,000	,000
trip motivation	positive	243	,000	,000	1,000	,000
	strongly positive	81	,000	,000	,000	1,000
	culture	77	,000	,000	,000	
	rest and relaxation	161	1,000	,000	,000	
household income	entertainment	392	,000	1,000	,000	
	others	106	,000	,000	1,000	
	1	120	,000	,000	,000	
	2	286	1,000	,000	,000	
visit motivation	3	227	,000	1,000	,000	
	4	103	,000	,000	1,000	
	family	143	,000	,000		
	thrill	469	1,000	,000		
	leisure attractions	124	,000	1,000		

waiting expectation	long waits	208	,000	,000		
	medium waits	431	1,000	,000		
	short waits	97	,000	1,000		
how long perceive waiting times	longer than expected	333	,000	,000		
	as expected	332	1,000	,000		
prior visit to theme parks	shorter than expected	71	,000	1,000		
	Once a year or less	535	,000			
prior information on waiting times	More than once a year	201	1,000			
	no	374	,000			
prior purchase of express pass	yes	362	1,000			
	no	507	,000			
gender	yes	229	1,000			
	male	360	,000			
	female	376	1,000			

### Bloque 0: Bloque de inicio

**Tabla de clasificación**

Observado			Pronosticado		
			express pass no holder-holder		Porcentaje correcto
			express pass no holder	express pass holder	
Paso 0	express pass no holder-holder	express pass no holder	497	0	100,0
		express pass holder	239	0	,0
Porcentaje global					67,5

**Variables en la ecuación**

		B	Error estándar	Wald	gl	Sig.	Exp(B)
Paso 0	Constante	-,732	,079	86,506	1	,000	,481

**Las variables no están en la ecuación**

			Puntuación	gl	Sig.
Paso 0	Variables	GENDER(1)	3,054	1	,081
		AGE	1,409	1	,235
		PEOPLE	2,397	1	,122
		HOUSEHOLD.INCOME	23,610	3	,000
		HOUSEHOLD.INCOME(1)	10,299	1	,001
		HOUSEHOLD.INCOME(2)	5,128	1	,024
		HOUSEHOLD.INCOME(3)	12,453	1	,000
		ATTITUDEPASS	145,986	4	,000
		ATTITUDEPASS(1)	4,117	1	,042

ATTITUDEPASS(2)	81,907	1	,000
ATTITUDEPASS(3)	52,024	1	,000
ATTITUDEPASS(4)	55,793	1	,000
ATTITUDE.TOWARDS.WAITING	34,836	1	,000
PRIOR.INFORMATION(1)	5,916	1	,015
PRIOR.PURCHASE(1)	140,191	1	,000
PRIEXW	16,993	4	,002
PRIEXW(1)	4,514	1	,034
PRIEXW(2)	15,146	1	,000
PRIEXW(3)	2,518	1	,113
PRIEXW(4)	2,214	1	,137
PRIOR.VISIT.THEME.PARK(1)	1,650	1	,199
WAITING.EXPECTATION	20,091	2	,000
WAITING.EXPECTATION(1)	19,958	1	,000
WAITING.EXPECTATION(2)	3,047	1	,081
WAITING.PERCEPTION	5,466	2	,065
WAITING.PERCEPTION(1)	2,114	1	,146
WAITING.PERCEPTION(2)	1,738	1	,187
TRIP.MOTIVATION	10,187	3	,017
TRIP.MOTIVATION(1)	,107	1	,743
TRIP.MOTIVATION(2)	5,383	1	,020
TRIP.MOTIVATION(3)	7,755	1	,005
VISIT.MOTIVATION	8,253	2	,016
VISIT.MOTIVATION(1)	3,671	1	,055
VISIT.MOTIVATION(2)	,331	1	,565
BEHAVIOR.PATTERN	17,992	1	,000
Estadísticos globales	268,961	28	,000

**Bloque 1: Método = Entrar**

**Pruebas ómnibus de coeficientes de modelo**

		Chi-cuadrado	gl	Sig.
Paso 1	Paso	305,920	28	,000
	Bloque	305,920	28	,000
	Modelo	305,920	28	,000

**Resumen del modelo**

Paso	Logaritmo de la verosimilitud -2	R cuadrado de Cox y Snell	R cuadrado de Nagelkerke
1	622,002	,340	,475

**Prueba de Hosmer y Lemeshow**

Paso	Chi-cuadrado	gl	Sig.
1	5,071	8	,750

**Tabla de contingencia para la prueba de Hosmer y Lemeshow**

		express pass no holder-holder = express pass no holder		express pass no holder-holder = express pass holder		Total
		Observado	Esperado	Observado	Esperado	
Paso 1	1	72	72,303	2	1,697	74
	2	71	70,139	3	3,861	74
	3	66	68,074	8	5,926	74
	4	67	65,440	7	8,560	74
	5	61	61,379	13	12,621	74
	6	54	54,243	20	19,757	74
	7	47	45,248	27	28,752	74
	8	29	33,226	45	40,774	74
	9	25	19,836	49	54,164	74
	10	5	7,111	65	62,889	70

