VNiVERSiDAD D SALAMANCA

DOCTORAL THESIS

VALUE PERCEPTION AND POST-PURCHASE BEHAVIORS OF RECURRING CUSTOMERS

EVIDENCE IN HEDONIC SERVICES WITH CONTRACTUAL AND NON-CONTRACTUAL LINKAGE

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Abstract

Utility formation models have the ability to predict the benefit that consumers perceive in different goods and services. However, there is evidence in several sectors of the necessity to explore these models for the development of a value offer that is attractive to consumers over time, while also being profitable for the company. The perceived value of consumers in repetitive consumption, along with other factors, undergoes changes over the successive moments of interaction with the product category. The effect of these successive purchases has been considered in habit formation and satiation theories, which explain how the habitual level of consumption and satiation influence utility formation. With the aim of exploring how to maintain an attractive value offer over time for different consumer segments, this dissertation empirically examines the non-linear effect of the habitual level of consumption and satiation formation on perceived value and post-purchase behaviors of repeat customers in a hedonic services context.

The study analyzes how willingness to pay for tourism accommodations changes based on habitual level of consumption and satiation in a non-contractual relationship setting. Upon confirming this effect, the study further explores the influence of satiation on perceived value and post-purchase behaviors over time in a contractual relationship setting (subscription retailing sector).

The results obtained from the various studies lead to the conclusion that a consumer's willingness to pay is subject to change based on their habitual level of consumption. Specifically, there is an increase in willingness to pay compared to the previous stay if they are in a sensitization phase with the service, and a decrease in the case of habituation. Additionally, the effect of satiation plays a determining role in utility formation. It is concluded that consumers who experience satiation exhibit a lower willingness to pay

and, therefore, greater price sensitivity. In turn, it is demonstrated that in subscription retailing, this variable has the ability to anticipate the decision to cancel the contracted subscription.

This thesis contributes to previous literature by providing empirical evidence on utility formation in different hedonic services, clarifying that the influence of a reference price on willingness to pay is not always linear and positive, unlike previous literature. Second, it broadens the understanding of how satiation influences perceived value in high-risk services. Furthermore, it demonstrates the capability of this variable to predict unloyalty behaviors, as we examine both short and long-term subscription cancellation. Finally, we consider that the results obtained have important managerial implications being of utmost importance to incorporate these two customer segmentation variables, habitual level of consumption and satiation, into the analysis of consumer behavior in repetitive purchase products.

Resumen

Los modelos de formación de la utilidad tienen la capacidad de predecir el beneficio que los consumidores perciben en diferentes bienes y servicios. Sin embargo, existen evidencias en diferentes sectores de la necesidad de explorar estos modelos para la creación de una oferta de valor que sea atractiva para los consumidores a lo largo del tiempo, y, al mismo tiempo, rentable para la empresa. La percepción de valor por el consumidor en productos de compra repetitiva, además de por otros factores, cambia a lo largo de los sucesivos momentos de interacción con la categoría de producto. El efecto de estas interacciones se ha considerado en las teorías de formación de hábitos y saciedad, las cuales explican como el nivel habitual de consumo y la saciedad influyen en la formación de utilidad. Con el objetivo de explorar cómo mantener una oferta de valor atractiva a lo largo del tiempo para diferentes segmentos de consumidores, esta tesis examina empíricamente el efecto no lineal de la formación de hábitos y saciedad sobre el valor percibido y los comportamientos poscompra de los clientes recurrentes en un contexto de servicios hedónicos.

Se analiza cómo cambia la disposición a pagar respecto a alojamientos turísticos en función del nivel habitual de consumo y la saciedad en un contexto con relación no contractual. Una vez comprobado este efecto, se estudia cómo influye la saciedad sobre el valor percibido y los comportamientos poscompra a lo largo del tiempo en un contexto con relación contractual (servicios por suscripción).

Los resultados obtenidos en los diferentes estudios realizados concluyen que la disposición a pagar de un consumidor cambia en función de su nivel habitual de consumo, mostrando un incremento en su disposición a pagar respecto a la anterior visita si se

encuentra en fases de sensibilización con el servicio y una disminución en caso de habituación. A su vez, el efecto de la saciedad juega también un papel determinante en la formación de utilidad. Se concluye que los consumidores que experimentan saciedad muestran una menor disposición a pagar y, por tanto, una mayor sensibilidad a los precios. Además, se demuestra que, en modelos de pago por suscripción, esta variable tiene la capacidad de anticipar la decisión de no continuar la suscripción del servicio contratado.

Esta tesis contribuye a la literatura previa aportando evidencias empíricas sobre la formación de utilidad en diferentes servicios de uso hedónico, aclarando respecto a la literatura anterior que un precio de referencia no siempre influye de forma lineal y positiva sobre la disposición a pagar. Segundo, amplía el conocimiento sobre cómo la saciedad influencia el valor percibido en servicios con alto riesgo y muestra como esta variable es capaz de anticipar comportamientos desleales, ya que estudiamos tanto la intención de cancelar la suscripción en el corto como en el largo plazo. Finalmente, consideramos que los resultados obtenidos tienen importantes implicaciones, siendo clave incorporar en el análisis del comportamiento del consumidor en productos de compra repetitiva estas dos variables de segmentación de los clientes, el nivel habitual de consumo y la saciedad.

Table of contents

List of figures

List of tables

Acronyms

- Willingness to pay (WTP)
- Last consumption Willingness to Pay (WTP_{t-1})
- Current purchase Willingness to Pay (WTP_t)
- Willingness to pay after current consumption (WTP_{t+1})
- Habitual level of consumption (HLC)
- Habit Formation and Satiation model (HS model)
- Recency, Frequency and Monetary Value model (RFM model)
- Discounted utility model (DU model)

Chapter 1 Introduction

1.1 Introduction

Utility models try to explain consumer´s preferences to different services and product through their life cycle. These microeconomic models have interesting implications in consumer behavior since allow to understand the value offer perceived by the consumers. Utility literature have proposed several models for predicting utility in intertemporal choices. In the Discounted utility (DU) model, the simplest one, consumption independence is assumed, meaning that the utility of consumption in each period is calculated anew and is independent of past consumption. However, models that modify the DU model to account for the influence of past references on current consumption have been developed, indicating significative improves in predictions.

The habit formations and satiation model (HS) followed in this thesis improves DU model —as well as more complex ones as Satiation model and Habituation model— by considering a price reference and including together satiation and the habitual level of consumption as the indicators that shapes future marginal utility (Baucells and Sarin, 2010; Wathieu, 2004). This model presents intriguing results; however, its development is purely theoretical, and therefore the literature is lacking an empirical application of its conclusions to help us understand how value perception changes over time for specific products or services. As the HS model suggests, Razavi and Israeli (2019) recognize the importance of enhancing the prediction of prices in the tourist accommodation sector by considering nonlinear models, a reference price, and intrinsic consumer variables such as the habitual level of consumption and satiation. In turn, Haumann et al. (2014) concludes that customers´ willingness to pay and customer loyalty decline over-time despite the application of relationship marketing strategies, which are not effective in the long-term. They suggest that competitive actions have an influence on the long-term effectiveness of relationship marketing. However, they do not consider the conclusions of the HS model when it comes to predicting changes in value perception over time.

We respectfully propose in this thesis to address these research gaps by investigating how the customers' value perception evolves through the customer lifecycle, examining the changes in customers' willingness to pay overtime, as well as its influence on post-purchase behaviors in a hedonic services context, from the perspective of satiation and habit formation utility model (Baucells and Sarin, 2010; Wathieu, 2004).

The customers´ willingness to pay –hereafter WTP– is defined by Cameron and James (1987) as the monetary amount that a consumer agrees to pay for a good or service. Thus, WTP reflects the benefit that a consumer perceives he or she will get from the product (Kotler and Levy, 1969). In contrast, observed price, among other variables, reflect the cost assumed for customers in a purchase. The difference between consumers' WTP and the charged price shapes the consumers perceived value. Thus, it is important to understand value perception because is an indicator of opportunity costs incurred by companies in their revenue management strategy (Abrate et al., 2019). If companies can understand how WTP shifts over a consumer's life cycle, revenue managers can use this knowledge to develop more successful pricing strategies and establish longer and more enduring relationships with customers by providing an appropriate value offer in each transaction.

In product categories for which purchases are repeated over time, purchasing behavior is influenced by consumers' experiences and habits (Roy et al., 1996). Therefore, to predict consumers utility, that is WTP, satiation and habit formation utility models theoretically demonstrate the importance to consider the consumers history of consumption to offer an attractive value over time (Baucells and Sarin, 2010; Wathieu, 2004). The habit formation and satiation models explain that consumers' willingness to pay is formed considering a reference price and taken the consumers' habitual level of consumption and the consumers' satiation as internal measures to evaluate future consumptions. Wathieu (2004)´s habit formation model indicates that the habitual level of consumption influences the stimulus generated from a new

purchase, resulting in two types of organic responses that shape WTP: Sensitization and Habituation. The central state is the "theorem of interior maximum", which concludes that WTP is highest when the consumer is familiar (sensitization) —at this point the consumer experiences the sharpest contrast between the perceived gain from consuming and the perceived loss from not consuming—, but not overly familiar (habituation) with the product. Baucells and Sarin (2010) complement this model also considering the influence of satiation. Satiation reduces interest or enjoyment in a future consumption due to repeated exposures to the same stimuli, especially when customers are not habituated to it—that is, when the habitual level of consumption is low. This causes a feeling of moving beyond the acceptance capacity for consumption, which negatively influences consumers' future feelings of utility.

Psychology literature has also explored the effect of satiation by investigating consumers´ hedonic decline, with the aim to identify how consumers maximizes enjoyment over time (Sevilla, 2019). This literature is linked to the utility theories that posit a diminish marginal utility over time when consumers are habituated or satiated and an increase in evaluation when they are sensitizated. Examining consumers' enjoyment over time supposes not only an exploration of WTP before purchase (Chen & Liao, 2019), but also the exploration of the effect of satiation in post-purchase behavior, since it also an important component of the consumption experience, and therefore in the evaluation of overall utility (Bellos & Kavadias, 2021).

For a complete understanding of the consumer utility change over time, we consider important to explore the effect of satiation on post-purchase behaviors because of two reasons: First, in a non-contractual service setting, the satiation level discloses the point at which a customer's desire to consume the service again becomes attractive. This is useful for developing more successful communication and dynamic pricing policies, as it helps companies better understand consumers´ future valuations. Second, in a contractual service setting, satiation level can anticipate customer churning, as satiated customers tend to explore the available options to

maximize their utility over time, even considering options which may not have been their first choice (Galak & Redden, 2018).

For a greater contribution, we believe it is essential to investigate changes in value perceptions in hedonic services whose business models are distinguished by contractual and non-contractual relationships.

On the one hand, in non-contractual services, willingness to pay can vary from one purchase to the next, allowing them to select a set of substitutive products that will maximize their utility over time without any restrictions. However, even if there is a rotation between products, consumers tend to purchase their most preferred option until a competitor's value offer is greater than their preferred one. In this case, habit formation and satiation models suggest that the competitor's value offer will not change significantly in the short- to medium-term, but the preferred one that has been consumed over time will. Therefore, in this setting is important to know how consumers WTP evolves over time to anticipate this declining in enjoyment, and therefore in utility to avoid or minimize variety seeking of substitutive options (Song et al., 2019).

On the other hand, in a contractual setting, there are slightly more restriction to end the relationships. Subscription retailing market is defined by high competition for customer acquisition, low switching cost between platforms in cases where non-long-term contract is acquired, and high perceived homogeneity between services offering (Kantar, 2021; PwC 2021). This context is different from contractual services mainly because the perceived value that initially originated the subscription can be declined over time because of the gradual consumption of products, contents or other kind of services offered in the subscription (de Matos & Ferreira, 2020), which means a change in the service by itself during the contract period. In turn, this behavior generates satiation with the service (Chen & Liao, 2019) and can lead to a cancellation of the subscription if the relationship is not relaunched on time. In this

context, the effect of satiation or habituation imply a decline in WTP over-time, which anticipates churning.

1.2 Definition of concepts

1.2.1 Definition of Habit formation, habit strength and habitual level of consumption

Habit strength

Habit is defined as a behavior that is repeated over time as a satisfactory response to a given signal. The habit is more than just a frequency of past behavior such as the frequency of consumption of a good X, for example. "Habit" is a psychological construct consisting of both frequency and automaticity of response to stimuli (Verplanken & Orbell, 2003). These authors validate through four studies that the strength of a habit can be measured based on five dimensions that characterize it and differentiate it from measures of past behavior or frequency of consumption: the history of repetition of behavior, the difficulty of controlling behavior, the lack of awareness, efficiency, and the identity element.

Habitual level of consumption

The habitual level of consumption is defined as the frequency that a product or service is consumed or enjoyed in a certain period time i.e., a measure similar to that of a purchase habit.

In contrast to discount utility models —where the more frequency of consumption the greater the utility experienced by the consumer— Wathieu (2004) explains that consumers establish their habitual level of consumption as a benchmark against which to assess a new purchase. Depending on the consumption habit, the stimulus of a new purchase generates two types of organic responses in consumers: sensitization and habituation. This differs from

models of discounted utility, where the greater the habit, the more consumption is valued. The central result of the study is the "theorem of interior maximum" which states that the willingness to pay (WTP) for a good is maximized at a moderate level of consumption. It is at this stage that consumers perceive a stimulus most excitingly, so the response is at its peak. While the willingness to pay of moderately habituated consumers increases with consumption during episodes of "sensitization", successive consumption over time induces episodes of "habituation". Habituation involves a decrease in interest for a stimulus and therefore leads to a decline in the perceived value of the product, and this effect is manifested in a lower willingness to pay. In the first case, we could say that consumers are more price insensitive than in the second case. Frequency and intensity moderate this relationship between habit and WTP. Research on habituation has found that, if the time lag between two stimuli is reduced, then: (1) fewer stimuli are needed to sensitize the response and achieve habituation, and (2) the habituation effect of each subsequent stimulus is larger. In terms of intensity, greater intensity inhibits habituation, i.e., it reduces the negative effect of consumption on the perception of value.

Habit formation

Habit formation is defined as the process of adaptation of a user to the consumption of a given good. Simply put, the model explains that consumers perceive utility with respect to a product when the consumption of a good is over and above the consumer's habit. In the second instance, it proposes that preferences depend not only on the habitual level of consumption but also on satiation. Present consumption influences the utility of future consumption in two important ways. First, it creates satiation, thus reducing the satisfaction that will be derived from consumption in the near future. A hearty dinner seems less appealing after a heavy lunch. A trip to Hawaii may seem less attractive if the same trip was made on a previous holiday. Moreover, present consumption contributes to habit formation, repeated consumption over time

increases the habit. In this sensitization-habituation process, future marginal utility increases up to a certain point. This model, similar to that of Wathieu (2004), proposes that the utility of consumption is explained based on a benchmark, the habitual level of consumption. On this basis, consumers assess the marginal utility of future consumption. “My current consumption may be above what I normally consume, but I am not gaining positive marginal utility.” Consumers generate a certain willingness to accept, satiation, which can be surpassed, leading to a decrease in their enjoyment of the product. Based on these two references ("satiation" and "habituation") consumers generate three types of responses: satiation, sensitization, and habituation. If satiation exceeds the habitual level of consumption, the response regarding the assessment of a product is negative. Repeated consumption causes a person’s benchmarks to increase. In the first stage, habitual consumption increases more significantly than satiation, so that, at this stage of sensitization, the consumption of a product is perceived positively. In the third phase, although the acceptability of a product is high, making it more difficult for satiation to occur, habituation is also high. The stimulus is perceived as uninteresting and although we still value the product because of an "addiction" or " loss of aversion" effect, the change in marginal utility, in comparison with previous purchases, is negative.

This dissertation delves into the effects of satiation, sensitization, and habituation resulting from the habitual level of consumption. The exploration is conducted through three distinct studies, each corresponding to a chapter in this dissertation. Chapters 2 and 3 examine the impact of these factors on perceived value (WTP), while in Chapter 4 is explored its effect on post-purchase behaviors. Prior to delving into the studies, it is important to gain a complete understanding of how these effects occur and their influence. Therefore, a definition of each of these effects is included in the next section.

1.2.2 Definition of satiation

Satiation is defined as a diminished response to repeated consumption resulting from a state in which the willingness to accept a given product or service is surpassed. It is a feeling of plenitude or of being in a situation that is over and above one's desire (Baucells & Sarin, 2007). This sensation diminishes the interest or enjoyment of a stimulus in a subsequent period of time and, therefore, implies a negative response in the assessment due to continuous exposure to the same stimulus (Coombs & Avrunin, 1977).

Traditionally, it has been determined that this negative response was caused by purely physiological reasons. A consumer's willingness to consume certain attributes of a product is exhausted and biological signs consequently appear (McAlister, 1982). Therefore, it has been concluded that satiation appears immediately after consuming a product and that it is simply determined by the amount consumed and the time interval between each consumption. To recover the feeling of non-satiation, it has been suggested that the time between purchases should be increased or that the intensity of the stimulus be reduced.

However, recent research defines satiation as a psychological concept that, based on previous experiences, is largely considered before a new purchase is made (Redden, 2015). Satiation depends on various subjective perceptions such as how much has been consumed, (Redden & Galak, 2013), how specific the stimulus is, how many times the stimulus has been repeated (Redden, 2008), how much variety has been consumed in the past (Galak et al., 2009), or how much attention has been paid to the stimulus (Sevilla & Redden, 2014). Therefore, satiation is not only manifested as a result of the amount consumed but it is also considered before purchasing a product due to the subjective memory of past behaviors.

Satiation is a subjective concept based on past experiences that acts as an internal gauge that restricts the maximum level of stimulus that a consumer can tolerate. Redden & Galak (2013)

suggest that, although the amount consumed by others is an appropriate measure on which to judge, the comparison with one's own standard of consumption (e.g., habit) may also affect how quickly one becomes satiated. For example, the rate of recovering satiation can vary widely among consumption habits. Most people seem to recover from being satiated every day and eat the same breakfast every morning but would never consider dining at the same restaurant every night. This behavior can be explained by the fact that the habit of always eating the same thing for breakfast is remarkably high, while the habit of always eating the same thing for dinner is not.

In Chapter 2 the effect of satiation is a function of the frequency of consumption. In turn, in Chapter 3 the effect of satiation is explored as a function of quantity consumed and time interval between consumption periods, providing both chapters a closer approximation to the physiological concept. In contrast, Chapter 4 introduces a multi-item construct of satiation, which is more aligned with the psychological concept of satiation (Sevilla, 2019).

According to the theorem of interior maximum, consumers perceive a stimulus as more exciting when it is consumed moderately (Wathieu, 2004). Therefore, we propose that the rate of satiation will be diminished when consumers have a moderate level of familiarity with a good. The habit formation and satiation theory proposes that consumers show greater sensitivity, and therefore a more negative response when they are in the initial stages of adapting to the consumption of a good. That is to say when their habitual level of consumption is low because small increases in consumption already generate satiation. On the other hand, when the habitual level of consumption is too high, the perception of the stimulus is so insignificant that the interest generated by its consumption is justified only as an aversion to the loss of the habit. Therefore, the response to consumption will also be negatively affected.

1.2.3 Definition of habituation

Habituation reflects the decrease in responsiveness to a stimulus after repeated exposure. Habituation is relative to a specific stimulus that is presented continuously and does not imply sensory adaptation or fatigue toward the stimulus. Rather, it is a process that is characterized by learning to inhibit stimuli that do not merit attention, and, as a result, physiological, behavioral, and cognitive response systems are diminished throughout the exposure (Groves & Thompson 1970). The decline in response not only occurs with repeated exposure to the same stimulus but also to those that are perceived as similar. This does not mean that the stimuli cease to be perceived or that there is no response to them, but that the behavior persists despite a relative loss of enthusiasm or attention. Habituation can extend over time, but there are different characteristics, such as dishabituation, which allow interest in a stimulus to recover and therefore the response. For example, the presentation of a different stimulus or non-exposure for a prolonged period restores responsiveness to a habituated stimulus (McSweeney & Murphy, 2000).

The different factors that moderate the change in the way a stimulus is perceived and thus the precursors of a diminished response (habituation) can be classified into six phenomena:

Attention toward the stimulus: this is understood as the consumption of a product. Those who are focusing their attention on the stimulus, without paying attention or being distracted by noise or disturbances, show a greater decrease in enjoying the experience and consume less.

Type of stimulus: habituation tends to occur more rapidly for simple versus complex stimuli. Habituation is generated differently depending on the type of food (Holt et al. 1995) and even between goods and services (Nicolao et al. 2009).

Accumulation of stimuli: this factor is defined along two dimensions: The intensity of the stimulus and the frequency of consumption. Although there is no clear consensus in the

literature, it seems that habituation is less pronounced in the presence of intense stimuli (Wathieu, 2004). On the other hand, more intense consumption over time leads to faster habituation (Galak et al. 2013).

Variety of the stimuli: the variety of consumption helps to reestablish moderate levels of habituation. Categorizing products as a way of differentiating them or simply reminding consumers of the variety they consumed in the past makes their response less negative (Epstein et al., 2009).

Status or reference group: although there are various outcomes, lifestyle changes do not have a lasting, strong influence on the enjoyment of an experience. They indeed generate a very sharp increase in well-being in the short term, but this also ends up declining, since with repeated consumption one ends up forming a new reference when it comes to perceiving the stimulus as interesting or not (Sheldon & Lyubomirsky 2012). For example, a person may have an increase in their budget and start buying a more expensive brand of coffee. In the short term, this would lead to an increase in pleasure, but would eventually lead to habituation towards the "premium" brand throughout consumption.

