Design thinking in the customer journey in a sports center

Design pensando na jornada do cliente em um centro esportivo

Priscila Pasti Barbosa¹
Felipe Facco Mendes Ferreira²
Evandro Bezerra Soares³

Abstract

Design thinking and the customer journey play a fundamental role in improving service in sports centers. By adopting user-centered approaches, sports facilities can better understand patrons' needs, wants and experiences. Design thinking allows managers of these centers to identify opportunities for innovation, develop creative solutions to improve facilities and services, and test these ideas in collaboration with users. By mapping the customer journey, from the first interaction to the post-experience, it is possible to identify critical touchpoints and areas for possible improvements. This not only creates more attractive and functional sporting environments, but also helps build stronger customer relationships, promoting loyalty and satisfaction, which are critical to the long-term success of these establishments. In this article, the authors developed an understanding of the experience that customers of a sports complex are obtaining in relation to the service offered. To achieve this objective, they examined existing definitions and conceptualizations through a brief systematic review of the literature. They then used the design thinking approach and its customer journey tool, in which

---

¹ PhD Student in Engineering Production by Universidade Federal de São Carlos (UFSCAR), Rod. Washington Luís, s/n, Monjolinho, São Carlos - SP, CEP: 13565-905. E-mail: ppbarbosa2@uem.br
Orcid: https://orcid.org/0000-0003-2872-2753

² PhD Student in Engineering Production by Universidade Federal de São Carlos (UFSCAR), Rod. Washington Luís, s/n, Monjolinho, São Carlos - SP, CEP: 13565-905. E-mail: felipefaccomf@gmail.com
Orcid: https://orcid.org/0000-0002-4870-3800

³ PhD Student in Engineering Production by Universidade Federal de São Carlos (UFSCAR), Rod. Washington Luís, s/n, Monjolinho, São Carlos - SP, CEP: 13565-905. E-mail: evandrobezerrasoa77@gmail.com
Orcid: https://orcid.org/0000-0003-2090-5950
 personas were determined for the sports complex. Next, they carried out the visual development of the customer journey using the value proposition canvas tool, thus obtaining a description of the personas, their journey, what is expected and what they receive from the service, the sentiment curve, as well as their opportunities and pain. Finally, the authors arrived at 3 personas, totaling 25 points of contact, which made it possible to develop actions with the aim of improving the customer experience in the case in question.

**Keywords:** Design Thinking. Customer Journey. Customer Experience.

**Resumo**

O pensamento de design e a jornada do cliente desempenham um papel fundamental na melhoria do serviço em centros esportivos. Ao adotar abordagens centradas no utilizador, as instalações desportivas podem compreender melhor as necessidades, os desejos e as experiências dos clientes. A metodologia de design permite que os gerentes desses centros identifiquem oportunidades de inovação, desenvolvam soluções criativas para melhorar instalações e serviços e testem essas ideias em colaboração com os usuários. Ao mapear a jornada do cliente, desde a primeira interação até a pós-experiência, é possível identificar pontos de acesso críticos e áreas para possíveis melhorias. Isso não só cria ambientes esportivos mais atraentes e funcionais, mas também ajuda a construir relacionamentos mais fortes com os clientes, promovendo lealdade e satisfação, que são fundamentais para o sucesso a longo prazo desses estabelecimentos. Neste artigo, os autores desenvolveram uma compreensão da experiência que os clientes de um complexo esportivo estão obtendo em relação ao serviço oferecido. Para alcançar este objetivo, eles examinaram as definições e conceptualizações existentes através de uma breve revisão sistemática da literatura. Eles então usaram a abordagem de design thinking e sua ferramenta de jornada do cliente, na qual as personas foram determinadas para o complexo esportivo. Em seguida, realizaram o desenvolvimento visual da jornada do cliente utilizando a ferramenta de tela de proposta de valor, obtendo assim a descrição das pessoas, sua jornada, o que se espera e o que recebem do serviço, a curva de sentimento, bem como suas oportunidades e dor. Por fim, os autores chegaram a 3 personas, totalizando 25 pontos de contato, o que permitiu desenvolver ações com o objetivo de melhorar a experiência do cliente no caso em questão.

