A study on user experience design (UX design) perception and practices by young iPhone users from Rio

Um estudo sobre percepção e práticas de user experience design (UX design) por jovens usuários cariocas de iPhone

João Renato de Souza Coelho Benazzi^{I,II} 📵, Sabrina Uderman^I 📵

ABSTRACT

This study aims to investigate how UX Design processes are perceived by iPhone users, considering the usability of the interface and what is the impact of this perception on the consumption behavior of the users. Solomon (2016) perspective was investigated in relation to consumer behavior regarding their attitude and perception, directly and indirectly impacting their behavior towards Apple; in addition to the perspective of Nielsen (1993) and Norman (1998) regarding the technical issues that UX (user experience) covers and finally Zikmund and Babin (2011) perspective regarding the implementation, treatment and analysis of the Focus Group. The main contributions of the study point to the high relevance of high-quality perception of UX design in promoting relevant consumer experience, which covers issues related to intuitiveness, usability, UI and even aesthetic values in promoting the construction of long-term customer loyalty with the product and, consequently, with the brand. This can be explained by the fact that the iPhone has an operating system that is perceived as very easy to use. In this way, it ends up being practical for the user to have an iPhone to perform everything from their work tasks to those that are part of their daily lives quickly and conveniently.

Keywords: Consumer behavior. UX Design. Interface. Usability. Focus group.

RESUMO

O presente estudo investigou como os processos de user experience design (UX design) são percebidos pelos usuários de iPhone levando em consideração a usabilidade da interface e o seu impacto na percepção e no comportamento de consumo de jovens usuários do Rio de Janeiro. Investigou-se a perspectiva de Solomon (2016) em relação ao comportamento do consumidor no que diz respeito aos conceitos de atitude e percepção, além da ótica de Nielsen (1993) e Norman (1998) quanto às questões técnicas que a UX (experiência do usuário) abrange e, por fim, das contribuições de Zikmund e Babin (2011) no que tange a realização, tratamento e análise do grupo focal. As principais contribuições do estudo apontam para a alta relevância de percepção de alta qualidade da UX design em promover experiência de consumo relevante no que abrange questões relativas à intuitividade, usabilidade, interface de usuário e até mesmo a valores estéticos, promovendo a construção de uma fidelidade de longo prazo do usuário com o produto e, consequentemente, com a marca. Esse fato pode ser explicado por o iPhone possuir um sistema operacional percebido como de muito fácil uso. Dessa forma, acaba sendo prático para o usuário ter um iPhone para realizar desde suas tarefas de trabalho até as que fazem parte de seu cotidiano, de maneira rápida e conveniente.

Palavras-chave: Comportamento do consumidor. UX Design. Interface. Usabilidade. Grupo focal.

Received on: 02/21/2024. Accepted on: 03/13/2024.

^{&#}x27;Pontifícia Universidade Católica do Rio de Janeiro – Rio de Janeiro (RJ), Brazil. E-mails: jbenazzi@gmail.com; sabrina.u@hotmail.com

[&]quot;Universidade do Estado do Rio de Janeiro – Rio de Janeiro (RJ), Brazil.

INTRODUCTION TO THE TOPIC AND STUDY PROBLEM

Mobile technology has played a pivotal role in our lives, revolutionizing how we communicate, access information, and engage with the world. In this context, mobile devices have emerged as versatile and indispensable tools, with the iPhone, manufactured by Apple, standing out as one of the most popular and influential devices in this market.

User experience and design play a crucial role in how individuals interact with and perceive these devices. Through user experience design (UX design), companies aim to create products and services that are intuitive, efficient, and enjoyable to use, while considering users' needs and expectations. As described by Norman (1998, p. 57), "UX Design is the way an individual feels the world, it is the way they experience a service, an application, or a computer system. But it is a system. It's everything!".

Among iPhone users, a particular group deserves special recognition: young people from Rio de Janeiro. The city of Rio de Janeiro (RJ), renowned for its vibrant and culturally diverse lifestyle, is home to a generation of young individuals who have grown up immersed in the digital world. They extensively utilize mobile devices as an integral part of their daily lives.