**Tabla de clasificación**

Observado		Pronosticado		Porcentaje correcto
		express pass no holder-holder = express pass holder		
		express pass no holder	express pass holder	
Paso 1	express pass no holder-holder	express pass no holder	50	89,9
	holder-holder	express pass holder	150	62,8
Porcentaje global				81,1

**Variablen en la ecuación**

	B	Error estándar	Wald	gl	Sig.	Exp(B)	95% C.I. para EXP(B)	
							Inferior	Superior
							Paso 1	
GENDER(1)	-,081	,206	,153	1	,695	,923	,617	1,380
AGE	,003	,011	,065	1	,798	1,003	,981	1,025
PEOPLE	-,141	,085	2,748	1	,097	,868	,735	1,026
HOUSEHOLD.INCOME			4,791	3	,188			
HOUSEHOLD.INCOME(1)	,246	,311	,627	1	,429	1,280	,695	2,355
HOUSEHOLD.INCOME(2)	,548	,322	2,893	1	,089	1,730	,920	3,255
HOUSEHOLD.INCOME(3)	,736	,386	3,633	1	,057	2,088	,979	4,453
ATTITUDEPASS			63,559	4	,000			
ATTITUDEPASS(1)	1,457	,821	3,150	1	,076	4,293	,859	21,454
ATTITUDEPASS(2)	,994	,784	1,607	1	,205	2,701	,581	12,551
ATTITUDEPASS(3)	2,494	,780	10,223	1	,001	12,108	2,625	55,847
ATTITUDEPASS(4)	3,216	,816	15,540	1	,000	24,938	5,039	123,413
ATTITUDE.TOWARDS.WAITING	,382	,121	10,048	1	,002	1,466	1,157	1,856
PRIOR.INFORMATION(1)	,454	,213	4,528	1	,033	1,574	1,036	2,390
PRIOR.PURCHASE(1)	1,793	,220	66,273	1	,000	6,010	3,903	9,256
PRIEXW			5,065	4	,281			
PRIEXW(1)	,163	,438	,138	1	,710	1,177	,498	2,779
PRIEXW(2)	-,332	,460	,523	1	,470	,717	,291	1,766
PRIEXW(3)	,133	,549	,059	1	,808	1,143	,389	3,355
PRIEXW(4)	-,686	1,003	,467	1	,494	,504	,071	3,598
PRIOR.VISIT.THEME.PARK(1)	-,740	,247	8,958	1	,003	,477	,294	,774
WAITING.EXPECTATION			5,229	2	,073			
WAITING.EXPECTATION(1)	-,350	,237	2,181	1	,140	,704	,442	1,121
WAITING.EXPECTATION(2)	,284	,342	,688	1	,407	1,329	,679	2,599
WAITING.PERCEPTION			6,513	2	,039			
WAITING.PERCEPTION(1)	,352	,233	2,284	1	,131	1,422	,901	2,245
WAITING.PERCEPTION(2)	,948	,381	6,174	1	,013	2,580	1,222	5,448
TRIP.MOTIVATION			2,557	3	,465			
TRIP.MOTIVATION(1)	,261	,400	,426	1	,514	1,298	,593	2,845
TRIP.MOTIVATION(2)	,193	,366	,278	1	,598	1,213	,592	2,486
TRIP.MOTIVATION(3)	-,264	,446	,349	1	,554	,768	,320	1,842
VISIT.MOTIVATION			10,414	2	,005			
VISIT.MOTIVATION(1)	,939	,303	9,604	1	,002	2,558	1,412	4,633
VISIT.MOTIVATION(2)	,983	,367	7,194	1	,007	2,674	1,303	5,485
BEHAVIOR.PATTERN	,039	,111	,125	1	,724	1,040	,837	1,292

Constante	-4,252	1,077	15,588	1	,000	,014		
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**Lista por casos**

Caso	Estado seleccionado	Observado	Pronosticado	Grupo pronosticado	Variable temporal	
		express pass no holder-holder			Resid	ZResid
10	S	1**	,033	0	,967	5,398
11	S	1**	,104	0	,896	2,935
27	S	1**	,043	0	,957	4,745
30	S	1**	,053	0	,947	4,213
63	S	1**	,080	0	,920	3,395
79	S	1**	,091	0	,909	3,163
84	S	1**	,072	0	,928	3,581
86	S	1**	,123	0	,877	2,672
126	S	1**	,125	0	,875	2,640
129	S	1**	,075	0	,925	3,502
142	S	1**	,135	0	,865	2,532
151	S	1**	,023	0	,977	6,495
154	S	1**	,095	0	,905	3,086
199	S	1**	,122	0	,878	2,680
214	S	1**	,068	0	,932	3,713
232	S	1**	,090	0	,910	3,179
251	S	1**	,092	0	,908	3,137
254	S	1**	,117	0	,883	2,741
255	S	1**	,064	0	,936	3,817
503	S	0**	,946	1	-,946	-4,176
573	S	0**	,852	1	-,852	-2,402
673	S	0**	,931	1	-,931	-3,671
830	S	0**	,867	1	-,867	-2,557
960	S	1**	,097	0	,903	3,044