**Keywords:** Design Thinking. Viagem ao Cliente. Experiência do Cliente.
Introduction

The concept of customer experience was introduced in the 1950s by researchers who focused their studies on customers' desires to live extraordinary experiences instead of just purchasing products. Brito (2020) reports that the best-known definition of customer experience originated in 1999 by the author Schmitt (1999) which proposed a structure of five classes of experiential modules: sensory, affective, cognitive, behavioral, and relational. In line with Schmitt's definition, another author, Verhees et al. (2017), defined the customer experience as being a “holistic multidimensional construct that from a retail perspective, encompasses consumers’ responses, in terms of emotion, affect, physical cognition and society, to retailers”. Also, corroborating Schmitt (1999) definition, Bolton et al. (2014) states that customer experience involves cognitive, affective, emotional, social, and sensory responses from customers to the company.

Gustafsson et al. (2015) states that customer experience, and consequently customer relationship management, has always been an important topic in services research. And Canfield, Gallon, and Corte (2017) state that services have specific characteristics that can be personalized, and that in this way, companies are focused on customer needs. Recently, the concept of customer experience has been extended within multichannel literature (ROSENBAUN; OTALORA; RAMÍREZ, 2017). In this way, researchers began to focus on customer perceptions and responses (GUSTAFSSON et al., 2015; ROSENBAUN; OTALORA; RAMÍREZ, 2017). Verhees et al. (2017) reports that interestingly most of the knowledge on customer experience came from management magazines or books, thus making it an excellent area for future research. The authors also report that one of the main reasons for the increased interest in customer experience is the adoption of the multichannel strategy by companies, allowing customers to reach them in various ways.

Thus, customers are looking for offers that generate greater value or greater utility of services. As these are difficult parameters to measure or observe directly, researchers have been developing tools that help in modeling their preferences (KUMAR; REINARTZ, 2016). In this context, omnichannel is the result of advances in digital services, it integrates different channels such as online, physical, social media throughout the customer journey, thus enabling a profound transformation of consumer behavior and the emergence of new multichannel behaviors. The integration of channels throughout the purchasing process has become a priority for better customer service (BRITO, 2020).

In view of this, the Customer Journey is a tool that seeks to map the essential moments
that the consumer experiences during their interaction with the company. Interaction with the company is defined by many authors as the customer experience and is becoming a competitive differentiator (CANFIELD; GALLON; CORTE, 2017). Rosenbaum, Otalora e Ramirez (2017) define that the fundamental idea behind Customer Journey Mapping is a visual representation of the sequence of events through which customers can interact with a service company throughout the purchasing process. Such mapping lists all possible touchpoints that customers may encounter during the service exchange process.

In this way, by clearly understanding customer touchpoints, the company can work with members of a cross-functional team employing tactics that promote service innovation (KÖLSH et al., 2017). The use of abstract representations of the user has becomes an important tool. Known as Personas, these abstract representations are clearly memorable definitions of users that remain visible in the minds of those who design products and services. When applying the concept of persona, the social role of a person in a specific context is identified (GRUDIN; PRUITT, 2002). To define customer needs, the concept of jobs-to-be-done provides a common language. It shows a complex set of multilayers and how they should be categorized and organized. Knowing exactly what the customer needs and defining what the customer needs changes everything for a company (ULWIK, 2017). It is in this context that Design Thinking (DT) comes into play. The DT stages go through the customer's journey, up to the generation of ideas, research, and prototyping, based on various potentialities, scribbles, drafts and other practices based on the designer's thinking. DT is a concept that promises greater innovation through a more user-centered approach (ARBEX; FIALHO; RADOS, 2014).

In this work two DT tools are used, the shadowing tool and the Value Proposition Canvas tool. The shadowing tool is an observation technique widely implemented in user research. In this technique, the researcher accompanies the user and observes how he uses the product or service in his natural environment (DOBRIGKEIT; PAULA, 2019). The Value Proposition Canvas provides a detailed view of the relationship between two parts of the Business Model Canvas, being formed based on two building blocks, on one side the customer profile and on the other the company's value proposition (SILVA, 2012). In this way, this article aims to develop a stronger understanding of the customer experience and the customer journey to identify critical gaps in the service offering and thus help the strategic management team of a sports complex understand which touchpoints are more or less critical to the customer experience.
Methodology

