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The effects of waiting on consumer perception:

An analysis of music-on-hold utilized in the service industry

END OF DEGREE PROJECT

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Title, abstract and keywords

ENGLISH

Title: ***The effects of waiting on consumer perception: An analysis of music-on-hold utilized in the service industry***

The main objective of this project is the study and, subsequent analysis, of the effects of music on the perception of waiting times within consumers.

Music withholds the capacity of generating different moods, whereby consumers may perceive a waiting time as less than it really is, if it is applied properly and consciously.

Therefore, the focus of this research is based on consumer behavior and experiences that can be modified by using music as a persuasive instrument. By stimulating the auditory sense, we find that the consumers' attention diverts and in this way, a more pleasant wait can be generated, or on the contrary, present an adverse effect.

Waiting queues and durations of the waiting time the consumer is expected to spend can be the first impression they have of the company from which they want to potentially purchase from or contract a service, therefore the study of how perception of waiting times can be reduced is essential to achieve customer loyalty and sales income.

Finally, a study on customer service call centers within different sectors, both local and national, is withheld to study the methods utilized during waiting times, specifically on callers being put "on-hold", and the effect of the music played during the duration of the wait.

Keywords: Waiting times, music in waiting times, call center, customer service, consumer behavior, perception of time, music on hold for telephone switchboards, wait time fillers, MUSIC, TIME AND WAITING.

ESPAÑOL

Título: ***Los efectos de esperar en la percepción del consumidor: Un análisis de la música en espera utilizada en la industria de servicios***

Este trabajo tiene como objetivo principal el estudio, y el posterior análisis, de los efectos de la música en la percepción de los tiempos de espera de los consumidores.

La música es capaz de generar estados de ánimo distintos, por los cuales los consumidores pueden percibir un tiempo de espera menor de lo que realmente es, si esta se aplica de forma adecuada y consciente.

Por lo tanto, el enfoque de esta investigación se basa en el comportamiento y las experiencias del consumidor que pueden ser modificadas mediante el uso de la música como un instrumento convincente. Estimulando el sentido auditivo, encontramos que el consumidor distrae su atención y de esta forma, pasa una espera más agradable, o por lo contrario, puede llegar a generar un efecto adverso.

La cola de espera puede ser la primera impresión que tiene un consumidor de la empresa a la que quiere comprar su servicio, por lo que el estudio de la reducción de la percepción de los tiempos de espera es esencial para lograr un efecto positivo de cara a la fidelización del cliente y al incremento del volumen de las ventas.

Finalmente, se presenta un estudio sobre la atención al cliente y el procedimiento utilizado durante el tiempo de espera y los efectos de la música por empresas de diferentes sectores, tanto local como nacional, analiza los métodos usados y el estilo de música que se reproduce en ellas.

Palabras clave: Tiempos de espera, música en los tiempos de espera, call center, servicio al cliente, comportamiento de los consumidores, percepción del tiempo, música de espera para centralitas telefónicas. MÚSICA, TIEMPO Y ESPERA.

CATALÀ

Títol: ***Els efectes d'esperar a la percepció del consumidor: Una anàlisi de la música en espera utilitzada a la indústria de serveis***

Aquest treball té com a objectiu principal l'estudi, i el posterior anàlisi, dels efectes de la música en la percepció dels temps d'espera dels consumidors.

La música és capaç de generar estats d'ànim diversos, per els quals els consumidors poden percebre un temps d'espera menor del que realment és, si aquesta s'aplica de forma adequada i conscient.

Per tant, l'enfocament d'aquesta investigació es bassa en el comportament i les experiències del consumidor que poden ser modificades mitjançant l'ús de la música com a un instrument convincent. Estimulant el sentit auditiu, trobem que el consumidor distreu la seva atenció i, d'aquesta forma, passa una espera més agradable, o per el contrari, pot arribar a generar un efecte advers.

La cua d'espera pot ser la primera impressió que té un consumidor de l'empresa a la que vol comprar el seu servei, pel que l'estudi de la reducció de la percepció dels temps d'espera és essencial per a aconseguir un efecte positiu de cara a la fidelització del client i al incremento del volum de les vendes.

Finalment, es presenta un estudi sobre la atenció al client i el procediment utilitzat durant el temps d'espera i dels efectes de la música por empresas de diversos sectores. Tant local com nacional analitza els mètodes utilitzats i l'estil de música que s'hi reprodueix..

Paraules clau: Temps d'espera, la música en els temps d'espera, call center, servei al client, comportament del consumidor, percepció del temps, música d'espera per a centraletes telefòniques. MÚSICA, TEMPS Y ESPERA.

Presentation

The idea of this project has mainly derived from my interest in consumer behavior, precisely in how we as consumers respond to certain exposure to different elements. My interest in how businesses can utilize these elements as strategies, and how we as consumers react to these elements, can be further observed to enhance our experience. Apart from a personal interest in music, I have decided to study this topic to further investigate why music is not only just for recreational purposes, but can also be utilized as a catalyst to persuade the consumer to wait or “fill the time” during phone calls specifically on customer service lines. On the contrary, these same elements can generate feelings of disdain towards the brand.

During the 3rd year of my degree, I took several classes in the marketing ambit that allowed me to obtain a marketing minor. These classes stressed the importance of customer service and brand reputation to maintain a sustainable business, and the consequences of not adhering to consumer needs. As a consumer myself who has constantly had to call different phone lines in order to file a complaint, dispute extra charges on an electric bill, or solicit a refund, I find it intriguing how we, as consumers, react to waiting times during these inconvenient calls. How consumers are subconsciously affected by music and a personal interest in how music foments consumer behavior is the principal reason for my initiative to study this topic. The courses that have provided basic concepts for me to resource from include: Consumer Behavior, Fundamentals of Marketing, Strategic Marketing Management, Industrial Marketing and Communication and Sales Techniques. These courses have played a significant role in providing a rudimentary basis for my final degree project.

Music, in particular, exerts a powerful influence on humans, hence my interest in how this influence fuses with the marketing world. The bridge between my personal intrigue in consumer behavior and music has resulted in the development of this project, which has been fundamental to my further understanding of consumer wait management strategies. Furthermore, this project has also allowed me to not only comprehend the importance of small details in adhering to consumer needs, but how to implement these strategies to generate income in a business or avoid the loss of a customer.

Introduction

In a modern day digital era with technological advances and rapid business innovation, consumer expectations must be tended to as the evolution of customer service continues to overtake the pace of new advances in emerging technologies such as “scan-and-go”, self-checkout payments, and greater operation management systems to provide shipping at an almost unimaginable, rapid pace to consumers, with “same-day” shipping. With every year that passes by, consumers anticipate quality servicing and superior experiences with almost little to no wait. Despite advances in customer service guarantees and developments in customer service management systems, consumer expectations on service delivery outpace the many intentions of companies to keep their consumers happy with quality service.

In some cases, the experience of the wait is now fully in the hands of consumers, sometimes being given the option to emit the wait experience entirely. With the launch of “just walk out” services, such as Amazon’s Shop & Go, a chain of cashierless supermarkets, Amazon liberates consumers from supermarket waiting queues and allows shoppers to emit the wait experience entirely by scanning an app at the end of their shopping. Disneyland recently offers a $15 skip-the-line service that allows park guests to avoid waiting in lines by entering through another entrance known as the “Lightning Lane”. The majority of airline companies offer online check-in apps that allow consumers to download their boarding pass to avoid airport queues and board the plane directly. Companies are racing to keep up with consumers’ needs for instant gratification and quality service at the blink of an eye, while minimizing wait durations. However, despite these constant alterations to customer service guarantees and technological developments companies are continuously implementing, essentially, waiting times are still considered to be negative experiences for consumers (Nie, 2000).

As businesses attempt to keep up with the pace of demanding consumers in a digital-era business dynamic, modern advances have been considered to interrupt common customer satisfaction models such as call center customer services, which have dated back to the 60’s, as consumers have evolved to become increasingly impatient, consumers yearn for instant gratification. For a vast majority of companies worldwide, customer help service lines are the face of the company, by providing support and assistance to customers through the telephone. Consumers are often asked to wait a duration of time while they are integrated into a virtual queue system that attends to consumers by the order they call in.

Consumers who call in to these phone lines often have different reactions to these waiting times, depending on the duration of the wait time, and the factors implemented by the company to “fill” the waiting time. One of the elements commonly utilized to fill this waiting time is music, or what is commonly known as music on-hold, a pre-recorded song to fill said waiting time for the consumer to listen to and emit silence during this wait.

In order to retain customers, companies attempt to diminish this waiting time within their capacities in order for the customer to have a satisfactory experience and generate positive brand reputation. By using music as a tool to enhance the customer service experience, companies attempt to reduce the waiting duration perception, in other words, make the wait seem shorter than what it really is. Businesses are convinced that the use of music during this wait time will encourage customers to stay on the line, and encourage them to not abandon the phone call.

This final year project examines the topic of waiting is services marketing. More specifically, it looks at the questions of waiting for service on the telephone in the context of customer services phone lines which commonly employ different forms of music while consumers are waiting for service on the telephone. The project contemplates the topic of music-on-hold systems in the context of waiting on the telephone in commercial services. It examines the commonly held belief that music-on-hold is annoying and tiresome for consumers that leads many of us to simply hang up the telephone, thereby abandoning the wait and the service. This study takes an in depth approach in examining the customer experience when waiting for service on the telephone while music is employed to fill the waiting time.

The key research question explored in this final project is as to whether music-on-hold (M-O-H), is a useful tool to enhance the customer experience, specifically during the duration of the wait, or to whether it is an exasperating, tiresome, outdated method to further drive away consumers will be explored in this project. Music during on hold waiting possesses a variety of effects on consumers, including customer retention, and the perception of not only the wait, but the overall experience of the consumer. Furthermore, the project explores the range of options available to companies that decide to employ music and other wait fillers as a part of their approach to telephone wait management.

Objectives

This study is structured as follows, and divided into four sections. The first part of the TFG is a critical analysis of existing literature and relevant research on telephone waiting in commercial services, music–on-hold, and the effects it can provoke in consumer behavior in telephone waiting times and customer service phone lines. The second part of this project contains a study conducted on 60 customer service phone lines and call centers, including local telephone service lines in Tarragona, and a combination of national and international companies in Spain. The third section demonstrates the results from the fieldwork conducted. The fourth section encloses the conclusions derived from the fieldwork and implications from study findings.

The aim of this study is to examine trends utilized by businesses and public administrations to encourage callers to not abandon the call, specifically the use of music-on-hold, and the length of the wait consumers must spend before being attended to.

In addition, the study also includes research where participants were asked to answer a survey with regards to waiting times and the music played while calling customer support lines or other telephone support lines, such as public administration, hospitality establishments, and medical centers.

The principal objectives of this project can be synthesized in the following points:

- To carry out a review of the literature on consumer waiting, both in traditional (offline) contexts, and online contexts.
- To examine the nature of the consumer experience while waiting on the telephone in the context of telephone support lines, customer service telephone lines, and call centers.
- To conduct research through means of surveys of consumers in the local area in order to determine their attitudes and preferences in terms of music-on-hold and waiting on the telephone.

- To compare and contrast the results of the survey with the literature on music-on-hold, with the aim of confirming the knowledge obtained on this topic.

- To confirm/contrast the theory that businesses implement music-on-hold as an instrument to “fill the wait” for consumers, and whether this strategy remains functional.

A brief review of the historical appearance of music-on-hold

The origin of music on hold can be traced to Alfred Levy, a factory owner, who came upon music-on-hold, merely by coincidence. By means of a faulty wire, the phone line for his company accidently picked up a local radio station broadcast next door. In consequence, callers to Levy’s companies placed on hold were then transmitted music from the radio station. Levy recognized this glitch as an entrepreneurial opportunity and patented a “Telephone Hold Program System” that included the use of music in 1966. As technology progressed, the initial patent has grown to be what we know as music-on-hold today (Vanderbilt, 2014). Shortly after, the concept of messages on hold was introduced to consumers but heavily focused on promotion marketing rather than diminishing wait times.

SECTION 1: Literature Review

1. Waiting in Services Marketing

Waiting times can be considered an unnecessary, boring state of mind that consumers deem intolerable, unenviable experience (Munichor & Rafaeli, 2007). For companies, waiting times not only mean less profit due to the mismanagement of queue strategies, but a running risk of a lost customer who waited too long to check out or to be attended to on the phone (Pruyn & Smidts, 1993). At some point, the expense of hiring new staff to attend to the demands of customers can be costly for the company and ineffective, temporary solutions that companies are forced to invest in (Sheu & McHaney, 2003). In the next section, we will examine the types of waiting the consumer is faced with, and how these perceptions can affect the satisfaction and service evaluation of the consumer.

1.1 Waiting times in services

Prevalently, waiting times have been largely studied from a logistical aspect, precisely in operation management to reduce long queue lines. Companies aim to reduce costs as much as possible while maximizing efficiency, largely focusing on distributing the amount of workers to attend to as many customers as possible, and consequently neglecting the experience of the consumer (Baker & Cameron, 1996). From a logistical point of view, waiting lines are a cost where the main objective of the company is to distribute labor efficiently among customers, completely evading the human, or emotional aspect of the waiting experience (Norman, 2008).

Waiting has been commonly viewed and studied from an operational management perspective until David Maister introduced the concept of the psychology of waiting lines in 1985, shifting the focus from operations to service marketing. Maister suggests redirecting the focus on the real time of operations to the perceived wait of the customer experience. In Maister's article, "The Psychology of Waiting Lines", the concept of the consumer waiting experience was introduced as an emotional experience by suggesting a number of factors that have the ability to influence the consumer waiting experience. Maister identified these factors to be further researched by applying them in service management systems, known as the eight waiting principles.

Maister's publications on wait time management would transform the way further research was conducted on waiting times, commonly utilizing these eight principles as research elements. These eight factors, or principles, are identified as (Maister, 2005):

1. *Distraction: Occupied times feel shorter than unoccupied time.*

(e.g) By diverting the consumers' attention to another activity or visually, for example having customers look at a menu while they wait in line to seated, or having displays of a new product or service soon to be offered, the consumer's attention is interfered with, this method is both beneficial to the consumer and the company as most tend to use this method to promote their services/products.

2. Moment: The process before the wait feels longer than in-process waits

(e.g) For consumers, the process before the actual wait takes place feels longer than the process when the waiting begins to take place. For example, when consumers are told to wait in a lobby before passing on to the next room where the actual line begins to form.

3. *Anxiety: The anticipation of waiting makes the wait seem longer*

(e.g) Consumers create anxiety around making the wrong decision. Consumers ask themselves "Have I chosen the wrong checkout-line? Will the other checkout line allow me to leave the store faster?" This anxiety creates a constant unease for consumers.