**ANNEX VII: MODEL C.2 (Internal and External variables)**

Ordinal variables measured as categorical variables

Categorical variables: first category as the reference category

**Regresión logística**

**Resumen de procesamiento de casos**

Casos sin ponderar		N	Porcentaje
Casos seleccionados	Incluido en el análisis	675	69,5
	Casos perdidos	296	30,5
	Total	971	100,0
Casos no seleccionados		0	,0
Total		971	100,0

**Codificación de variable dependiente**

Valor original	Valor interno
express pass no holder	0
express pass holder	1

**Codificaciones de variables categóricas**

	Frecuencia	Codificación de parámetro					
		(1)	(2)	(3)	(4)	(5)	
find out about express pass	no aware it exist on the internet	107	,000	,000	,000	,000	,000
	information at hotel	101	1,000	,000	,000	,000	,000
	friends and family recommendation	33	,000	1,000	,000	,000	,000
	travel agency recommendation	171	,000	,000	1,000	,000	,000
	advertisement in theme park	15	,000	,000	,000	1,000	,000
pace of life	totally hectic pace of life	248	,000	,000	,000	,000	1,000
	2	80	,000	,000	,000	,000	
	3	182	1,000	,000	,000	,000	
	4	268	,000	1,000	,000	,000	
	5 totally slow pace of life	106	,000	,000	1,000	,000	
comfort of waiting environment	1 no at all unfomfortable	39	,000	,000	,000	1,000	
	2	62	,000	,000	,000	,000	
	3	134	1,000	,000	,000	,000	
		269	,000	1,000	,000	,000	

	4	112	,000	,000	1,000	,000
	5 very uncomfortable	98	,000	,000	,000	1,000
attitude toward	strongly negative	31	,000	,000	,000	,000
express pass system	negative	68	1,000	,000	,000	,000
	neutral	284	,000	1,000	,000	,000
	positive	220	,000	,000	1,000	,000
	strongly positive	72	,000	,000	,000	1,000
prior experiences with	strongly negative	52	,000	,000	,000	,000
waiting times at theme	negative	282	1,000	,000	,000	,000
parks	neutral	281	,000	1,000	,000	,000
	positive	52	,000	,000	1,000	,000
	strongly positive	8	,000	,000	,000	1,000
weather	sunny comfortable	285	,000	,000	,000	
	sunny too hot	358	1,000	,000	,000	
	cloudy	28	,000	1,000	,000	
	rainy	4	,000	,000	1,000	
region-city size	large city	279	,000	,000	,000	
	small/medium city	269	1,000	,000	,000	
	town	112	,000	1,000	,000	
	rural	15	,000	,000	1,000	
household income	1	110	,000	,000	,000	
	2	260	1,000	,000	,000	
	3	212	,000	1,000	,000	
	4	93	,000	,000	1,000	
trip motivation	culture	72	,000	,000	,000	
	rest and relaxation	144	1,000	,000	,000	
	entertainment	361	,000	1,000	,000	
	others	98	,000	,000	1,000	
waiting expectation	long waits	193	,000	,000		
	medium waits	392	1,000	,000		
	short waits	90	,000	1,000		
how long perceive	longer than expected	304	,000	,000		
waiting times	as expected	306	1,000	,000		
	shorter than expected	65	,000	1,000		
visit motivation	family	126	,000	,000		
	thrill	436	1,000	,000		
	leisure attractions	113	,000	1,000		
mono.poli culture	mono	112	,000			
	poli	563	1,000			
visit day	weekday	528	,000			
	weekend	147	1,000			
prior information on	no	350	,000			
waiting times	yes	325	1,000			

prior purchase of express pass	no	463	,000				
prior visit to theme parks	yes	212	1,000				
	Once a year or less	491	,000				
	More than once a year	184	1,000				
gender	male	332	,000				
	female	343	1,000				

**Bloque 0: Bloque de inicio**

**Tabla de clasificación**

Observado		Pronosticado			
		express pass no holder-holder		Porcentaje correcto	
		express pass no holder	express pass holder		
Paso 0	express pass no holder-holder	express pass no holder	460	0	100,0
		express pass holder	215	0	,0
Porcentaje global					68,1

**Variables en la ecuación**

	B	Error estándar	Wald	gl	Sig.	Exp(B)
Paso 0 Constante	-,761	,083	84,760	1	,000	,467