Since the main purpose of this work was to understand in depth the customer's behavior when using a service, this work is characterized as being of an applied nature, as it generates knowledge through a practical application in a specific problem, thus having, a qualitative approach (GRAY, 2012). From the point of view of objectives, this is an exploratory research, based on the use of bibliographical research and case studies (OLSEN, 2015). The first stage of the work was to carry out a brief systematic bibliographic review using information sources from databases (Scielo, Elsevier, Science Direct, etc.), Annals of Design events (International Congress of Design Research, Participation and Design Conference and Join Meeting on European Software Engineering Conference) and theses and dissertations on the relevant topics of the research theme. The approach chosen for developing the systematic bibliographic review was the theory building approach based on the propositions of Seuring et al. (2021). Table 1 shows the steps adopted for the approach used.

<table>
<thead>
<tr>
<th>Theory element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition (who and what)</td>
<td>The study focuses on service experience, design thinking, persona building, customer journey and service improvement strategies.</td>
</tr>
<tr>
<td>Limits and limitations</td>
<td>- Used 14 international articles, 2 articles from international conferences and 3 theses and dissertations on the research topic.</td>
</tr>
<tr>
<td></td>
<td>- Inclusion criteria: articles from 2002 to 2021.</td>
</tr>
<tr>
<td>Variables and causalities</td>
<td>- Content analysis (categories and subcategories coded by relevant themes)</td>
</tr>
<tr>
<td></td>
<td>- 5 groups and 13 subgroups were obtained (Figure 1).</td>
</tr>
</tbody>
</table>

Table 1 – Theory Construction Approach according to Seuring et al. (2021)

Figure 1 illustrates the sources used in the research in cluster form, identifying the 5 divided groups and their 13 subgroups.

![Figure 1](image1.png)

Figure 1 – Sources and nodes clustered by word similarity

Source: Own authorship

The subjects covered in the theoretical foundation were based on the nodes generated...
in clusters by word similarity using the similarity metric “Pearson correlation coefficient”, shown in Figure 1. This is a quantitative study, as the assessment of quality in the provision of restaurant service was carried out using numerical indicators and statistical criteria. It has a descriptive nature, as according to Gerhard and Silveira (2009 apud FONSECA, 2002) studies with these characteristics aim to describe facts and phenomena of a given reality. The second stage of the work was the application of the case study. For this stage, the Design Thinking approach was used through the Customer Journey tool. To carry out the customer journey, the shadowing tool “shadow and interview” by Vianna et al was also used. (2012). In this way, the shadows, which are an observation technique, were applied in a descriptive way. To this end, customers and their behaviors were observed in the physical environment at all stages of the service. The interviews were conducted using a semi-structured questionnaire applied to key participants.

The interview script was constructed with twenty questions divided into three categories: ten questions to identify the persona (age, gender, marital status, dependents and children, profession, working hours and family income, which sports brands they consume, whether pets and would be taken into the arena); five questions to analyze the pre-service experience (wants and needs, favorite social networks, which sport you practice most, monthly fee plan) and five questions to analyze the post-service experience (reasons that made you choose the Arena, pain, what can improve, what makes him dissatisfied, has a situation ever occurred that left you unhappy or dissatisfied). This interview guide was carried out individually, with specific customers of the Sports Center, with the aim of identifying the entire customer journey. In total, 44 responses were collected, which varied from respondent to respondent depending on their personal and consumption behaviors. After applying the shadowing tool by Vianna et al. (2012), another Design Thinking tool was used for data analysis and synthesis, the personas tool. Using this technique, three personas or fictional characters were created based on customer behavior. Finally, for the visual development of the customer journey, we used the “value proposition canvas” tool, with which it was possible to visually create the customer profile and the value map for each persona. In this way, in the end, for each persona, a table was generated with a description of the persona, their journey, what they expect and what they receive, their curve of feelings, their opportunities and their pain points and so on. Finally, the action plan for the pain identified.
Results and Discussion

With the application of Design Thinking, approaching the shadow tools and interviews observed in a group of 44 people who frequent the sports complex, it was possible to define three types of personas: Manoel, Joaquim and Maria and João, Olivia and Davi. To determine the personas, 20 questions were created related to the personal characteristics of each customer and their view of the services that the sports complex offers. In this way, the questions were based on the DT, through the interview technique, following the determined script and approaching each member within the sports complex. Within the structured interview, issues such as: age, gender, marital status, dependents, average monthly income, motivation to attend the Sports Center and dissatisfactions were addressed.