4. *Uncertainty: Uncertain waits are longer than certain ones*

(e.g) Consumers are in constant need for reassurance to emit the feeling that they have been forgotten. Therefore, if a consumer is given an approximated time wait, and that time has passed, the consumer continuing to wait will grow irritated. For example, if a consumer has a hair appointment at a salon at 11:00 AM, and they are not attended to, every minute past 11.00 AM will feel longer than it normally would.

5. *Explanation: Unexplained waits are longer than explained waits*

(e.g) When approximate time waits are not met with the consumers' expectations, an explanation needs to be offered to the consumer. For example, if a flight is delayed, the airline will need to offer an explanation to the consumer as to why the flight is delayed.

6. *Fairness: Unfair waits are longer than equitable waits*

(e.g) When there is a system instilled to provide order to the wait, consumers feel that there is a priority in order to those who have waited longer, therefore consumers feel more at ease when there is a number ticket system, therefore a fair wait feels shorter than an unfair one. If a restaurant does not take reservations, consumers expect to be first come, first serve, and that their wait will be respected.

7. *Value: The more valuable the service, the longer the consumer is willing to wait.*

(e.g) The tolerance for the wait will depend on the reputation and value of the service or product being offered. For example, customers will not wait as long for a McDonald's order than they would for a trendy restaurant that has a 6 month reservation waitlist.

8. *Solo Wait: Waiting individually feels longer than waiting in groups*

(e.g) Consumers when accompanied by someone perceive the wait to be shorter than waiting individually, or when they are waiting in groups. For example, consumers waiting for a longer duration will proceed to empathize with each other about the duration of the wait, or will make small talk that makes the wait seem much shorter.

Maisters's original publication that proposed these 8 principles caused a paradigm shift in further research of waiting times that would transform the concept of waiting times from a traditional, mathematical and operational perspective to a theoretical approach. Maister's principles have been commonly utilized as research elements throughout a number of articles to study the impact they can have on consumer waiting experiences. The application of these principles are demonstrated in empirical studies such as Durrande-Moreau's "Waiting for Service: Ten years of empirical Research", where the level of the impact of each of the principles were examined. The study found that principles were still relevant in consumer waiting experiences and are fundamentals to understanding consumer psychology in waiting contexts (Durrande-Moreau, 1999). Durrande-Moreau's study also found that some of the principles that were established by Maister in 1985, were further clarified by other studies that added other new factors such as consumer anxiety. These new factors were also able to be classified into three categories: temporal factors, individual factors, and situational factors (Durrande-Moreau, 1999).

1.2 Real Time versus Perceived Time

With modern day technological advances, consumer expectations have hit an all time high, expecting quality service with almost little to no wait even so, quality service and fair pricing are not sufficient for the digital-era consumer. Instant gratification from consumers is harder to achieve with every year that passes by, even more so with a general consumer viewpoint that waiting is highly inconvenient (Nie, 2000). According to Huii & Tse (1996), in this context, businesses are left with two options: Reduce the actual time consumers are required to wait by providing modifications to the efficiency of the service, in some cases, as easy as adding another employee to make a line shorter, *or* implementing other factors to reduce the wait time perceived by consumers, in other words, mechanisms to make the wait **seem** shorter (Hui & Tse, 1996). It is crucial to classify the distinction between the two types of waiting times (Worlitz et al., 2020):

1. *Real Waiting Time*: the time spent waiting by the consumer that can reduced with optimization of efficiency, ie. Hiring more employees, systematic processing in order to increase productivity and attend to more customers, in spite of that, up to a certain point whether due to financial constraints or lack of space, the real waiting time cannot be further reduced and consumers are obliged to wait the duration needed.
    a. Measurable, objective
    b. Based on operation management factors and automation methods

2. *Perceived Waiting Time*: an interpretation of the consumer of time they have spent waiting, and depends solely on the consumer's perception of time, and differs from the "Real Waiting Time".
    a. Non-measurable, subjective
    b. Environmental factors and distinctive agents are implemented to reduce the perceived waiting time

By categorizing the different types of waiting, we can infer that companies must gravitate towards reducing the waiting time perceived in order to keep the consumer satisfied. By investing in reducing the perceived waiting time, companies can avoid spending financial resources by convincing the consumer they are spending less time waiting. Studies have shown that companies can achieve shorter perceived waiting times from consumers by providing information or queuing information as customers wait so that the consumer is distracted from the passage of time by constantly reassuring the consumer with updates that "reduce uncertainty and encourage cognitive reappraisal[1]. (Hui & Tse, 1996). For example, in the context of waiting on the telephone, companies might employ the tactic of providing information on the person's place in the queue, as follows; *(Ig. There are three callers ahead of you, you will be connected to an agent shortly).* By providing cues to the consumer about the wait ahead, it alleviates the uncertainty of the consumer waiting, making the wait seem shorter (Hui & Tse, 1996). *(See page 31-33).*

[1] Cognitive reappraisal: the attempt to reinterpret or alter the meaning of an emotional situation without changing it objectively. (*Science Direct*, 2022) In many cases, it is utilized to downplay a problem or under exaggerate the level of severity in a situation. In consumer waiting times, cognitive reappraisal is used to undermine the amount of time the consumer is spending waiting and reduce the emotional effects one might associate with waiting such as anxiety and impatience.

1.3 Expected Waiting Times

Companies must properly manage these issues in order to reduce the impact it may have on sales, by avoiding long wait times, they avoid potentially losing customers who wait for what they have perceived as too long of a wait (Sheu & McHaney, 2003). Institutions and companies have the ability to manage this by meeting or exceeding consumers' personal expectations of the wait, which is a predominant factor in waiting times. The consumer's expected waiting time is the consumer's personal expectation of the waiting time they will spend, which is subjective in each consumer. Particularly, the consumers' expected waiting time is a measurement of time in which the consumer estimates how long the duration of their wait will be based on indications or cues that the consumer observes in the environment they are placed in. Research suggests that consumers who perceive the expected wait time to be too long before receiving the service, will not accept this wait, and in turn will abandon the service being offered. On the contrary, consumers who perceive the expected wait time to be acceptable, will accept the wait, and initiate a waiting experience. (Grewal et al., 2003)

1.4 Contextual factors in waiting times

Other contextual factors that are generally difficult to manage due to personal subjectivity include: mood, personal motivation, habit, and perceived environment (Durrande-Moreau, 1999). Taking into consideration the factors that companies are able to influence, we can conclude that perceived waiting time, the response to wait, and the consumers' acceptability of the wait spent, results in the consumers service evaluation (Hui & Tse, 1996). Even if consumers consider waiting time as a sacrifice to receive the service, companies must take into account the value time holds for consumers. By creating better time management strategies and by adhering to consumers' time perception, companies can generate better customer satisfaction experiences (Antonides et al., 2002) and service evaluations, therefore we can indicate that the consumers' satisfaction with the waiting time spent can generate service satisfaction. This will be examined further in the next segment, where we will analyze the distinction between waiting times on customer satisfaction and customer loyalty.

1.5 Waiting time influence on customer satisfaction in the service industry

In efforts to attract new consumers in highly competitive markets, now more than ever, companies strive to construct the ideal customer satisfaction model that will persuade the consumer to repeat the service (Brierley et al., 2003). The assessment of quality is made during the process the service is being provided (Fitzsimmons & Fitzsimmons, 2011). Customer satisfaction can be considered as the union "between the perception of the service received with the expectations of the service desired" (Fitzsimmons & Fitzsimmons, 2011). Kotler's definition suggests that customer satisfaction is a "person's feelings of pleasure or disappointment that result from comparing a product or service's perceived performance (or outcome) to expectations" (Kotler & Keller, 2012). These initial expectations are either confirmed or disconfirmed once the product or service is utilized or performed, and either results in negative or positive service quality (Churchill & Surprenant, 1982). The perceived service quality of the consumer can be assessed with the following dimensions of the service provided: reliability, responsiveness, assurance, empathy, and tangibles (Fitzsimmons & Fitzsimmons, 2011). Subsequently, the consumer makes a comparison with the expected service and the service perceived, that results in the formation of the perceived service quality [2] (Fitzsimmons & Fitzsimmons, 2011). Research suggests that consumers consider waiting as a waste of time (Hui & Tse, 1996), and as a consequence, the majority of consumers who strongly dislike waiting can proceed to have a negative service quality evaluation (Ho & Zheng, 2004). As a result, research suggests a relationship between the consumer's perception of the quality evaluation and the perceived wait time. Therefore, we can infer that the longer the consumer waits, the more dissatisfaction they can develop towards the service.

1.6 Waiting times and consumer loyalty in the service industry

In today's competitive industry market, it is not enough for consumers to be satisfied. Companies must continually implement strategies in order to retain consumers' willingness to re-purchase the service being offered. Additionally, in a digital-era where millions of alternatives are at a constant availability to consumers, it is of foremost importance that companies extend measures to retain their loyal consumers by creating quality consistent experiences and offering an excellent service.

[2] Perceived service quality: When the expectations of the consumer surpasses the service is perceived as a quality surprise. When the expectations meet the perceived service, it is considered an adequate or satisfactory quality service. On the contrary when the expectations are not met or neither exceeded, the service is considered to be of unacceptable quality. (Fitzsimmons & Fitzsimmons, 2011).

While for most companies it is crucial to upkeep innovative marketing plans to lure in new consumers, it is also indispensable to keep the existing consumers satisfied. Although satisfied customers are typically loyal, satisfaction does not always translate into loyalty (Oliver, 2010: p.15). In Oliver's *"Satisfaction, A Behavioral Perspective on the Consumer",* the term is described as:

"a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior."

Other definitions such as from Reichheld's describes consumer loyalty as more than just the concept of repurchasing, by describing the complexity of consumer loyalty as:

"Someone who buys again and again from the same company may not necessarily be loyal to that company but instead may be trapped by inertia, indifference, or exit barriers erected by the company or circumstance. " (Reichheld, 2003: p.8).

Loyal consumers will not always be influenced to elements such as price, but to the quality of the service (Reichheld, 2003) Brand loyalty not only depends on the retention of its loyal consumers but creates competitive advantage over other companies by adhering to loyal consumers' needs (Martisiute et al., 2010). Studies show that the cost of attracting new consumers is six times higher than retaining an existing consumer (Sibley et al., 1992). Companies can use customer satisfaction as a business performance tool not only to enhance experience for consumers, but by generating general positive customer satisfaction that transforms into consumer loyalty. Research suggests waiting time satisfaction and consumer loyalty are linked to positive waiting time experiences, and that the perceived waiting time by the consumer generates customer loyalty (Bielen & Nathalie, 2007). On the contrary, negative waiting time can cause the consumer to be dissatisfied and not return to the service, lessening their loyalty to the service, and as a consequence look for alternatives of the service being offered. By implementing systems to manage waiting times, consumers have the capacity to generate consumer satisfaction, which consequently leads to consumer loyalty (Mittal & Lassar, n.d.,). Research suggests that waiting time satisfaction influences customer loyalty when companies take into account the waiting time perceived by consumers (Hui et al., 1997).

1.7 Waiting on Hold (Waiting on the Telephone)

In the service industry, many companies tend to provide a phone number to a call center that provides assistance or customer service to consumers as a facility to resolve any potential issues. In other words, it is a support line offered to consumers before or after the purchase of a product or service that serves as a guidance tool for consumers. In most private organizations, call centers work as means of communication between consumer and company, providing assistance not only to existing consumers, but also as an information support line for potential consumers. Though call centers are usually implemented in private corporations and businesses, most public services also have a telephone helpline that provides information to the consumer including the healthcare system, public administration and other public services. In both the service industry and public services, calling telephone support lines are notorious for being frustrating, unpleasant experiences for the consumer that consequently evolve into negative reviews for the company, which could be a result of limited research on caller satisfaction (Whiting & Donthu, 2009). If the wait on hold can perpetuate the same effect as waiting times in person, what makes waiting on hold any different than waiting in person? And, why is it any worse than waiting in person?

When a consumer is put “on hold” or instructed to wait until they are attended to, the company postpones the encounter with different waiting conditions such as silence, music or other alternatives such as bots that are commonly used to promote other products and services within the company. These waiting alternatives, or what can commonly be known as wait “fillers”, can cause different effects on consumers, such as the perceived waiting time and customer satisfaction (Tom et al., 1997). Aforementioned, waiting times that are perceived as far too long can result in the loss of a consumer and negative service quality reviews, therefore companies attempt to provide exceptional telephone systems that prevent the consumer from perceiving longer waiting times. Similar to offline waiting, companies can only invest as much as they can by providing more customer service agents before exhausting financial budgets, consequently consumers are obligated to wait, or be put “on hold”. When consumers are given wait “fillers”, they perceive the waiting as shorter and therefore result in preferable customer service experiences (Tom et al., 1997). A study conducted on the effects of waiting conditions on the telephone concluded that participants that had silence as a “filler” perceived longer waiting times (approximately 6 minutes) longer than participants that had music as “filler”. Alternately, participants who were given a choice between the two fillers also experienced shorter perceived waiting times than silence. Participants who were given the choice between the fillers and were given solely music as a

filler also had claimed superior customer service experience than those who were not given the choice or had silence during the wait (Tom et al., 1997). The research also demonstrated that consumers would stay on “hold” for a maximum of up to 3-4 minutes before hanging up, supporting the aforementioned research that consumers who are expected to wait long durations result in a loss of business.

In conclusion, research on waiting on the telephone suggests that many of the same principles apply regarding knowledge of waiting in “traditional” and offline contexts, to telephone waiting. Therefore, we can infer that there are very few fundamental differences between offline queuing in physical establishments, such as banks and supermarkets and waiting on the telephone, perhaps in your living room or your kitchen table. However, we should be aware that the opportunities that companies have available to distract consumers from the passage of time are limited when the consumer is at the other end of the telephone line. With the vast majority of companies relying on inserting background music as an environmental factor in offline queueing, we can assume these characteristics are similar to those during telephone waits and online queueing.

1.7.1 Waiting on Hold: Spain

In May of 2022, the Spanish government proposed a law limiting waiting times on telephonic support lines in the service industry including information, complaint and after-purchase departments to a maximum of 3 minutes before being attended by an agent, making it an obligation by the end of 2022 to have 95% of the phone calls they receive to be attended before three minutes passes. The proposed law will affect businesses with more than 250 employees or income of 50 million euros. Consumers will also have the right to solicit a customer service agent rather than a bot. Sanctions will be within a range of 150 to 100.000 euros. The law does not include public service helplines and will only be applied to private owned companies (Fita & Parra, 2022).