**Las variables no están en la ecuación**

			Puntuación	gl	Sig.
Paso 0	Variables	GENDER(1)	4,099	1	,043
		AGE	1,971	1	,160
		PEOPLE	1,954	1	,162
		HOUSEHOLD.INCOME	25,054	3	,000
		HOUSEHOLD.INCOME(1)	13,715	1	,000
		HOUSEHOLD.INCOME(2)	4,930	1	,026
		HOUSEHOLD.INCOME(3)	13,586	1	,000
		ATTITUDEPASS	145,179	4	,000
		ATTITUDEPASS(1)	4,420	1	,036
		ATTITUDEPASS(2)	83,055	1	,000
		ATTITUDEPASS(3)	59,941	1	,000
		ATTITUDEPASS(4)	48,667	1	,000
		ATTITUDE.TOWARDS.WAITING	32,407	1	,000
		PRIOR.INFORMATION(1)	3,003	1	,083
		PRIOR.PURCHASE(1)	131,695	1	,000

PRIEXW	17,155	4	,002
PRIEXW(1)	2,907	1	,088
PRIEXW(2)	14,224	1	,000
PRIEXW(3)	5,309	1	,021
PRIEXW(4)	1,228	1	,268
PRIOR.VISIT.THEME.PARK(1)	1,992	1	,158
WAITING.EXPECTATION	17,820	2	,000
WAITING.EXPECTATION(1)	17,323	1	,000
WAITING.EXPECTATION(2)	1,680	1	,195
WAITING.PERCEPTION	7,108	2	,029
WAITING.PERCEPTION(1)	3,663	1	,056
WAITING.PERCEPTION(2)	1,448	1	,229
TRIP.MOTIVATION	9,059	3	,029
TRIP.MOTIVATION(1)	,399	1	,527
TRIP.MOTIVATION(2)	3,960	1	,047
TRIP.MOTIVATION(3)	6,917	1	,009
VISIT.MOTIVATION	7,902	2	,019
VISIT.MOTIVATION(1)	4,388	1	,036
VISIT.MOTIVATION(2)	,050	1	,824
BEHAVIOR.PATTERN	15,609	1	,000
VISIT.DAY(1)	21,523	1	,000
FINDOUT	80,898	5	,000
FINDOUT(1)	2,502	1	,114
FINDOUT(2)	13,216	1	,000
FINDOUT(3)	23,524	1	,000
FINDOUT(4)	,016	1	,901
FINDOUT(5)	2,375	1	,123
COMF	4,974	4	,290
COMF(1)	4,894	1	,027
COMF(2)	1,137	1	,286
COMF(3)	,267	1	,605
COMF(4)	,034	1	,854
HOURS.SPENT.AT.THEME.PARKS	8,604	1	,003
Nº.OF.PEOPLE.PARTY	2,483	1	,115
MONO.POLI(1)	3,419	1	,064
REGION	7,591	3	,055
REGION(1)	3,249	1	,071

REGION(2)	1,588	1	,208
REGION(3)	,016	1	,901
PACE	13,694	4	,008
PACE(1)	,877	1	,349
PACE(2)	1,994	1	,158
PACE(3)	1,712	1	,191
PACE(4)	1,468	1	,226
WEATHER	1,480	3	,687
WEATHER(1)	,977	1	,323
WEATHER(2)	,201	1	,654
WEATHER(3)	,087	1	,768
Estadísticos globales	300,587	51	,000

**Bloque 1: Método = Entrar**

**Pruebas ómnibus de coeficientes de modelo**

		Chi-cuadrado	gl	Sig.
Paso 1	Paso	394,686	51	,000
	Bloque	394,686	51	,000
	Modelo	394,686	51	,000

**Resumen del modelo**

Paso	Logaritmo de la verosimilitud -2	R cuadrado de Cox y Snell	R cuadrado de Nagelkerke
1	450,074	,443	,620

**Prueba de Hosmer y Lemeshow**

Paso	Chi-cuadrado	gl	Sig.
1	4,528	8	,807

**Tabla de contingencia para la prueba de Hosmer y Lemeshow**

		express pass no holder-holder = express pass no holder		express pass no holder-holder = express pass holder		Total
		Observado	Esperado	Observado	Esperado	
		Paso 1	1	68	67,934	
	2	67	67,319	1	,681	68
	3	64	65,894	4	2,106	68
	4	65	63,944	3	4,056	68
	5	62	59,988	6	8,012	68
	6	50	52,087	18	15,913	68

7	40	40,549	28	27,451	68
8	30	26,087	38	41,913	68
9	11	12,790	57	55,210	68
10	3	3,409	60	59,591	63

**Tabla de clasificación**

Observado	Pronosticado			Porcentaje correcto	
	express pass no holder-holder		express pass holder		
	express pass no holder	express pass holder			
Paso 1	express pass no holder-holder	express pass no holder	416	44	90,4
		express pass holder	61	154	71,6
Porcentaje global					84,4