The object of study in this article is young people from Rio de Janeiro, particularly those residing in the south zone and who are consumers of the Apple brand, specifically iPhone users. The research explores how user experience (UX) influences the consumption behavior of this audience. The study aimed to investigate how UX design practices are perceived by this demographic, with a specific focus on understanding how young iPhone users in Rio de Janeiro perceive UX design practices and the consequences of this perception on their device usage. The ultimate objective of this research was to determine whether young users from Rio de Janeiro perceive a distinct experience when using the iPhone and how this perception influences their relationship with the Apple brand.

Kucheriavy (2015) suggests that UX design is a crucial strategy for customer relationship management and retention. A well-executed design and a seamless and intuitive user experience enhance user satisfaction, thereby strengthening the bond with the brand or product. According to the author, companies that excel in customer experience have notably outperformed the S&P index, yielding returns nearly three times higher compared to their counterparts.

THEORETICAL FRAMEWORK: USER EXPERIENCE THROUGH UX DESIGN PROCESSES AND TOOLS

In the 1990s, interface design predominantly emphasized the creation of visual and interactive interfaces for computer systems, emphasizing concepts of user interface (UI) and usability. Donald Norman (1998) recognized the limitations of this approach and advocated for a more holistic view that incorporated users' emotions. At Apple, where he founded the User Experience Architect Group, he spearheaded

the adoption of a UX approach, acknowledging the necessity to surpass mere usability. Norman (1998) played a pivotal role in popularizing the significance of considering emotions in the user experience.

Norman (1998) portrays user experience as encompassing everything related to the product/service experience, such that the experience can be conveyed orally when individuals discuss a particular product, even if it is not physically present. Therefore, it is the responsibility of the UX designer to create products and services with humans at their core, ensuring their usability is intuitive, practical, and engaging, thereby evoking positive emotions in the user.

In the digital realm, such as with the iPhone, UX occurs primarily through an interface. The user's interaction with the iPhone interface is examined through the concept of UI. When contemplating UI design, the focus is on creating an interface that minimizes moments of uncertainty for the user, clearly communicates the outcomes of their actions, and enables users to complete tasks in a simple and efficient manner, as outlined by Nielsen (1993).

Hence, alongside UI and UX, it is essential to mention usability, which, as defined by Nielsen (1993), encompasses the quality attribute used to assess the ease of use of an interface. The term *usability* also pertains to methods employed to ensure ease of use during the design process.

Since the early 1990s, Nielsen (1993) has addressed what he refers to as "best practices: methods by which users of a given product/service can achieve maximum efficiency and satisfaction." Among the usability aspects, the author emphasizes five attributes that can be measured to evaluate user experience:

- Ease of learning (learnability): relates to the user's ease when performing basic tasks for the first time during use;
- Efficiency of use: from a quantitative perspective, it is possible to determine the resources used when performing tasks and executing routines;
- Ease of recall (memorability): even after a period without using the product or service, it is possible to identify the ease with which users can work with it again;
- Error prevention and avoidance: when it is identified that usability can prevent or correct errors that are frequently made by users;
- Satisfaction: identifying how pleasant the product or service is, making users more willing to use it again.

In addition to these attributes, there are also goals, which function as indicators and will ensure good usability. Namely:

- Effectiveness: being effective in use;
- Efficiency: being efficient in use;
- Safety: being safe and providing security to users;
- Usefulness: being of good quality;
- Learning: being easy to learn;
- Memorization: being easy to remember how to use.

The shift towards prioritizing UX prompted companies to recognize the importance of investing in its enhancement. Experts like Nielsen (1993) and Goodwin (2009) have offered valuable guidelines, such as the 10 usability heuristics, for developing user-centered products. This underscores the understanding that user experience is pivotal to a company's success in the market. As noted by Zaguetto (2020), user experience represents the significant difference between the success and failure of any business, as a positive experience has the potential to propel the company's business forward, while a negative one can undermine all possibilities for growth.

Zaguetto (2020) highlights that consumers are drawn to stores offering more accessible and user-friendly products, along with services/applications that minimize waiting times and swiftly address their needs, thereby simplifying the overall experience.