2. Waiting on the Telephone (Music on Hold)

Music in essence is sound stimuli that can vary the emotions of individuals, capable of altering the state of mind dependent on sounds that are perceived by the human ear. These sounds are made up of different variables such as: volume, rhythm, style, etc. Elements that together form a song that can influence greater experiences for individuals. Considering the influence music has on emotions, it can be utilized to achieve a variety of effects in individual behavior (Mosquera Cabrera, 2013). In the business realm, music can be implemented as a strategy to reduce perceived waiting times by using background music, saving them the investment of other costly resources. In the next part of this project, we will examine the effects of music used as a filler for waiting times, specifically the use of music on hold, or otherwise known as music-on-hold, on consumers. Contrary to what would be deemed as a normal genre of music, music-on-hold does not have what a typical genre of music would have - awards, accolades, and recognition, yet millions of consumers around the world have listened to what could be considered an anonymous piece of music, and music willingly listened to by no one.

2.1 Music on Hold: Origin

After the rise of call centers, and company customer service lines, music-on-hold became a popular filler or alternative to silence, after it was patented during the 60s. After becoming a successful marketing tool among companies, music-on-hold was quickly recognized among the business world to keep consumers happy while on the phone (The Message on Hold Network, n.d.) When the consumer calls, the holder is played a snippet of music while the company either derives the call to an agent, forward the call, queuing etc. Business owners would play a CD recording, tapes, or other playback devices, but with modern technology most companies and call centers have automated systems that require little to no maintenance, with the capacity to generate playlists based on consumer preferences and play the music on a fixed source or an audio file *(Music-on-Hold, Cisco).*

2.2 Copyright and Licensing

Bearing in mind copyright and licensing laws, the use of music-on-hold is considered to be of commercial use, therefore with the exception of public domain music, all music-on-hold must be licensed, including the use of radio music-on-hold (Brown, 2006).

Copyright[3] also provides compensation and other lawful rights that can prohibit the reproduction, distribution, and unauthorized use of musical artists', artists', and producers' work. Companies can avoid hefty fines and lawsuits by hiring licensing organizations or companies who specialize in music-on-hold and background music services, that handle music licensing fees and performance rights fees[4] that generally offer lower prices than business owners seeking to license the music themselves. Contrary to licensing, most companies opt for musical works that can be found in public domains that are royalty-free in order to avoid licensing costs and filing fees. (*What Musicians Should Know About Copyright*, n.d.)

Any musical work or sound recording is considered to be protected by copyright which discourages business owners to utilize popular, mainstream music that can be difficult to gain rights to. Although the majority of companies stick to subtle pieces of music with little to no recognition for music-on-hold, some companies opt for recognizable, mainstream music. A clear example of this can be seen in Jazztel, a Spanish telecommunication service, who attained licensing for the popular European 80's pop song, "Live is Life", by Austrian group Opus. The company uses the song not only for commercials and publicity, but is also the music-on-hold consumers hear when they call their customer service telephone line.

Consequently, companies opt for their call centers and telecommunication services to have royalty-free, uncopyrighted musical or composition pieces that do not carry the burden of also having to pay the artist, songwriter or composer of the song. Licensing can become a heavy financial investment and companies steer clear of lawsuits when choosing pieces from public domains. Consequently, it is unlikely consumers will hear the latest hit from the "Top 40" list (Caballero, 2016).

[3] It is against the law to play copyrighted music without licensing. In order to attain licensing, companies must file a request with organizations such as the American Society of Composers, the ASCAP (Authors and Publishers), and the BMI (Broadcast Music, Inc.) In Spain, the principal organization is the SGAE (Sociedad General de Autores y Editores). Subsequently, a number of countries have organizations similar to the like that are dedicated to the collection of royalties for MOH and background music (Olóndriz, 2022).

[4] Performance Rights fees are compensation for what considers the musical work to be performed in public or electronically communicated, in the case of MOH, companies must seek not only licensing for the music being played, but also the performance fees by having the music being played to callers on hold.

2.3 Music-on-hold: Selection of the Music

Companies must select the most fitting musical piece of the music-on-hold genre to attract potential and existing customers by showcasing brand personality. The type of music the company selects can give the consumer an idea of the identity of the brand, and for some consumers, it can be the very first impression of the company. When callers are on a customer service line, we can deduce that most callers are not calling because they are ecstatic with the product provided - consumers call customer service lines when consumer expectations and perception do not seem to align. Thus, when callers are expected to wait, selecting the appropriate music is crucial. Research shows that when a discorrelation occurs between the service and the music on hold, callers are more likely to hang up (Ramos, 1993). A study conducted in 1999 by music psychologists had participants call a protective service abuse hotline. Results found that callers were more likely to hang up when loud jazz or country music was played rather than stay on the phone when soft, relaxation/ambient music was played (Ramos, 1993). Hence, music-on-hold for a law firm using electronic or techno music, or a funeral home using pop music would not be practical because the genre does not correspond with the service. Therefore, choosing the right musical piece for the correct target audience is significant in encouraging consumers to stay on the line. Simple, instrumental music tends to be a popular choice as research shows that this genre encourages people to stay on the phone line longer. A study conducted by a music research group validated this by having callers put on hold with either Beatles music or instrumental panpipe instrumental music, and the callers who listened to the instrumental piece stayed on the phone longer than those who listened to The Beatles music (North et al., 1999).

Some companies when contracting a telecommunication service opt for the most popular pieces consumers can recognize, with no lyrics at all. On hold songs are some of the most recognizable pieces of music, and although they form part of a genre particularly people do not listen to for recreational purposes, millions of people around the world can identify particular on hold songs. Telecommunication giant and top supplier of enterprise phone systems, Cisco Systems Incorporated, produced what is known as the most successful on hold song to date, *“Opus 1”* (Madrigal, 2014).

Sound quality may also be a concern as telephone frequencies made for the human voice tend to not translate certain types of music well, and some songs above 4000 Hz can

lose frequency during the phone call. Depending on the quality of the on hold music, some consumers can find this distorted audio to be bothersome (Wreglesworth, n.d.).

Music has long been regarded as a powerful tool for evoking emotions and nonverbal communication. Therefore, it is not surprising that music has grown to be a significant part of consumer marketing (Bruner, 1990). Certain aspects of music can have influence on waiting perceptions such as BPM, tempo, genre and positive valencened music, which will be examined in the next sections.

2.4 Influence of Music-on-Hold on consumers

By establishing the functions of music on hold, we can examine the influence it can have on consumers. The principal purpose of music-on-hold is to convey to the consumer a simple message: “Don’t hang up”. Nevertheless, music-on-hold is serves on the basis of many functions that are mentioned in the chart below:

Engagement	The consumer is encouraged to remain on the phone line until they are connected. Music-on-hold reassures the caller they have not been forgotten and they will be served soon.
Reassurance and Brand Image	The selection of the music-on-hold can have an influence on brand quality and by reassuring the consumer of the quality of the company they have chosen, reassures them of the brand. The quality standard for the service reduces anxiety in the caller. By signaling that someone is still on the line, the consumer is encouraged to stay on said line.
Time Perception	Unoccupied time feels longer to the consumer than occupied time. By diminishing the time perceived by the consumer, consumers will maintain the line if they feel the wait is not very long.

Research conducted by mobile advertising analytics company, Marchex, found that half of the American population will spend an average of 43 days throughout their lives on hold (*Forbes*, n.d.), and UK consumers spend the equivalent to 26 days on hold (Lumley, 2022). Other studies have concluded that 43 days is the amount of time the average consumer will spend on hold during their lifetime (Dicker, 2013). Hence, the majority of consumers will encounter waiting on hold at some point during their life. In this next section, we will examine the influence music-on-hold can have on consumers.

Research on the genre of the music can indicate companies on what they can expect depending on the selection of songs they play.

According to a study conducted by the Journal of Applied Social Psychology, consumers are generally in a better mood when the music is pop music rather than instrumental or classical music. That same study suggested that playing pop music with neutral lyrics can reduce customer aggression towards customer service agents.[5] On the contrary, songs with prosocial lyrics[6] suggesting the act of assistance seems to put consumers off and cause irritation (Niven, 2014).

While businesses are convinced that on hold music is essential for callers to have something to avoid silence, music-on-hold can repel some consumers that find music-on-hold to be irritating. Consumers often associate music-on-hold to waiting, and can cause negative underlying connotations, resulting in irritated reactions from consumers. Music psychologist, Katherine O'Neill, claims that these levels of irritation is a "conditioned response" due to association consumers have with waiting times (Adkins, 2021). This can be managed by limiting the duration of the music-on-hold, or avoiding repetition in the overlapping advertisements or announcements to avoid wearout or overstimulation from the consumer. Music-on-hold and messages on hold played at the same time can cause a hike in consumer anxiety levels (Will, 2005). Having a structured message before the music-on-hold begins can also be beneficial in reducing anxiety by having consumers be able to identify the company they are calling.

Perhaps the principal motive companies choose to implement telecommunication phone systems that include music on hold, is that music-on-hold is significant in customer retention. USA Business Telephone Today conducted a study with 30,000 participants separated into three groups to be put on hold for 1 minute. The results of the study are the following (Mulholland, 2018):

- The first group of callers had silence as a "filler", which resulted in a 52% abandonment rate.
- The second group of callers who were given music as a "filler" had only a 13% abandonment rate.
- The third group of callers were given a combination of music and messages on hold and had an abandonment rate of 2%

[5] According to a study conducted by the Journal of Applied Social Psychology, songs with neutral, generalized lyrics from songs such as Michael Jackson's "On the line," The Beatles "Octopus's garden," and Bob Sinclar's "Rock this party," reduced caller anger and had better moods towards the customer service agents.
[6] "Help!" by The Beatles, "Heal the World" by Michael Jackson, and Bob Sinclair's "Love Generation", or songs with prosocial lyrics, lyrics that are suggestive to the act of assisting someone, did not influence the consumers.

Thus, we can suggest that by using music-on-hold in the correct manner, companies can employ music-on-hold to create a comfortable environment for consumers while they wait. When consumers are adequately entertained with the correct choice of music-on-hold, consumers will keep on hold and reduce rates of abandoned calls (Will, 2005).

2.5. Influence of music-on-hold on time perception

Many studies have revealed that consumers do not enjoy waiting, and they deem it as a waste of time (Sheu & McHaney, 2003), making it another obstacle companies must overcome to keep consumers satisfied. Customer evaluation of services is also heavily influenced by waiting times, urging the service sector specifically to reduce not only real waiting times, but the waiting time perceived (McDonnell, 2005). The larger the company, the higher influx of callers, the more likely the consumer will need to wait on hold. Consequently, companies must take into account the importance of implementing music-on-hold to manage waiting times.

A number of studies have suggested that music has the capacity to alter an individual's perception of time passage (Guéguen & Jacob, 2002), and time perception and consumer behavior during telephone waiting can also be altered when music-on-hold is utilized (Will, 2005). Music psychologists have suggested that the presence of music on hold results in lower estimations of time passage before hanging up compared to no music at all, making it beneficial for companies who seek customer retention (Guéguen & Jacob, 2002). While the study seemed to detect no differences between the male and female participants in the study, the research conducted did draw significant conclusions on time perception. While music on hold was played during the phone call, the time perceived by consumers was shorter than the time perceived by consumers on a phone call with no music played. The study also found that while the music-on-hold was played, callers maintained longer durations on hold than callers who played no music on hold.

Similarly, another analysis of the effects of music-on-hold on consumer-perceived waiting time found similar results when consumers were exposed to three waiting conditions: silence, music-on-hold, and choice of listening alternatives (Tom et al., 1997). This study in particular found that participants who were given silence as a waiting condition reported longer perceived waiting times than participants who had music as a waiting condition. The participants who were given silence as a waiting condition reported longer perceived waiting times than when given a choice condition (a listening alternative), and those who were given

music as a waiting condition reported the waiting time to be more pleasant than those who were given silence as a waiting condition. The study also found that the highest rate of abandonment calls were those who were given solely silence as a waiting condition.

In general, the results drawn from both of the above mentioned studies may suggest that music on hold serves as a convincing tool to alter the time perception of consumers. Companies can utilize time perception in their best interest by filling the wait with music-on-hold. By providing consumers with occupied time rather than unoccupied time, the consumer is more likely to underestimate the duration of the wait rather than overestimate the duration of the wait when there is no music-on-hold or time filler. Furthermore, telephone waiting time studies suggest that consumer perception of waiting times were directly influenced by the difference between their acceptable waiting times and their perceived waiting times (Antonides et al., 2002). Consumer wait evaluation is heavily influenced by the duration of the wait, and can cause a negative effect if the perceived waiting time is longer than expected. Therefore, if the consumer has music-on-hold as a waiting condition during the call, the consumers' underestimation of the passage of the time can be beneficial for the company. The same effect has also been examined in offline environments. In Stratton's study, participants were separated into two waiting groups: one with music playing in the background and the other without. The group that had music playing during their wait time reported significantly lower perceived waiting times than those who did not have music in the same environment (North & Hargreaves, 1999).

2.5.1 Effects of musical tempo on waiting perceptions

The tempo of a musical passage, or what is known as musical tempo can be defined by the Psychology and Marketing Journal as, *"a variable allowing precise, comparative, quantifiable measurement by using a metronome to monitor the number of beats per minute (BPM)"*, (Oakes, 2003), in the marketing world, many studies pursue to define the relationship between musical tempo and waiting perception, which have validated the use of musical stimuli to alter waiting time perception. The influence of musical tempo on waiting time perceptions reveals a number of effects on consumers' waiting perceptions. It has been determined that there is a correlation between music tempo and time perception, specifically when slow tempo music is played. Studies suggest that shorter waiting times are perceived when slow tempo is utilized, therefore useful when consumers are expected to wait short durations. Although this effect does not seem to appear after 15 minutes have passed.

Consequently, in wait durations longer than 15 minutes, slow tempos seem to have a reverse effect and consumers grow irritated. We can deduce that slow tempo music can have a larger, positive impact than utilizing fast tempo music for music-on-hold, but only if telecommunication systems can guarantee the wait duration will not be longer than 15 minutes (Oakes, 2003). Other studies also confirm the exposure to the amount of notes and bars of the song are likely to heighten the amount of information cognitively received by consumers (Kellaris and Rice, 1993 via Oakes 2008). Oakes also continued to study the effects of tempo of perceived waiting durations in which they also suggested that slow-tempo music[7] increased consumer relaxation levels, and therefore companies should integrate slow tempo musical environments that heighten the atmospheric experience of the consumer (Oakes, 2008).

2.5.2 Effects of volume on waiting perceptions

There is limited research on the effects of volume on consumer waiting perceptions, nevertheless, a study conducted by the Association for Consumer Research found that the volume of music can have a significant impact on consumers, especially on females. The study examined the influence volume has on consumers and their perceived duration times, in both male and females, louder music increased their perceived waiting times, but females specifically were found to have longer time estimates than men when playing high volume music than with low volume music. Therefore, women were found to underestimate the waiting duration they had spent in general, this was attributed to higher sensitivity hearing found in females than in men (Kellaris & Altsech, 1992).

We can assume that higher volume compared to a lower volume music-on-hold can provide greater effects on callers, naturally we can also assume that this can only be achieved when we reach the maximum level of volume that is considered comfortable for the caller (Kellaris & Altsech, 1992).