**Variables en la ecuación**

	B	Error estándar	Wald	gl	Sig.	Exp(B)	95% C.I. para EXP(B)	
							Inferior	Superior
Paso 1								
GENDER(1)	-,132	,253	,271	1	,602	,876	,533	1,440
AGE	-,002	,014	,018	1	,893	,998	,971	1,026
PEOPLE	-,068	,110	,383	1	,536	,934	,754	1,158
HOUSEHOLD.INCOME			1,452	3	,693			
HOUSEHOLD.INCOME(1)	,083	,378	,048	1	,826	1,087	,518	2,279
HOUSEHOLD.INCOME(2)	,330	,402	,671	1	,413	1,391	,632	3,060
HOUSEHOLD.INCOME(3)	,486	,485	1,005	1	,316	1,626	,629	4,206
ATTITUDEPASS			58,036	4	,000			
ATTITUDEPASS(1)	1,594	,923	2,986	1	,084	4,924	,807	30,033
ATTITUDEPASS(2)	1,039	,860	1,459	1	,227	2,827	,524	15,263
ATTITUDEPASS(3)	3,019	,871	12,007	1	,001	20,475	3,711	112,952
ATTITUDEPASS(4)	3,460	,907	14,539	1	,000	31,814	5,373	188,367
ATTITUDE.TOWARDS.WAITING	,502	,160	9,885	1	,002	1,652	1,208	2,259
PRIOR.INFORMATION(1)	,024	,273	,008	1	,929	1,025	,600	1,749
PRIOR.PURCHASE(1)	1,482	,269	30,415	1	,000	4,402	2,600	7,455
PRIEXW			7,906	4	,095			
PRIEXW(1)	,249	,525	,224	1	,636	1,282	,458	3,589
PRIEXW(2)	-,483	,555	,756	1	,385	,617	,208	1,832
PRIEXW(3)	,529	,681	,603	1	,438	1,697	,447	6,447
PRIEXW(4)	-,064	1,287	,002	1	,960	,938	,075	11,689

PRIOR.VISIT.THEME.PARK(1)	-,757	,308	6,026	1	,014	,469	,256	,858
WAITING.EXPECTATION			4,291	2	,117			
WAITING.EXPECTATION(1)	-,390	,300	1,694	1	,193	,677	,376	1,218
WAITING.EXPECTATION(2)	,362	,417	,751	1	,386	1,436	,634	3,252
WAITING.PERCEPTION			4,695	2	,096			
WAITING.PERCEPTION(1)	,550	,299	3,377	1	,066	1,733	,964	3,117
WAITING.PERCEPTION(2)	,818	,468	3,062	1	,080	2,267	,906	5,668
TRIP.MOTIVATION			,379	3	,944			
TRIP.MOTIVATION(1)	,289	,486	,354	1	,552	1,336	,515	3,465
TRIP.MOTIVATION(2)	,217	,451	,231	1	,631	1,242	,513	3,004
TRIP.MOTIVATION(3)	,274	,563	,236	1	,627	1,315	,436	3,966
VISIT.MOTIVATION			10,046	2	,007			
VISIT.MOTIVATION(1)	1,244	,396	9,864	1	,002	3,469	1,596	7,539
VISIT.MOTIVATION(2)	,821	,462	3,160	1	,075	2,273	,919	5,623
BEHAVIOR.PATTERN	,042	,133	,099	1	,753	1,043	,803	1,354
VISIT.DAY(1)	1,088	,320	11,591	1	,001	2,969	1,587	5,554
FINDOUT			23,374	5	,000			
FINDOUT(1)	4,534	1,091	17,261	1	,000	93,123	10,969	790,620
FINDOUT(2)	5,116	1,177	18,882	1	,000	166,618	16,582	1674,225
FINDOUT(3)	4,847	1,078	20,230	1	,000	127,405	15,410	1053,312
FINDOUT(4)	5,057	1,329	14,476	1	,000	157,144	11,612	2126,662
FINDOUT(5)	4,339	1,075	16,294	1	,000	76,619	9,320	629,890
COMF			6,938	4	,139			
COMF(1)	-,842	,510	2,728	1	,099	,431	,159	1,170
COMF(2)	,080	,449	,032	1	,859	1,083	,450	2,608
COMF(3)	,068	,512	,017	1	,895	1,070	,392	2,917
COMF(4)	,074	,537	,019	1	,891	1,077	,375	3,087
HOURS.SPENT.AT.THEME.PARKS	,012	,018	,466	1	,495	1,012	,977	1,048
Nº.OF.PEOPLE.PARTY	-,158	,045	12,355	1	,000	,853	,781	,932
MONO.POLI(1)	-,457	,393	1,350	1	,245	,633	,293	1,369
REGION			1,844	3	,605			
REGION(1)	-,160	,286	,313	1	,576	,852	,487	1,492
REGION(2)	-,530	,400	1,758	1	,185	,589	,269	1,288
REGION(3)	-,406	1,009	,162	1	,687	,666	,092	4,810
PACE			4,351	4	,361			
PACE(1)	-,760	,429	3,144	1	,076	,467	,202	1,083
PACE(2)	-,714	,421	2,876	1	,090	,490	,214	1,118
PACE(3)	-,951	,508	3,508	1	,061	,386	,143	1,045