Subjectivity: stimulus perception depends on subjectivity and references. External factors can cause the perception of a stimulus to be modified. For example, if a consumer is reminded of the variety of alternative brands of a product consumed, he or she will respond less negatively (Redden & Galak, 2013).

In microeconomics, the diminished response to a stimulus has been characterized as the reduction in utility or willingness to pay in response to the repeated consumption of recurrently purchased products (Baucells & Sarin, 2010). The speed at which consumers begin to become habituated after stimulus repetition depends on several factors, the most important of which are the overall perceived intensity and the frequency interval between stimuli (Wathieu, 2004). To measure different stimuli, in this thesis we include service categories that differed with respect

to risk: high versus low risk and contractual setting: non-contractual versus contractual. On the one hand, the booking of a tourism accommodation is considered a high-risk endeavor with a non-contractual linkage, as the average purchase is made 27 days in advance, only four times a year, and represent a significant expense in one's vacation budget (Bigne et al., 2021). On the other, Subscription to Video on Demand services is considered a low-risk endeavor with supposes a contractual linkage, because can be cancelled at any time and do not suppose a significant expense in the annual budget for casual leisure (Kantar, 2021).

1.2.4 Diferences between habit formation and habituation

Specifically, habit is defined as a pattern of behavior that is regular, or that is frequently repeated. On the other hand, habituation is a reduction in the psychological or behavioral response that occurs when a specific stimulus is repeatedly presented. Or, in other words, it is a diminished response provoked by repeated consumption or stimuli. These stimuli are perceived as less interesting.

Habituation is a mechanism that generates a decline in hedonic responses to a stimulus. It is a response linked to the repetition of stimuli, so it can be provoked by frequent or repeated consumption. In contrast, habit is the reference underlying Wathieu's (2004) model of utility change and one on which Baucells & Sarin (2010) rely.

Presumably, a high level of habituation leads to a diminished response to the consumption of a good (habituation ⇦⇨s WTP), caused by insensitivity to a stimulus that has been repeated over a long period of time. This insensitivity generates an efficient, spontaneous response or lack of awareness. This translates, in the corporate world, into a decrease in the value of the attributes of a product that were previously valued. Therefore, if a highly habituated consumer were asked whether they would like to continue consuming the good well above what they are

accustomed to, the answer would probably be yes. But sensitivity to the price of this product would grow, as the stimulus this product was expected to generate is interpreted as negligible.

In the prediction of utility, the concept of habit is linked to that of satiation. Habit formation and satiation models interpret habit as a reference on which consumers assess the interest generated by the stimulus and thus the response. The consumption of a good generates both habit and satiation. Therefore, it is necessary to determine the equilibrium between these two forces in order to answer this question. When assessing a product, the response will be diminished in the next consumption if satiation exceeds one's habit. If, on the other hand, we find ourselves at a time when, despite having a moderate habit, the current consumption has not exceeded our willingness to accept and we still consider the stimulus to consume as exciting, consumers will respond positively (sensitization).

In conclusion, we can say that satiation is a provoked response, both physiological and psychological, that indicates saturation with respect to a stimulus, while habituation is a negative response to a stimulus because of a decrease in how it is perceived. Habituation arises from behavioral reinforcement. For example, if a child is given candy as a reward for always clearing the table, this positive reinforcement is perceived as stimulating and influences the child's behavior. However, you do not need to be satiated from eating candy, because most likely your body will still be willing to accept it. These two phenomena can occur together; a consumer can be both satiated and habituated at the same time. For example, as above, if a child has been eating candy all morning, he or she will be satiated. Thus, the positive reinforcement of the sweet reward will no longer be a stimulant to carry out a response, nor will it be considered psychologically positive, nor will it be accepted by the body. McSweeney & Swindell (1999) even suggest that the diminished responses attributed to satiation reported in the literature are actually the effects of habituation.

1.2.5 Definition of sensitization

In this research, we consider the definition of sensitization to refer to a positive response that arises from initial contact with a stimulus before habituation occurs. The literature has shown that different types of individuals or even animals behave in a sensitization-habituation pattern in response to repeated stimuli (McSweeney & Swindell, 1999). Both habituation and sensitization are phenomena that generally appear when studying the behavior of different units of analysis in the face of similar stimuli that are repeated over time. In the initial periods of exposure to a stimulus, a positive response is shown (sensitization), but as the frequency or intensity of the stimuli increases, the response of the object of study declines (habituation). This decline can be recovered by changing the stimulus presented (dishabituation), but even then, the long-term response will again follow the same process. Sensitization arises when the objective for which a behavior is carried out is achieved. This objective generates a positive reinforcement in the consumer and therefore the repeated behavior and the value of the reinforcement are increased during the initial stages. However, the reinforcement it generates becomes less effective as behaviors are repeated. Habit measures, among other aspects, the frequency of consumption and familiarity with a good; therefore, it is a suitable indicator for measuring the frequency of behaviors and exposure to stimuli in a given period. A moderate habit is expected to generate a sensitization to the response. Applied to the study of utility, Wathieu (2004) theoretically proposes that the WTP at the time of consumption will increase with respect to the previous consumption as an effect of sensitization. Baucells & Sarin (2010) propose a similar model but consider the effect of satiation on habit. This theory states that, in the face of diminished habits, the effect of satiation is predominant and therefore WTP decreases with respect to the previous purchase. On the other hand, with a moderate level of habitual consumption, it is more difficult to achieve a consumption that satiates, and the effect of sensitization will provoke a higher WTP than in the previous purchase, i.e. a positive

response. Sensitization-habituation depends on the intensity of the stimulus and occurs for many different stimulus types. It has been shown that, in general, sensitization is slower and less pronounced for less intensely perceived stimuli. Therefore, we would expect that the perceived value and responses generated by repeated consumption of a product would differ according to its classification as being either hedonic or utilitarian. In this thesis we consider hedonic services, since the perceived stimuli of this services is more intense, and thus, the effect of sensitization in WTP and post-purchase behavior will be more gradually and clearer (Galak & Redden, 2018).

1.3 Objectives and contributions of the thesis

This thesis presents three independent studies that each offer unique and specific novelties to current knowledge all aiming to advance, mainly in pricing literature, by exploring ways of predicting WTP and anticipating negative post-purchase behaviors. It is explored the effect of the habitual level of consumption and satiation on two hedonic services: tourism accommodation and subscription video on demand as examples of contractual and non-contractual services that can benefit of the further understanding of consumers´ value perceptions over time.

It is considered a hedonic services context because it is widely accepted that hedonic services are characterized by a greater effect of satiation and habituation than utilitarian services. This is because consumers' enjoyment of hedonic services tends to decline faster than that of utilitarian services, resulting in a more significant decrease in marginal utility (Galak & Redden, 2018).

Each setting explained have its contributions by explaining the mechanism that shapes WTP and post-purchase decision and, in turn the strategies that companies should follow. For example, while in a non-contractual setting, changing the price to satiated or habituated

customers is an efficient strategy, this option is more limited in a contractual setting. Among the following chapters, options to avoid the negative effects of satiation and habituation on both contexts are explored.

Chapter 2 and chapter 3 focus on the influence of habitual level of consumption and satiation on WTP in tourism accommodation sector.

In general, as customers become increasingly experienced and informed, it is essential to provide greater personalization in operational strategies, including pricing decisions, to meet their needs. There is a scarce knowledge of the successive consumption's effects on WTP (Bradley & Sparks, 2012), Razavi and Israeli (2019) show this reality concluding that exist a high discrepancy between the observed price of a hotel and consumers' WTP. These researchers propose that the estimation of prices in the tourist accommodation sector improves if nonlinear models, a reference price, and intrinsic consumer variables (e.g., frequency, intervals between consumption) are taken into consideration. However, reference price literature presupposes that the consumer maintains a linear positive inertia in their preferences, which our research has shown is not always the case, resulting in a decrease in the value proposition's offer over time if reference price literature suggestions are followed. In this chapters we conclude that there is a reference price, whose influence on subsequent purchases are moderated in a non-linear way by the consumers´ habitual level of consumption and consumers´satiation.

Service providers, including those specializing in tourist accommodations (e.g., Booking.com, Airbnb) and transportation (e.g., Ryanair, Skyscanner), use segmentation strategies to improve profitability. Zhang and Lu (2013) and Choe et al. (2018) compare the profitability of different pricing policies and conclude that dynamic pricing, compared with alternative approaches, improves income significantly. Abrate et al. (2019) report a similar result in the tourism accommodation sector. Being the dynamic pricing strategies the most profitable one, which allow immediate changes in offered prices, consumers´ segmentation

alternatives should not be limited by reference price literature conclusions but consider non-linear models. Regarding pricing literature, in chapter 2 the major novelty proposal is the identification of a nonlinear, moderating effect of habitual level of consumption (HLC) on change in WTP in the immediately previous purchase compared with a new purchase in the same product category. Additionally, in chapter 3 the identification of a nonlinear, moderating effect of satiation, which results in a negative influence of that the previous stay experience —regardless of the satisfaction with it— on the next visiting WTP when customers are satiated suppose our major contribution.

Tourism accommodation literature has explored tangible, reputational, and contextual variables to explain accommodation prices (Abrate & Viglia, 2016). However, to make dynamic pricing policies more efficient, we consider important the influence of previous consumption experience and the consumer's personal context in terms of habitual level of consumption because reference price literature and various utility models have demonstrated its influence on the willingness to pay, and therefore in value perception. The conclusions reached on chapter 2 enhances previous research showing of that tourism accommodation users are willing to pay up to a 0,62% relative to previous consumption when customer is in a moderated habitual level of consumption, that is sensitizated. In turn, their WTP decreases up to 14.56% relative to previous consumption when customer is in a low (satiated) or high (habituated) habitual level of consumption. Chapter 3 conclusions advance to current knowledge affirming that consumers´ WTP decreases in the five months after the last booking compared to consumers´ previous stay due to satiation and increases after the fifth month from the last booking due to gradual recovery form satiation. In turn, the previous stay experience's effect on the current WTP is stronger in non-satiated than satiated customers.

Chapter 3 also advances satiation literature by analysing tourism accommodations, a hedonic service with high involvement in the purchase decision. Current literature has focused on low-

involvement products, such as music (Galak et al., 2009), food (Galak et al., 2014; Sevilla & Redden, 2014), photos (Redden & Galak, 2013). Nevertheless, satiation's effect on reflexive purchases is of critical interest given the importance of internal comparison points and contextual variables in high involvement purchases.

Chapters 2 and 3 conclude with an explanation about how consumers' references shape their current evaluations, suggesting segmenting customers and implementing different communication and pricing policies to provide an attractive value offer over time, considering their stage in the consumer life cycle, regarding satiation, habituation, and sensitization responses.

Chapter 4 focus on influence of satiation on value perception as early indicators of intentions to cancel subscription services, according to the temporal setting (i.e., immediate vs. delayed cancellation) and considering the competitive context.

The subscription retailing business model has become increasingly popular (Bray et al., 2021), with Subscription Video on Demand (SVoD) platforms such as Netflix and Amazon Prime Video leading the way. These contractual services offer ad-free content on demand and in streaming for a periodic subscription fee. However, the SVoD market is defined by unsteady customer loyalty and high churn rates that undermine the profitability.

Subscription retailing literature have focused on the factors that influence decisions to subscribe, surprisingly little research on why customers cancel their subscriptions (Datta et al., 2015; Lee & Cho, 2021; Marchand & Marx, 2020; Tseng et al., 2021). None of them have yet explained how personal motivations and competitive contexts lead to dropping out; rather, they focus on explaining how the functional aspects of platforms or communication strategies influence retention. However, consumers tend to cancel their subscriptions when they no longer perceive the same value that initially attracted them (Bray et al., 2021; McKinsey, 2021). The hedonic decline suggests that the utility of a repetitive consumption decreases over time, which

can lead to negative post-purchase behavior. Therefore, being satiation the main effect of hedonic decline it is important to explore its mechanism in order to better predict subscription churn.

Exploring the satiation in the subscription (contractual) context presents a novelty because it can anticipate future utility losses (Sevilla et al., 2019). In turn, since the decision to unsubscribe is not immediate, but develops gradually as consumers use platforms, we consider the differential effects that satiation have on short-term (i.e., immediate) versus long-term (delayed) to anticipate the moment in which consumers start thinking about cancellation. This differential effect of satiation regarding the temporal setting has been explored by satiation literature in different services, as tourisms (Bigné et al., 2009; Sánchez-García et al., 2012) since satiation is not a static emotion, but fluctuates and can be recovered over time if there is an adequate time interval between consumption. Therefore, we open up new possibilities for predicting cancellation of SVoD in particular and retail subscription services in general.

Sevilla (2019) proposes two concepts of satiation, both reflecting a hedonic decline in consumption. Physiological satiation is a function of quantity consumed, whether there are interruptions in the consumption and how much time occurs between consumption occasions, while psychological satiation is function of categorization of the stimuli, the attention paid to it, memory and metacognition. In order to gain a thorough understanding of the effect of satiation, the thesis explores both concepts of satiation and its influence in consumer behavior. In Chapter 3, it is utilized the physiological concept of satiation, measuring it through the quantity consumed (number of nights booked) and (months between purchases). In Chapter 4, we have formed a multidimensional construct of physiological satiation, which is composed of five items gathered from literature that measure behaviors associated with attention, memory, and metacognition of the stimuli that arises from the consumption of video on demand content over time. This construct is validated trough a confirmatory factor analysis. The findings

confirm that both physiological and psychological satiation leads to a decline in enjoyment over time and, consequently, a decrease in the perceived value. In turn, the validation of a psychological construct of satiation (Cronbach's alpha values [α], composite reliability [ρ], average variance extracted [AVE], and factorial loadings [λ values]) contributes to the research on satiation and suggests a standardized measure of the concept.

Table 1.1. Objectives Specified by Chapters.

Variable	Chapter 2	Chapter 3	Chapter 4
Influence of previous purchases on WTP_{t+1}	✓	✓	
Moderating effect of Habitual Level of Consumption on the relationship between previous purchases and WTP_{t+1}	✓		
Satiation[a] effect on WTP_{t+1}	✓		
Sensitization effect on WTP_{t+1}	✓		
Habituation effect on WTP_{t+1}	✓		
Moderating effect of Satiation on the relationship between previous purchase and WTP_{t+1}		✓	
Satiation[b] effect on WTP_{t+1}		✓	
Influence of satisfaction on perceived value and subscription cancellation			✓
Mediating effect of perceived value on subscription cancellation			✓
Moderating effect of satiation[c] on the relationship between satisfaction and subscription cancellation			✓
Moderating effect of satiation[c] on the relationship between perceived value and subscription cancellation			✓

Satiation in Chapter 2 is measure by the frequency of consumption [a], while in chapter 3 is measured by the number of months between purchases [b], and quantity acquired [b]. Both proxies correspond to physiological measures of satiation. In chapter 4, a psychological reflexive construct [c] of satiation is used.

1.4 Structure of the thesis

This thesis is composed of five chapters. The first introduces the topic, while the fifth summarizes the conclusions of the three studies conducted. Chapter two is based on the first

study, which has been published in the International Journal of Hospitality Management (Becerril-Castrillejo & Muñoz-Gallego, 2022a). Chapter three builds on the first study and has been published in Psychology & Marketing (Becerril-Castrillejo & Muñoz-Gallego, 2022b). Chapter four explores non-contractual settings and is currently under review in the Journal of Business Research.

The inclusion of the papers published in this thesis does not violate the editorial's publishing ethics and declaration.

The present thesis is structured as follows:

- **Chapter 2** analyzes the effect of the willingness to pay in previous purchases (WTP_{t-1}) in a current and repetitive purchase (WTP_{t+1}) considering the mediating effect of current pre-purchase expectations (WTP_t) and the non-linear moderating effect of the habitual level of consumption, to understand how consumers changes their value perception over the customer's life cycle.
- **Chapter 3** addresses the effect of a reference price (WTP_{t-1}) in a current and repetitive purchase (WTP_{t+1}) considering the mediating effect of current pre-purchase expectations (WTP_t) and the non-linear moderating effect of satiation, to understand how hedonic decline over the customer's life cycle changes their value perception.
- **Chapter 4** investigates the moderating effect of satiation on perceived value, as early indicators of negative post-purchase behaviors, to predict consumers subscription cancellation, considering this decision in different temporal settings.
- **Chapter 5** discusses the conclusions, the theoretical and managerial implication derived from the studies conducted in this thesis.

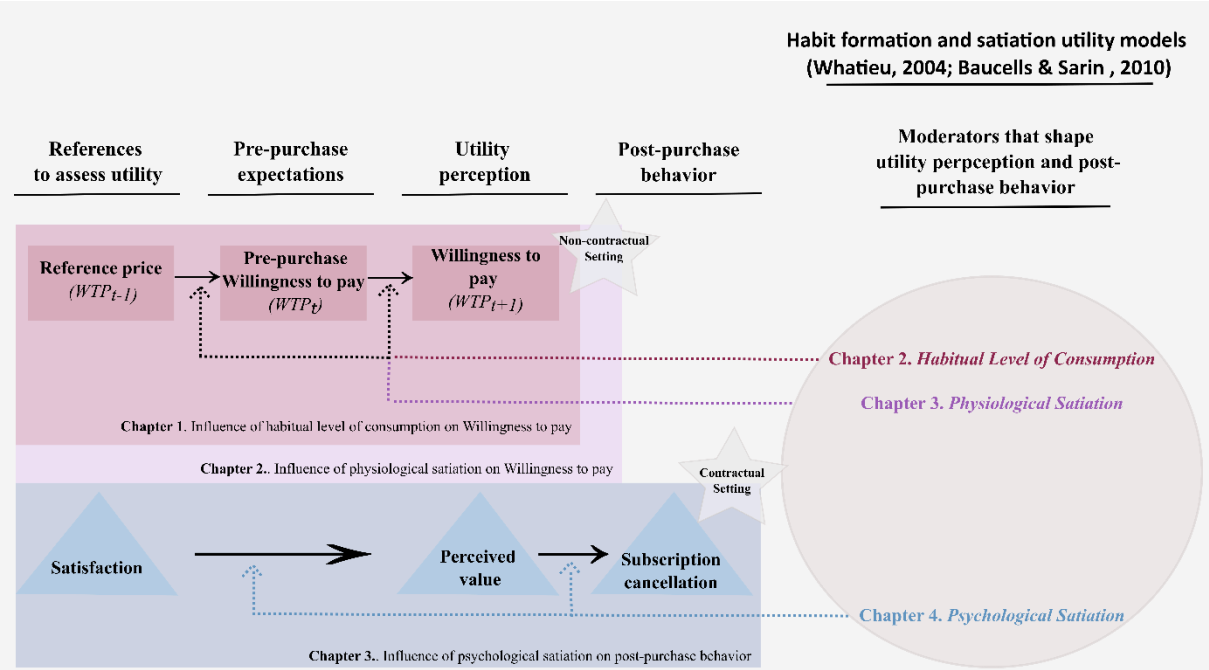

Figure 1.1 Conceptual Model of the Dissertation

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Chapter 2 Influence of habitual level of consumption on willingness to pay

2.1 Introduction

The difference between consumers' willingness to pay (WTP) and the charged price is an indicator of opportunity costs incurred by companies in their revenue management strategy (Abrate et al., 2019). If companies can determine how WTP changes for each transaction, they could use that information to create more profitable dynamic pricing policies. Service providers, including those specializing in tourist accommodations (e.g., Booking.com, Airbnb) and transportation (e.g., Ryanair, Skyscanner), already use these strategies to improve profitability. Zhang and Lu (2013) and Choe et al. (2018) compare the profitability of pricing using different methods and conclude that dynamic pricing, compared with alternative approaches, improves income significantly. Abrate et al. (2019) report a similar result in the tourism accommodation sector.

To further understanding of dynamic pricing strategies, we study WTP in relation to the habitual level of consumption with a product/service. Habitual level of consumption (HLC) reflects consumers' level of familiarity or experience with a product category (Wathieu, 2004). The novelty of the study lies in the identification of a nonlinear, moderating effect of habitual level of consumption (HLC) on change in WTP in the immediately previous purchase compared with a new purchase in the same product category. This implies some useful suggestions for revenue managers to improve their customer segmentation and pricing strategy models; it also makes an empirical contribution by examining HLC, a key influence on WTP. This effect has been cited in microeconomics to explain utility functions (Baucells and Sarin, 2010; Wathieu, 2004), but we know of no empirical applications to specific categories of products or services.

To this end we chose tourist accommodations, as a sector that can benefit from this knowledge, because a recent article from Razavi and Israeli (2019) highlights the

discrepancy between the observed price of a hotel and consumers' WTP. These researchers propose that the estimation of prices in the tourist accommodation sector improves if nonlinear models, a reference price, and intrinsic consumer variables (e.g., frequency, intervals between consumption) are taken into consideration. This suggestion encourages to ascertain that, in repetitive consumption services, such as tourist accommodations, it is not enough to segment consumers based on the price or WTP of the last purchase occasion. Because it presupposes that the consumer maintains an inertia in their preferences that we demonstrate does not always take place, which causes a loss of attractiveness in the value proposal. Segmenting the market based on the last price paid or its past WTP forgets the intrinsic variables of the consumer that will be considered in their next purchase decision; specifically, the HLC. We demonstrate that the predisposition towards the price between two purchases changes significantly depending on the consumer´s HLC in relation to a product category. We show that this behavior occurs regardless of the tourism accommodation type (Hotel room, entire apartment, or private room in apartment) or category (1 to 5 stars or equivalent). Therefore, when proposing a price to the tourist accommodation client, it is necessary to include the HLC as a relevant variable. Consumers with a moderate HLC show a positive relationship between WTP in the immediately previous purchase versus a new repetitive purchase in the same product category. On the other hand, consumers with a high or low HLC shows a negative relationship between the two purchases. Consequently, given that consumer WTP changes once a new purchase has been enjoyed, it is necessary to update the offeror value proposal in the subsequent periods. The results lead us to recommend maintaining or even increasing the price offered to consumers with moderated HLC (keeping constant the rest of variables). In turn, for consumers with high or low HLC the perceived benefit

should be increased to maintain consumer appealing to the accommodation, for example, offering a variety of services.