[7] In Oake's study, the following musical pieces were used to establish settings for the participants divided into fast tempo and slow tempo environments: Bullet Train (Ritenour/Watts), Brazilian Love Affair (Duke), Weekend in LA (Benson), Birdland (Zawinul) and Happy Hour (Oakes). The slow-tempo versions of each of the compositions were set within a slow-tempo band of 104-129 BPM, and a fast-tempo band of 130-179 BPM.

2.6 Influence of music-on-hold on customer satisfaction

In this next section, we will examine the influence music-on-hold can have on customer satisfaction. Buyer perceptions can be critical to customer satisfaction. When reducing actual wait times becomes infeasible, telecommunication services must factor in service environment models and elements to affect time perception. One of the most common elements that companies implement is music-on-hold to influence subjective or perceived waiting times of consumers. The use of these elements can emit negative consumer perceptions of the service evaluation, as these elements are crucial to creating a relationship between perception of waiting time and customer satisfaction. The perceived wait before the service being provided, precisely in telecommunication services, has the potential to spoil the consumer's experience if the wait is considered to be perceived as too long (Maister, 2005).

Previous studies have found that the use of music to generate positive consumer experience while on hold can bolster the intention of creating a pleasant experience and service environment for the consumer. One study conducted on a UK bank's telephone customer service collected empirical data on the impact of music-on-hold on consumer experience, using the same music the bank had previously used in a successful marketing campaign, consequently, the song was highly associated to their brand and was commonly recognizable, even for first time callers. The participants were asked to call the bank's telecommunication service line and speak to an advisor, consequently, most participants were asked to be put on hold, creating a service environment they were later asked to evaluate in relation to their overall customer satisfaction. The study concluded that the participants who were played music had higher customer satisfaction evaluation scores than those who were played no music (Peevers et al., 2009). Researchers from this study also found music-on-hold did not have an influence for short-duration waits, in which the wait is considered to be less than a minute. It was also found that music was the only filler effective in waiting times longer than 5 minutes. All participants overestimated their actual waiting times than their perceived waiting times, but the participants who were playing music while waiting on hold had overestimated less than those who were not playing music. The effect of the music was found to be important in their overall satisfaction with higher median scores for the phone calls that had waiting music than those who did not (Peevers et al., 2009). Other studies have also seemed to find evidence of the relationship between customer satisfaction and music on hold, deeming it beneficial for companies seeking to improve customer service evaluations. Additional studies argue the use of music in service evaluation

as key component of the servicescape model[8], which is crucial in consumer evaluations (Swartz & Iacobucci, 2000).

Music has been found to create an effect on consumers that in turn, influences the emotional state of the consumer, consequently, affecting the consumers' overall service evaluation. Study findings mention music in waiting environments as creating a great impact on consumers' servicescape by making it a more tolerable experience with music than without it, by altering their perception of the servicescape. This can also be linked to the emotional state of mind of the consumer, studies also have found that music reduces the psychological cost of waiting, by reducing emotional stress and anxiety that could be induced by waiting (Garlin & Owen, 2006).

Therefore, music can be considered a principal element in customer waiting times, especially in telecommunication services that are obliged to put their callers on hold. The result of these studies should encourage service managers and company owners to consider music as a great influential factor that can alter the consumers' emotions, consequently, influencing their consumers' service evaluation, and customer satisfaction. (Hui et al., 1997).

2.7 Alternate Interceding Factors during Telephone Wait Times

We have previously examined in-depth how music, or specifically music-on-hold, can alter consumer behavior depending on genre, volume, and tempo, however there are a variety of other elements that can be used in telecommunication systems while consumers are on hold. These factors also develop formidable effects on the consumer, precisely in waiting times. When a consumer is faced with communicating on a telephone line that does not provide the comfortability of social cues, facial expressions, voice quality, body motions, and proxemics[9], they are entirely subject to the atmospherics of the phone call during the waiting duration (Antonides et al., 2002,). Queue management in online waiting becomes much more significant than in offline waiting due to the lack of these atmospherics. (Wu et al., 2022). Waiting offline for a purchase or service can be more uncomfortable for consumers than waiting in person. With an in-person wait, or offline wait, consumers can

[8] The servicescape is described as the constructed environment surrounding the service that "plays a critical role in shaping customer expectations, differentiating service firms, facilitating customer and employee goals, and influencing the nature of customer experiences". (Swartz & Iacobucci, 2000)

[9] According to the APA, non verbal communication is considered to be "the act of conveying information without the use of words but through facial expressions, gestures, body language, tone of voice, and other physical indications of mood, attitude, approbation, and so forth, some of which may require knowledge of the culture or subculture to understand." (*American Association of Psychology, n.d.*)

usually easily assess the wait time and the likelihood of getting their desired product or service, and observe the general atmosphere of the environment. This can create a feeling of uncertainty and discomfort for consumers. Nonetheless, with proper queue management and the use of queue fillers, companies can generate positive experiences for their consumers in telephone queues. (Wu et al., 2022).

The reactions consumers can have, precisely in phone calls, towards these factors can be seen in the alteration of perceived waiting times, similar to the effects consumers can have with music-on-hold. The relationship between these factors and their perception of waiting times has been studied primarily in the same context as music-on-hold has been studied. Other factors, apart from music-on-hold, have also been deemed crucial in consumer waiting time perceptions. Previous research of the effect these environmental factors can have on consumers has been fundamental in the construction of waiting environments (North et al., 1999). Waiting time fillers have also been recognized as effective instruments in developing environmental stimuli in wait management (Baker & Cameron, 1996). In this section, we will examine other waiting fillers that can be utilized in consumer waiting environments:

2.7.1 Apologies

Customer service systems aim to provide exceptional experiences to clients by focusing on offering quality service while reducing the impact of the wait that can be endured by the consumer and can have significant impacts on service quality (Chatterjee, 2013). A method utilized to reduce the impact of the wait by telephone communication systems is the use of an apology, also one of the most common telephone waiting time fillers. This filler is an acknowledgment of failed intentions offered to the customer while they are put on hold. Telephone callers are given organizational messages to address the wait such as, “We apologize for the delay and will be with you shortly,” and “Sorry to keep you waiting, please remain on the line.” This type of message has been utilized in research conducted on the use of apologies in waiting situations. In North’s study of the relationship between music and on-hold waiting times, an approximation of one hundred callers had been played a repeated message at 10-second intervals, “I’m sorry, the line is busy. Please hold.” This study in particular had found that apologies had produced negative customer reactions, but did not affect their estimated wait times (North et. al, 1999).

This was thought to be a consequence of the juxtaposition that the apology did not coincide well with the feeling of progress consumers desire. If an apology was offered, the contrary desired effect was produced, thus, consumers sensed longer waiting times (North et. al, 1999). This was later further investigated in Munichor's and Rafaeli's study that suggested apologies heard while waiting on the telephone had the most negative caller reactions among other fillers such as music, and queue information. (Munichor & Rafaeli, 2007).

However, recent research suggests that these kinds of messages of consolement offer a solution in managing customers' emotional reactions and seek to counteract the lack of attention consumers might feel after a service failure (Van Vaerenbergh et al., 2019). The use of apologies as a wait management tool in queue systems in designing effective customer service systems has proven to be effective. In Munichor and Rafaeli's study, research revealed that the combination of an apology and on hold music given during customer service phone calls were less likely to be abandoned than queuing information (Munichor & Rafaeli, 2007).

Additionally, we can see a much clearer depiction of the relationship between apologies and the effects on callers in Wu's study that has conducted research specifically in telephone queue waiting environments. They indicated that offering an apology to the caller can cause callers to assume that the service provider has done something wrong and in consequence, must correct the wrongdoing committed to compensate the caller. As a result, consumers experience what is known as avoidance behavior[10], therefore increasing the chances of the caller abandoning the call. This was proved by studying two groups of callers, one that received an apology while waiting and the other group who had not received an apology.

The callers who were given an apology were more likely to abandon the call compared to those who were not given an apology and remained on hold. The study also identified the likelihood of call abandonment depending on the apology offered: high-explanation apologies and low-explanation apologies.

[10] According to the American Psychological Association, avoidance behavior is any act or series of actions that enables an individual to avoid or anticipate unpleasant or painful situations, stimuli, or events, including conditioned aversive stimuli.

1. *Low-explanation wait: “The line is busy now, hold on please. We apologize for your wait.*
2. *High-explanation wait: “The line is busy now due to a limited number of operators, hold on please. We apologize for your wait.”*

Callers who were given high-explanation apologies were more likely to abandon the call in contrast to callers who were given low-explanation apologies and waited longer on hold. These results suggest that too much of an explanation offered to the consumer conveys the message that the wait can be controlled by the firm, and therefore is responsible for the duration of the wait. (Wu et al., 2022). This concept can be supported by Taylor who stated that consumers produce negative reactions towards a service when they feel that the company has control over the wait (Taylor, 1994).

2.7.2 Queuing Information & Estimated wait times

Callers who are waiting for service might find themselves at the very back of the queue, making the wait experience inevitable. Another common tactic, or wait filler, to mitigate negative reactions to waiting is the use of queue information (Maister, 1985). Queueing information is information about the caller’s location in the queue provided to the during the wait, ie. “You are the third caller, please hold.”, or “There are 2 callers ahead of you, please remain on the line.” (Munichor & Rafaeli, 2007).

The intention of queueing information on the telephone is to provide consumers with the sense of progress by giving consumers updates as to where they find themselves in the queue, (Munichor & Rafaeli, 2007) as opposed to offline queues, where consumers have a certain tangibility in progress. In offline queues, there is also the possibility of providing physical mechanisms such as visual distractions, and physical accommodation, such as waiting rooms. Despite these physical barriers, telephone queues can be considered much more convenient to the consumer in other aspects, there is no travel involved and most often than not, the duration of an online queue is shorter than an offline one (Munichor & Rafaeli, 2007).

To render a sense of progress to callers, location-information or queue information is given to the consumer, with the intention of decreasing the perceived waiting time, and producing positive consumer reactions (Munichor & Rafaeli, 2007). Munichor and Rafaeli's study demonstrated these theories by supporting the idea that location information or queuing information produces less call abandonment and higher satisfaction within consumers. Additionally, data collected among the participants suggested the most positive caller reactions were produced when queue information was provided (Munichor & Rafaeli, 2007).

Other research suggests that queue information has the same effect in longer duration queues (up to 15 minutes), generating more positive consumer responses. These findings also referenced that the amount of information available to the consumer made the acceptability of the wait more likely to be tolerated by the consumer compared to when the consumer is given no information at all (Hui & Tse, 1996). This can also be demonstrated in Wu's study where queueing information and expected wait time were found to significantly reduce callers' perceived waiting times in waiting times that were shorter than 20 seconds. However, the adverse effect was produced when the wait time surpassed 90 seconds (Wu et. al, 2022).

SECTION 2: Research Questions and Methodology

With recent, significant changes in Spanish legislation, companies must assess the importance of studying music-on-hold and the use of other time fillers to generate better consumer experiences for their customers. As previously examined, there is compelling evidence that music-on-hold and other time fillers create positive impacts on customer satisfaction and evaluation, but also in time perception during wait times. There have been a number of published studies that have been aforementioned that support this idea, however with the implementation of new legislation, this study seeks to find trends and preferences within the telephone waiting strategies confirming the aforementioned literature studied. The practical portion of this project is divided into two separate studies that will allow us to observe attitudes and preferences towards waiting durations in the context of telecommunication and observe trends companies and public administration offices utilize to persuade consumers to endure the wait.

Following a literature review on waiting times, music-on-hold, and other wait time fillers, a series of inquiries have emerged. The question as to whether music-on-hold continues to be a relevant tool in customer service management systems is uncertain. A number of studies have stressed the importance of its use, but the general population seems to associate music-on-hold with feelings of exasperation and annoyance. Based on the literature analyzed, genre can play a significant role in the fluctuation of the consumers' emotions and the duration they spend on the telephone line. We can assume that most companies opt for jazz music or ambient music, as it is widely popular among offline waiting environments, such as in waiting lobbies, and other environments such as elevators, etc. Jazz music and ambient are generally soft slow-tempo genres, however, we will be able to confirm the use of this factor in the study. Previous research also indicates that a combination of fillers are utilized by companies in order to reduce the consumers' perception of waiting time, therefore we will intend to confirm this in the first study, by observing the usage of a combination of music-on-hold and a queuing information, or an apology message.

After a review of relevant literature on consumer waiting, it would be of crucial information to understand how consumers alter their emotions during wait times in order to enhance customer service management systems and wait management. Although in previous studies, consumers preferences inclined towards music-on-hold rather than silence, these studies did not mention anything about the consumers who preferred the contrary. If

we can observe what precisely offsets consumers about music-on-hold, and the exact variables that influence this attitude, telecommunication service lines will be able to provide a better wait experience for consumers. However, we must affirm the idea that consumers do in fact prefer to listen to music-on-hold than not.

With technological advances outpacing consumers' needs for instantaneous service, it is reasonable to assume that consumers would prefer to avoid the wait experience entirely. We will observe this consumer preference by investigating if consumers would prefer an alternate option to waiting, which in this case, have chosen the call-back option. An option that offers consumers the ability to request a callback at a time that suits them rather than endure waiting times.

The digital era may have also had an impact on consumers' opportunity cost. It would be of interest to examine how digital-era consumers perceive "high" opportunity costs as the articles previously reviewed are outdated and do not provide recent data on the amount of waiting time digital-era consumers would consider a "high" opportunity cost as the most recent study on this was elaborated in 2003.

In order to properly investigate these inquiries the practical portion of this project has been divided into two separate studies:

- The first is a study conducted on a list of 80 private business and public institutions of different sectors, within both local and national territory by making telephone calls to each of their telephone lines identifying within each one, the type of filler utilized, and other relevant elements such as the use of music-on-hold, queue information, and wait duration. This study seeks to identify the utilization of these techniques on a local and national level.

- The second study was carried out through survey questionnaires answered by 80 participants varying in age and gender, to seek information on consumer perceptions towards attitudes and preferences in waiting, emotional aspects of waiting, and insight on music on hold based on empirical data.

Study 1

Methodology from Study 1:

The methodology used in study 1 is based on a field investigation in which 80 companies were contacted by telephone, in which various factors were measured such as: the duration of waiting for the calls, the music utilized, the beats per minute, and alternate interceding factors such as messages combined with music, and queuing information. The companies were then classified into different sectors and categorized onto a spreadsheet (see appendix). The BPM was measured utilizing a phone app: Metrónomo Beats: Tempo Y BPM. Data collected will be displayed in graphical format and subsequently analyzed.