From the interview, data was obtained from each member interviewed. In relation to age, it was determined that the largest number of members of the sports complex are within the age range of 20 to 30 years, representing 60% of members. Another age group that is highly relevant among members is 31 to 40 years old, represented by 28% of members. When questioning the gender of the interview participants, it was found that the largest number of members of the sports complex are female, representing 54.5% of the total. However, the male audience also has a large representation, with 45.5% of the total. Regarding the marital status of members, it was found that the largest number of members of the sports complex have a single marital status, represented by 53.5% of members. Members with a married marital status represent 46.5%, distributed between the couple and family plans offered by the sports complex.

As it is a family environment, members were asked whether or not they have dependents who frequent the sports complex. When conducting the interview, it was found that the largest number of members of the sports complex do not have dependents, representing 61% of members. In relation to average family income, it was found that the majority of members who attend the sports center have a monthly family income of 3 to 6 minimum wages. It is also possible to verify that the number of low-income members (1 minimum wage) is minimal (less than 3%), and 24% of those interviewed preferred not to answer this question.

Another issue that was addressed was the reasons why members visit the sports center. For this question, each individual was free to describe their feelings. Among the desires and needs most mentioned in the interview is the friendship that members create and cultivate within the center. Next, the largest number of responses focused on the health that the complex's activities provide. Finally, the environment also prevailed in a large number of
responses from associates, as it provides well-being for the people around them. The situations that make associates unhappy were also addressed in the interview, aiming to identify the sports center's biggest failure points and understand the customer's pain points. The lack of availability of times for the games was the predominant discomfort in the interview with the members. In order to carry out the games, each member must establish the time for their game in the timetable. The games table is available every day at the same time, so each member must be careful to note their time and make their reservation.

Another major discomfort encountered was the size of the space in which players have to perform serves and movements outside the line that demarcates the court. This space is very short, which ends up making some plays impossible, both in beach tennis and sand volleyball. The bathrooms also cause some discomfort for customers, as they lack infrastructure factors, such as: hot water in showers, shower stalls, soap dishes and cabinets. Thus, with the analysis of the entire structured script with the interview of those associated with the sports center, it was possible to define three personas. In this way, the persona Joaquim and Maria is made up of two individuals who are married or in a stable relationship, without having any dependent over 12 years of age as an associate. The Manoel persona is characterized by only one individual linked to the association, who may have dependents up to 12 years of age enjoying the benefits of the association. For the last persona, João, Olivia and Davi, the characteristic is two individuals who are married or in a common-law relationship, in which they have an individual over 12 years of age included in the association. From the creation of personas, with the help of the shadowing tool, design thinking, it was possible to create an empathy map based on the profile of each user of the sports complex. The empathy maps created addressed the six reflections present in the map, for a better understanding and desires of its customers. Figure 2 shows the map of the personas created.

Manoel, who represents individual members, has his main feelings related to physical well-being and finding new friends or even a partner. The environment that this persona sees
is a place aligned with their thoughts, in which the environment surrounding the bar has ample space for socializing, with a pleasant atmosphere and a view of all the sports courts. Your appearance and conduct are consistent with your desires and interests, as your clothes are from renowned and eye-catching brands, to provide you with better well-being and elevated social status. In addition to this persona having several contacts for socialization, social networks are another source of influence and personal disclosure. Their biggest pains are the lack of time to practice their sports, the wear and tear on their equipment and the infrastructure of the sports complex.

The Persona Joaquim and Maria represents those associated with partners in the complex. Their main feelings are related to their interaction in a specific sport, competing with another couple, to demonstrate their strength and unity, providing mental and physical health. For this persona, the observed environment must be pleasant, have good service in general and have a good variety of sports that can be practiced mainly in pairs. Joaquim and Maria's actions are the most restricted, as at first, their interaction is with their partner and later with their mutual friends, in addition to seeking comfort and inner peace with the local environment.