PACE(4)	-,907	,674	1,813	1	,178	,404	,108	1,512
WEATHER			3,675	3	,299			
WEATHER(1)	-,294	,268	1,206	1	,272	,745	,441	1,260
WEATHER(2)	,831	,663	1,571	1	,210	2,295	,626	8,412
WEATHER(3)	-,868	1,540	,318	1	,573	,420	,021	8,588
Constante	-7,161	1,769	16,384	1	,000	,001		

**Lista por casos**

Caso	Estado seleccionado	Observado	Pronosticado	Grupo pronosticado	Variable temporal	
		express pass no holder-holder			Resid	ZResid
10	S	1**	,008	0	,992	11,092
84	S	1**	,050	0	,950	4,341
129	S	1**	,103	0	,897	2,952
142	S	1**	,138	0	,862	2,499
149	S	1**	,122	0	,878	2,683
151	S	1**	,029	0	,971	5,818
154	S	1**	,090	0	,910	3,182
195	S	1**	,049	0	,951	4,403
199	S	1**	,149	0	,851	2,388
214	S	1**	,133	0	,867	2,553
232	S	1**	,043	0	,957	4,716
255	S	1**	,159	0	,841	2,299
364	S	1**	,031	0	,969	5,634
452	S	0**	,855	1	-,855	-2,429
673	S	0**	,959	1	-,959	-4,824
830	S	0**	,944	1	-,944	-4,106
835	S	0**	,901	1	-,901	-3,016
885	S	1**	,044	0	,956	4,654
960	S	1**	,051	0	,949	4,328
968	S	1**	,446	0	,554	1,114

**ANNEX VIII: MODEL C.3 (Internal and External variables)**

Ordinal variables measured as quantitative variables

Categorical variables: first category as the reference category

Model C without outliers

**Regresión logística**

**Resumen de procesamiento de casos**

Casos sin ponderar		N	Porcentaje
Casos seleccionados	Incluido en el análisis	653	68,8
	Casos perdidos	296	31,2
	Total	949	100,0
Casos no seleccionados		0	,0
Total		949	100,0

**Codificación de variable dependiente**

Valor original	Valor interno
express pass no holder	0
express pass holder	1

**Codificaciones de variables categóricas**

	Frecuencia	Codificación de parámetro					
		(1)	(2)	(3)	(4)	(5)	
find out about express pass	no aware it exist on the internet	106	,000	,000	,000	,000	,000
	information at hotel	97	1,000	,000	,000	,000	,000
	friends and family recommendation	33	,000	1,000	,000	,000	,000
	travel agency recommendation	164	,000	,000	1,000	,000	,000
	advertisement in theme park	15	,000	,000	,000	1,000	,000
weather	sunny comfortable	238	,000	,000	,000	,000	1,000
	sunny too hot	272	,000	,000	,000		
	cloudy	351	1,000	,000	,000		
	rainy	28	,000	1,000	,000		
trip motivation	culture	2	,000	,000	1,000		
	rest and relaxation	71	,000	,000	,000		
	entertainment	138	1,000	,000	,000		
	others	352	,000	1,000	,000		
region-city size	large city	92	,000	,000	1,000		
	small/medium city	266	,000	,000	,000		
	town	261	1,000	,000	,000		
		111	,000	1,000	,000		

	rural	15	,000	,000	1,000		
waiting expectation	long waits	185	,000	,000			
	medium waits	379	1,000	,000			
	short waits	89	,000	1,000			
visit motivation	family	121	,000	,000			
	thrill	423	1,000	,000			
	leisure attractions	109	,000	1,000			
how long perceive	longer than expected	294	,000	,000			
waiting times	as expected	297	1,000	,000			
	shorter than expected	62	,000	1,000			
prior information on	no	337	,000				
waiting times	yes	316	1,000				
prior purchase of	no	449	,000				
express pass	yes	204	1,000				
prior visit to theme	Once a year or less	474	,000				
parks	More than once a year	179	1,000				
mono.poli culture	mono	111	,000				
	poli	542	1,000				
visit day	weekday	512	,000				
	weekend	141	1,000				
gender	male	323	,000				
	female	330	1,000				