The following hypotheses are derived, following a review of literature on this topic:

H1. Businesses and institutions use music on hold as a tool to reduce customer perceived waiting time.
H2. The most used musical style is jazz / ambient music.
H3. Companies tend to use Slow Tempo more than Fast or Moderate tempo.
H4. Companies combine music with messages.

Study 2

Methodology from Study 2:

The methodology used in study 2 is based on an empirical study through questionnaires, in which a total of 81 individuals responded anonymously to a series of questions (see appendix), in which consumer opinions and preferences were collected. The questionnaire was emitted through Google Forms. Data collected will be displayed in graphical format and subsequently analyzed.

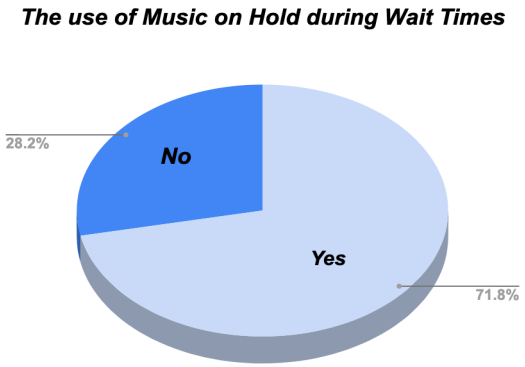
The following hypotheses are derived, following a review of literature on this topic:

H5. Consumers have negative emotions towards waiting times.
H6. Consumers prefer to listen to music-on-hold during wait experiences.
H7. Consumers avoid waiting experiences and would rather have a call-back option.
H8. For consumers, waiting produces high opportunity costs.

SECTION 3: Fieldwork and results

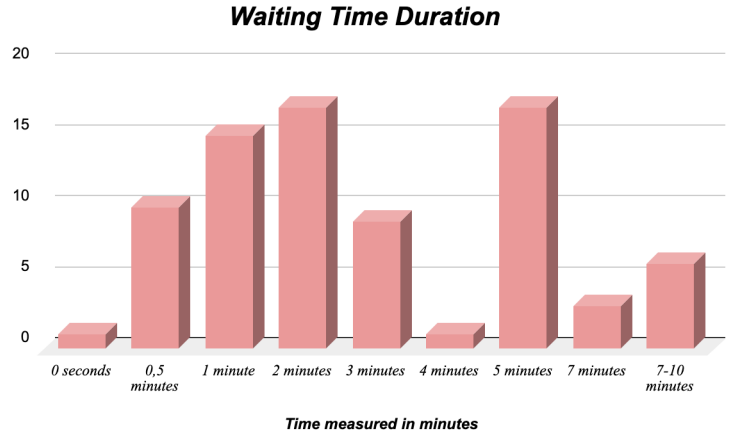
Study 1

Results from Study 1:



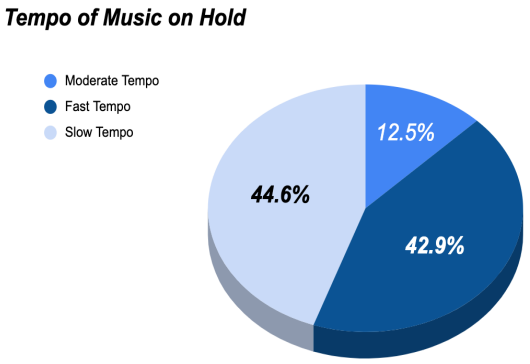
Graphic 1. The use of Music-On-Hold during Wait Times

The pie sector chart is divided into two parts according to whether the companies contacted made use of music-on-hold during the wait duration or not. The sample indicates that 72% do use it in their customer service telephone calls, while 28% do not. The 28% who did not utilize music-on-hold, utilized either silence or a different wait filler other than music-on-hold. This demonstrates that companies do in fact utilize music-on-hold during wait times with the intention of reducing consumer perceived waiting times and reducing call abandonment, therefore we can confirm H1.



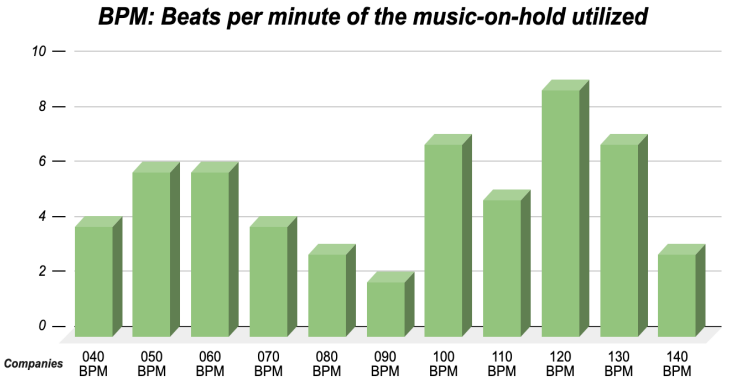
Graphic 2. Waiting Time Duration

This bar graph indicates the average time spent waiting to receive service, or in other words, the duration of the wait time before having initial contact with either the private company or institution. The average range of the wait time approximated from 2 to 5 minutes, which resulted in a 4 minute average waiting time duration. This demonstrates the waiting experience consumers must endure before receiving service. Therefore, companies must seek to fill this wait duration with a filler to encourage the caller to remain on the phone line.



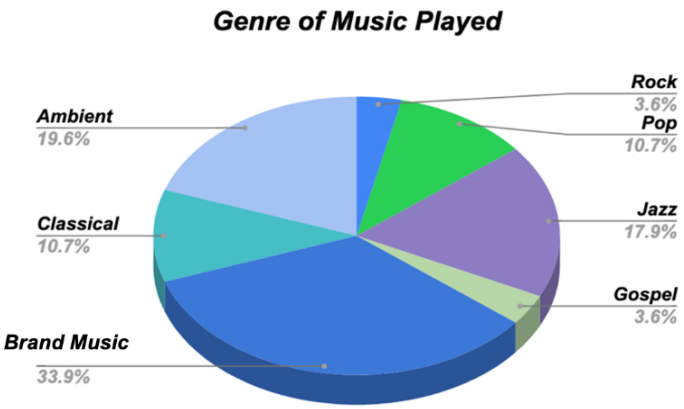
Graphic 3. Tempo of Music-on-Hold

In this graph, we can observe the tempos used by the companies in their selection of music-on-hold pieces. Tempo was measured with BPM, or beats per minute, in which less than 100 BPM is considered to be slow-tempo, and more than 100 BPM is considered to be fast-tempo. If the BPM was exactly 100, it is measured as neutral, or moderate tempo. In this case, we can see almost equal parts in the use of slow-tempo pieces, with a percentage of 46.6% and fast-tempo pieces, with a percentage of 42.9%. The moderate tempo pieces were the least utilized and the most utilized pieces were that of slow-tempo and fast-tempo. Nevertheless, slow-tempo was utilized slightly more than fast-tempo pieces, therefore confirming H3.



Graphic 4. BPM: Beats per minute of the Music-on-Hold utilized

This bar graph displays the BPM, or beats per minute used by the companies and institutions in the study conducted. In the graph previously demonstrated, we have observed that the use of slow-tempo pieces were implemented more than fast-tempo. Nevertheless, when we compare BPM levels, we can observe that 120 beats per minute was among the most popular, which is considered to be an accelerated rhythm. Within slow-tempo BPMs, the most utilized were 50 and 60 beats per minute.



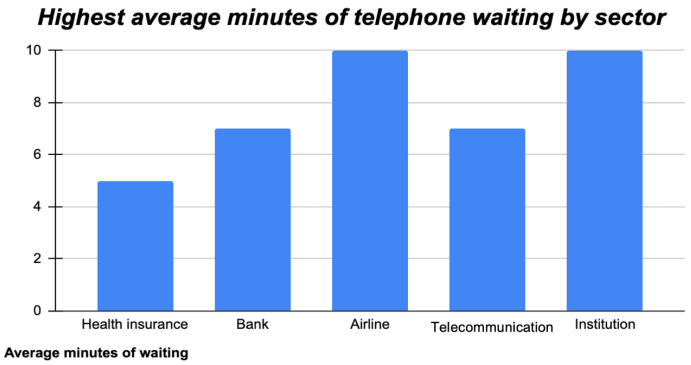
Graphic 5. Genre of Music Played

This pie chart demonstrates the different styles or genres utilized as music-on-hold that were played during the wait duration. We can observe a trend of companies and institutions utilizing the wait duration as an opportunity to play brand music,or brand audio content. Brand music can be defined as custom-designed music or selected music with the intention of expressing brand characteristics to appeal to their audiences, reflecting the attributes and personality of that brand or business (Ballouli & Hutchinson, 2013).

A clear example of this was seen in the music played when calling a local theme park and resort, Portaventura, which played their corporate music commonly utilized in their entertainment shows and parades.
(https://www.youtube.com/watch?v=V3spj9nZcLM).

Another example of this was demonstrated in calling Yoigo, a telecommunication company who played a song of their own popular among their marketing campaigns, with custom lyrics to foster brand recognition among their consumers:
(https://www.youtube.com/watch?v=URUEjT94aSI&t=3s).

Brand music had a majority of 34%, followed by ambient music with 20%. As predicted in H3, together with jazz with an 18%, it was popular among music-on-hold pieces but was not the first. Therefore, we cannot confirm H2. Classical music, which is popularly linked to customer service phone lines, only had 10% use. Gospel, pop, and rock music were not popular among the study, contrary to literature reviewed that studied the use of pop music as an efficient time filler. This may be due to licensing issues or barriers that indicate high financial costs for the company.

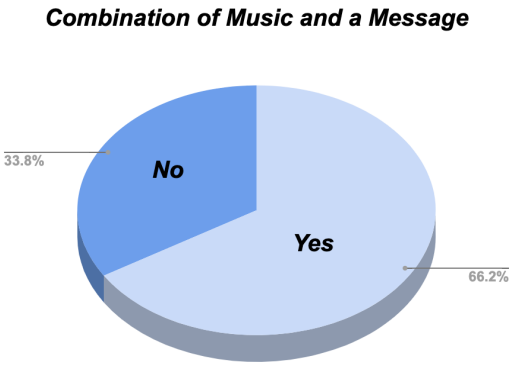


Graphic 6. Highest average of minutes of telephone waiting by sector

Research of the telephone lines was divided into 5 sectors, including both public and private institutions. Within public institutions, schools, universities, government offices, and health services were included. Within the private institutions studied, health insurance, financial entities, airlines, telecommunication and private companies were included.

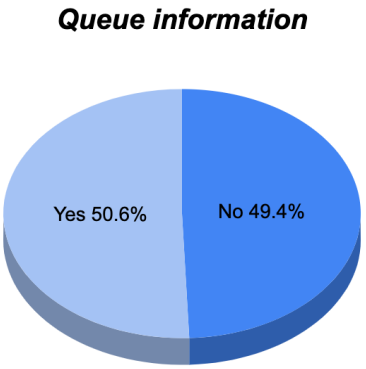
In the graph above, we can observe that in all five sectors, all of them had an average wait time of more than 5 minutes. Results demonstrate how the sector that requires the longest waiting time is that of public institutions, which has an average wait time of 10 minutes. Some examples of this sector include: Hacienda, CAPs, and Delegacion de la Generalitat. The airline sector is not far behind, also with approximately 10 minutes of average waiting time.

Ryanair, an Irish low-cost airline had the longest wait time out of all telephones with a wait duration of 10 minutes. They are followed by the telecommunication and banking sectors, with an average wait time of 7 minutes. Finally, the health insurance sector is taken into account, which reaches an average of 5 minutes of waiting time.



Graphic 7. Combination of Music and a Message

The pie chart above demonstrates telephone line preferences, with the distinction of the use of only music-on-hold and a combination of music-on-hold with an alternate message, such as an apology or queuing information, or promotional publicity. A total of 66% of companies combined music with a message confirming H4, the use of both time fillers to motivate callers to maintain on the line.



Graphic 8. Queue information

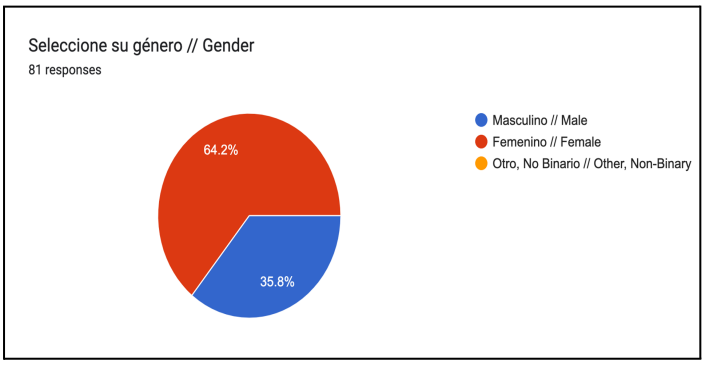
The graph shows an almost symmetrical parity, demonstrating that 50.6% of the time companies use queueing information to inform the location of the consumer of their place in the queue. The other almost 50% did not use queuing information to inform the consumer.

Study 2

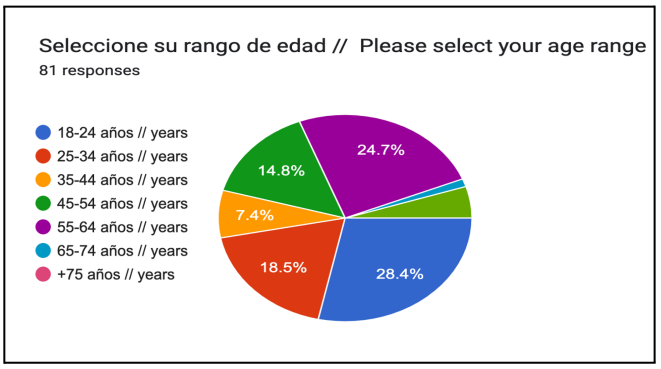
Results from Study 2

The study does not differentiate by age nor gender. This was intentionally done because customer service telephone lines do not have any indication of gender or age when providing service on the telephone, therefore these factors were not entirely relevant to the study. Nevertheless, a 64.2% percentage of the questionnaires were answered by individuals who identify as the female gender and a 35.8% who identify as the male gender. Participants of the study were diverse in age, ranging from 18 years old to 74 years old. Most of the participants have listened to music-on-hold while waiting on the phone. This is convenient since the study is more effective and accurate with a 96.3% percentage of individuals who have had waiting experiences with music-on-hold as a filler.