In addition to personal well-being, the opinion of others and the collective generates a strong influence on this persona, affecting the couple's interaction on social networks and their consumption. The main pain points highlighted are related to lack of opening hours in some courts (due to crowding at peak times), non-compliance with schedules by some members when entering and leaving courts, temperature of drinks and poorly maintained toilets. The needs are focused on the need for more food options, in order to provide greater duration and quality at the time for partners, as well as greater control and rigor in the adaptation and scheduling of the courts.

Finally, Persona João, Olivia and Davi represent the family associates. With the well-being and quality of life of the family as a whole in mind. Still with the aim of improving the quality of life and well-being of the family, this persona sees the harmonious environment and interactions of the entire complex, an excellent facilitator to achieve this goal. This persona mainly seeks quality of life, family, and seeks comfort and values all activities that can be carried out as a family. The opinions and insights of family friends are in line with their thoughts and actions.

The most frequently mentioned pain points for this persona are the lack of paving in parking lots, noticed especially on rainy days, and worn-out sports equipment due to use and/or weather factors. The needs identified would be the expansion and maintenance of the courts and a greater variety of food, so that the family can enjoy all the services. From the perception
of the empathy map of the three personas, it was observed that they think and feel that well-being, playing sports and interactions between those closest to them are the essential points for this reflection.

Next, the Value Proposition Canvas tool was used to align customer needs with the services/products offered by the sports center. Organizing the customer's profile on one side, with their gains, pains, and tasks and on the other the Center's value proposition, with the products offered, pain relief and gain creators (Figure 3).

![Figure 3 - Value Proposition Canvas of the Sports Center Personas](source: Own authorship)

For Persona Manoel, his profile aims to improve his health, consolidate friendships and relationships with other people. Their pain is due to few friendships, depression, long working hours and being overweight. As a task, the aim is to improve your state of mind and physical state, expand your network and practice sports. On the company side, the services/products offered, as well as the profit creators, are the varieties of sporting activities offered, a place with a pleasant environment and conducive to a large volume of people. Pain relief is related to the interaction between members and the influence on sports practice.

The Persona Joaquim and Maria, has in its profile characteristics, gains related to health, consolidation of friendships, especially with other couples and the practice of activities with their partner. Its tasks are to practice sports, for physical and mental well-being. The pains that afflict this person are sedentary lifestyle, being overweight, due to the lack of activities, which require little physical effort, and which can be carried out together. Although the persona Joaquim and Maria do not have dependents over the age of twelve who attend the sports center, in some cases, the persona in question has children/dependents, under the age of twelve, who accompany them and do not feel safe leaving them on site.

On the company side, due to its old, large and well-treed infrastructure, the place presents a family and peaceful environment, providing a high frequency of members and as it has a large structure, the sports activities offered aim to encompass all needs. The products and services offered range from sports materials and equipment used for sports, to food and
training, to improve performance. Aiming to alleviate Joaquim and Maria's pain, the sports complex provides excellent contact between couples and when practicing sports, the recreation environment is spacious, but leaves something to be desired in terms of children's safety.

Persona João, Olivia and Davi has similar characteristics to Persona Joaquim and Maria, however, João, Olivia and Davi have at least 1 dependent over the age of twelve and are more flexible in contact with other people. This Persona's earnings are based on personal relationships with his family members and all other associates, in parallel with his health. Your tasks as clients are practicing sports, whether individually or with your family, leisure and adequate nutrition. The pains presented in this profile are overweight and a sedentary lifestyle, caused mainly by the family’s lack of time for leisure and exercise. For a sports center, its main gain creators are related to the general environment and good relationships with other members. Offering great materials, equipment and teachers for sports, an environment for children's recreation and healthy food. As a relief from pain, the sports center provides an environment for interaction between families, an environment for children's recreation and a strong influence on the practice of sports.

Finally, in order to identify each customer's satisfaction and frustrations in their experiences at the sports center, a customer journey was created for each persona. The customer journey carried out includes the point of contact between the company and the customer and what they expect to receive and what they actually receive, what their satisfaction is at each point of contact and what their opportunities and pain points are. In all journeys, the stages, and consequently the points of contact, are similar, as the services and products available are the same, however, the time of use and the way in which customers use them, makes some points of contact are repeated, thus increasing the points to be analyzed on the journey.