Two contributions to tourism research offer summaries of the variables influencing prices in tourist accommodation studies. Abrate and Viglia (2016) point out that hotels set prices by considering contextual, tangible, and reputational attributes, then Vives et al. (2018) indicate that these prices are optimized according to the reservation date, rate fences, type of tourist, seasonality, reservation system, and hotel differentiation. Despite extensive literature on hotel pricing determinants and revenue management from the offeror´s point of view (Abrate et al., 2011; Abrate and Viglia, 2016b; de la Peña et al., 2016; Espinet-Rius, 2018; Hung et al., 2010; Kuminoff et al., 2010; Masiero, Nicolau, et al., 2015; Riasi et al., 2017; Rigall-I-Torrent and Fluvià, 2011; Schamel, 2012; Wong, 2013), consumer WTP still needs attention. Even with the increased use of dynamic pricing, researchers have not estimated changes in WTP for different consumers at distinct product or service purchasing moments. Therefore, we still require insights into variables intrinsic to consumers, which explain an important variability in WTP (Razavi and Israeli, 2019), as HLC does.

The habit formation model proposed by Wathieu (2004) and the subsequent extension in the habit formation and satiation model proposed by Baucells and Sarin (2010) establish the theoretical framework to explains the change in WTP over each purchase period according to HLC. Building on these models to achieve our research goal, we address three key issues. First, we demonstrate the explanatory capacity of theories of habit formation and satiation proposed by Baucells and Sarin (2010) and Wathieu (2004). We prove that the HLC has an S-shaped moderating effect on WTP for a tourist accommodation that does not vary between one consumption ($t - 1$) event and the next

(t/t + 1) in category or type. The moderating effect is explained by the different responses of consumers to perceptions of satiety, sensitization, and habituation.

Second, to achieve the first issue, we must demonstrate empirically that WTP for a new purchase is influenced by the WTP the consumer exhibited in a previous purchase period. Reference prices play an important role in explaining WTP, but they are not a measure of the perceived benefit of a product (Nieto-García et al., 2017). This conceptualization leads us to think that if we want to capture consumer surplus in each consumption period, we must first consider a measure that monetarily reflects the previous experience (WTP) and then take it as a reference to assess how changes. This approach is consistent with prior theoretical studies which indicate that WTP in the current period likely is influenced by previous consumption decisions (Baucells and Sarin, 2010; Roy et al., 1996; Wathieu, 2004).

Third, perceived benefit is a dynamic variable experienced before purchase, at the time of purchase, during use, and after use (Sánchez et al., 2006). This understanding leads us to consider WTP over three periods: $t - 1$, or WTP following the last consumption (WTP_{t-1}); t, or the current purchase WTP before present consumption occurs (WTP_t); and $t + 1$, or WTP after current consumption (WTP_{t+1}). Our results shows that WTP_t mediates the relationship between WTP_{t-1} *and* WTP_{t+1}.

2.2 Literature review

2.2.1 Pricing and WTP in tourism accommodations

Revenue management research offers two predominant frameworks pertaining to hedonic pricing and consumer behavior. The former stream of research details how tourism accommodation providers set prices in each period. The latter stream takes the

consumer's point of view to explain WTP. Despite the different approaches, both streams provide relevant information and useful models, as we summarize in Table 2.1. We contribute by proposing a model that includes both previous consumption experience and the consumer's personal context, in terms of HLC to explain WTP.

Table 2.1. Review of Academic Models on Pricing in the Tourist Accommodation Sector

Explicative Model	Relevant Information to Explain Prices/WTP	Authors
Accommodation centered	Tangible: hotel category and general attributes, location, number of rooms, accessibility to public–private services, and amenities	Espinet et al. (2003), Rigall-I-Torrent and Fluvià (2011), Heo and Hyun (2015)
	Intangible and reputational: hotel services, service quality based on reputation, reputation, brand awareness–innovations	Thrane (2007), Kuminoff et al. (2010), Abrate et al. (2011), Masiero, Heo, et al. (2015), de la Peña et al. (2016)
Competitive context	Competition prices/economic situation, occupation, price elasticities, spatial agglomeration, vertical and horizontal differentiation	Enz et al. (2009), Koushik et al. (2012), Balaguer and Pernías (2013), Becerra et al. (2013)
Consumer centered	Booking advance and customers' search cost, satisfaction and loyalty, sociodemographic and self-perception, days of stay, e-WOM, internal reference price, cocreation engagement, and skepticism, satiation	Schwartz (2000), Xu and Gursoy (2015), Losada et al. (2016), Riasi et al. (2017), Nieto-García et al. (2020, 2017), Tu et al. (2018), Yin et al. (2020), Becerril-Castrillejo and Muñoz-Gallego (2022)
Proposed model	Previous consumption experience, consumer's personal context in terms of habitual level of consumption	Baucells and Sarin (2010), Wathieu (2004)

Source: own elaboration

2.2.2 WTP, experience effect, and HLC

Cameron and James (1987) define WTP as the monetary amount that a consumer agrees to pay for a good or service. Thus, WTP reflects the benefit that a consumer perceives he or she will get from the product (Kotler and Levy, 1969). In product categories for which purchases are repeated over time, such as tourist accommodations, purchasing behavior is influenced by consumers' experiences and habits (Roy et al., 1996). In turn, the HLC reflects familiarity or habituation with a product; it is determined by the number of times a product category has been consumed in a specific period of

time. This variable influences WTP in a nonlinear way and causes the utility to vary positively (sensitization) or negatively (satiation - habituation) in the next purchase period, depending on whether HLC is moderate or low/high, respectively (Wathieu, 2004). As it is shown in Figure 2.1.

2.2.3 WTP across consumption periods (WTP_{t-1} and WTP_{t+1})

Customers use individual internal rules to judge prices (Cheng and Monroe, 2013). Tourism consumers tend to rely on anchors for their price judgments (Tanford et al., 2019), such as observed prices for a room (Pan et al., 2013; Tanford et al., 2019). When attitudes are used to predict actions, integrating past experiences significantly improve predictions (Norman et al., 2000). Past experiences with a service also differ for each consumer and lead to heterogeneous levels of customer awareness (Moon et al., 2006), as well as varying WTP for the same product. The term WTP_{t-1} captures the assessed perceived benefits of a past consumer experience. We propose that when a purchase is repetitive, assessments of prior consumer experience significantly influence predispositions toward the new purchase.

Mathematically, Wathieu (2004) predicts that the HLC (follows an adaptive process, as follows:

$$\overline{HLC}_{t+1} = f(\overline{HLC}_{t-1,} x_{t-1,}),$$

where x_{t-1} (purchase in the previous period) is positively related to WTP_{t-1} and therefore to $\overline{HLC}_{t+1}$ (current HLC). Furthermore, Wathieu (2004) proposes:

$$WTP_{t+1} = f(\overline{HLC}_{t+1}), being\ \overline{HLC}_{t+1} = a * x_{t-1} + (1-a) * \overline{HLC}_{t-1}.$$

Therefore, we conclude that:

$$WTP_{t+1} = f(WTP_{t-1}),$$

where WTP_{t+1} is a function of $\overline{HLC}_{t-1}$ and x_{t-1} and, therefore, WTP_{t-1}. In turn, we predict WTP_{t-1} influences both WTP_{t+1} and the HLC on period $t + 1$. If WTP is related to the HLC, we can infer that WTP in the two moments of time are related, which leads to our first hypothesis:

H1: WTP_{t-1} influences WTP_{t+1}.

2.2.4 Influence of WTP_{t-1} over WTP_t

To establish WTP_t, which arises the moment the consumer purchases or reserves the product again, a rational consumer might consider:

a) Current observed prices and those remembered from previous purchase occasions. The prices observed in past purchase occasions, especially the final price paid, help the consumer establish an internal reference price, and the most influence stems from the price corresponding to the last purchase (Nasiry and Popescu, 2011).

b) Past consumer experiences. If the past experience was in line with the consumer's expectations, the consumer will keep this expectation as a guide for the next purchase decision. Therefore, the consumer will maintain a WTP, if he or she considers only the price paid in the last purchase decision as a reference price, or adjust that WTP to the reference price change. Analyzing WTP formation, Goes et al. (2010) establish that for continuous consumption of the same product, updates to the WTP occur, in large part, due to the experiences a consumer had in previous purchases. The closer these experiences and prices are in time, the more influence they have on WTP (Nieto-García et al., 2017). Therefore, we assert that consumers learn and modify their WTP based on the closest experience.

c) Personal contextual factors, such as change in budget, change in booking method, seasonality, or altered family context.

For repetitive consumer purchases that take place in a relatively short space of time—as occur in the category of tourist accommodations—the variation in the reference price between one purchase and the next, as well as any changes in personal and family context, may be minimal. In that case, the WTP may persistently explain an important part of the new purchase. Therefore, for repetitively purchased consumer products, we expect WTP_{t-1} to explain a significant part of WTP_t.

H2: WTP_{t-1} influences WTP_t.

2.2.5 Partial mediation of WTP_t

WTP_t offers an indicator of the benefit a consumer receives before booking, that may differ from WTP_{t+1}, because the last includes the experience of using the product or service. According to heuristic processing theory (Kahneman, 2011), when a consumer is familiar with a product, the information gathered to evaluate the price is broader in scale than would be the case for consumers who are not familiar with a product or service. For repetitive purchases, an internal reference price exists, and some automatic rules are followed, reducing the signals to the most recent price (Tanford et al., 2019). So, repetitive customers consumers have expectations that determine their perception of a service performance (Olshavsky and Miller, 1972) and therefore their WTP_{t+1}.

Assimilation theory asserts that consumers try to avoid discrepancies between expectations and performance perceptions a posteriori (Anderson, 1973), by searching for information before purchasing or by resorting to past experience when relevant (Pieters et al., 1995). For example, more positive comments or a good prior experience can generate more favorable expectations about the benefits of purchasing the product or

contracting the service, which lead to greater WTP_t (Nieto et al., 2014; Nieto-García et al., 2017). According to the assimilation effect, this influence manifests as a predisposition to positively value the consumption experience, which should increase WTP_{t+1}. Thus:

H3a: WTP_t influences WTP_{t+1} positively.

According to H1 and H2, WTP_{t-1} is an antecedent of WTP_t and WTP_{t+1}, so we also posit:

H3b: WTP_t partially mediates the relationship between WTP_{t-1} and WTP_{t+1}.

2.2.6 Habituation, sensitization, and satiation as moderators

In this study, travel frequency in a two-year period serves as a proxy for the HLC. Cognitive researchers argue that previous propensities are not always a good predictor, though in certain conditions, such as in a mature market, they can explain future behaviors (Bamberg and Schmidt, 2003). Therefore, we argue that in the tourism sector, the propensities of consumers to produce the same responses are influenced by previous patterns (Ehrenberg, 1996), so we consider the HLC (frequency) as a predictor of experience and familiarity, while controlling for the notion that cognitive variables do not change significantly in brief consumption periods.

The assessment of WTP for repetitive consumption in different periods of time involves three phases of response: sensitization, habituation, and satiation. In these phases, the loss evaluation from having not consumed and the gain from having consumed fluctuate, thus moderating changes in WTP between periods of consumption (Wathieu, 2004).

Sensitization stage

Sensitization implies a positive response to a stimulus due to exciting perceptions arise when people face a moderate HLC. In this phase, people still value a product or service as stimulating, which translates into higher WTP. The theorem of interior maximum proposed by (Wathieu, 2004, p. 590) states that "perceived value is greater when the consumer is in an intermediate of familiarity with a product, because at this point the consumer experiences the sharpest contrast between the perceived gain from consuming and the perceived loss from not consuming." Several examples in prior literature suggest this behavior of sensitization: In the tourist accommodation context, loyal customers express significantly higher brand preferences for certain hotels and are willing to pay extra for them (Mathies and Gudergan, 2012). Xu and Gursoy (2015) conclude that loyal consumers are willing to pay extra for a hotel room, though loyal consumers also might display more novelty-seeking search patterns (Jang and Feng, 2007), which would lead to lower WTP in the next purchase compared with the same service, previously purchased. Contrary to previous results, Masiero, Heo, et al. (2015) also conclude that first-time visitors (vs. repeat visitors) perceive WTP for various attributes of the same hotel differently, such that they are willing to pay significantly more for most features in their next consumption episode.

Therefore, to understand the influence of HLC over WTP, it is important to know not only the behavior of loyal consumers, which is not clear, but also the different groups that exist, according to their travel frequency. Moderate consumption can also be associated with variety-seeking patterns—that is, strategies to change the brand or product category as a method to maintain moderate consumption from a product and consequently the desire to purchase a product over time (Sevilla et al., 2019). In this way, consumers intersperse alternatives with their preferred product and do not lose interest. Because they

do not get used to consumption, the perceived utility associated with making new purchases does not decrease (Roy et al., 1996). Assuming repetitive purchases, at a moderate HLC in the sensitization phase, we expect that $WTP_{t+1} > WTP_{t-1}$.

Habituation stage

Consumers develop habits when they regularly repeat the same behavior in similar situations, which persists despite a relative loss of enthusiasm over time. Habituation refers to the diminished response to a stimulus that has been repeated over time, and behavioral theories indicate that stimuli that have been experienced continuously over a long period lose value (Castellucci et al., 1970; Groves and Thompson, 1970).

In this phase, the HLC is close to its maximum level, and interest in consuming is practically null. The product or service in question is simply consumed to avoid the perceived loss from not consuming it or consuming it less frequently. In periods of high consumption, consumers tend to decrease their WTP respect the previous purchase (Wathieu, 2004). Seeking proof of this loss of value in the tourist accommodation sector, Tu et al. (2018) cannot confirm that a higher frequency of consumption leads to higher WTP. Kozak and Rimmington (2000) also find no evidence of greater satisfaction among repeat versus first-time visitors, and Kozak et al. (2004) even suggest a minor satisfaction withing repeaters. (Nieto-García et al., 2020) propose an inverted U-shaped relationship between consumption frequency and WTP, such that the relationship between frequency and familiarity increases WTP only up to approximately six visits to a tourist accommodation in a period of 24 months and declines for higher values. Consequently, assuming a high level of repetitive consumption in the habituation phase, we expect that $WTP_{t+1} < WTP_{t-1}$.

Satiation stage

Satiation reduces interest or enjoyment in a stimulus in the next period, especially when customers are not habituated to a good—that is, when the HLC is low. Satiation is a feeling of moving beyond a desire or capacity for more of something in a given moment, which diminishes further enjoyment in consumption (Baucells and Sarin, 2007). A large dinner is less attractive after a large lunch, especially when a person is not used to that HLC. This effect is an extension of habit formation model. In the initial period of consumption, habituation to consumption is relatively low; increasing consumption levels satiate customers, causing a decrease in desire. Novice visitors to a tourist destination or accommodation are less likely to revisit that destination than repeat visitors, even when they are satisfied (Kozak, 2001; Kozak et al., 2004; Sampol, 1996). Sevilla et al. (2019) study how consumers try to balance repeating the same choices with the decision to seek variety as a means of maximizing utility over time and conclude that variety seeking is consequence of a satiation effect. In turn, variety seeking reduces WTP for subsequent purchases with respect to the same product or service previously used (Sajeesh and Raju, 2010). As De-Magistris and Gracia (2016) conclude, WTP with respect to a certain future meal is higher for those who are currently hungry than for those who are satiated. Assuming continued consumption and a low HLC in the satiation phase, we expect that $WTP_{t+1} < WTP_{t-1}$. Furthermore,

H4: The habitual level of consumption has an S-shaped moderating effect on the relationship between WTP_{t-1} and WTP_{t+1}.

That is, we expect a different influence of WTP_{t-1} on WTP_{t+1} depending on the HLC (see Figure 2.1). From H4, we derive the following secondary hypotheses:

H4a: WTP_{t-1} negatively influences WTP_{t+1} when there is a low habitual level of consumption.

H4b: WTP_{t-1} positively influences WTP_{t+1} when there is a moderate habitual level of consumption.

H4c: WTP_{t-1} negatively influences WTP_{t+1} when there is a high habitual level of consumption.

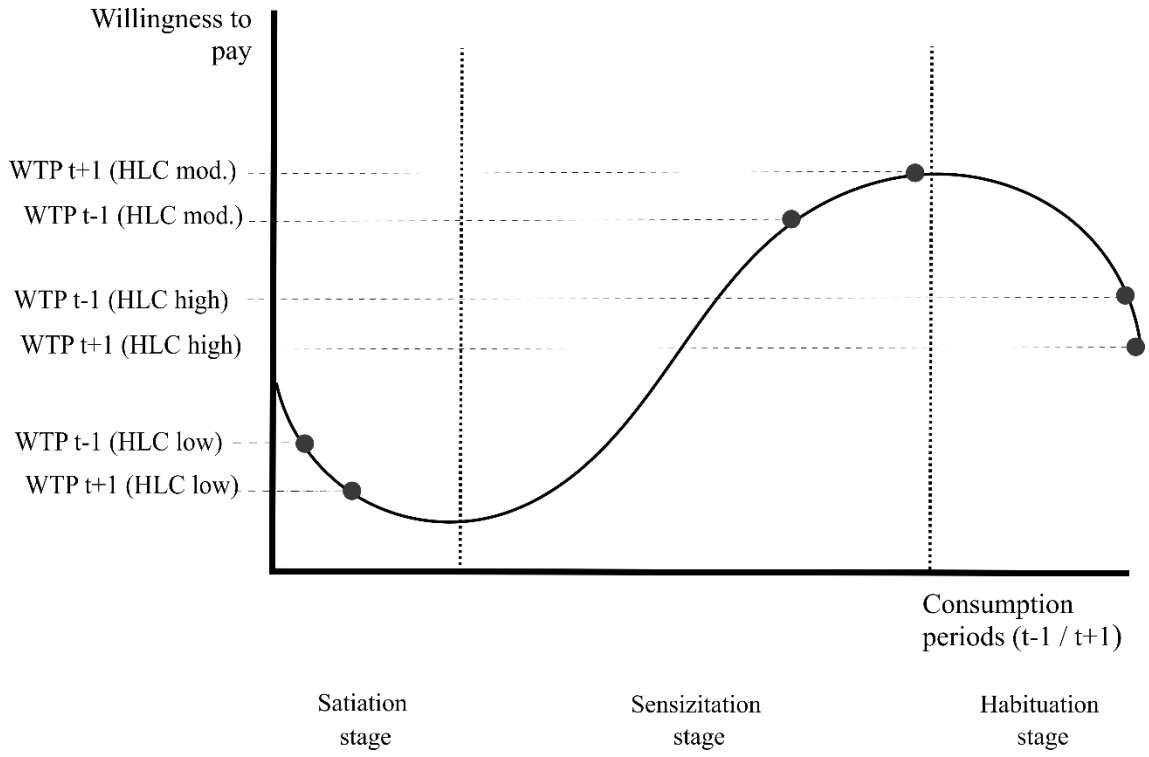

Figure 2.1. Moderator Effect of Habitual Level of Consumption (HLC) in WTP between Two Consumption Periods

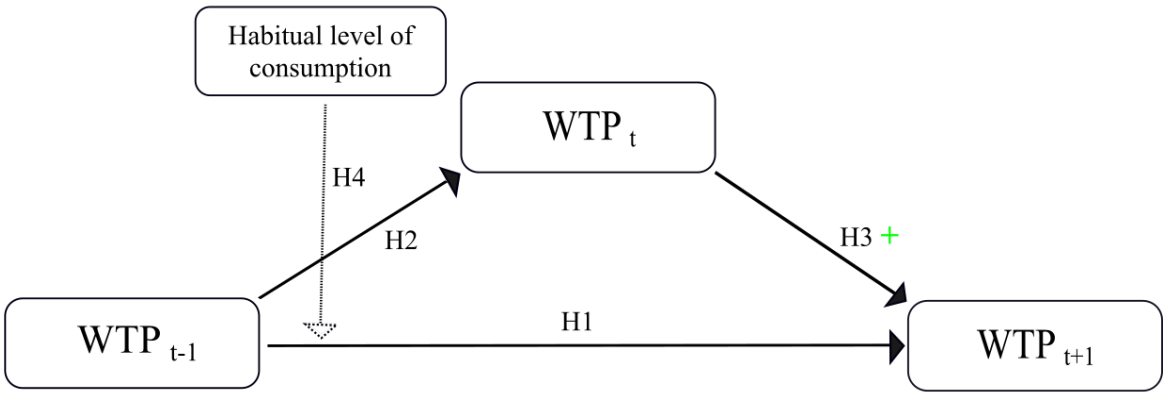

Figure 2.2. Conceptual Model

2.3 Methodology

2.3.1 Data sampling

We conducted a longitudinal study involving two sequential purchases from an online panel of Spanish customers. In the first questionnaire we identify people who, in the previous two years, have stayed at least once in a tourist accommodation for leisure reasons and planned to enjoy a new accommodation, in the same category and type, again in the coming weeks. In this first questionnaire we asked participant for their previous purchase´s WTP (WTP_{t-1}), their WTP before consuming the current accommodation (WTP_t), and their habitual level of consumption (HLC), among other control variables. According (Bigne et al., 2021), the average advance booking is 27 days. So, the respondents received a second questionnaire after 25 days that collected data after their stay in the current tourist accommodation (WTP_{t+1}). Obtaining a population really involved in tourism accommodation purchases, we expect answers that accurately reflect stated preferences and WTP ´s evaluations (Breidert et al., 2006).