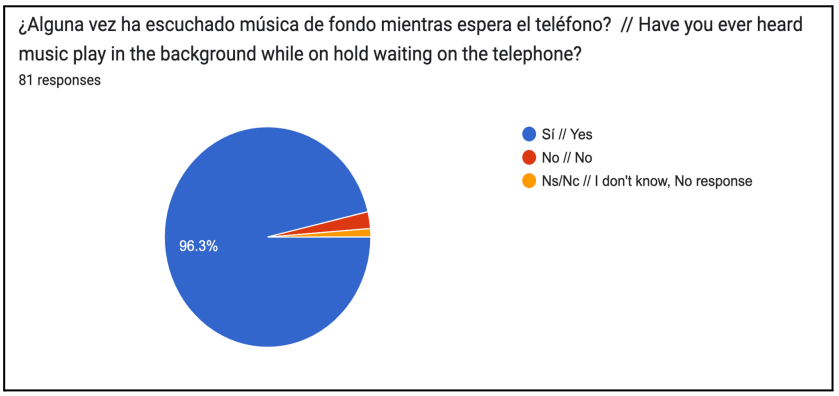
The total number of participants was 81.



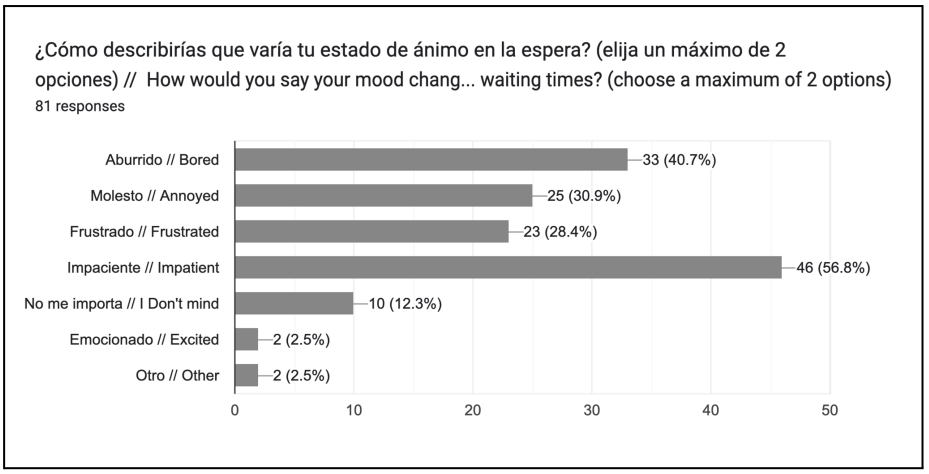
Graphic 9. Gender.



Graphic 10. Age range.

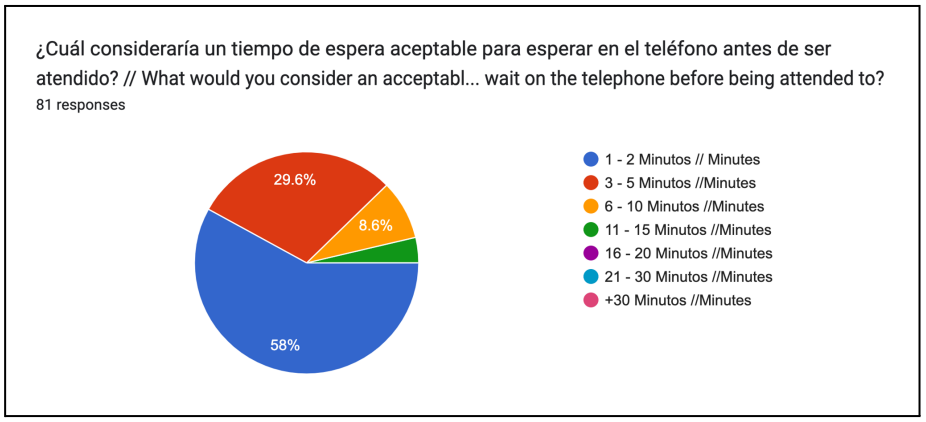


Graphic 11. Previous exposure to music-on-hold



Graphic 12. Mood variation while waiting

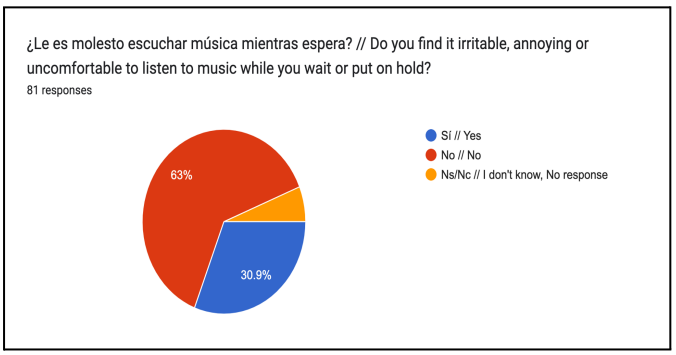
We can observe the variations in the moods of the individuals, 57% of them stated that they start to feel impatient while waiting to be attended. Up to 40.7% start to feel bored and 31% start to feel annoyed. In general, waiting causes a change in mood from positive to negative. This confirms the H5 hypothesis, where it was indicated that consumers have negative emotions towards waiting.



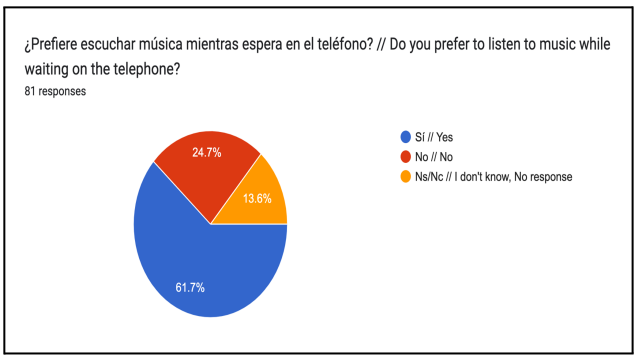
Graphic 13. Acceptable waiting time

Also regarding telephone waits, 58% of individuals consider an acceptable time of 1 to 2 minutes, while 30% consider between 3 and 5 minutes, followed by 8.6% from 6 to 10 minutes. Therefore, as a result, on average an individual considers an acceptable wait time to be approximately 2.7 minutes. We can observe a trend where consumers prefer to wait as little as possible, since the opportunity cost is considered high for consumers.

Control questions were included in the questionnaire to verify the data collected. Two questions were asked to verify that the participants were answering truthfully. In the first, participants were asked if they associate negative emotions with music-on-hold while they wait, in which we categorized them into 3 emotions: irritable, annoying, or uncomfortable. They were asked if they found themselves to have these emotions while listening to music-on-hold, and 63% stated that had not. In the second control question, where participants were asked if they liked to listen to music while being placed on hold, 62% confirmed that they prefer to listen to music while waiting. These results confirm hypothesis number H6, which predicted that consumers prefer to listen to music while waiting than not.



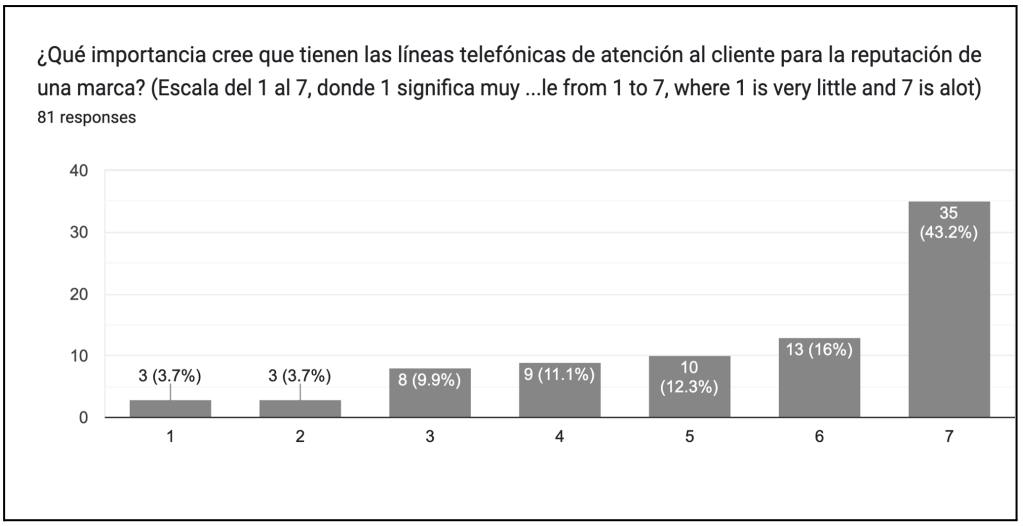
Graphic 14. Negative attitudes towards music-on-hold



Graphic 15. Preferences to music-on-hold

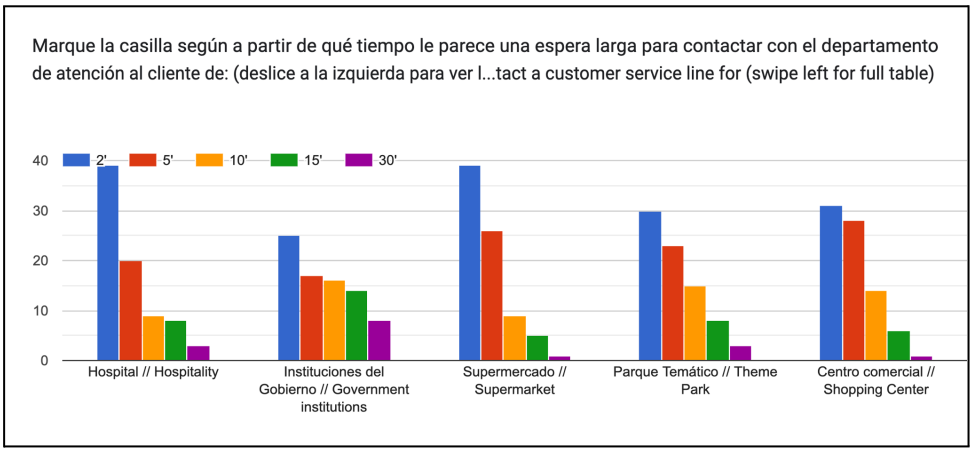
In relation to how much importance the consumers give to customer service to the reputation of companies, up to 60% state it is of maximum importance, and very few consider that it does not (6%). This data confirms that a company or institution's customer service is significant in brand reputation, therefore companies must insist on enhancing consumer waiting experiences.

By generating better service evaluations within customer service, consumers will produce positive attitudes towards these companies. In order to build these reputations, companies must seek to reduce the perceived waiting time by utilizing strategies and wait time fillers to reduce waiting time perceptions.



Graphic 16. Customer service reputation and importance

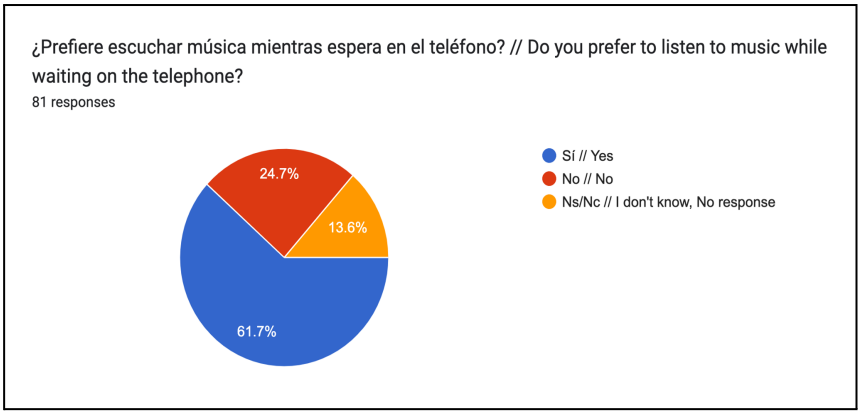
The following chart shows the difference in consumer preferences when it comes to waiting depending on the sector in which they are enduring the wait for. We can observe how the health sector is the most sensitive to waiting, together with the supermarket/retail departments. Whereas in other sectors, such as shopping centers and theme parks, consumers are more tolerable of waiting times. Results also demonstrate that while waiting for service in public institutions such as healthcare, government assistance and offices, consumers already have a prior expectation that the wait time will be long and the expected wait time duration exceeds 30 minutes. The results confirm the hypothesis H7, in which it was stated that the perceived sector with the longest waiting times was that of public institutions, since we can observe that individuals assume longer waiting times in this sector, consequently they will have to wait longer compared to the rest of sectors.



Graphic 17. Sectors associated with long wait times

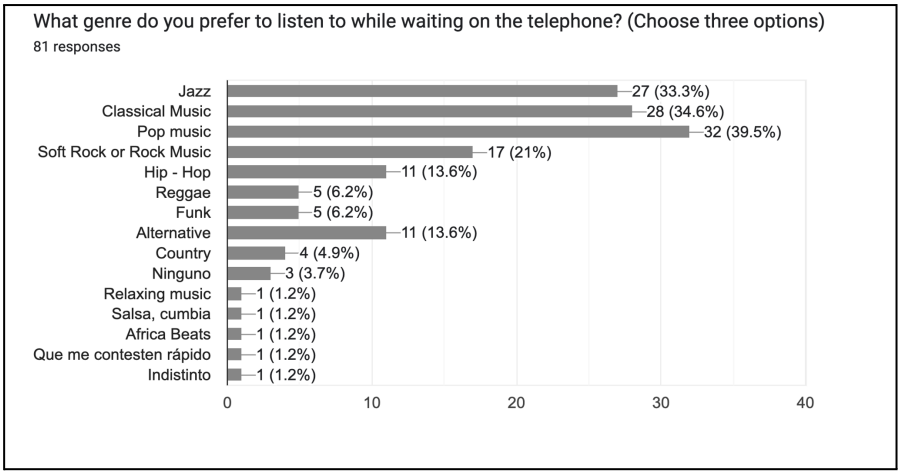
Data collected also suggests that a great majority of the consumers who participated in the study prefer to listen to music while they are waiting on the phone. We can infer that this is due to the distraction, or passage of time that it causes while waiting, in turn, reducing the perception of the wait. The study also suggests that there are a select group of consumers who do not prefer to listen to music while waiting. This can be due to a number of causes that have been mentioned in the reviewed literature. Some consumers find a discorrelation of the music and the service they might be waiting for.

An example of this can be in calling a hospital, and the music might cause discomfort, or perhaps, an inappropriate noise volume can produce overstimulation and deconcentration for the consumer. This can be a possible explanation for the 25% of the participants who answered that they do not prefer to listen to music while waiting. In the next sections, further research is conducted to find what precisely offsets this select group of consumers from having negative perceptions towards music-on-hold.