On Persona Manoel's journey, 8 points of contact were identified between the persona and the sports center. The point of contact that begins Manoel's journey occurs via social media or contact with the office to carry out the association. The second point is when the member arrives at the sports center and checks in at the guardhouse to be able to enter. Upon entering, the member goes to the tables to prepare to practice their sport or have a moment of socializing with friends and get in touch with the attendants or owner-partners, who are always present.

After preparing and arriving at the moment when their training will begin, the client moves to the court to carry out the activity with other members or meets the coach, featuring another point of contact. The next point of contact is the class held between associate and teacher, during their own time. After the class ends, the member returns to their table at the bar and places an order, whether for drinks or food. Finally, he heads to his vehicle, passes the
guardhouse, his last point of contact, and leaves the sports complex. The feeling curve for Persona Manoel mostly presents regular satisfaction rates, with excellent opportunities for improvement.

Persona Joaquim and Maria, as they are the most introverted persona and interact less with other associates, have fewer points of contact, totaling 6 points. The interactions of Joaquim and Maria, as well as the other personas, begin with contact via social media or office, for the association. The second point is when the member arrives at the sports center and interacts at the guardhouse. As the couple arrives at the sports center ready to practice their activity, their third and fourth point of contact is interaction and training with the coach, if the person does not practice with another member. After completing the sports practice, Joaquim and Maria move to a table in the bar, starting another point of interaction with the attendant or an owner partner, then placing the order. After consumption, Joaquim and Maria move to the vehicle and make the last point of contact at the guardhouse. This persona's satisfaction at points of contact is good or regular, with good opportunities for improvement in the future.

Finally, Persona João, Olivia and Davi have 11 points of contact throughout their journey, indicating that their persona most enjoys and spends their time at the sports center. The first 3 points of contact for João, Olivia and Davi are identical to Manoel's, in which a first contact is made for the association, then at the guardhouse and at the bar with the attendants or owner partners. Because he has a dependent, this persona has a point of contact to purchase drinks and food for the whole family. After purchasing and it's time to practice their activity, João and Olivia take Davi to the recreation area for the entertainer and head to the court, continuing on to the other point of contact with the coach. The seventh point of contact is the persona’s training with the coach.

After the class ends, the couple moves to the next point of contact, with the entertainer, to meet their dependent and return to their table at the bar, so that they can contact an attendant and make a purchase before leaving. move to the guardhouse and go to the house. This persona's satisfaction ratings were the most negative, with 8 reasonable results and only 3 with good ratings. With the reasonable assessment comprising around 72.72% of reasonable points, the opportunities, and ways of improving at each stage expanded, due to the problems addressed.

Conclusion and Implications

The work sought to identify the points of contact in the customer journey in order to
understand how different personas experience the same service at the Sports Center. The results showed 3 personas totaling 25 points of contact. The three personas had different aspects during their journey. The main difference was between persona 1 (Manoel) and persona 3 (João, Olívia and Davi). The first 3 points of contact (association, then at the guardhouse and at the bar with the attendants or owner partners) are identical for the two personas, however, after that, they follow very different paths. The journey of the persona João, Olívia and Davi was the most complete among the 3 personas, with 11 points of contact, due to the addition of the child and the recreation environment.

It is worth noting that the shadows and interviews identified not only the 25 points of contact experienced by customers, but also who these customers were. Touchpoints served to signal customer behavior and its influence in context. In this context, for Sports Center owners, the results suggest the importance of analyzing the customer journey in order to improve the service processes and strategies outlined at the Sports Center. The main contributions of the Design Thinking methodology were the use of the persona tool, fundamental for separating customers into three distinct personas, the use of the shadowing tool that provided records of customer interactions and finally, the use of the semi-structured questionnaire that provided support visual and strategic to develop the customer journey.

As limitations of the work, we can mention the number of research participants (44 participants) and the 14-day period for data collection. It is also highlighted that the regional culture where the work was applied can impact the results, making it interesting to research the cultural dimension. Finally, it is suggested to expand the work with the aim of understanding how customers feel at each point of contact, especially those who are dissatisfied, so that the Sports Center can improve the quality of the service.

References


Submetido em: 30.09.2023
Aceito em: 01.11.2023