To achieve a representative sample of the population, we obtained an initial random sample of 1,750 people, setting quotas by sex, age, and place of residence in accordance with the population register of the Spanish National Institute of Statistics. A total of 410 individuals responded positively to the first filter question; that is, they were planning to use a tourist accommodation similar in type and category to a previous stay sometime in the next 25 days. Respondents to this first questionnaire received a second questionnaire after 25 days that collected data after the stay in the tourist accommodation (WTP_{t+1}). A total of 370 people responded to this second questionnaire. After removing questionnaires with incomplete or incoherent answers, the sample was reduced to 289 respondents. Finally, we applied Chauvenet's criterion, which discards variations in WTP between different time periods that exceed ±3 times the standard deviation (Zerbet and Nikulin, 2003) to eliminate changes in WTP that may be motivated by misinterpretation. The final sample comprised 279 respondents, whose profile is reported in

Table 2.2.

Table 2.2 Sociodemographic Characteristics of Respondents

Characteristics	n	%
Gender		
Male	124	44.4%
Female	155	556%
Age		
18–24 years	21	7.5
25–34 years	62	22.2
35–44 years	81	29.0
45–54 years	63	22.6
55–65 years	52	18.6
Education		
Secondary education	19	6.6
High school	107	37.4
University or higher	153	56.1
Monthly income		
Rather not answer	33	11.8
<1.800€	75	26.9
1.800€– 3.000€	86	30.8
> 3.000€	85	30.5
Occupation		
Employed	212	76.0
Unemployed	67	24.0
Total	279	100%

2.3.2 Measures

WTP

To measure WTP, we chose a double-bounded dichotomous choice methodology consisting of two "yes/no" questions about variations (±10%) in WTP with respect to a price reference set according to the participant's own experience. Depending on the answers, respondents then accessed an open question that asked them to quantify their WTP. This methodology has been used in previous studies on tourist accommodations (Nieto-García et al., 2017, 2020) and other topics (Li and Meshkova, 2013). We asked participants to express WTP in terms of price per double/single room per night and person (without extra expenses).

We conducted analysis to ensure that consumer´s WTP change between previous consumption (WTP_{t-1}) compared to current consumption (WTP_t / WTP_{t+1}). There are significant changes and the average interval between consumption periods is 5 months.

In turn, is reported significant change between WTP_t and WTP_{t+1}, which reflect the usage´s generated value.

Habitual level of consumption

HLC is the number of times a product or service is consumed or enjoyed in a period of time (Wathieu, 2004). In the first questionnaire we asked respondents through an open question about the number of times in the past twenty-four months they had enjoyed an accommodation of the same category and type as the one they were currently deciding to book (consumption frequency). Thus, it is a measure of the usage habit of tourist accommodations for leisure purposes. Last twenty-four months period is chosen according to (Nieto-García et al., 2020) to obtain sufficient variability in the sample. In turn, it is a recent and long enough period to identify accurately the HLC of each respondent.

This measure implies an external specification of HLC, in which the habitual levels of consumption (high, moderate, low) are determined by the history of aggregate consumption of tourist accommodations, not the history of individual consumption. Finance literature indicates that an external specification, compared to internal specification of HLC does not imply a transcendent change (Campbell and Cochrane, 1999).

Control variables

We considered various control variables to isolate the behavior of different factors that may contribute to a change in WTP for reasons other than the HLC. To maintain homogeneity in the accommodation, we established a requirement in both questionnaires for maintaining the category (1 to 5 stars or equivalent) and type of accommodation previously booked (Hotel room, entire apartment, or private room in apartment). To

control this requirement, it was asked in both consumption periods the category and type of accommodation booked. Questionnaires with inconsistent responses between the two questionaries were removed from the sample. These control questions allow to extrapolate the results to different tourism accommodation independently of the category booked. Besides, in the analysis model, we include variables that likely affect frequency of use and WTP: type of tourist (national vs. foreign), holiday period (seasonality), income (monthly income), and reservation system (Internet vs. Traditional Operators) (Vives et al., 2018).

2.3.3 Estimation procedure

We first tested the hypotheses using a moderated hierarchical regression analysis, a special form of a multiple linear regression analysis in which variables are added to the model sequentially in separate steps to statistically investigate the significance of a moderating effect, and the moderated model's explanatory capacity improvement (Anderson, 1986). This regression analysis was conducted by RStudio (v3.5.2), using MASS and ISL libraries.

We include both WTP_{t-1} as WTP_t and WTP_{t+1} in the model after a logarithmic transformation to normalize their distributions (Wooldrige, 2018, pp. 191–216; Zhang et al., 2011). Logarithmic transformations were examined for normality by inspecting histogram graphs, skewness and kurtosis. These statistics, that are shown in Table I of Appendix A, are within acceptable range of ± 2 (Losada et al., 2016).

To reduce multicollinearity, the moderating variable (HLC) is centered with respect to the mean before creating the interaction terms. (Cotes-Torres et al., 2012) In turn, to control for multicollinearity associated with a cubic regression model, the models with square and cubic relationships are predicted by orthogonal polynomials (Cotes-Torres et

al., 2012; Homburg et al., 2005) using the "ln" function in RStudio (R Team, 2013, p. 412). Orthogonal polynomials variables are new predictor variables that consist of linear combinations of the simple polynomials, which avoid any multicollinearity (Kleinbaum et al., 2013, p. 412).

To check non-multicollinearity in predicted models, Variance Inflation Factors of variables included in model 6 are reported in Table III of Appendix A. All statistics are below 6 indicating, according to other research in pricing and WTP, that multicollinearity is not a concern (Nieto-García et al., 2017; Wang and Nicolau, 2017).

The second block of analysis is the mediated moderation (Hayes, 2018). With this analysis, we can explore mechanisms that explain the total moderation effect of the HLC on the relationship between WTP_{t-1} and WTP_{t+1}. To quantify the total effect of moderation, we estimate the effect of WTP_{t-1} on WTP_{t+1}, conditional on the HLC, and we test the significance of this effect.

2.4 Results

2.4.1 Direct and indirect effect of WTP_{t-1} on WTP_{t+1} and moderating effect of HLC

Moderated hierarchical regression analysis is shown in Table 2.3, whose results analyze the direct effect of WTP_{t-1} on WTP_{t+1} and the moderating effect of HLC over this relationship. To test hypothesis H1, the main effect of WTP_{t-1} is entered in model 1, where it is shown a positive and significant effect on WTP_{t+1}. Model 2 and model 3 includes the direct effect of HLC, HLC^2 and HLC^3 on WTP_{t+1} with non-significant results neither significant improvement in Adjusted R-squared value, so we can discard a direct effect from HLC on WTP_{t+1}. To test the cubic-moderating effect, firstly it is important to check

the lower order moderating effect of HLC and HLC^2. The interaction terms are entered in model 4, where it is shown non-significant coefficients, nor significant improvement in adjusted R-squared value. Model 5 test the signification of a cubic moderating effect of HLC, as proposed in H4. In this model it is shown that the interaction term (WTP_{t-1} × Habitual level of consumption^3) is significant. In turn, there is a significant change in adjusted R-squared value compared to previous models, and adjusted R-squared values indicate that Model 5 explains 31.7% of the variability. From these results it is concluded that exist a cubic moderating effect of HLC, and therefore H4 is accepted.

Table 2.3. Direct Effect of WTPt–1 on WTPt+1 and the Moderating Effect of Habitual Level of Consumption

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept	—	—	—	—	—	—
WTP in $t-1$ (WTP_{t-1})	.555***	.562***	.563***	.570***	.573***	.353***
Habitual level of consumption		.061	.061	.045	.075***	.069
Habitual level of consumption^2		–.060	–.060	–.087	–.054	–.047
Habitual level of consumption^3			–.015	–.044	–.009	.001
WTP_{t-1} × Habitual level of consumption				.066	.,075	.064
WTP_{t-1} × Habitual level of consumption^2				.061	.037	.050
WTP_{t-1} × Habitual level of consumption^3					–.128*	–.143*
WTP_t						.252*
Adjusted R^2	.305	.308	.306	.307	.317	.331
Change in R^2	.305	.003	.000	.001	.010*	.014**
F-value (d.f.)	123,518*** (1)	42,313*** (3)	31,653*** (4)	21,531*** (6)	19,475*** (7)	18,21*** (7)

Notes: Standardized regression coefficients are reported. Significance level: ***p < .001; **p < .01; *p < .05.

To test the significance of the indirect effect, we follow (Baron and Kenny, 1986) procedure. Table 2.4 shows that WTP_{t-1} has a significant effect on WTP_t, in support of H2. The results in

Variable	WTP_t
WTP_{t-1}	.861***
Adjusted R^2	.740
F-value (d.f.)	793.5***

Notes: Standardized regression coefficients are reported. Significance level: ***p < .001; **p < .01; *p < .05.

Table 2.5 also provide support for H3a (β = .229*), and thus it is accepted a positive influence of WTP_t *on* WTP_{t+1}. Moreover, it is observed a significant change in the coefficient relating WTP_{t-1} to WTP_{t+1}, as well as the explanatory capacity, when we include WTP_t in Model 2. Therefore, we accept H3b. We further verify this mediating effect using SPSS Amos Graphics (v.23) through a path analysis with bootstrapping (5,000 interactions). The results are significant (p < .05). Therefore, WTP_t exerts a partial mediation effect.

Table 2.4. Effect of WTP_{t-1} on WTP_t

Variable	WTP_t
WTP_{t-1}	.861***
Adjusted R^2	.740
F-value (d.f.)	793.5***

Notes: Standardized regression coefficients are reported. Significance level: ***p < .001; **p < .01; *p < .05.

Table 2.5. Mediating Effect of WTP_t in the Relationship between WTP_{t-1} and WTP_{t+1}

Variable	Model 1	Model 2
Constant	—	—

WTP_{t-1}	.555***	.358***
WTP_t	—	.229*
Adjusted R^2	.305	.317
Change in R^2	.305	.012*
F-value (d.f.)	123.51***	65.524***

Notes: Standardized regression coefficients are reported. Significance level: ***$p < .001$; **$p < .01$; *$p < .05$.

According to moderate hierarchical regression analysis, as WTP_t exerts a mediating effect, there must be included this variable in a new step to check its explanatory capacity and significance in a joint model. WTP_t is entered in model 6 of Table 2.3, where it is shown its signification. In turn, adjusted R-squared value shown that model 6 explains a 33.1% of variability, improving significatively up to a 0.014 model 5.

In conclusion, the results affirm a S-shaped moderated effect of HLC over the relationship between WTP_{t-1} and WTP_{t+1}. Besides, WTP_{t-1} explains WTP_{t+1} not only directly but also indirectly through WTP_t. In the next section we calculate, on the basis of model 6, the direction of this moderated mediation effect and its significance at different values of HLC (low, moderate, and high). Model 6 is chosen because it is the model with highest explanatory power.

2.4.2 Conditional effects of habitual level of consumption on the influence of WTPt–1 on WTPt+1

We begin with the following equations, formed with the values of Model 6 from Table 2.3 and Model 1 from Table 2.4, which reflect the moderated effect of WTP_{t-1} on WTP_{t+1} and the effect of WTP_t on WTP_{t+1}:

$$\widehat{WTP_{t+1}} = 0.353 * WTP_{t-1} + 0{,}069 * HLC - 0{,}047 * HLC^2 - 0.001 * HLC^3 + 0.064 * WTP_{t-1} * HLC + 0.050 * WTP_{t-1} * HLC^2 - 0.143 * WTP_{t-1} * HLC^3 + 0.252 * WTP_t \quad (1)$$

$$\widehat{WTP_t} = 0{,}861 * WTP_{t-1} \quad (2)$$

To derive a graphical interpretation (Figure 2.3), we estimate the conditional effect of the HLC on the relationship between WTP_{t-1} and WTP_{t+1}. As a result, the effect of WTP_{t-1} on WTP_{t+1} becomes a function that depends on the HLC, with the proposed mediator remaining constant (Hayes, 2018, p. 449). The resulting expression is:

$$\theta_{WTP\ t-1 \rightarrow WTP\ t+1} = -0.143 * HLC^3 + 0.050 * HLC^2 + 0.065 * HLC + 0.353 \quad (3)$$

In addition, we determine the direct effect of WTP_{t-1} on WTP_t by calculating the derivative of the previous expression in relation to WTP_{t-1}. To obtain the indirect effect of WTP_{t-1} on WTP_{t+1} through WTP_t, we multiply the components that define the indirect effect (Hayes, 2018, p. 448). The components are the effect of WTP_{t-1} on WTP_t and of WTP_t on WTP_{t+1}:

$$\theta_{WTP\ t-1 \rightarrow WTP\ t+1} = 0.861 * 0.252 \quad (4)$$

Using a "pick-a-point approach," in Figure 4 we present the effects of WTP_{t-1} on WTP_{t+1}, conditional on a range of values of the mean-centered HLC —low (–1.77, 16th percentile), moderate (0.23, 60th percentile), and high (1,23, 84th percentile)—and its signification (Table 2.6), which corresponds to our range of interest. We chose these values according to the way WTP_{t+1} is distributed in our sample (Hayes, 2018, p. 450).

Table 2.6. Habituation Effect in the Relationship between WTP_{t-1} and WTP_{t+1}

	Indirect Effect	Direct Effect	Total Effect		
HLC	Estimate	Estimate	Estimate	*t*	*p*-Value
Low (–1,77 → HLC = 2 times)	.217	1.195	1.412	10.199	0.000
Moderate (0.23 → HLC = 4 times)	.217	0.368	0.585	4.147	0.000
High (1.23 → HLC = 5 times)	.217	0.239	0.456	2.573	0.010

Significance level: ***$p < .001$; **$p < .01$; *$p < .05$. HLC= Habitual level of consumption

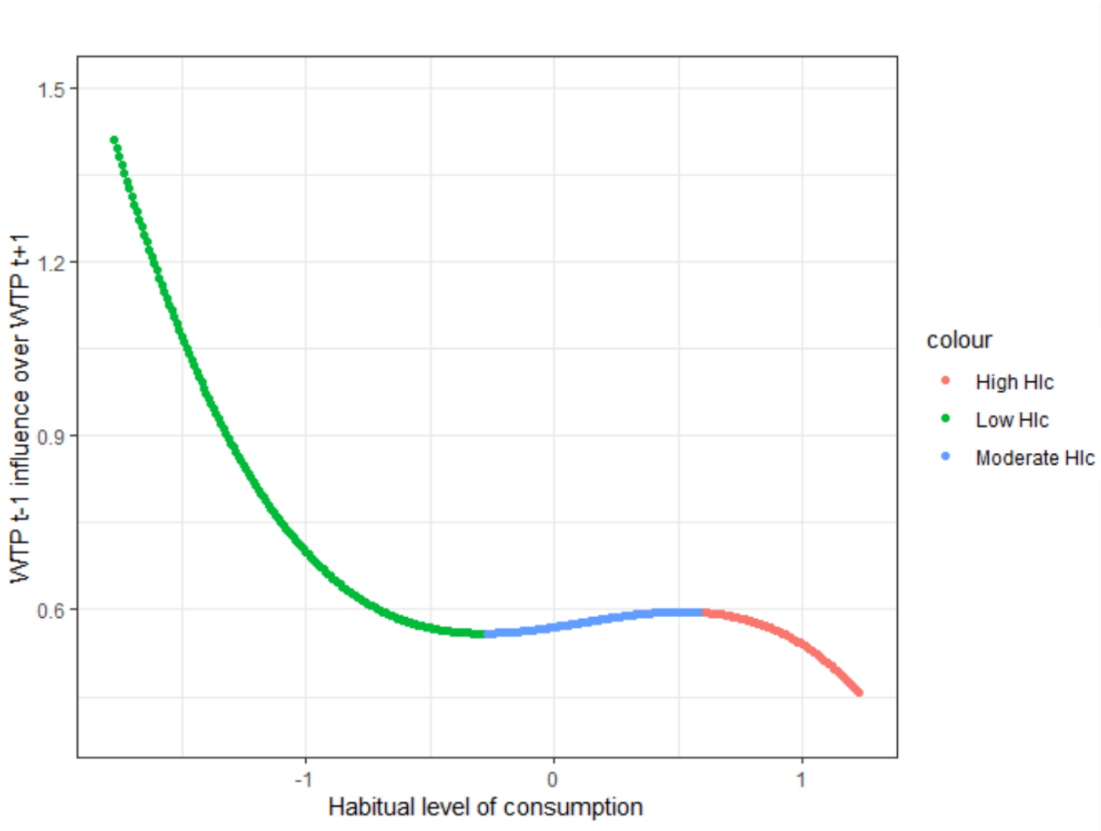

Figure 2.3. Effect of WTP_{t-1} on WTP_{t+1}, Conditional on Habitual Level of Consumption

To illustrate the influence of WTP_{t-1} on WTP_{t+1} according to the HLC, we calculate the tangent of Equation 3 at the different points that represent the range of interest (HLC

= –1.77, 0.23, and 1.23) (Brown, 2014, p. 250). The values of the HLC that shapes the slopes appear in Table 2.7 and are represented in Figure 2.4.

$$f'\,\theta_{WTP\ t-1 \rightarrow WTP\ t+1} = -0.429 * HLC^2 + 0.100 * HLC + 0.065 \qquad (5)$$

Table 2.7. Effect of WTP_{t-1} on WTP_{t+1} According to Low, Moderate, and High Values of HLC

	f′ (–1.77)	f′ (0.23)	f′ (1.23)
$f'\,\theta_{WTP\ t-1 \rightarrow WTP\ t+1}$	–1.456	.065	–.462

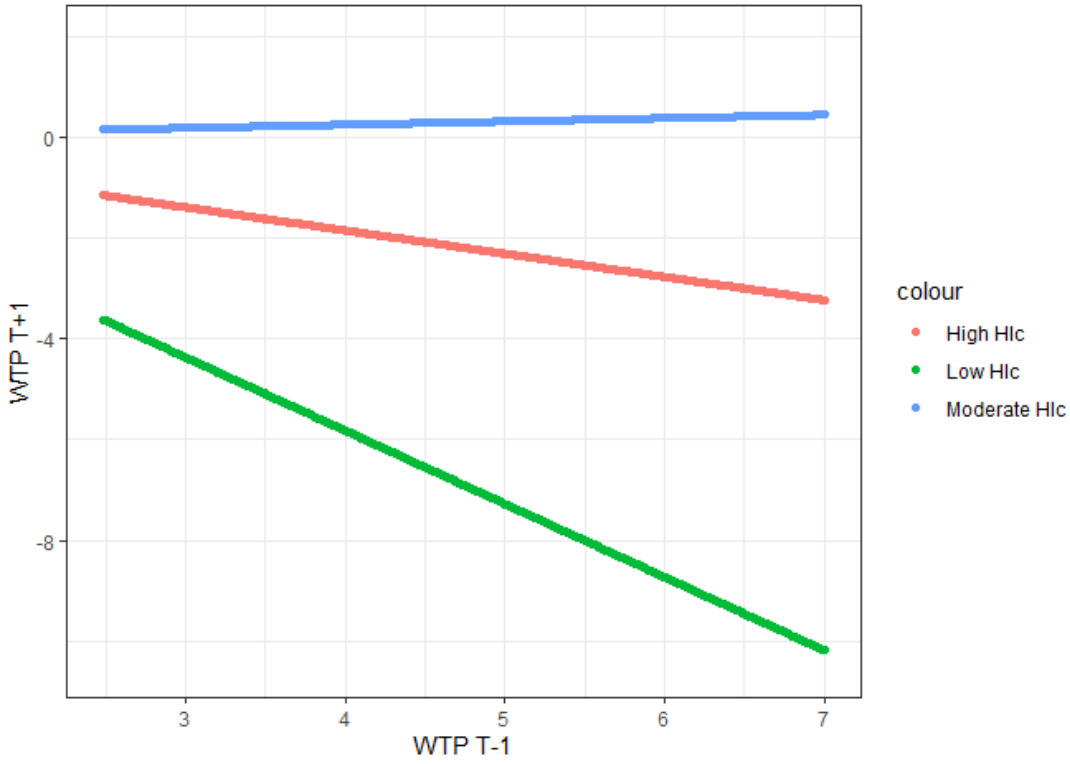

Figure 2.4. Effect Slope from WTP_{t-1} to WTP_{t+1} at High, Low, and Moderate HLC Points

Consistent with H4, the results show a positive and significant effect of the relationship between WTP in the two periods of consumption ($WTP_{t-1} \rightarrow WTP_{t+1}$) when the HLC is moderate (HLC = .23, $p < .00$). Conversely, a negative and significant effect occurs when the HLC is high (HLC = 1.23, $p < .01$) and when it is low (HLC = –1.77, $p < .01$) (Table

2.7). These results support H4a–H4c; the shape of the moderation relationship is as predicted.

2.5 Conclusions

This study advances extant literature on revenue management and pricing. We empirically demonstrate that WTP changes between consumption periods according to the customer's HLC in a context of repeat and hedonic purchases.

Regarding revenue management, we empirically argue that there is a relationship of WTP between two purchases. In this way, we not only show the direct effect of WTP_{t-1} over WTP_{t+1}, but WTP_{t+1} is also indirectly influenced through WTP_t. Which is consistent with the idea, that the expectations of the pre-purchase (WTP_t) are considered strongly to evaluate the overall tourism experience (Sánchez et al., 2006). Therefore, utility of a single purchase is formed in the pre-purchase period (WTP_t) as well as after the consumption (WTP_{t+1}).