Graphic 18. Preferences to music-on-hold (2)

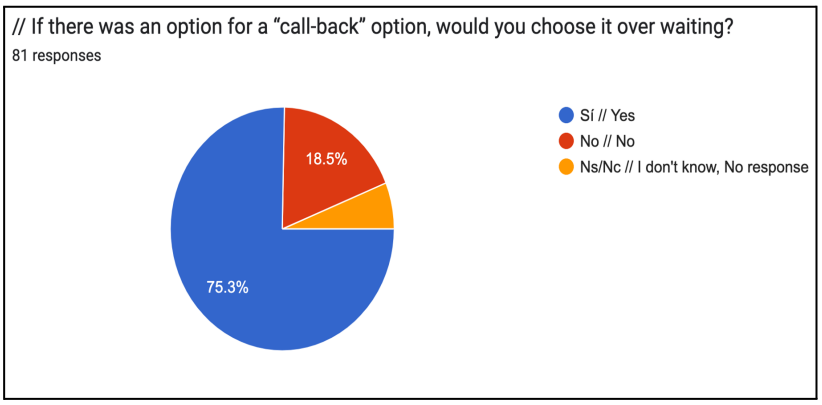
Primarily, it is significant to identify what type or genre of music the select group of consumers who preferred music-on-hold during their wait experiences opt for. We can observe in the graph below, the majority selected the pop genre, with a total of 39.5%. Pop is then followed by classical music 34.6% and jazz, with 33.3%. These genres can be three viable options when it comes to choosing a music style or genre for telecommunication management systems and companies. The preferred musical style according to hypothesis H8 is Pop, confirming that pop is the most appealing genre for consumers to listen to during their wait experiences.



Graphic 19. Preferred music genres

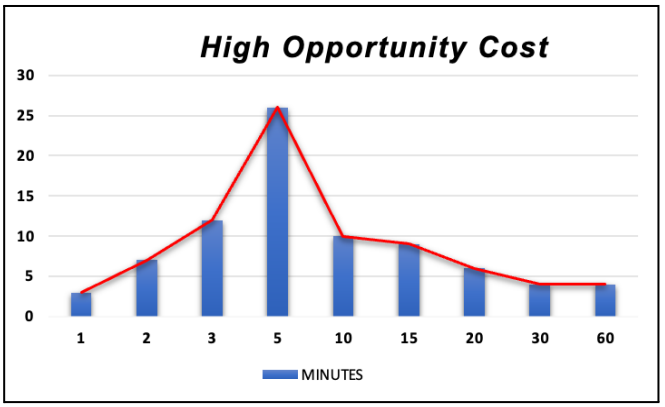
Data collected also demonstrates consumers preferences to waiting experiences. In reviewed literature, we have observed a general disdain towards waiting from consumers. If consumers were given the option to opt out of waiting experiences, we can assume that they would choose to do so. In the pie chart below, we can see a 75.3% percentage of consumers state they would prefer to have a callback option instead of having to wait compared to 18.5% who prefer to stay on the phone.

This information verifies that consumers generally do not like to wait and they perceive it as an inconvenience. This data suggests that their time is valuable to them, and they would prefer to have the company or institution call them back at an appropriate time, than waiting for the service promised. Three-quarters of the individuals who have participated in this study chose the callback, a significant number that companies should consider. Contrary to hypothesis H9, individuals prefer to be called back rather than continue waiting.



Graphic 20. Callback option

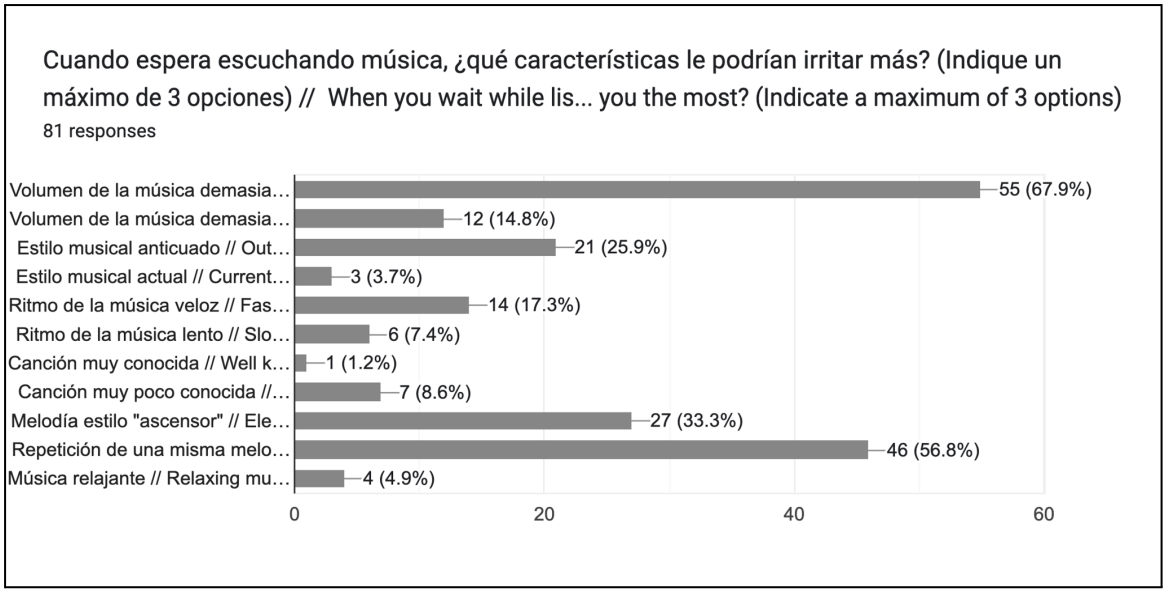
The high opportunity cost according to the criteria of the individuals in the sample is within a limit of 5 minutes, contrary to the forecast of the H10 hypothesis, which according to the studies is 15 minutes. This could indicate that the literature or studies reviewed, we might now consider outdated information. With digital-era consumers who are accustomed to speedy service and instant gratification, newer generations could be more sensitive to opportunity costs than older generations who are more accustomed to traditional waiting times. Consequently, since the greatest number of participants of the study were ages 18-24, a total of 28,4% participants, are considered to be millennials and generation Z, there is a possibility this might have impacted study results, making the average opportunity cost considered tolerable to be much lower than the hypothesis drawn.



Graphic 21. High Opportunity Cost

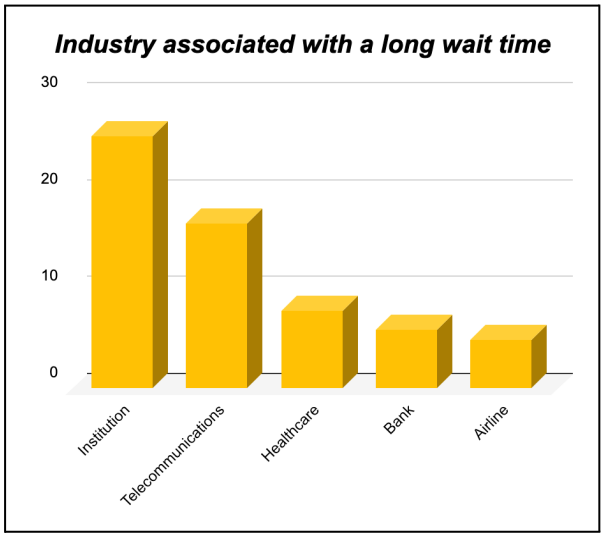
As previously mentioned, there is a select number of participants in the study who preferred not to listen to music-on-hold while they wait for service. We can observe some of the causes for this by asking what factors of music-on-hold are most likely to irritate consumers or in other words, what elements cause consumers to reject music-on-hold. The following chart shows elements that are most likely to irritate individuals waiting on the phone. Participants were allowed to select a maximum of three elements they had found to be negative.

We can observe that a total of 68% of the participants stated that the volume of the music is too high, and a total of 56.8% of participants found the repetition of the same melody in a loop can cause negative attitudes towards music-on-hold. This can be crucial information to be taken into account in telecommunication management systems to provide better waiting experiences for consumers by detecting what exact elements of music-on-hold produces negative reactions in consumers.



Graphic 22. Negative factors associated to music-on-hold

Finally, we can observe which sectors are perceived to have longer telephone waits by the individuals in the study, clearly highlighting the sector of public institutions. In the first study, we previously stated that it is a sector that produces some of the longest waiting times for consumers. Therefore, it is one of the sectors that would most likely benefit from implementing music-on-hold and wait time filler strategies in order to reduce customer waiting time perceptions. We can also observe that the telecommunication sector, in which companies such as Movilstar, Vodafone, and Orange were selected as components of the study, also are associated with long wait times. As previously mentioned, this can be detrimental to a companies' customer service evaluations. Thus, we can infer that these two sectors can benefit from remodeling their telecommunication management systems and consider using wait fillers to enhance consumer experiences.



Graphic 23. Industries associated with a long wait time

SECTION 4: Conclusions & Implications

Introduction

Music is a useful and powerful tool within the reach of companies to reduce the perception that customers have of telephone waiting times. Waiting times are negatively perceived by consumers, and therefore, companies must seek to reduce these emotions by investing in efficient telecommunication management systems. By considering music-on-hold and other elements utilized to fill wait times, not only is it an investment in consumer experiences, but also can be approached as a financial investment. The cost of losing a consumer, particularly in the case of telephone services, outweighs the cost of maintaining the consumer on the telephone line.

Implications for theory on waiting in service marketing

After a literature review on articles and studies pertaining telephone waiting and the use of music-on-hold, and other wait time fillers, we can draw some conclusions by making comparisons between previous research and the results from this final project. Previous studies have already suggested that consumers' moods and emotional states during waiting times are negative, naturally, we were able to confirm this in study 2. This study took a step further in identifying what exact emotional states the consumers found themselves in: boredom, frustration and irritation. Consequently, we can assume that the importance of reducing these negative emotions is crucial in creating quality service experiences for consumers. This can be achieved by means of wait time fillers, notably with music-on-hold.

Music-on-hold withholds multiple variables in telephone waiting times. By taking into consideration rhythm, precisely BPM, we can specify what tempos are of greater usage by sector. For example, in the public institutions sector, precisely hospitals and clinics, used a slower tempo. On the contrary, theme parks and commercial malls utilized fast tempo music. Depending on the activity of the institution, or business, the usage of specific rhythms, styles, and volumes is a significant variable in the usage of the music utilized. Therefore, we have observed that businesses do in fact employ these variables in their telephone queue management. A large quantity of businesses even implemented music either relating to their current marketing campaign or self-produced pieces.

Another noteworthy conclusion is that consumers do prefer to listen to music while they wait, contrary to the common belief that music-on-hold is annoying, and tiresome. We are able to observe that although music-on-hold has variables that displeases consumers (ie. loud volume, outdated music, etc.), the study has demonstrated that consumers would prefer the usage of music-on-hold rather than sit in silence, motivating them to maintain on the line. In previous research, it has been suggested that jazz and soft ambient music was the preferred genre during waiting times. Contrary to this, we have observed that consumers prefer pop music while waiting. However, the majority of companies and institutions opted for brand music and promotional songs rather than a specific genre. Therefore, we can see a slight misalignment between consumer preferences and the selection of music-on- hold companies and institutions use.

Previous research indicates that music is frequently combined with a message, whether that be with queue information or an apology and has the ability to persuade the caller to maintain longer durations of waiting times. We have been able to confirm this theory in study 1, with a high percentage of the companies and institutions included in the study to utilize both of these time fillers (76,2%). Based on this conclusion, it is of importance that telephone management systems utilize this combination of time fillers if they have a high volume of callers in order to improve call abandonment rates.

In conclusion, music-on-hold remains a relevant tactic in telephone management systems. Most importantly, a waiting time strategy that has the capacity to reduce consumer waiting times. This is a key factor in maintaining consumers on the line, successively, improving consumer experiences and optimizing customer service telephone support lines.

Implications for management practice

. Music-on-hold, as we have seen, has a great impact on consumers, generating overall better customer service evaluations. In both of the studies conducted, consumers associate music-on-hold with positive emotions rather than negative ones. Companies can utilize music-on-hold to increase retention rates and reduce caller abandonment, in turn, creating positive consumer evaluations towards the service being offered. By filling the silence, we assure the consumer is going to receive that service, but they must endure a wait. In order for this wait to be more tolerable, companies can implement music-on-hold to create the perception that the time spent waiting is much less than they have actually endured.

In the practical portion of this project, we have observed that individuals associate waiting times with high opportunity costs, citing that 7 to 10 minutes is the maximum duration of time they are willing to wait. This can be relevant in providing other options for consumers in order to emit the wait overall. By providing a call back option, consumers are no longer forced to pay this high opportunity cost and could provide enhancements in the efficiency of customer service management and programs. This could be most apparent in sectors that were associated with longer waiting times, such public institutions. We can suggest that music does indeed serve to improve consumer experiences and this was confirmed by the second study, where individuals clearly show that proper customer service management is key to the good image of a company and concludes in better evaluations of the service by customers. In consequence, consumers will feel more satisfied with the attention received.

Thus, when used correctly, music can be considered a distracting element, which diverts the customer's concentration while waiting and prevents them from abandoning the call to a large extent, in addition to complimentary promotional or queue messages that support this task. In both studies, we can observe the use of music-on-hold as a positive element and tool implemented in customer service telephone lines. A relevant factor of this project is that a number of changes have probably taken place since most of the studies reviewed in the literature were published. The value of opportunity costs for consumers has increased dramatically. We can see this evidence in the second study where consumers stated that a high opportunity cost is approximately 5 minutes, whereas in the relevant literature studied in this topic, studies found that a high opportunity cost was approximately 15 minutes. This can indicate that today's generation seeks instant gratification in the context of service, compared to that of older generations.

Direction for future research

The Ministry of Consumer Affairs of the Spanish government has modified the legislation in the last year, limiting the telephone wait for customer service to a maximum of 3 minutes, by law, for 95% of their calls. That is why this topic can still be relevant to continue researching in terms of improving waiting experiences for consumers and customer service lines for companies. Music-on-hold can be a substantial instrument to integrate in telecommunication service lines to fill those three minutes the consumer has to endure.

In terms of future research, it would be of interest to produce more studies that analyze music-on-hold, in general. There are a great number of studies that investigate wait time fillers together, but very few focused on music-on-hold independently. However, realistically, with consumers who are constantly evolutioning during a digital-era with a variety of technological advances, it is difficult to predict the effect these wait time fillers will have on millennials and Gen-Z consumers since a great number of studies were produced before 2010. With the passage of time, consumers are only bound to heighten their expectations with these advances and will expect more immediacy in service contexts. It is uncertain as to whether soon enough, consumers will be able to emit the wait experience in services entirely, since we have already observed the introduction of these tactics in the service industry.

Research Limitations

Perhaps one of the more substantial limitations of this project was the inability to create a larger-scale experiment with a greater quantity of participants. This was mostly due to a lack of greater resources, in which it would have been ideal to construct an in-person wait experiment to observe consumer behaviors during telephone wait times. This would have been useful in analyzing alterations in emotional states of consumers in real time.

In the data collection process of study 2, there were a number of businesses and institutions that either did not pick up the line directly, or picked up immediately, therefore did not provide wait experiences. These companies were not included in the study and were discarded. Another limitation was present in the use of questionnaires. The use of questionnaires might have influenced consumers' responses by asking directly in the survey their opinions on waiting times. There is a possibility that consumers might have inclined towards giving negative responses towards waiting times because they were asked to state their negative emotions during waiting times.