**Bloque 0: Bloque de inicio**

**Tabla de clasificación**

Observado			Pronosticado		
			express pass no holder-holder		Porcentaje correcto
			express pass no holder	express pass holder	
Paso 0	express pass no holder-holder	express pass no holder-holder	454	0	100,0
	holder-holder	express pass holder	199	0	,0
Porcentaje global					69,5

**Variables en la ecuación**

		B	Error estándar	Wald	gl	Sig.	Exp(B)
Paso 0	Constante	-,825	,085	94,121	1	,000	,438

**Las variables no están en la ecuación**

Paso 0	Variab		Puntuación	gl	Sig.
	GENDER(1)		6,135	1	,013
	AGE		2,548	1	,110
	PEOPLE		1,625	1	,202
	HOUSEHOLD.INCOME		23,201	1	,000
	ATTITUDEPASS		139,895	1	,000
	ATTITUDE.TOWARDS.WAI TING		37,697	1	,000
	PRIOR.INFORMATION(1)		3,962	1	,047
	PRIOR.PURCHASE(1)		150,286	1	,000
	PRIEXW		,632	1	,427
	PRIOR.VISIT.THEME.PARK( 1)		1,558	1	,212
	WAITING.EXPECTATION		19,752	2	,000
	WAITING.EXPECTATION(1)		19,297	1	,000
	WAITING.EXPECTATION(2)		2,121	1	,145
	WAITING.PERCEPTION		8,504	2	,014
	WAITING.PERCEPTION(1)		3,848	1	,050
	WAITING.PERCEPTION(2)		2,193	1	,139
	TRIP.MOTIVATION		12,422	3	,006
	TRIP.MOTIVATION(1)		,376	1	,540
	TRIP.MOTIVATION(2)		5,483	1	,019
	TRIP.MOTIVATION(3)		10,149	1	,001
	VISIT.MOTIVATION		8,380	2	,015
	VISIT.MOTIVATION(1)		5,430	1	,020
	VISIT.MOTIVATION(2)		,002	1	,960
	BEHAVIOR.PATTERN		18,326	1	,000
	VISIT.DAY(1)		22,644	1	,000
	FINDOUT		85,477	5	,000
	FINDOUT(1)		3,163	1	,075
	FINDOUT(2)		14,893	1	,000
	FINDOUT(3)		26,022	1	,000
	FINDOUT(4)		,059	1	,808
	FINDOUT(5)		4,148	1	,042
	COMF		1,290	1	,256
	HOURS.SPENT.AT.THEME. PARKS		10,429	1	,001
	Nº.OF.PEOPLE.PARTY		2,470	1	,116

MONO.POLI(1)	4,311	1	,038
REGION	7,963	3	,047
REGION(1)	4,011	1	,045
REGION(2)	1,194	1	,275
REGION(3)	,059	1	,808
PACE	13,238	1	,000
WEATHER	2,985	3	,394
WEATHER(1)	1,438	1	,230
WEATHER(2)	,379	1	,538
WEATHER(3)	,879	1	,348
Estadísticos globales	325,169	37	,000

**Bloque 1: Método = Entrar**

**Pruebas ómnibus de coeficientes de modelo**

		Chi-cuadrado	gl	Sig.
Paso 1	Paso	458,545	37	,000
	Bloque	458,545	37	,000
	Modelo	458,545	37	,000

**Resumen del modelo**

Paso	Logaritmo de la verosimilitud -2	R cuadrado de Cox y Snell	R cuadrado de Nagelkerke
1	344,427	,505	,713

**Prueba de Hosmer y Lemeshow**

Paso	Chi-cuadrado	gl	Sig.
1	7,255	8	,509

**Tabla de contingencia para la prueba de Hosmer y Lemeshow**

		express pass no holder-holder =		express pass no holder-holder =		Total
		express pass no holder		express pass holder		
		Observado	Esperado	Observado	Esperado	
Paso 1	1	65	65,000	0	,000	65
	2	65	64,982	0	,018	65
	3	65	64,561	0	,439	65
	4	65	63,483	0	1,517	65
	5	62	60,885	3	4,115	65
	6	53	54,783	12	10,217	65
	7	38	42,444	27	22,556	65
	8	24	25,875	41	39,125	65
	9	15	9,980	50	55,020	65
	10	2	2,006	66	65,994	68

**Tabla de clasificación**

Observado		Pronosticado			
		express pass no holder-holder		Porcentaje correcto	
		express pass no holder	express pass holder		
Paso 1	express pass no holder-holder	express pass no holder	419	35	92,3
		express pass holder	50	149	74,9
	Porcentaje global				87,0