Regarding tourism accommodation pricing, the results of this study show that, when proposing a price, revenue managers must take into consideration both the last experience with a product and the consumer´s habitual level of consumption. Past consumption influences current utility in different ways, and we offer an initial empirical application about how HLC influences WTP into a specific sector. Consumer´s purchase experiences are significant to develop more informed dynamic pricing strategies on recurrent purchased products (Arslan and Kachani, 2011). This research incorporates previous´ WTP, as well as HLC in a single model to evaluate current WTP, which offers a novel approach to develop dynamic pricing strategies.

This application reveals that WTP is dynamic in time and depends on familiarity or habit with a good in a similar way to the theoretical proposition of habit formation and satiation models. We thus identify a positive relationship in WTP between different purchases when the consumer is in a "sensitization" stage. However, this relationship becomes negative when the HLC is notably high (habituation) or low (satiation); in the latter case, we find the most intense magnitudes of change. The fact that WTP is greater at moderate HLC is consistent with (Dubra et al., 2019). They conclude mathematically that the optimal sequence of consumption over time must intercalate consumption of variety to maintain a moderate HLC and so, the interest on the preferred choice; this consumption sequence maximizes total utility in a repetitive purchase context.Due to control variables and the requirement of maintaining the accommodation type and category between consumption periods, the results are consistent and extrapolated for different types of accommodation (Hotel room, entire apartment, and private room in apartment), categories (1 to 5 stars or equivalent) and situations (destination, seasonality, and reservation method). As suggested in the literature, a higher accommodation category implies a higher willingness to pay. However, the use of logarithms and a perspective in which we compare the current willingness to pay against a repetitive purchase in which the category does not change, allows us to generalize these results. In addition, we can see how the increase or decrease in willingness to pay is relative (in percentage terms) against to the previous purchase. When the HLC is low (–1.77; HLC = 2), the effect of WTP_{t-1} on WTP_{t+1} is –1.456. In percentage terms, a 10% increase in WTP_{t-1} implies a 14.56% decrease in WTP_{t+1}. Approximately coinciding with the average, when the HLC is moderate (0.23; HLC = 4), a 10% increase in WTP_{t-1} represents a 0.64% increase in WTP_{t+1}. Finally, when the HLC is high (1.23; HLC = 5), a 10% increase in WTP_{t-1} implies a 4.62% decrease in WTP_{t+1}.

These conclusions advance in pricing literature, especially regarding reference prices and consumer´s value segmentation models, as Recency, Frequency and Monetary value model (RFM). It is concluded that a positive experience in the previous stay does not always translate into an increase in current utility, which explain why even satisfied consumers, frequently do not come back due to satiation or excessive habituation (Jang and Feng, 2007; Sánchez-García et al., 2012). In conditions where no moderator is considered, reference price literature posits that a previous positive experience implies a greater current WTP. However, when a consumer feels satiation or habituation, current stay is not perceived as pleasant as in previous occasions, which translates into a lower WTP. This behavior is also opposite to RFM model conclusions, which argues that frequency and recency (less time between consumption) influences positively the value that the company attributes to a consumer. However, this model does not explicitly consider the consumer's utility perception regarding the product or service, that we demonstrate that decrease with consumption frequency. We think this models should consider consumer´s perceived value, since seems contradictory to attribute a high value for the company to a consumer, whose WTP decay over time.

These results open lines of research that we understand are important both from an academic and managerial perspective.

First, the consideration of satiation as a complementary to HLC´s measure for explaining WTP in repetitive purchase context. The effect of satiation is implicitly manifested in WTP, but its effect as a control variable is not significant. This variable might have a stronger influence in other circumstances, such as with low HLC; it would be interesting to study satiation as a moderator by itself, in line with evidence that it can explain variety seeking behaviors (Park and Jang, 2014a; Sevilla et al., 2019).

Second, it is necessary to check whether the results are similar in the case of three important purchasing contexts: (a) contrast the results with those obtained in a segment as important as consumers over 65 (our sample is limited to < 65), because the effect of retirement may represent a change not only in their travel frequency, but also in the weight they attribute to their past use experience (Losada et al., 2016). (b) consider different booking advance (in our sample was around 25 days), thus advance can influence the type of information that is considered when forming WTP. (c) compare the effect of the higher or lower accommodation cost because price sensitivity might change between accommodation categories.

Third, literature suggest that hedonic decline is different between products (Galak and Redden, 2018), so the generalization of the results to other services and products would depend on the result of a multi-categorical research comparing utilitarian vs hedonic (Park and Jang, 2014b), high involvement vs low involvement (Chen and Liao, 2019) or risky vs no-risky purchases (Casidy and Wymer, 2016).Fourth, despite suggesting that previous stay´s experience influence over current WTP is weaker among habituated customers, we cannot confirm which are the key variables that explains their WTP and, therefore the purchase decision. The influence of relationship marketing variables (satisfaction, loyalty, perceived quality ...) on WTP behave differently in conditions of high vs low perceived risk (Casidy and Wymer, 2016) . Based on this evidence, the inclusion of HLC on this relationship could shed additional light about the key variables considered by the different consumer´s segments on recurrent use services' purchase decision.

2.6 Managerial Implications

The restriction of supply in the short term, transience of the service, temporality, and high competition make optimizing the value captured from customers in each new purchase essential in this sector.

We recommend revenue managers recording the consumer´s prices paid, previous stay experience, WTP, and consumption frequency throughout a customer's life cycle. In this way, they can define consumer segments according to their consumption frequency, a measure available in their databases which reflects consumers HLC with a service, while controlling also the other relevant variables.

This segmentation is useful to pricing and revenue management policies for two reasons:

First, to know which variables are relevant in consumers decision making. As it is shown, the experience of previous stay (WTP_{t-1}) is an important reference to shape WTP when consumers consider a new purchase decision, however the strength and direction of the relationship between WTP_{t-1} and WTP_{t+1} depends on the HLC. In Table 2.6 it is shown how the coefficient of the relationship changes regarding low, moderate, and high values of HLC. The results shows that this coefficient decreases as HLC increases. Consumers who have a high frequency of consumption (habituation) consider more weakly, compared to low or moderate HLC, the experience of previous stay as a reference on which to decide the purchase. It seems that all customers are aware of the price they have paid, but their current decision is explained by different variables.

Habituated customers are very likely to tend to be more objective in their decisions, since they have a greater user experience, which can make them more critical when comparing their past experiences with the current information available. They have a

better knowledge of the product and therefore a greater ability to buy. So, in his decision, several variables beyond their most recent experience, may be considered. By contrast, sensitized consumers trust their past experiences as a reliable indicator of their expectation of future experience because they are not so expert customer, so the purchase decision fall to their stays´ limited experiences. Trust their previous experiences is a facilitator of the new hire decision, thus maintaining a positive inertia in WTP´s assessment.

In this sense, revenue managers must employ different communication and value offers. On the one hand, loyalty programs can enhance habituated customer´s perceived benefit. On the other, reminding sensitized customers their previous positive experiences with the offered service or an augmented service offering, can determine the election of our accommodation against cheaper alternatives, because it seems they are not as price-sensitive as habituated customers.

Second, HLC segmentation is important to achieve a high-value customer portfolio with a longer life cycle. Contrary to RFM model, we posit that a more frequent customers do not always translate in higher WTP, and thus incomes could be undermined (Dubra et al., 2019). WTP of habituated consumers decay over the consumption life-cycle. However, sensitized one are willing to pay an extra in next purchases. We suggest that providers can capture more value in this segment by setting the price close to the maximum WTP over each consumption. In turn, we advise managers to balance their customer portfolio between habituated and sensitized customers.

Sensitized customer acquisition cost may be higher, compared to habituated, because they will consider as first option their previous accommodation, and seems reluctance to change, however his higher WTP over consumption periods can balance this overrun.

Finally, consumers with a low HLC are less attractive. Their WTP will decline with their next consumption, and they are likely to look for alternatives (Sevilla et al., 2019).

Tourism providers should use this insight to improve their resource allocation decisions: They should invest more in attracting new customers with moderately HLC (sensitization), who likely will increase their WTP through the consumption life-cycle. While also investing in retaining to those with high HLC by enhancing their perceived benefit, because it will decay over time.

To sum up the conclusions and implications, in this research we analyze through HLC the importance of consumer behavior´s pricing discrimination. We provide concrete evidence about variations in price that a company should consider, based on the consumption patterns of each customer, and we propose a way to segment consumers based on their consumption frequencies.

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Chapter 3 Influence of satiation on willingness to pay

3.1 Introduction

Literature has studied the effect of satiation to explain different behavioral variables, such as switching intentions and satisfaction (Park & Jang, 2014b), desire (Redden, 2015), variety seeking (Sevilla et al., 2019), and revisit intentions (Jang & Feng, 2007). Although these variables are important antecedents of the willingness to pay (WTP), satiation literature has ignored its effects directly on WTP (Nicolau, 2010). The results allow for the implementation of different strategies to optimize dynamic pricing in several sectors (Vives et al., 2018).

Satiation is defined as a feeling of being above one's desire or assimilation capacity, which reduces the interest and enjoyment of a product or service in future consumption (Redden & Galak, 2013). As satiation should shape customers' price perceptions, we prove this assumption by studying its influence on their current willingness to pay (WTP_{t+1}), also considering the tourism consumer's experience with their immediate previous stay. The previous stay experience is measured through the WTP in the previous purchase, controlling for the tourism accommodation type and category that does not change between past and current consumption. Therefore, prior WTP acts as a reference price to evaluate how WTP_{t+1} changes given the presence of satiation.

Satiation literature can benefit from this study as analysis includes tourism accommodations as a hedonic service with high involvement in the purchase decision. Current literature has focused on studying low-involvement products, such as music (Galak et al., 2009, 2011), food (Galak et al., 2014; Sevilla & Redden, 2014), photos (Redden & Galak, 2013), and casual leisure activities (Chen & Liao, 2019). Nevertheless, satiation's effect on reflexive purchases is of critical interest given the importance of

internal comparison points and contextual variables in consumers' pricing judgments of this type of services (Choi et al., 2018, 2019; Docters et al., 2011).

Simultaneously, tourism accommodation literature can benefit for different reasons. One recent study revealed the ongoing need for research on consumers' WTP, as significant differences exist between this and the price set by the supplier (Razavi & Israeli, 2019). This research highlights the importance of considering nonlinear models, a reference price, and intrinsic consumer variables—such as the frequency and intervals between consumption—in estimating prices in the tourist accommodation sector. The inclusion of satiation and the experience of previous stays in tourism accommodation-pricing literature fills the gap generated by the scarce knowledge of this successive consumption's effects on WTP (Bradley & Sparks, 2012). Moreover, WTP research is particularly useful in the tourist accommodation sector, as pricing policies are a primary tactic to generate income given their fixed capacity and highly seasonal, competitive, and temporal nature. Both online travel agencies, such as Kayak, Booking, Expedia, and Trivago, and primary tourist accommodation chains, such as Meliá, Iberostar, and NH, among others, have dedicated significant resources to improve their dynamic pricing strategies because they can potentially capture part of a consumer surplus (Abrate et al., 2019).

We consider the managerial perspective to propose, for the first time in a tourism context, an empirical application of the satiation theories posed by Baucells and Sarin (2007, 2010). These theories investigate satiation's effect on WTP and are useful for understanding consumer segments that arise when a service is repeatedly enjoyed. The results allow revenue managers to understand two issues. First, they can delineate the period in which consumers again perceive value in consuming a new tourism accommodation, which will allow managers to segment customers according to those

who are satiated versus non-satiated. According to Sevilla et al. (2019), satiation is measured as a function of the time interval between consumption and intensity of consumption, and thus, the result can be easily implemented because these behavioral measures are available in their databases. Second, revenue managers can interpret the how customers consider the previous stay experience in their current decision, which depends on satiation. In conclusion, we reveal how the previous stay experience and satiation influence current WTP (WTP_{t+1}), regardless of the effects of the tourism accommodation type (hotel room, entire apartment, or private room in an apartment), category (one to five stars, or equivalent), booking in advance, and booking channel.

We consider three pathways in addressing the likely effects.

First, the WTP for a new purchase is influenced by previous consumption because WTP depends on experience (Bradley & Sparks, 2012). Therefore, it is important to incorporate prior service price references into the analysis according to models demonstrating how utility changes over time, as proposed by Baucells and Sarin (2007, 2010). The results indicate that the previous stay experience negatively influences WTP_{t+1} when customers are satiated. Second, because utility is experienced before purchase, at the time of purchase, and after use (Sánchez et al., 2006), we consider longitudinal changes in WTP across three periods: (t - 1), which measures WTP of consumers´ previous stay; t, which measures WTP in the purchase moment, or specifically, before consuming the current accommodation (WTP_t); and (t + 1), which reflects WTP after consuming the current accommodation (WTP_{t+1}). Third, utility in the tourism sector is partially a function of emotional experiences; therefore, we study satiation while controlling for the functional aspects to remain constant. This study proposes that consumer satiation exerts a negative moderating effect on WTP_{t+1}, as proposed by Baucells and Sarin (2007, 2010).

3.2 Conceptual Framework

3.2.1 The WTP and hospitality research

Cameron and James (1987) define WTP as "the maximum monetary amount a consumer agrees to pay for a good or service," and this operationalizes the benefit a consumer perceives from the product. The WTP is dynamic over time, and is influenced by the effect of prior experiences, which link the decision to buy in a certain period with the purchase made later (Roy et al., 1996). Tourist accommodation literature from a hedonic pricing perspective has studied the influence of different variables as an approximation to determine the individual WTP of each variable for the consumer choosing an accommodation. This supply-side perspective does not explicitly reflect consumers' WTP. As an alternative to this product-centric pricing, we propose value-centric pricing, which first requires identifying the WTP relative to different variables to offer an attractive price for each consumer segment. In recent years, a proliferation of WTP studies have focused on different forms of customer segmentation based on price perceptions from the consumer's perspective (Guillet, 2020). Table 3.1 summarizes how satiation has been studied in hospitality research from a customer perspective. These studies conclude that satiation negatively influences purchase behaviors, such as recommendations, satisfaction, or revisit intentions (Antón et al., 2018; Jang & Feng, 2007; Kozak et al., 2004) because satiated customers can perceive a decrease in utility (Nicolau, 2010).

Table 3.1. Review of academic papers on satiation in hospitality research

Academic Papers	Satiation as Determinant in Hospitality	Main Results
Jang and Feng (2007)	Satiation, satisfaction, variety-seeking behaviors, and revisit intentions	Satiation positively influences revisit intentions in the long-term, mediated by variety seeking. Satiation negatively influences revisit intentions in the short-term
Bigné et al. (2009)	Satisfaction, variety-seeking behaviors, and revisit intentions	Variety-seeking caused by satiation negatively influences revisit intentions in the short-term
Nicolau (2010)	Satiation and utility	Satiation and a destination's attributes positively influence variety-seeking, mediated negatively by utility. Satiation causes a loss of utility from tourism destination attributes
Park and Jang (2014b)	Satisfaction, satiation, and switching intentions	Satiation negatively influences satisfaction and positively influences switching intentions
Park and Jang (2014a)	Consumption frequency, satiation, and revisit intentions. The authors include hedonic versus utilitarian usage as moderators	Consumption frequency positively influences satiation. Satiation emerges faster within hedonic services
Antón et al. (2018)	Satiation and behavior after the visit	Satiation negatively influences revisit intentions and recommendations
Razavi and Israeli (2019)	Travel frequency, last hotel stay, WTP	Travel frequency negatively influences WTP and the last hotel stay positively influences WTP
Proposed model in accordance with Baucells and Sarin's (2007, 2010) theoretical proposition	Previous consumption experience (WTPt-1) and consumer's personal context in terms of satiation and current WTP (WTPt+1)	Satiation negatively moderates the relationship between the last experience's WTP (WTPt-1) and current WTP (WTPt+1). This relationship is proposed due to satiation's negative effect on utility perceptions

Source: own elaboration.

Regarding the importance of consumption frequency in tourism accommodation WTP, and in line with the previously mentioned literature, Razavi and Israeli (2019) also posit that the time interval since the last consumption positively influences WTP, and that travel frequency negatively influences WTP. Moreover, Alegre et al. (2009) demonstrate that habits influence travel frequency, which subsequently generates such emotions as habituation or satiation that change utility perceptions (Galak & Redden, 2018).

Literature has also demonstrated that satiation emerges faster for hedonic than utilitarian services (Park & Jang, 2014a). Therefore, this research considers that it is relevant to study the influence of satiation on WTP within the range of tourism accommodation consumers who travel for leisure reasons. We propose a model in which the previous stay experience is considered to negatively impact the current WTP decision (WTP_{t+1}) due to the moderating effect of satiation. This effect contrasts that proposed in Recency, Frequency and Monetary Value model (RFM) and reference price literature. On the one hand, RFM research suggests that recency, or a smaller time between consumption decisions, positively influences the value that the company attributes to a consumer. This model attributes a value to the customer, which indicates their probability of repurchase in accordance with RFM variables; however, this omits the consumer's utility perceptions of the product or service (Blattberg et al., 2008). Additionally, the type of product that this model studies does not involve a reflexive purchase, but rather impulsive purchases with a low perceived risk and fixed price, such as supermarket products or financial services (credit card payments), as explained by Heldt et al. (2021); they also posit that the RFM variables' effects depend on the product type. On the other hand, the reference price literature has always posited a positive relationship between a previous price reference and WTP, but including moderators or mediators can change the direction of this relationship (Nieto-García et al., 2017). Further, this research proves that past experiences are not always considered positively, and that satiation (or a shorter time between consumption experiences) negatively moderates the relationship between the experience of previous stay and WTP_{t+1}.

3.2.2 Satiation

McAlister (1982) integrated the concept of satiation in studying utility, or specifically, examining how product choice depends on past experiences with product attributes and the level at which the consumer is satiated with each attribute. These negatively evaluate the utility of consumption when it surpasses an ideal level of acceptance. More recently, Baucells & Sarin (2007) included the concept of satiation to study current WTP compared to that of the previous consumption period for the same product category. The authors concluded that current WTP decreases relative to the previous in the short intervals between repeated consumption experiences, and in turn, the marginal WTP decreases with increases in the quantity consumed. This model explains satiation from the perspective of the amount consumed and the frequency between consumption periods, consistent with other studies (e.g., Iyengar and Jedidi, 2012). In the habit-formation and satiation model (Baucells & Sarin, 2010), satiation is relativized according to the degree to which one is accustomed to consuming a good in a similar way to that proposed by McAlister (1982). When current consumption exceeds the habitual level of consumption within a given period, consumers become satiated and WTP decreases relative to the previous consumption experience.

Behavioral theories explain how stimuli become less interesting and provoke less arousal when they are perceived as repetitive; thus, consumption implies greater pleasure when satiation is low. Chen and Liao (2019) suggest that in casual leisure, repeated consumption first generates an increase in utility, which then sharply decreases. However, this effect is unusual, because even a repeated exposure to a favorite food generates an immediate decline in consumers' enjoyment (Epstein et al., 2009).

Table 3.2 displays the main determinants of satiation according to the proposed classification of Sevilla et al. (2019), which defines two concepts of satiation with different measurements and research areas: psychological and physiological satiation.

Table 3.2. Review of determinants of satiation

Academic Papers	**Determinants of Psychological Satiation**	**Main Results**
Redden and Galak (2013)	Subjective sense of how much one has recently consumed	Perception of how much has been recently consumed positively influences satiation. A perception of a more recent previous consumption generates faster and greater satiation
Galak et al. (2014)	Perceived temporal distance from past consumption	The perception of temporal distance between consumptions negatively influences satiation. A perception of greater temporal distance generates lower satiation
Sevilla and Redden (2014)	Perception of scarcity	The perception of scarcity reduces satiation. A service or product which is presented as limited provoke less satiation
Redden (2008)	Stimulus categorization	People are less satiated if they categorize consumption episodes at lower levels
Mead et al. (2019)	Availability of future variety	Providing consumers with a low detail description of the future variety they can consume reduces their perceptions of satiation regarding their current consumption
Academic Papers	**Determinants of Physiological Satiation**	**Main Results**
Baucells and Sarin (2007)	Short time interval between consumptions (recency of consumption)	For short time intervals between consumption periods, the satiation caused by previous consumption lowers the utility of current consumption
Chen and Liao (2019)	Repeating a casual leisure activity (quantity of consumption)	Although repeating the same casual leisure activity is pleasant, this ultimately generates satiation

Caro and Martínez-de-Albéniz (2012)	Short time interval between consumption periods	A shorter time interval between consumptions (more recent consumption) generates satiation
Baucells and Sarin (2010)	Repetition of consumption of a certain product (quantity of consumption)	The more often the consumption occurs, the lower the utility due to satiation
Baucells and Zhao (2020)	Repetition of consumption of a certain product (quantity of consumption)	Current utility depends on past consumption, which generates some stock of past consumption and results in satiation
Redden (2015)	Repetition of consumption of a certain product (quantity of consumption)	Satiation negatively influences the desire to consume a product
McAlister (1982)	Repetition of consumption of a certain product (quantity of consumption)	Past consumption generates satiation with certain attributes that are used to value the current purchase decision
Galak et al. (2013)	Intervals between consumptions	The product consumption intensity positively influences satiation. Longer breaks between consumption episodes slow satiation and increase desire

Source: own elaboration.