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Appendix

Survey: Music in Waiting times

Please select your age range

- 18-24 years
- 25-34 years
- 35-44 years
- 45-54 years
- 55-64 years
- 65-74 years
- +75 years

Gender

- Male
- Female
- Other, Non-Binary

Have you ever heard music play in the background while on hold waiting on the telephone?

- Yes
- No
- I don't know, No response

What sector would you associate with "longer" waiting times when calling a customer service line? _____

How would you say your mood changes or varies during waiting times? *(choose a maximum of 2 options)*

- *Bored*
- *Annoyed*
- *Frustrated*
- *Impatient*
- *I Don't mind*
- *Excited*
- *Other*

What would you consider an acceptable waiting time to wait on the telephone before being attended to?

- 1 - 2 Minutes
- 3 - 5 Minutes
- 6 - 10 Minutes
- 11 - 15 Minutes
- 16 - 20 Minutes
- 21 - 30 Minutes
- +30 Minutes

What is the maximum amount of time you personally would wait before hanging up on the telephone? _____

Do you find it irritable, annoying or uncomfortable to listen to music while you wait or put on hold?

- Yes
- No
- I don't know, No response

How important do you think customer service phone lines are to a brand's reputation? *(Scale from 1 to 7, where 1 is very little and 7 is alot).* *1 2 3 4 5 6 7*

Please tick the box based on how long a wait seems like to contact a customer service line for *(swipe left for full table)*

- *Hospitality*
- *Government institutions*
- *Supermarket*
- *Theme Park*
- *Shopping Center*

Do you prefer to listen to music while waiting on the telephone?

- Yes
- No
- I don't know, No response

What genre do you prefer to listen to while waiting on the telephone? *(Choose three options)*

- *Jazz*
- *Classical Music*
- *Pop Music*
- *Soft Rock or Rock Music*
- *Hip - Hop*
- *Reggae*
- *Funk*
- *Alternative*
- *Country*
- *Other…*

If there was an option for a "call-back" option, would you choose it over waiting?

- *Yes*
- *No*
- *I don't know, No response*

How much time in minutes do you consider waiting a high opportunity cost? (Opportunity cost is what you stop doing by waiting)

When you wait while listening to music, what features might irritate you the most? (Indicate a maximum of 3 options)

- Music volume too high
- Music volume too low
- Outdated music
- Current music
- Fast paced music
- Slow paced music
- Well known song
- Unpopular song
- Elevator style tune
- Repetition of the same melody in a loop
- Relaxing music

Lastly, please describe a situation on whether you have ever hung up the phone while waiting on a customer service line and why you chose to abandon the call. If not, please leave it blank _____

Research list

	Companies	Sector	Picked up (Yes/No)
1	Endesa	Supplies	YES
2	Movistar	Telephony	YES
3	Orange	Telephony	YES
4	Hospital Santa Tecla	Health center	YES
5	Ematsa	Utilities	YES
6	El Corte Ingles	Retail	YES
7	Parc Central	Retail	YES
8	Ayuntamiento de Tarragona	Institution	YES
9	Secretaria Bellisens	College	YES
10	Ayuntamiento de Barcelona	Institution	YES
11	Delegación de la Generalitat	Institution	YES
12	La Caixa	Bank	YES
13	BBVA	Bank	YES
14	Samsung España	Smartphones	YES
15	Mercadona	Supermarket	YES
16	Esclat Bonpreu	Supermarket	YES
17	Consum	Supermarket	YES
18	Decathlon	Sports company	YES
19	Bershka	Fashion	YES
20	Stradivarius	Fashion	YES
21	Hacienda	Institution	YES
22	Tagliatella	Restoration	YES
23	Viena	Restoration	YES
24	Mcdonald's	Restoration	YES
25	Jazztell	Telephony	YES
26	Red Cross	ONG	YES
27	Animal Shelter Tarragona	ONG	YES
28	Caritas	ONG	YES
29	Yelmo Cine	Entertainment	YES
30	Essity Spain	Multinational	YES
31	Lear Spain	Multinational	YES
32	Fragadis Spain	Multinational	YES
33	Freshly	Multinational	YES
34	BASF	Multinational	YES
35	Druni	Multinational	YES
36	Ryan Air	Airline	YES
37	Vueling	Airline	YES
38	Tarragona Port	Shipping company	YES
39	Iberia	Airline	YES
40	Portaventura	Theme park	YES
41	Sagrada Família	Turism	YES
42	Camp Nou	Sport club	YES
43	Catalana de Occidente	Insurance carrier	YES
44	Adeslas	Health insurance	YES
45	Mapfre	Insurance company	YES
46	Sanitas	Insurance company	YES
47	Bus Station Tarragona	Urban transport	YES

48	Ikea	Multinational	YES
49	Correos	Messenger service	YES
50	Renfe	Railway Transport	YES
51	H10 Imperial Tarraco	Tourism	YES
52	Hotel SB Ciutat de Tarragona	Tourism	YES
53	AC Hotel Marriott Tarragona	Tourism	YES
54	Hotel Astari Tarragona	Tourism	YES
55	W Barcelona	Tourism	YES
56	OCine	Entertainment	YES
57	Barcelona Airport	Airline	YES
58	Depart. Ministerio de Justicia	State	YES
59	MediaMarket	Multinational	YES
60	Amazon España	Ecommerce	YES
61	Subdelegacion tarragona	Institution	YES
62	Policia	Institution	YES
63	Extranjeria	Institution	YES
64	Cecotec	Retail	YES
65	Nestle	Multinational	YES
66	SEPA	Institution	YES
67	Abacus	Retail	YES
68	Sephora	Retail	YES
69	Repsol Tarragona	Gas-Fuel	YES
70	Lowi	Telecommunications	YES
71	La Fira Centre Comercial	Mall	YES
72	AMT (Aparcaments Municipals TGN)	Parking	YES
73	Apple	Smartphones	YES
74	Seur	Logistics	YES
75	Glovo	Food delivery	YES
76	Booking.com	Hotel reservations	YES
77	Telepizza	Food delivery	YES
78	Naturgy	Natural gas	YES
79	Just Eat	Food delivery	YES
80	Mastercard	Finance services	YES

Health insurance	5
Bank	7
Airline	10
Telephony	7
Institution	10

Did you have to wait (Yes/No)	Given estimated wait time	Music during wait time (Yes/No)
YES	3 minutes	YES
YES	5 minutes	YES
YES	7 minutes	YES
YES	5 minutes	YES
YES	5 minutes	NO
YES	3 minutes	YES
YES	2 minutes	YES
YES	2 minutes	YES
YES	1 minute	NO
YES	3 minutes	YES
YES	1 minute	NO
YES	7 minutes	YES
YES	5 minutes	YES
YES	5 minutes	YES
YES	3 minutes	YES
YES	0,5 minutes	NO
YES	2 minutes	YES
YES	5 minutes	YES
YES	0,5 minutes	NO
YES	5 minutes	YES
YES	7-10 minutes	NO
YES	3 minutes	YES
YES	1 minute	NO
YES	2 minutes	YES
YES	7-10 minutes	YES
YES	2 minutes	YES
YES	1 minute	YES
YES	2 minutes	YES
YES	1 minute	YES
YES	3 minutes	YES
YES	2 minutes	NO
YES	1 minute	YES
YES	1 minute	NO
YES	0,5 minutes	YES
YES	1 minute	NO
YES	7-10 minutes	YES
YES	7 minutes	YES
YES	0,5 minutes	NO
YES	5 minutes	YES
YES	5 minutes	YES
YES	3 minutes	YES
YES	2 minutes	YES
YES	0,5 minutes	YES
YES	5 minutes	YES
YES	0,5 minutes	YES
YES	2 minutes	NO
YES	3 minutes	NO

YES	5 minutes	YES
YES	5 minutes	NO
YES	2 minutes	YES
YES	1 minute	NO
YES	5 minutes	YES
YES	0,5 minutes	NO
YES	1 minute	NO
YES	1 minute	YES
YES	0,5 minutes	YES
YES	7-10 minutes	YES
YES	1 minute	NO
YES	7-10 minutes	YES
YES	2 minutes	YES
YES	5 minutes	YES
YES	2 minutes	NO
YES	3 minutes	YES
YES	4 minutes	NO
YES	5 minutes	YES
YES	2 minutes	YES
YES	2 minutes	YES
YES	2 minutes	YES
YES	5 minutes	YES
YES	7-10 minutes	YES
YES	0,5 minutes	YES
YES	1 minute	NO
YES	2 minutes	YES
YES	1 minute	NO
YES	1 minute	YES
NO		
NO	0 seconds	NO
YES	2 minutes	YES
YES	0,5 minutes	YES
YES	5 minutes	YES

Duration	Genre of Music Played	Slow tempo / fast tempo	BPM	Queue information
3 minutes	Ambient	Slow Tempo	060 BPM	YES
5 minutes	Corporation	Fast Tempo	140 BPM	YES
7 minutes	Corporation	Fast Tempo	130 BPM	YES
5 minutes	Classical	Slow Tempo	040 BPM	YES
-	-	-		YES
2 minutes	Corporation	Fast Tempo	130 BPM	YES
2 minutes	Classical	Moderate Tempo	100 BPM	YES
2 minutes	Jazz	Slow Tempo	050 BPM	YES
-	-	-	-	NO
2 minutes	Ambient	Slow Tempo	050 BPM	YES
-	-	-		YES
7 minutes	Jazz	Slow Tempo	080 BPM	YES
5 minutes	Corporation	Slow Tempo	050 BPM	YES
5 minutes	Pop	Slow Tempo	070 BPM	NO
3 minutes	Corporation	Fast Tempo	120 BPM	YES
-	-	-		NO
2 minutes	Corporation	Fast Tempo	120 BPM	YES
5 minutes	Classical	Slow Tempo	070 BPM	YES
-	-	-		NO
5 minutes	Pop	Fast Tempo	120 BPM	NO
-	-	-		YES
3 minutes	Jazz	Fast Tempo	110 BPM	YES
-	-	-		NO
2 minutes	Corporation	Fast Tempo	140 BPM	NO
8 minutes	Corporation	Fast Tempo	130 BPM	YES
2 minutes	Gospel	Slow Tempo	070 BPM	YES
1 minute	Pop	Fast Tempo	130 BPM	YES
2 minutes	Classical	Slow Tempo	060 BPM	NO
1 minute	Corporation	Moderate Tempo	100 BPM	NO
2 minutes	Ambient	Slow Tempo	040 BPM	NO
-	-	-		YES
1 minute	Corporation	Fast Tempo	110 BPM	YES
-	-	-		YES
0,5 minutes	Ambient	Slow Tempo	060 BPM	NO
-	-	-		YES
8 minutes	Jazz	Fast Tempo	130 BPM	YES
5 minutes	Jazz	Slow Tempo	090 BPM	YES
-	-	-		NO
5 minutes	Jazz	Slow Tempo	090 BPM	YES
5 minutes	Corporation	Fast Tempo	140 BPM	NO
2 minutes	Rock	Moderate Tempo	100 BPM	NO
2 minutes	Corporation	Fast Tempo	120 BPM	NO
0,5 minutes	Ambient	Slow Tempo	080 BPM	YES
5 minutes	Corporation	Moderate Tempo	100 BPM	NO
0,5 minutes	Corporation	Fast Tempo	130 BPM	NO
-	-	-		YES
-	-	-		YES

5 minutes	Pop	Fast Tempo	120 BPM	NO
-	-	-		NO
2 minutes	Corporation	Fast Tempo	110 BPM	YES
-	-	-		NO
5 minutes	Gospel	Moderate Tempo	100 BPM	YES
-	-	-		NO
-	-	-		NO
1 minute	Classical	Moderate Tempo	100 BPM	NO
0,5 minutes	Ambient	Slow Tempo	040 BPM	NO
8 minutes	Classical	Slow Tempo	080 BPM	YES
-	-	-		NO
8 minutes	Jazz	Slow Tempo	040 BPM	YES
2 minutes	Ambient	Slow Tempo	060 BPM	NO
5 minutes	Ambient	Slow Tempo	050 BPM	NO
-	-	-		NO
2 minutes	Jazz	Slow Tempo	060 BPM	YES
-	-	-		NO
5 minutes	Pop	Fast Tempo	120 BPM	NO
2 minutes	Ambient	Slow Tempo	050 BPM	YES
2 minutes	Corporation	Fast Tempo	120 BPM	YES
2 minutes	Pop	Fast Tempo	120 BPM	NO
5 minutes	Jazz	Fast Tempo	110 BPM	NO
8 minutes	Corporation	Fast Tempo	120 BPM	YES
0,5 minutes	Ambient	Slow Tempo	070 BPM	YES
-	-	-		NO
2 minutes	Jazz	Moderate Tempo	100 BPM	
-	-	-		NO
1 minute	Rock	Fast Tempo	110 BPM	NO
-	-	-		NO
2 minutes	Ambient	Slow Tempo	050 BPM	NO
0,5 minutes	Corporation	Fast Tempo	130 BPM	NO
5 minutes	Corporation	Slow Tempo	060 BPM	NO

Promotion of the brand	Apology	Combination of music and a message
YES	NO	YES
YES	NO	YES
YES	NO	YES
YES	NO	YES
YES	YES	YES
YES	NO	YES
YES	YES	YES
YES	NO	YES
NO	NO	NO
YES	NO	YES
YES	NO	YES
YES	NO	YES
YES	NO	YES
NO	NO	NO
YES	NO	YES
NO	NO	NO
YES	NO	YES
YES	NO	YES
NO	NO	NO
NO	NO	NO
YES	NO	YES
YES	NO	YES
NO	NO	NO
NO	NO	NO
YES	NO	YES
YES	YES	YES
YES	YES	YES
NO	YES	NO
YES	NO	YES
NO	NO	NO
NO	NO	YES
YES	NO	YES
YES	NO	YES
NO	NO	NO
YES	NO	YES
YES	NO	YES
YES	NO	YES
NO	NO	NO
YES	NO	YES
YES	NO	YES
NO	NO	NO
YES	NO	YES
YES	NO	YES
NO	NO	NO
YES	NO	YES
NO	YES	YES
NO	NO	YES

YES	NO	YES
NO	NO	NO
YES	NO	YES
NO	NO	NO
YES	NO	YES
NO	NO	NO
NO	NO	NO
YES	NO	YES
NO	NO	NO
NO	YES	YES
NO	NO	NO
YES	NO	YES
NO	NO	NO
NO	NO	NO
YES	NO	NO
YES	NO	YES
NO	NO	NO
YES	NO	YES
YES	NO	YES
YES	NO	YES
NO	YES	NO
YES	NO	YES
YES	NO	YES
YES	NO	YES
YES	NO	YES
NO	NO	NO
YES	NO	YES
NO	NO	NO
NO	NO	NO
YES	NO	YES
YES	NO	YES