**Variables en la ecuación**

	B	Error estándar	Wald	gl	Sig.	Exp(B)	95% C.I. para EXP(B)		
							Inferior	Superior	
							Paso 1	GENDER(1)	-,237
	AGE	,005	,016	,085	1	,771	1,005	,973	1,038
	PEOPLE	-,104	,125	,689	1	,406	,901	,705	1,152
	HOUSEHOLD.INCOME	,139	,167	,695	1	,405	1,150	,828	1,595
	ATTITUDEPASS	1,811	,221	67,419	1	,000	6,118	3,971	9,427
	ATTITUDE.TOWARDS.WAITING	,725	,180	16,252	1	,000	2,064	1,451	2,936
	PRIOR.INFORMATION(1)	,027	,299	,008	1	,928	1,027	,572	1,846
	PRIOR.PURCHASE(1)	2,033	,309	43,235	1	,000	7,640	4,167	14,006
	PRIEXW	-,295	,205	2,072	1	,150	,745	,498	1,113
	PRIOR.VISIT.THEME.PARK(1)	-,878	,357	6,036	1	,014	,416	,206	,837
	WAITING.EXPECTATION			7,679	2	,022			
	WAITING.EXPECTATION(1)	-,508	,335	2,296	1	,130	,601	,312	1,161

WAITING.EXPECTATION(2)	,631	,459	1,893	1	,169	1,879	,765	4,617
WAITING.PERCEPTION			8,143	2	,017			
WAITING.PERCEPTION(1)	,510	,337	2,293	1	,130	1,665	,861	3,223
WAITING.PERCEPTION(2)	1,467	,522	7,901	1	,005	4,335	1,559	12,054
TRIP.MOTIVATION			,648	3	,885			
TRIP.MOTIVATION(1)	,401	,551	,529	1	,467	1,494	,507	4,402
TRIP.MOTIVATION(2)	,336	,514	,427	1	,513	1,399	,511	3,831
TRIP.MOTIVATION(3)	,178	,670	,071	1	,790	1,195	,321	4,448
VISIT.MOTIVATION			10,116	2	,006			
VISIT.MOTIVATION(1)	1,399	,471	8,821	1	,003	4,052	1,609	10,201
VISIT.MOTIVATION(2)	,609	,528	1,328	1	,249	1,838	,653	5,175
BEHAVIOR.PATTERN	,120	,153	,616	1	,432	1,127	,836	1,520
VISIT.DAY(1)	1,395	,387	13,030	1	,000	4,037	1,892	8,612
FINDOUT			10,968	5	,052			
FINDOUT(1)	21,510	3106,343	,000	1	,994	21957438	,000	.
						35,030		
FINDOUT(2)	22,047	3106,343	,000	1	,994	37573903	,000	.
						78,810		
FINDOUT(3)	22,002	3106,343	,000	1	,994	35904173	,000	.
						20,661		
FINDOUT(4)	22,632	3106,343	,000	1	,994	67426497	,000	.
						56,991		
FINDOUT(5)	21,001	3106,343	,000	1	,995	13196686	,000	.
						53,291		
COMF	,381	,140	7,390	1	,007	1,464	1,112	1,927
HOURS.SPENT.AT.THEME.PARKS	,030	,022	1,886	1	,170	1,030	,987	1,075
Nº.OF.PEOPLE.PARTY	-,191	,051	13,852	1	,000	,826	,748	,914
MONO.POLI(1)	-,853	,455	3,516	1	,061	,426	,175	1,039
REGION			1,491	3	,684			
REGION(1)	-,306	,323	,893	1	,345	,737	,391	1,388
REGION(2)	-,473	,470	1,012	1	,315	,623	,248	1,566
REGION(3)	-,431	1,125	,147	1	,702	,650	,072	5,898
PACE	-,342	,147	5,406	1	,020	,711	,533	,948
WEATHER			5,375	3	,146			
WEATHER(1)	-,478	,305	2,457	1	,117	,620	,341	1,127
WEATHER(2)	1,007	,737	1,869	1	,172	2,738	,646	11,607
WEATHER(3)	-17,25				1,00			
	3	27764,548	,000	1	0	,000	,000	.

Constante	-29,00 0	3106,343	,000	1	,993	,000		
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**Lista por casos**

Caso	Estado seleccionado	Observado	Pronosticado	Grupo pronosticado	Variable temporal	
		express pass no holder-holder			Resid	ZResid
126	S	1**	,137	0	,863	2,514
139	S	1**	,125	0	,875	2,649
146	S	1**	,136	0	,864	2,525
209	S	1**	,077	0	,923	3,462
214	S	1**	,085	0	,915	3,277
259	S	0**	,900	1	-,900	-3,001
287	S	0**	,875	1	-,875	-2,647
383	S	0**	,779	1	-,779	-1,879
436	S	0**	,906	1	-,906	-3,098
696	S	0**	,937	1	-,937	-3,865
750	S	0**	,892	1	-,892	-2,874
790	S	0**	,948	1	-,948	-4,259
793	S	0**	,851	1	-,851	-2,391
890	S	1**	,103	0	,897	2,953
915	S	0**	,847	1	-,847	-2,355
927	S	0**	,865	1	-,865	-2,528
939	S	1**	,048	0	,952	4,458