Physiological satiation is a function of the quantity consumed, whether there are interruptions and the time that elapses between consumption occasions. This research uses both the interval between consumption and quantity consumed as proxies. We chose this specification of satiation to operationalize the construct for two reasons. First, and as Table 3.2 indicates, literature uses this specification when satiation is proposed as an independent variable. Second, measuring satiation through real buying behavior allows companies to easily apply the results. Psychological satiation has been studied to determine the different mechanisms that reduce satiation at the time of consumption. For example, some experiments demonstrate that satiation can be reduced by manipulating the perception of temporal distance between consumption (Galak et al., 2014) or how much they have recently consumed (Redden & Galak, 2013), or by providing consumers

with a detailed description of the future variety they can consume (Mead et al., 2019). This specification is always analyzed in experimentation as a dependent variable.

3.2.3 Influence of previous stay over WTP_{t+1}

Consumers have individual internal norms that they use to judge prices (Cheng & Monroe, 2013). In tourism, consumers establish a benchmark to judge decisions, in which room rate is an important factor in the formation of WTP, but not exclusively (Tanford et al., 2019). In particular, Norman et al. (2000) argue that considering past experiences can significantly improve the prediction of an individual's pricing decisions. Moreover, the WTP captures a purchase's perceived benefit, which includes the set of relevant variables associated with the enjoyment of the service. These past experiences help to determine customers' heterogeneous understanding of the service (Moon et al., 2006) and create habits that will influence subsequent consumption (Roy et al., 1996), or WTP_{t+1} in our specific case. Different studies in the tourism sector have revealed how past experiences must be considered to understand present behaviors, such as the intention to revisit a destination (Barnes et al., 2016), the choice of transportation (Bamberg et al., 2003), transport utility (Bradley & Sparks, 2012) and even a consumer's WTP for accommodation (Book et al., 2016; Tanford et al., 2019) . Therefore, we propose the following hypothesis:

H1: The previous stay experience influences WTP_{t+1}.

3.2.4 Influence of previous stay over WTP_t.

In tourist accommodation purchases, the consumer books an accommodation service at time *t*, prior to the time of enjoyment ($t + 1$). When deciding on the consumption of a new tourism accommodation, price references relative to previous purchases improve the

model's explanatory power. When consumers are exposed to prices due to repeat purchases over time, they develop expectations that are used as reference points when evaluating future choice decisions at the time of purchase (Lattin & Bucklin, 1989). These pricing decisions are frequently built on the basis of an internal reference price, which is formed using the prices observed during past purchases; the most influential of these is the one corresponding to the last purchase (Nasiry & Popescu, 2011). In this context, if the past consumption experience is in line with what is expected at the time of booking, the consumer will maintain the same expectation as a guide during the new purchase or booking decision. Therefore, either the customer will maintain their WTP if they consider only the price paid at the time of their last purchase decision as a reference, or will adjust their WTP according to the change in the reference price if consider current prices, maintaining the differential between the price and WTP used at the time of their last purchase decision (Lattin & Bucklin, 1989). Finally, we must also consider changes in the consumer's personal context (budget, sociodemographic factors, or the family context) and in the context of the product (the category or amenities, among others; (Bradley & Sparks, 2012).

In the tourist accommodation sector, where the annual consumption is typically significant (e.g., four trips per year in the case of EU-28; Eurostat, 2019), we expect the internal reference price and the context to be reasonably stable between purchases, such that previous stays can explain a significant part of WTP_t. Goes et al. (2010) suggest that past consumption experiences and price information, and specifically the most recent consumption, contribute to establishing WTP at the time of a new purchase.

Therefore, we can expect that the previous stay experience can explain a significant part of the WTP_t, and propose the following hypothesis accordingly:

H2: The previous stay experience influences the WTP_t.

3.2.5 Influence of WTP_t on WTP_{t+1}

The perceived value of a tourist service differs during each purchase phase, and thus, the pre-purchase utility for measuring the total value of a consumption is important (Sánchez et al., 2006). The relationship between WTP_t and WTP_{t+1} has not yet been studied, although WTP_t as an indicator of the benefit that a consumer perceives prior to contracting may differ from WTP_{t+1}, as the latter also includes the experience of using the product or service (Kuzgun & Asugman, 2015).

Consumers' expectations condition their perceptions of a service (Olshavsky & Miller, 1972), and thus, WTP_{t+1}. Tanford et al. (2019) suggest that the WTP for a tourist accommodation increases when considering high price references and decreases with low prices, following automatic rules and reducing the signs to a minimum and most recent for decision-making. Similarly, assimilation theory indicates that consumers will avoid a state of discrepancy between their expectations and the perception of performance after consumption (Anderson, 1973), assuming that the experience is accurate. To reduce these discrepancies, information is sought prior to booking or by resorting to past experience in the case of expert consumers (Pieters et al., 1995). For example, a greater number of positive comments or a positive previous experience will generate expectations regarding the benefits from booking the product or service (Nieto-García et al., 2017). We propose that this assimilation effect predisposes the consumer to positively value the consumption experience, and therefore, WTP_{t+1}. Consequently, we propose the following hypothesis:

H3a: The WTP_t will positively influence WTP_{t+1}.

According to H1 and H2, the previous stay experience is an antecedent of WTP_t and WTP_{t+1}; therefore, we also posit:

H3b: The WTP_t partially mediates the relationship between the previous stay experience and WTP_{t+1}.

3.2.6 Moderating effect of satiation

Recent consumption reduces the utility of subsequent consumption (Baucells & Sarin, 2013). Further, the previous stay experience's influence on the current purchase decision depends on satiation. For example, a favorite food will seem less delicious at the current moment if the customer is already satiated (Redden, 2015). This is reflected in such behaviors as customers switching to other restaurants, not because they are less satisfied, but because they are satiated (Park & Jang, 2014b).

Satiation is function of both the amount of the product enjoyed in a single purchase and the period of time between consumption experiences (Sevilla et al., 2019). We consider these two perspectives to address their influence on WTP. Regarding the quantity consumed, evidence suggests that marginal WTP declines as the quantity of purchased goods increases (Iyengar & Jedidi, 2012).

Regarding the time interval between consumption experiences, Park and Jang (2014a) conclude that the valuation of a restaurant declines with the increase in visits to that same restaurant in a period. Satiation explains the desire to seek variety and novelty to maximize enjoyment over time (Sevilla et al., 2019), thus reducing the desire to repeat a purchase in the next consumption period. An increase in satiation seems to reduce perceived value, and therefore, increases variety-seeking (Bigné et al., 2009). In contrast, the intensity of wanting is higher among novelty-seekers and consumers with low satiation regarding a particular product (Martenson, 2018).

Emotions are a key factor in understanding tourist decision-making (Castañeda et al., 2020). For example, Kim & Kim (2015) note the moderating effect of variety-seeking,

which is caused by satiation, on the relationship between satisfaction with a tourist destination and the intention to revisit it. They conclude that this relationship is less intense when the consumer is a variety-seeker. However, this research does not consider the interval between visits and suggests that the valuation of satisfaction with a destination and revisit intention should be studied by considering the context of time. Satisfaction explains loyalty to a destination with the existence of variety-seeking behaviors only when this visit is made again in the long- or medium-term; thus, satisfaction is irrelevant in the intention to revisit in the short-term due to satiation effects (Jang & Feng, 2007; Sánchez-García et al., 2012). Antón et al. (2018) conclude that satiation negatively and quadratically mediates the relationship between the objective experience and the possibility of an accommodation being recommended to third parties and the return intention.

We assume that satiation increases with an increase in the frequency at which the consumer is exposed to a stimulus during a given period of time (Galak & Redden, 2018), and can be reduced by simply increasing the interval between purchases or reducing the intensity of consumption (Galak et al., 2013, 2014).

Satiation influences utility in a nonlinear manner; increasing satiation causes a nonlinear decrease in utility in the next purchase period. This is especially noticeable in the first consumption, when a consumer is not accustomed to the enjoyment of this good and quickly becomes satiated because of the product's low assimilation capacity (Baucells & Sarin, 2010). Therefore, we propose the following hypothesis:

H4: Satiation exhibits a U-shaped moderating effect on the relationship between the previous stay experience and WTP_{t+1} through WTP_t.

Namely, we anticipate that the previous stay experience will have a different influence on WTP_{t+1} depending on satiation (Figure 3.2). From H4, we derive the following secondary hypotheses:

H4a: The previous stay experience positively influences WTP_{t+1} when consumers have a low level of satiation, and thus, WTP_{t+1} will be higher than in the previous stay.

H4b: The previous stay experience negatively influences WTP_{t+1} when consumers are highly satiated, and thus, WTP_{t+1} will be lower than in the previous stay.

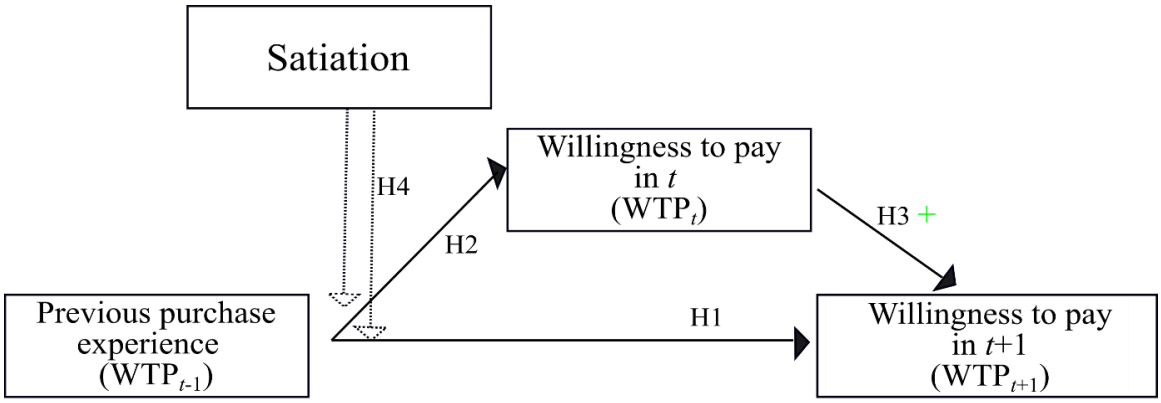

Figure 3.1 and Figure 3.2 illustrate the conceptual model and the moderating effect, respectively.

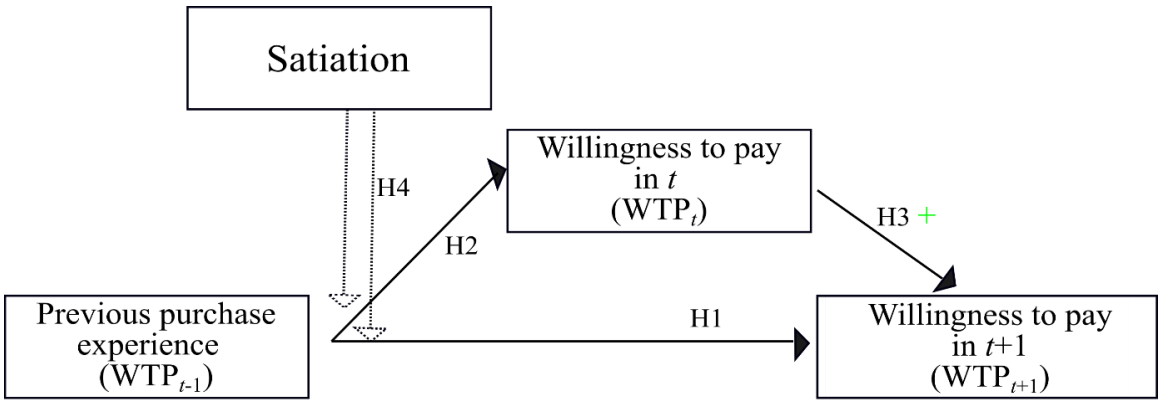

Figure 3.1. Conceptual Framework

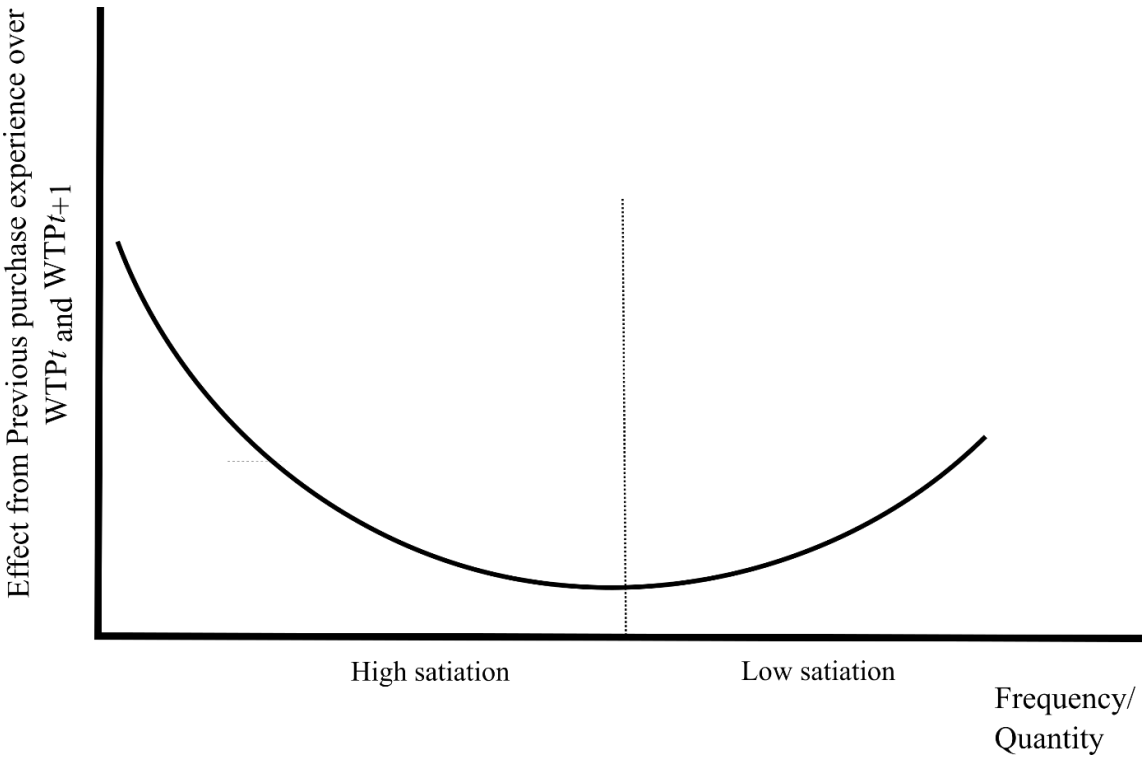

Figure 3.2. Moderating Effect of Satiation on Changing WTP from Previous to New Consumption

3.3 Methodology

3.3.1 Data sampling

We conducted a longitudinal study involving two sequential purchases and measuring WTP´s of current purchase at two specific moments in the purchasing process (pre- and post-stay). This was done to measure the change in WTP relative to a consumer who booked both purchases in the same category (one to five stars, or equivalent) and type of tourist accommodation (hotel room, entire apartment, or private room in an apartment). From an online panel of Spanish customers, we identified people who have stayed at least once in a tourist accommodation for leisure reasons in the previous two years and planned to do so again in the coming weeks, thus obtaining a population actually involved in

tourism accommodation booking. Therefore, we anticipated answers that accurately reflect WTP evaluations.

We obtained a representative sample of the population through an initial random sample of 1,750 people, setting quotas by sex, age, and place of residence in accordance with the population register of the Spanish National Institute of Statistics. Of this sample, 410 individuals responded positively to the first filter question, in that they were planning to use a tourist accommodation similar in type and category to a previous stay sometime in the next 25 days. Respondents to this first questionnaire received a second questionnaire after 25 days that collected data after their stay in the tourist accommodation (WTP_{t+1}). After omitting incomplete or incoherent answers, the sample size was reduced to 289 respondents. Finally, we applied Chauvenet's criterion, which discards variations in WTP between different time periods that exceed ±three times the standard deviation to eliminate changes in WTP that may be motivated by misinterpretation (Zerbet & Nikulin, 2003). Table 3.3 presents the profiles from the final sample size of 279 people.

Table 3.3. The respondents' socio-demographic characteristics

Characteristics	*n*	%
Gender		
Male	124	44.4%
Female	155	55.6%
Age (years)		
18–24	21	7.5
25–34	62	22.2
35–44	81	29.0
45–54	63	22.6
55–65	52	18.6
Education		
Secondary education	19	6.6
High school	107	37.4
University or higher	153	56.1
Monthly income		
No response	33	11.8
Less than 1,800€	75	26.9
From 1,800 to 3,000€	86	30.8
More than 3,000€	85	30.5
Occupation		
Employed	212	76.0
Unemployed	67	24.0
Total	279	100%

3.3.2 Measures

Willingness to pay

The double-bound dichotomous choice (DBDC) method was selected to measure the WTP_t and WTP_{t+1}. This consisted of two closed questions with "yes" or "no" answers related to differences in the consumers' WTP (+/-10%) relative to a price reference set according to their own purchase experience. Based on the answers, an open-ended question was asked to quantify their WTP for subsequent purchases. Previous studies on tourist accommodations (Nieto-García et al., 2017, 2020) and other topics (Li & Meshkova, 2013) have incorporated this method. We asked participants to express their WTP in terms of the price per double/ single room per night and person (without extra expenses).

The previous stay experience

In the first questionnaire, participants were asked about their WTP in their immediate previous stay (WTP_{t-1}) using the DBDC method and with the same conditions. Their previous stay experience was measured once their previous stay was over, and controlling for the accommodation category and type similar to the current purchase (WTP_t and WTP_{t+1}). This requirement ensures that the previous stay is considered a reference price for the current decision (Chandrashekaran & Jagpal, 1995).

In Section 4 (Results), the previous stay experience is expressed as WTP_{t-1} to facilitate the interpretation of this variable.

Satiation

Sevilla et al. (2019) differentiates between two different forms of satiation: psychological and physiological. Regarding the latter, the authors proposed two behavioral variables through which satiation can be measured. These are the intervals between purchases, which are measured through the *number of months between purchases*, and the *quantity acquired*, which in the case of tourist accommodations is equivalent to the *number of nights booked* for a single stay or vacation period. An empirical analysis indicates that *the number of months between purchases* is more consistent with the theoretical explanation; thus, the results only consider this measure as an accurate reflection of satiation. Data on both were collected from the questionnaire using two independent closed questions.

Control variables

We considered various control variables, which are shown in Table II of Appendix B and included in the questionnaire, to isolate the behavior of different factors that may contribute to changes in WTP for reasons other than satiation. To maintain homogeneity

in the accommodation, we established a requirement in both questionnaires to maintain the category and type of accommodation previously booked. These control questions allow us to extrapolate the results to different tourism accommodations, independent of the category. Our analysis model includes variables that likely affect the frequency of use and WTP: the tourist type (national versus foreign), holiday period (seasonality), income (monthly income), and reservation system (Internet versus traditional operators).

Filters in the first questionnaire controlled for two key variables in accommodation prices according to Bigne et al. (2021): booking in advance and the booking channel. In the first questionnaire, it was established that the period in which they were going to enjoy the next accommodation (t / t + 1) will not exceed 25 days since the questionnaires were filled, which presents two implications. First, the booking channel does not influence WTP, since no significant differences exist between channels when the reservation is made one month in advance. Second, advanced booking is homogeneous among consumers, as Bigne et al. (2021) established the average advance booking at 27.7 days.

3.3.3 Estimation procedure

The hypotheses were tested using a moderated hierarchical regression analysis to confirm the explanatory power of the moderating variables in a joint model (Anderson, 1986). The coefficients were estimated using R Studio software, version 3.5.2, and the models with quadratic relationships were predicted using orthogonal polynomials to avoid multicollinearity issues (Cotes-Torres et al., 2012). Additionally, the models' variance inflation factors were less than three, indicating that multicollinearity was not a problem (Homburg et al., 2005).

The second block of the data analysis involved a mediated moderation (Hayes, 2018), which is used to understand and illustrate the change in WTP between the two

consumption periods. To quantify the direct, indirect, and total effects of moderation, we estimated the total effect of the *previous stay experience* on WTP_{t+1}, conditional on the measurement of satiation (the *number of months between purchases* and *number of nights booked*), and tested effects' significance using a hypothesis test. Regarding the variables, WTP was included in the model after a logarithmic transformation to normalize both distributions (Wooldrige, 2018, pp. 191–216) and their descriptive statistics are shown in Table II of Appendix B.

3.4 Results

3.4.1 Direct effect of WTP_{t-1} on WTP_{t+1} and the moderating effect of satiation

Table 3.4 illustrates the direct effect of WTP_{t-1} on WTP_{t+1},and indicates that H1 is accepted. The R-squared value also reveals that the variables in Model 4, which includes the moderating effect, explain 34.5% of the variability with significant variations in the R-squared value relative to the previous non-moderated models. On the one hand, this demonstrates how the *number of months between purchases* is significant, and that a moderating quadratic effect exists in the relationship between WTP_{t-1} and WTP_{t+1}. On the other hand, **¡Error! No se encuentra el origen de la referencia.** shows that the *number o f months between purchases* is significant, and that a moderating quadratic effect exists in the relationship between WTP_{t-1} and WTP_t.

However, *the number of nights booked* is not significant, and thus, it is not included in the model; only the *number of months between purchases* is considered as an accurate reflection of satiation.

In conclusion, we accept the proposed quadratic moderation to note that satiation moderates the relationship between the previous stay experience (WTP_{t-1}) and WTP_{t+1} through WTP_t. Thus, we partially accept H4. The shape of this H4 moderating effect as well as the mediation effect will be analyzed in Section 3.4.3 to check H4a and H4b.

Table 3.4. Direct effect from WTP_{t-1} on WTP_{t+1} and the moderating effect of months between purchases

Variable	Model 1	Model 2	Model 3	Model 4
Intercept	-	-	-	-
WTP_{t-1}	0.555***	0.560***	0.574***	0.316***
Months between purchases		-0.037	-0.026	-0.049
Months between purchases^2		0.029	0.076	0.094
WTP_{t-1}*Months between Purchases			0.039	0.024
WTP_{t-1}*Months between Purchases^2			0.170**	0.194***
WTP_t				0.311**
Adjusted R^2	0.305	0.303	0.324	0.345
Change in R^2	0.305	0.000	0.021**	0.021*
F-value (d.f.)	123.518*** (1)	41.290*** (3)	27.620*** (5)	25.400*** (6)

Notes: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; standardized regression coefficients are reported.

Table 3.5. Direct effect of WTP_{t-1} on WTP_t and the moderating effect of months between purchases

Variable	Model 1	Model 2	Model 3
Intercept	-	-	-
WTP_{t-1}	0.861***	0.850***	0.832***
Months between purchases		0.081**	0.074*
Months between purchases ^{2}		-0.040	-0.058
WTP_{t-1}*Months between purchases			0.0483
WTP_{t-1}*Months between purchases^2			-0.078*
Adjusted R^2	0.740	0.746	0.755
Changes in R^2	0.740	0.006*	0.009**
F-value (d.f.)	793.5*** (1)	274*** (3)	171.7*** (5)

Notes: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; standardized regression coefficients are reported.

3.4.2 Indirect effect of WTP_{t-1} on WTP_{t+1}

Baron & Kenny's (1986) procedure was used to test the indirect effect. Table 3.6 shows that WTP_{t-1} has a significant effect on WTP_t, supporting H2. The results in Table 3.7 also support H3a ($\beta = 0.229$*). There is also a change in the coefficient that relates WTP_{t-1} to WTP_{t+1} by including in Model 2 the WTP_t variable, which is significant and increases the explanatory capacity to 0.317. Therefore, we can observe mediation on the part of WTP_t. We further verified this mediating effect using SPSS Amos Graphics (v.23) through a path analysis with bootstrapping (5,000 interactions, $p < 0.05$). Therefore, WTP_t exerts a partial mediating effect, and H3b is supported.

Table 3.6. Effect of WTP_{t-1} on WTP_t

Variable	WTP_t
WTP_{t-1}	0.861***
R^2	0.741
F-value (d.f.)	793.5***

Notes: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; standardized regression coefficients are reported.

Table 3.7. Mediating effect of WTP_t in the relationship between WTP_{t-1} and WTP_{t+1}

Variable	Model 1	Model 2
Constant	-	-
WTP_{t-1}	0.555***	0.358***
WTP_t	-	0.229*
R^2	0.305	0.317
Changes in R^2	0.305	0.012*
F-value (d.f.)	123.51***	65.524***

Notes: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; standardized regression coefficients are reported.

In conclusion, the results confirm that the *number of months between purchases* has a moderate, U-shaped effect on WTP between two different consumptions. In Section 4.3, we calculate the value and illustrate the direct, indirect, and total conditional effects of WTP_{t-1} on WTP_{t+1} when using different satiation values. Despite what is suggested in literature, we could not empirically prove that the *number of nights booked* is relevant for explaining the change in WTP in the way that was proposed.

3.4.3 Conditional effect of satiation between WTP_{t-1} and WTP_{t+1} trough WTP_t

We begin with the following equations, formed using the values from Model 4 shown in Table 4, and Model 3 from Table 3.5. These equations reflect the moderated effect of WTP_{t-1} on WTP_{t+1} and WTP_t:

$$\widehat{WTP_{t+1}} = 0.555 * WTP_{t-1} - 0.037 * months\ between\ purchases + 0.029 * months\ between\ purchases^2 + 0.039 * WTP_{t-1} * months\ between\ purchases + 0.170 * WTP_{t-1} * months\ between\ purchases^2 + 0.311 * WTP_t \quad (1)$$

$$\widehat{WTP_t} = 0.861 * WTP_{t-1} + 0.081 * months\ between\ purchases - 0.040 * months\ between\ purchases^2 + 0.0483 * WTP_{t-1} * months\ between\ purchases - 0.078 * WTP_{t-1} * months\ between\ purchases^2 \quad (2)$$

We then obtain a graphical interpretation (Figure 3.3) by calculating the direct, indirect (WTP_t), and total conditional effects of the *number of months between purchases* on the relationship between WTP_{t-1} and WTP_{t+1}. Consequently, the effect of WTP_{t-1} on WTP_{t+1} becomes a satiation-dependent function. The direct effect is obtained by grouping the terms in Equation 3 involving WTP_{t-1} and expressing it as a function of the *number of months between purchases* (Hayes, 2018, p. 449). The resulting equation is as follows:

1. Direct effect of satiation

$$\theta_{WTP\ t-1 \rightarrow WTP\ t+1} = 0.170 * months\ between\ purchases^2 + 0.039 * months\ between\ purchases + 0.555 \quad (3)$$

To obtain the indirect effect of WTP_{t-1} on WTP_{t+1} through WTP_t, we must obtain the equation conditioned to satiation and multiply the components that define the indirect effect (Hayes, 2018, p. 448), which results in the following equation:

2. Indirect effect of satiation

$$\theta_{WTP\ t-1 \rightarrow WTP\ t+1} = (-0.078 * months\ between\ purchases^2 + 0.0483 * months\ between\ purchases + 0.860) * 0.311 \quad (4)$$

Using the "pick-a-point" approach (Hayes, 2018, p. 249), Table 3.8 and Figure 3.3 note the total direct and indirect effects of WTP_{t-1} on WTP_{t+1} and its significance conditional on a range of values for the *number of months between purchases* (mean-centered): low (-4, 16th percentile), moderate (0, 60th percentile) and high (6, 84th percentile). These correspond to our target range, and their values were chosen because of the way in which the data for the variable *number of months between purchases* in our sample are distributed (Hayes, 2018, p. 450).

Table 3.8. Effect of satiation (months between purchases) on the relationship between WTP_{t-1} and WTP_{t+1}

	Indirect Effect	Direct Effect	Total Effect		
Satiation	Estimate	Estimate	Estimate	*t*	P-value
Low (-4 → Sati = 1 month)	-0.182	3.132	2.949	4.963	0.000
Moderate (0 → Sati = 5 months)	0.267	0.555	0.821	9.930	0.000
High (6 → Sati = 11 months)	-0.513	6.888	6.375	3.90	0.009

Notes: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; standardized regression coefficients are reported.
Sati = Satiation

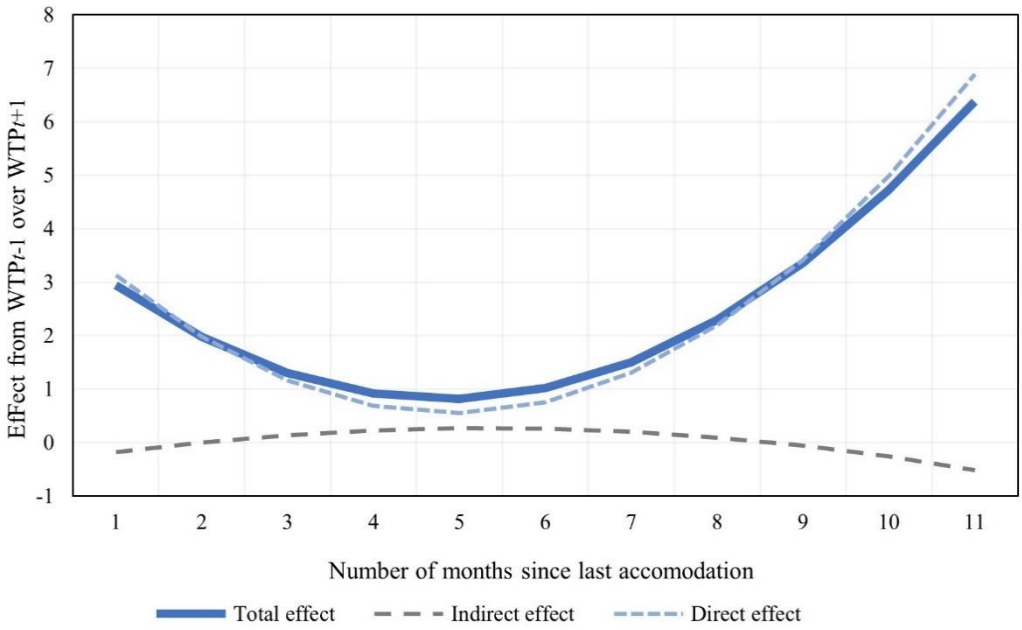

Figure 3.3. Effect of WTPt-1 over WTPt+1 and WTPt, conditioned by Satiation (Months between Purchases)

Figure 3.4 displays the slopes of the total effect of WTP_{t-1} over WTP_{t+1} for the high, moderate, and low satiation values. When satiation is low, or 11 months since the last stay, a positive relationship is observed between these two variables, and therefore, H4a is accepted. However, a negative effect is observed when satiation is high (one month since the last purchase; $p < 0.1$) or moderate (five months since the last purchase); therefore, H4b is accepted. Figure 3.4 presents the effects of H4a and H4b.

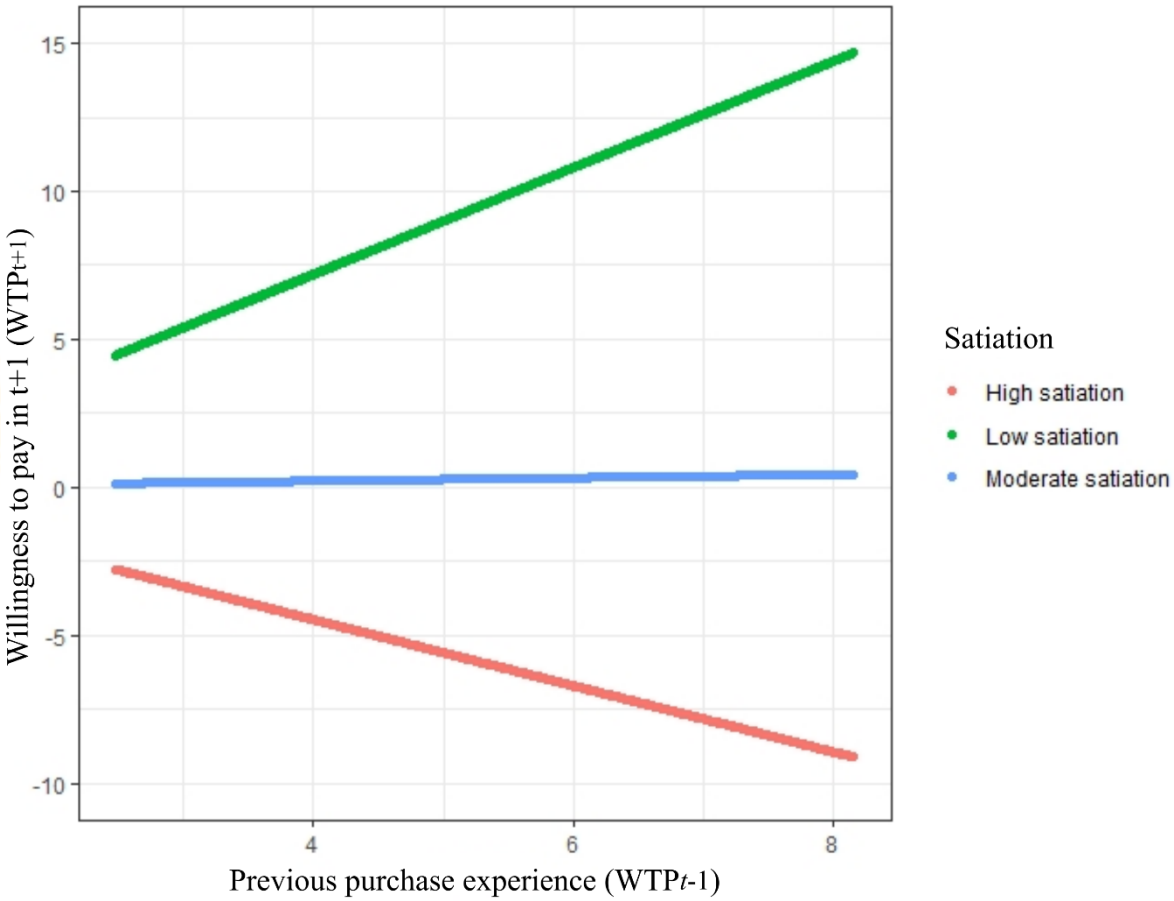

Figure 3.4. Slope of WTPt-1 when Satiation Values are Low, Moderate, and High

3.5 Conclusion

This study advances the extant literature on tourism accommodation pricing and satiation. It is empirically demonstrated that WTP changes between previous and current stays due to customer satiation, considering the context of a reflexive and hedonic purchase service.

In this way, we not only show the direct effect of the previous stay experience over WTP_{t+1}, but the previous stay experience also indirectly influences through WTP_t. Regarding tourism accommodation pricing, this study's results indicate that when evaluating a service, we must consider both the last experience with a product and the level of satiation in each consumption period. In Model 4 of Table 3.4, we can note how

the previous stay's effect over WTP_{t+1} is weaker when we include WTP_t in the model. This is consistent with the idea that the expectations of the pre-purchase (WTP_t) are strongly considered in evaluating the overall tourism experience (Sánchez et al., 2006). Thus, the utility of a single purchase is formed in the pre-purchase period (WTP_t) as well as after consumption (WTP_{t+1}).

As an interpretation of the total effect of the experience of a previous stay over WTP_{t+1}, we observe two conclusions:

First, when the *number of months between purchases* is small (one month), an increase of 10% in WTP_{t-1} implies a decrease of 11.2% in WTP_{t+1}. As Park and Jang (2014a) predicted in the case of restaurants, the stimulus to consume the same service again for a satiated customer does not generate excitement, and therefore, does not translate into a greater WTP. Alternatively, when the *number of months between purchases* is high, and consumers have overcome satiation because consumption has spread over time (11 months), a 10% increase in WTP_{t-1} implies an 18% increase in WTP_{t+1}.

These results imply that a positive experience in the previous stay does not always translate into an increase in current utility. This is consistent with previous literature that concludes that even satisfied consumers frequently do not return due to satiation (Jang & Feng, 2007; Sánchez-García et al., 2012). In conditions in which no moderator is considered, a previous positive experience implies a greater WTP. However, when a consumer experiences satiation, the current stay is not perceived as pleasant as in previous occasions, which translates into a lower WTP. This decrease does not always signify that the purchase is not made. In our case, although their WTP is lower, we have noted that the consumers would enjoy a new stay. Therefore, it can be suggested that this potential loss of perceived value can be balanced with other strategies that impose costs on the company, such as promotions or loyalty programs. This behavior contradicts the RFM

model and advances in reference price literature, which has always posited a positive relationship between the previous experience or the reference price and WTP.

Second, the previous stay experience is an important reference to shape WTP when consumers consider new purchase decisions; however, the strength of the relationship between the previous stay experience and WTP_{t+1} depends on the satiation level. Table 3.8 reveals how the coefficient of the relationship changes under low, moderate, and high satiation. The results demonstrate that consumers with a recent past consumption (less than five months) consider the previous stay experience, as a reference on which to decide the purchase, weaklier than those with low satiation. Additionally, this reference is considered in a negative way, indicating that customers are aware of the price they have paid but would not be willing to pay a higher price for their current stay. Such purchases are made not because of a higher perceived utility, but for alternative reasons. Under low satiation, the previous stays' influence over WTP_{t+1} is stronger than that of high satiation. The previous stay experience is important in the decision, but contrary to the low-satiation context, this relationship becomes positive. This is because tourism accommodation is a high-involvement service, and the emotions that generate a non-satiated customer play a positive role in the WTP response.

We have not verified the hypothesis regarding the *number of nights booked*, but instead found a positive linear effect, which can be explained by the strategies carried out by the bidders who partially contradict the H4 statement. Hotels and cruise ship companies act contrary to customers' beliefs to charge a higher price per night on average; the greater the number of days booked (Bigne et al., 2021; Espinet-Rius, 2018; Espinet-Rius et al., 2018; Riasi et al., 2017), the greater the internal reference price, and thus WTP (Nieto-García et al., 2017).

These results open implications that we understand are important from both academic and managerial perspectives. From a managerial perspective, Revilla-Camacho et al. (2020) have demonstrated that market orientation enhances financial results in the hotel industry by developing innovations, such as new price discrimination strategies. Therefore, we first recommend that companies attempt to record the WTP, prices paid, previous stay experience, date of visit, and frequency of consumption to consider the variability of consumer responses according to consumer satiation. With this information, tourism accommodation companies can implement an innovative customer segmentation process to estimate whether the consumer would accept a price increase relative to the previous occasion (keeping the rest of the variables constant or discounting their effect), or in contrast, whether the perceived benefit should be increased by other means. Owing to the control variables, these proposals are consistent and extrapolated for different types of accommodations and categories. However, there are some limitations in these recommendations.

First, asking for such stated preferences as WTP through a survey can be flawed. Revenue managers might need to establish a reference price that differs from that used to judge the previous consumer´s experience (WTP_{t-1}). This could be the real price paid, but it does not encompass the total benefit offered by the customer. Although we controlled for booking in advance and the booking channel, these variables are crucial for the offered price. Additionally, the atmosphere and ties with the destination are relevant (González et al., 2019). Thus, managers should discount their effect when considering whether to increase or decrease prices compared to the previous visit.

From an academic perspective, although we contribute to satiation and hospitality research, some limitations also exist. First, literature suggests that satiation is formed differently between products, and thus, a generalization of the results would depend on

the results of a multi-categorical research comparing utilitarian versus hedonic (Park & Jang, 2014a) and high- versus low-involvement (Chen & Liao, 2019) services. Second, the satiation concept is inherently linked to consumption frequency, which also influences the WTP due to the customer's higher expertise within a product category and not because of satiation. Therefore, it would be interesting to study satiation relative to the consumption frequency to determine which part of this negative effect is explained by a better knowledge of the product and therefore a greater ability to buy and which is explained by satiation (Baucells & Sarin, 2010). Third, although we measure satiation based on two objective variables supported in literature (Sevilla et al., 2019), it would be compelling to explore a multidimensional operationalization, which could better reflect the psychological part of satiation, as noted by Antón et al. (2018). Fourth, the existence of moderators, such as satiation or risk perceptions (Casidy & Wymer, 2016), could compel consumers to consider different variables than those in a simple context to explain WTP. Future research could investigate this question by proposing alternatives, such as promotions, to explain purchase decisions when customers feel satiated.

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Chapter 4 Conclusions

4.1 Leading conclusions

Utility literature have proposed several models for predicting utility in intertemporal choices. The habit formations and satiation model (HS) followed in this thesis improves previous ones by considering a reference and including together satiation and the habitual level of consumption as the indicators that shapes future utility. This model posits that present consumption influences the utility of future consumption in two important ways. First, it creates satiation, thereby reducing the enjoyment derived from consumption in the near future. Second, present consumption contributes to habit formation, increasing future marginal utility in sensitization stages and decreasing future marginal utility in habituation stages.

The aim of marketing within organizations is to generate value for the consumer while ensuring profitability for the company. The consumer's value perception in repetitive purchase products, among other factors, tends to vary over time based on the successive moments of interaction with the product category. This dissertation, as confirmed in chapter 2, has demonstrated that the habitual level of consumption in hedonic categories has a significant impact on the perception of the value of an offer. Consequently, it also affects the predisposition towards the price of a new service contract. Consumers who exhibit either a high or low habitual level of consumption tend to hold a negative predisposition towards the product or service in question. However, those who maintain a moderate level of consumption are more prone to accept higher prices and, as a result, are more likely to enhance their perception of the value of the offer.

When examining the phenomenon from the satiation perspective (chapter 3), the results are similar. Consumers with low satiety are more likely to accept premium prices. Conversely, consumers with high satiety are less inclined to do so.

The effect of satiation goes beyond their influence on WTP and also has its effects on the willingness to renew or cancel a subscription (chapter 4). In the presence of high satiation, it is observed that the effect of perceived value on the intention to cancel the subscription in an immediate or delayed setting, ceases to be significant. This, in turn, restricts the possibilities of anticipating customers´ subscription cancellation. On the other hand, in the presence of low satiation, it is noted that improvements in perceived value make subscription cancellation much less probable.

Therefore, it is fundamental to include in the examination of consumer behavior, in products that are purchased repeatedly, these two customer segmentation variables: the habitual level of consumption and satiation. It is recommended that companies take into consideration certain variables within their CRM system that serve to identify customers (potential, new or loyal) throughout the customer's life cycle, in terms of habitual level of consumption and satiation due to the different pricing sensitivity that customers experience throughout the satiation-sensitization-habituation sequence, as proposed by Baucells and Sarin (2010) and Wathieu (2004).

To sum up, the three studies conducted in this thesis explore the indicators (habitual level of consumption and satiation) that predict consumers' marginal utility by examining how consumers' willingness to pay, positively or negatively, changes over the life cycle of a service consumption, considering the previous purchase WTP as the reference. In turn, it is explored how these indicators influence also on post-purchase behaviors. These studies aim to provide empirical evidence to support the conclusions of the HS model, which provide a theoretical framework. As primary novelty, we mainly conclude that the prediction of utility can be greatly improved if a price reference, the habitual level of consumption, and satiation are considered. Furthermore, we have demonstrated that, the influence of a price reference on WTP is non-linear when considering satiation and the

habitual level of consumption. Additionally, satiation not only affects future utility, but also post-purchase behaviors as loyalty. We are confident that these findings will have a positive impact on our understanding of consumer behavior regarding pricing - utility formation and satiation literature. In turn. we consider that our suggestion will be of importance for managerial decision on tourism accommodation sector and subscription retailing services.

4.2 Theoretical implications

4.2.1 On pricing literature

The literature addressing theoretically the consumers' utility is extensive. When researching on consumer behavior there are several studies focusing on WTP and pricing. However, none of them addresses the conclusion of theoretical utility models that propose a non-linear formation of utility, to explain empirically how WTP is shaped over time in a service context.

Regarding reference price literature, the agreement until now is a linear and positive relationship between a reference price and the WTP. However, moving forward the latest evidence of Nieto-Garcia et al. (2020) —who posit that the influence of a reference price over WTP is non-linear; and the greater the frequency of consumption the greater WTP, but only until certain point— we concluded that there exists a non-linear effect of a reference price over WTP, moderated by the influence of the habitual level of consumption and satiation.

First, in the study corresponding to chapter 3, we conclude that the habitual level of consumption exerts a S-shaped moderating effect on WTP, resulting in three different responses according to the habitual level of consumption.

We identify a positive relationship between the reference price and current WPT when the consumer is in a "sensitization" stage. In this phase, the consumer is moderately familiar with the consumption of the product being the responses to the stimulus of consumption greater, and therefore exhibit a higher WTP in comparison with previous purchases. This conclusion agrees with reference price literature. In contrast, this relationship becomes negative when the HLC is notably high (habituation) or low (satiation); in the latter case, we find the most intense magnitudes of change. In turn, we conclude that the effect of a reference price on WTP is not positive because the response to a stimulus will depend on whether it is perceived as more or less exciting than before, thus shaping the WTP in a non-linear manner, depending on if their current consumption is above, at, or below their habitual level of consumption.

Second, advancing in the limitations of the previous study, in chapter 4 we explore the effect of the interval between consumption periods and quantity consumed as function of psychological satiation, agreeing that satiation is not only function of the frequency of consumption. In this chapter we explicit isolate and explore the effect of satiation and found that it exerts a U-shaped moderating effect on WTP. While we cannot conclude that the quantity consumed is a moderator between a reference price and WTP, we conclude that the interval between consumption periods shapes WTP in a U-shaped way. We conclude that there is a decline in the WTP for a hedonic service, not only in the initial stages of consumption, but also depends on the interval between consumption. The interest for a product or service decreases after its consumption, whose consequences are a decline in their WTP, however, after a period of non-consumption the interest is renewed and the WTP increases in comparison with previous purchases. From the studies conducted on chapters 3 and 4 we can conclude that this period between consumption will depend on the frequency of consumption of each service. Therefore, it is important

to acknowledge the consumer´s frequency and adapt the communication and pricing policies regarding the interval between consumption. In this regard, we do not suggest that consumers will not consume the product in the short-term, because there are external factors that encourage the consumption, but the enjoyment of it will be lower and therefore consumers will be more price sensitive. Therefore, the effort to create an attractive value offer for satiated customers may be determinant in a highly competitive context.

Third, in chapter 5, we have concluded that satiation not only affects WTP, but also perceived value and the decision to renew subscriptions. We have further concluded that perceived value decreases over time, acting as an early indicator of post-purchase behaviors, as proposed by Molinillo et al. (2021). A positive perceived value among subscribers is not enough to retain them; rather, satiation contributes to their intentions to cancel, because it gradually reduces their enjoyment and decreases their perceptions of future utility.

In this chapter we consider the subscription cancellation intention in the short (next month) and long term (next three months). We conclude that the depreciation of perceived value over time is more intense when the initial perceived value is low. This is because, when the perceived value is high, consumers do not have an immediate inclination to cancel, whereas when it is low, they are more likely to cancel soon after subscribing (e.g., within the first month). Thus, although the depreciation of perceived value is inevitable, its intensity is greater when the initial perceived value is low. Consumers anticipate the perception of value depending on the magnitude of the expected utility gain or loss, meaning that current utility has a greater impact on immediate loyal behaviors than those that take longer. This suggests that consumers find current consumption more pleasurable than consumption they delay.

4.3 On satiation literature

Psychology literature has explored the antecedents of satiation as well as the sensitization-habituation response as important issues in cognitive process (Galak et al., 2009, 2013, 2014; Galak & Redden, 2018; Redden & Galak, 2013). Consumer behavior literature have applied its conclusions and advance by exploring the effect of satiation on consumer preferences with the aim of understanding the process of consumers enjoyment maximization over time (Sevilla et al., 2019).

In this thesis, we aim to further the consumer behavior research by exploring the effects of satiation on value perception. Previous studies have focused on how people balance repeating the same options with the decision to seek variety but have not considered the influence of satiation on value perceptions and post-purchase behavior.

There is scarce empirical evidence on how satiation influence consumer behavior, and these focuses on low-risk and non-contractual services (Antón et al., 2018; Chen & Liao, 2019; Park & Jang, 2014a, 2014b). In chapter 2 and chapter 3 we advance to this literature by exploring a high-risk service, tourism accommodations. From these chapters we conclude that when evaluating a high-risk service, consumers consider both the last experience with a product and the level of satiation in each consumption period.

It appears that a positive experience in the past does not always lead to an increase in current utility. This is in line with previous research that suggests that even satisfied customers may not return due to satiation (Jang & Feng, 2007; Sánchez-García et al., 2012). However, they have not considered the effect of a reference price. Generally, a positive experience in the past would usually lead to a higher WTP. However, when a

customer experiences satiation, the current consumption is not as enjoyable as in previous occasions, which results in a lower willingness to pay.

In Chapter 4, we investigate the impact of satiation on contractual service settings. We find that satiation can explain why satisfied customers, who perceive value from their subscriptions, may still consider cancelling them. We make a noteworthy contribution by proposing that satiation act as an early indicator of subscription cancellation. Satiation allows consumers to predict future enjoyment and anticipate their future subscription renewal decisions to maximize their utility. We conclude that consumers who are currently satiated and those who are only moderately satiated both have immediate and delayed intentions to cancel their service. This suggests that consumers anticipate a future depletion of the service enjoyment that will cause them to seek variety. If they do not believe that their current service will be able to satisfy this need for variety, they will consider switching to alternative options.

In addition, in chapter 4 we advance by exploring the effect of satiation in a non-contractual setting, comparing its influence in the short- vs long-term cancellation decision. Bigné et al. (2009) and Sánchez-García et al. (2012) propose how satiation recover over time exploring the short vs long term revisit intention to a destination, which suppose a non-contractual setting. However, the effect of satiation on a contractual setting is quite different from the conclusion reached by these authors. In a non-contractual setting, the results indicate that customers will regain their interest in a destination over time. Conversely, in a contractual setting, consumers may tend to consume as much of the product or service as quickly as possible due to binge-consumption effects (de Matos & Ferreira, 2020). As a result, satiation does not recover over time, not considering cancelling the subscription in the short-term, but rather gradually decreases the enjoyment

of the service in the long term, leading to a cancellation decision and anticipating churning.

Sevilla et al., 2019, based on previous literature, propose two different types of satiation: physiological and psychological satiation. While physiological satiation is function of quantity consumed, whether there are interruptions and how much time occurs between consumption occasions, psychological satiation is function of categorization, attention, memory and metacognition. Each of them has its own framing after experiencing satiation to recover form it or slow future one. However, we can conclude that both of them have negative effect on value perception. In chapter 2 and 3 there exist a clear decline in the WTP of physiological satiated consumers. In turn, in chapter 4, there is a negative effect of psychological satiation over value perception and loyalty behaviors. However, the recommendation to recover from satiation or slow future one, which will be explored in section 5.4.2, are different whether the consumers are physiological or psychological satiated.

4.4 Managerial implications

4.4.1 On Tourism accommodation

In chapters 2 and 3 we suggest revenue managers from tourism accommodation to consider the last experience with a product, the level of satiation in each consumption period, and their habitual level of consumption when considering their pricing segmentation strategies. Due to the need to maintain control variables, such as the type and category of accommodation, between consumption periods, we have been able to reach consistent managerial implications that can be extrapolated for different types of accommodation (e.g., hotel room, entire apartment, and private room in apartment),

categories (ranging from 1 to 5 stars or equivalent) and situations (including destination, seasonality, and reservation method).

In chapter 2 we posit that past tourism accommodation experience influences current purchase WTP in different ways, and we offer an initial empirical application about how the habitual level of consumption (HLC) influences WTP into a specific sector.

This application reveals that WTP is dynamic in time and depends on familiarity or habit with a good in a similar way to the theoretical proposition of habit formation and satiation model. We thus identify a positive relationship in WTP between last accommodation experience and current one when the consumer is in a "sensitization" stage. However, this relationship becomes negative when the HLC is notably high (habituation) or low (satiation); in the latter case, we find the most intense magnitudes of change.

When the habitual level of consumption is low (HLC is twice per year) consumers may be more likely to experience satiation effects, resulting that, in percentage terms, a 10% increase in WTP_{t-1} (previous WTP) implies a 14.56% decrease in WTP_{t+1} (WTP for current accommodation). Coinciding approximately with the average, when the habitual level of consumption is moderate (HLC is four times per year), customers are likely to be more sensitizated to the experience of enjoying a tourism accommodation, a 10% increase in WTP_{t-1} represents a 0.64% increase in WTP_{t+1}. Finally, when the HLC is high (HLC = 5) —which is above the mean of trips per year due to touristic reasons in Spanish population (Bigne et al., 2021), and thus these consumers may be habituated—, a 10% increase in WTP_{t-1} implies a 4.62% decrease in WTP_{t+1}.

In Chapter 3, we conclude that, in the absence of a moderator, a positive prior experience implies a higher WTP. However, when a consumer has experienced satiation, the current stay is not as pleasant as in previous occasions, resulting in a lower WTP.

We have not verified whether the quantity consumed (*number of nights booked*), as function of satiation, affects WTP for tourism accommodations. However, we do when considering how much time occurs between consumption occasions (*number of months between purchases*).

When the *number of months between purchases* is short (one month), an increase of 10% in WTP_{t-1} implies a decrease of 11.2% in $WTP_{t+1.}$ As Park and Jang (2014a) predicted in the case of restaurants, the stimulus to consume the same service again for a satiated customer does not generate excitement, and therefore, does not translate into a greater WTP. Alternatively, when the *number of months between purchases* is longer, and consumers have overcome satiation because consumption has spread over time (11 months), a 10% increase in WTP_{t-1} implies an 18% increase in WTP_{t+1}.

The restriction of supply in the short term, transience of the service, temporality, and high competition make optimizing the value captured from customers in each new purchase essential in this sector.

We recommend revenue managers recording the consumer´s prices paid, previous stay experience, how much time occurs between consumption occasions, quantity consumed and consumption frequency throughout a customer's life cycle. These are measures available in their databases, which reflects consumers habitual level of consumption and potential satiation with a service, while controlling also the other relevant variables considered in the study. In this way, they can define consumer segments according to their consumption habitual level of consumption and satiation, and make an optimal allocation policy regarding communication, supply and pricing strategies.

This segmentation is useful to pricing and revenue management policies for two reasons:

First, to know which variables are relevant in consumers decision making. As it is shown, the experience of previous stay is an important reference to shape WTP when consumers consider a new purchase decision, however the strength and direction of the relationship between one purchase and next one depends on the habitual level of consumption and satiation.

Second, HLC segmentation is important to achieve a high-value customer portfolio with a longer life cycle. Contrary to RFM model, we posit that a more frequent customers do not always translate in higher WTP, and thus incomes could be undermined (Dubra et al., 2019).

WTP of habituated and satiated consumers diminish, but strategic use of variety to mitigate consumers satiation and habituation can be used by revenue managers. Satiation can be mitigated in one category by choosing variety in a different category, or in a different attribute within a category, so we recommend offering an alternative accommodation (even of a less preferred item) to take a break to allow utility of previous consumption to recover. In turn, offering to habituated customers extra amenities or exclusive services to feel the accommodation experience more stimulating can maintain an attractive value proposal. Some authors also propose variety strategies based on memory. Remembering sub-optimal choices and forward-looking variety choices also minimize hedonic adaptation.

4.4.2 On subscription retailing services

In chapter 4 we identify the mechanisms that explain high churn rates in the SVoD sector and in general in subscription retailing services. We suggest the importance of considering antecedents such as perceived value and satiation with content, to anticipate consumers' decisions to cancel their subscriptions.

The fierce competition for customer acquisition, low switching costs between platforms, and perceived homogeneity between service offerings make customers´ satisfaction regarding the content recommendation systems, perceived quality, fairness of price, and ease of use… not enough to retain subscribers (Shin & Park, 2021). However, we demonstrate that intentions to cancel depends on the temporal setting and satiation with the content because the service initially contracted changes over time as the customer consume the content of interest. Therefore, functional benefits are not enough to anticipate cancellation and the effect of satiation on perceived value over subscription period can predict better this behavior.

We conclude that the process of satiation occurs gradually over time as customers progress through their life cycle. When consumption begins it is expected a low level of satiation, which gradually increases. Consumers can predict future variety need for maximizing their utility and anticipate churning decision before satiation occurs. From the results we show that satiation gradually reduces their enjoyment and decreases their perceptions of perceived value. Consumers whose current satiation levels likely trigger switching show both immediate and delayed intentions to cancel, similar to the intentions of those who currently are only moderately satiated even when they experience a positive perceived value.

Regarding short-term intentions to cancel, competitor attractiveness and the platform brand are key to explaining immediate cancellation. Competitors' customer acquisition strategies create expectations that negatively affect customers' satisfaction with their current services, as well as encourage them to switch when they compare the features of their current platforms to those of competing platforms, thus rushing their decisions to cancel their subscriptions. Regarding long-term decision, it is important to maintaining positive perceived value in each renewal period to maintaining a long-term relationship. However, this relationship is moderated by the effect of satiation with content, and therefore even consumers that experience a positive perceived value, show a high probability of cancellation if the content of interest is not maintained over time.

Accordingly, we suggest that satisfaction—and related indicators such as net promotor scores (NPSs)—are reliable only if companies (1) maintain variety over time, periodically releasing new content of interest, and (2) encourage customer engagement and retention strategies, such as brand–community relationships, to counteract the short-term effects of competitors' actions.

We suggest that platforms take proactive steps to reduce psychological satiation, as consumers are able to anticipate future behavior. Reminding consumers of the variety of past content can help to reduce actual satiation. Therefore, platforms should communicate the variety of their current content. Additionally, proactively considering future variety can help to mitigate satiation in the present. For instance, platforms can balance linear broadcasting and VoD content, as well as advance, offer, and effectively communicate the variety of future content.

With regards to pricing decisions, we suggest that platforms have some flexibility to increase their initial subscription price. Offering a higher initial price and then reducing

it as users consume content of interest, or offering a reduced monthly rate for long-term contracts, could be an effective way to prevent cancellations.

4.5 Limitations and further research

Throughout the preceding chapters, this thesis has presented the results of various empirical studies, and for each of them, the respective limitations have been outlined. In this section, we summarize the limitations and discuss futures lines of research derived from the conclusions obtained. The limitations open lines of research that we understand are important both from an academic and managerial perspective.

It is necessary to check whether the results are similar in the case of three important purchasing contexts: The results in the tourism accommodation sector should be compared to those obtained from consumers over 65, due to the revenue importance of this segment. Our sample is limited to those under 65, so the effect of retirement may cause a shift in both their travel frequency and the importance they place on their past use experience (Losada et al., 2016). In turn, consider different booking advance (in our sample was around 25 days), thus advance can influence the type of information that is considered when forming WTP. When it comes to subscription services, the results should be extended to the set of subscriptions within the same category. We consider the effect of the total number of SVoD subscriptions, but our focus is on the behaviors related to the subscriptions that our respondents identified as their most used services.

Literature suggest that hedonic decline is different between products (Galak and Redden, 2018), though we consider different purchasing setting (contractual- vs non-contractual and high- vs low-risk), the generalization of the results to other services and products would depend on the result of a multi-categorical research comparing utilitarian vs hedonic (Park and Jang, 2014b) and high- vs low-involvement (Chen and Liao, 2019)

to explore common or specific patterns for each sector. Besides, although we propose a hedonic service setting, where the effect of satiation and habitual level of consumption will be more pronounced, we have not compared the magnitude of these effects between the different services proposed in this dissertation.

In Chapter 4, we explore how perceived value changes due to satiation. However, Chapters 2 and 3 focus on changes in WTP, not perceived value. Therefore, these chapters do not consider the minimum value offer accepted for customers to complete the purchase. We have concluded in Chapter 4 that there is a difference in cancellation decisions between those who first purchased at a low- vs high-value. However, without considering the price paid in Chapters 2 and 3, we cannot understand how the current purchase intention changes for those consumers whose last booking was done at a low value, as they may already be habituated or satiated, in comparison with those who contracted at a high value.

The satiation concept is inherently linked to habitual level of consumption, which also influences the WTP due to the customer's higher expertise within a product category and not because of satiation. Therefore, it would be interesting to study the interaction between satiation and the habitual level of consumption to determine which part of this negative effect is explained by a better knowledge of the product and therefore a greater ability to buy and which is explained by satiation (Baucells & Sarin, 2010). Besides, the effect of habitual level of consumption have not been considered on post-purchase behaviors, which could be positive due to the habit strength. Evidence slightly suggests that the habit effect is likely to be more influential in the decision to maintain a subscription than the negative effect of satiation in the subscription sector (Lee and Cho, 2021). In addition, habit formation and satiation can be influenced by the information provided to consumers, for example, about the availability of alternative products, the

changes in the usage conditions of the service, or the quality and characteristics of the service. It would be interesting to analyze how the information can affect the formation of habits and satiation and how it can be used to improve the profitability of the services.

Lastly, regarding methodology limitations, asking for stated preferences as WTP through a survey can be flawed. Revenue managers might need to establish a reference price that differs from that used to judge the previous consumer´s experience (WTP_{t-1}). This could be the real price paid, but it does not encompass the total benefit offered by the customer.

4.6 References

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Appendix A goodness-of-fit indexes of model 6 of chapter 2 and control variables included in the model.

Table I. Descriptive Statistics

Variable	Mean	SD	Min	Max	Skewness	Kurtosis	25th pct	Median	75th pct
HLC	3.77	2.82	1	20	2.59	8.84	2	3	4
HLC (mean centered)	.000	.82	–2.77	16.23	2.59	8.84	–1.77	–0.77	0.23
WTP_{t-1}	231.913€	430.004€	12€	3,500€	5.09	32.60	70€	100€	200€
Log WTP_{t-1}	4.81	0.97	2.48	8.16	0.67	0.68	4.24	4.60	5.29
WTP_{t+1}	254.87€	350.97€	5€	2,500€	3.13	12.60	70€	120€	300€
Log WTP_{t+1}	4.90	1.11	1.61	7.82	0.196	–.113	4.28	4.78	5.70
WTP_t	195.90€	392.97€	10€	4,000€	6.17	46.76	60€	95€	170€
Log WTP_t	4.65	0.97	2.30	8.39	0.80	1.43	4.09	4.55	5.01

Log: logarithmic transformation.

Appendix A. goodness-of-fit indexes of model 6 of chapter 2 and control variables included in the model.

Table II. Control Variables

Variable	Model 0	Model 0.1
WTP_{t-1}	—	0.563
Satiation (interval between consumption)	.017	–.035
Change in destination (Spain vs. foreign)	–.062	.005
Change in seasonality (high vs. mid vs. low)	.043	.022
Change in reservation system (online vs Traditional operators)	.031	–.031
Income (monthly income)	.047	.037
Age (age group)	.034	.002
R^2	.096	.316
F-value (d.f.)	.583 (5)	20.91 (6)

Notes: Standardized regression coefficients are reported. Significance level: ***$p < .001$; **$p < .01$; *$p < .05$.

Table III. Variance Inflation Factors

	VIF
Log WTP_{t-1}	4.12
Habitual level of consumption	1.12
Habitual level of consumption^2	1.21
Habitual level of consumption^3	1.29
Log WTP_{t-1} × Habitual level of consumption	1.18
Log WTP_{t-1} × Habitual level of consumption^2	1.24
Log WTP_{t-1} × Habitual level of consumption^3	1.31
Log WTP_t	4.02

Appendix B goodness-of-fit indexes from model 4 of chapter 3 and control variables included in the model.

Table I. Descriptive statistics

Variable	Mean	Std. Dev.	Min.	Max.	Skewness	Kurtosis
Months between purchases	5.014	4.181	0	24	1.136	1.005
Months between purchases (mean-centered)	0.000	4.181	-5.014	18.99	1.136	1.005
Nights booked	5.448	4.217	1	30	2.632	9.898
Nights booked (mean-centered)	0.000	4.217	-4.448	2.552	2.632	9.898
WTP_{t-1}	231.913€	430.004€	12€	3,500€	5.09	32.60
Log WTP_{t-1}	4.81	0.97	2.48	8.16	0.67	0.68
WTP_{t+1}	254.87€	350.97€	5€	2,500€	3.13	12.60
Log WTP_{t+1}	4.90	1.11	1.61	7.82	0.196	-0.113
WTP_t	195.90€	392.97€	10€	4,000€	6.17	46.76
Log WTP_t	4.65	0.97	2.30	8.39	0.80	1.43

Note: “Log” denotes a logarithmic transformation.

Appendix B. goodness-of-fit indexes from model 4 of chapter 3 and control variables included in the model.

Table II. Effect of the control variables on WTP_{t+1}

Variable	Model 0	Model 0.1
WTP_{t-1}	-	0.563
Change in destination (domestic vs. foreign)	-0.062	0.005
Change in vacation period (high vs. medium vs. low)	0.043	0.022
Change in booking system (online vs. traditional)	0.031	-0.031
Income (monthly income category)	0.047	0.037
Age (age group)	0.034	0.002
R^2	0.096	0.316
F-value (d.f.)	0.583 (5)	20.91 (6)

Notes: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; standardized regression coefficients are reported.