In the context of the project aimed at mapping UX design practices among young iPhone users from Rio de Janeiro, adopting a multidisciplinary approach is crucial. This entails developing personas and utilizing tools such as empathy mapping and user journey mapping to gain a comprehensive understanding of users' needs and preferences. The UX research phase, employing benchmarking, interviews, and data collection, is instrumental in gathering valuable insights.

During the ideation phase, creativity is harnessed to generate solutions that address users' needs. Low-fidelity prototypes enable rapid testing of ideas. Subsequently, medium or high-fidelity prototypes are developed, incorporating screen flows utilizing a design system and tools like Figma. Usability and quality tests are pivotal in ensuring the effectiveness of solutions, with application options including Call, Maze, Figma, and Testflight. Finally, documenting all project stages is essential, utilizing collaborative tools such as Notion and Figma.

However, as noted by Agni (2016), it is imperative to emphasize that genuine user or consumer needs can only be identified through direct engagement with people. Technology and innovation can only be effective when aligned with the objectives of human beings.

User-centered design has four basic steps, according to Agni (2016):

- Requirements identification: gathering needs and understanding user pain points through research, observations, and interviews;
- Creation of alternative solutions: ideation phase, in which hypotheses of solutions are raised for the identified needs;
- Building testable prototypes: stage in which ideas are taken from paper and testable models of what the product could become are created;
- User evaluation: stage where prototypes are taken for user testing, collecting feedback on the features that are OK and those that can be improved.

Therefore, as Agni (2016) asserts, the evolution of interface design underscores the transition toward UX. The present project necessitates a multifaceted approach to comprehending users and crafting solutions tailored to them. User-centered

design is the process whereby focus is consistently placed on the needs, desires, and limitations of users at every stage of the project, from conception to product launch.

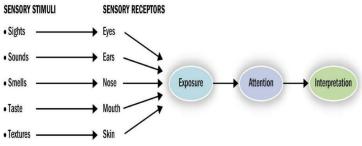
Consumer attitude and perception toward the iPhone usage experience and the Apple ecosystem

The usability of technological products, and consequently, UX, are pivotal in how consumers perceive and adopt innovative devices like the iPhone. Nielsen (1993) defines usability as the ease of use and efficiency in interacting with a system or product. Consumers' perception of usability and their experience while navigating a technological device directly influences their attitudes and intentions toward it, as emphasized by Davis (1989). Consumer attitudes toward the usability of the iPhone directly impact their overall evaluation of the device (Ajzen & Fishbein, 1980).

Research such as that conducted by Moon and Kim (2001) underscores that usability is one of the primary factors influencing consumer satisfaction and their attitude toward technological products. Moreover, a positive perception of usability can have a cascading effect, fostering more favorable attitudes toward the brand and purchase intention (Gupta & Kim, 2007). Lee, Park, and Kang (2018) examined the relationship between perceived usability and consumers' attitudes toward the iPhone, concluding that positive usability significantly influences attitudes and intentions for continued use.

Hence, the usability of the iPhone significantly impacts consumer attitudes toward this product. The perceived ease of use and efficiency in interaction directly shape consumers' attitudes toward the iPhone, subsequently influencing their intention to adopt and continue using it. This positive experience may even extend to the purchase of other products within the Apple ecosystem, owing to the favorable experience with one of the brand's products.

Consumer behavior perception refers to how individuals interpret a brand's strategies and actions and respond to them, comprising a three-stage process that translates stimuli into meanings, according to Solomon (2016). The individual perceives only a limited number of stimuli in an environment, as there are numerous stimuli competing for attention in every setting. Each individual interprets meaning in a manner consistent with their unique inclinations, needs, and experiences. As depicted in Figure 1, these stages — exposure, attention, and interpretation — constitute the perception process.



Source: Solomon (2016).

Figure 1. Overview of the perceptual process.

Exposure occurs when a stimulus enters a person's range of sensory receptors. Consumers selectively focus on certain stimuli, while ignoring others, and may even actively avoid certain messages. Stimuli are perceived when they are captured by the individual's receptors, but garnering attention within a certain timeframe, whether short or long, is challenging. Before considering what individuals may choose not to perceive, it is important to understand what they are capable of perceiving. Hence, these stimuli may fall above or below a person's sensory threshold, which is the point at which a stimulus is strong enough to consciously impact one's awareness.

Attention refers to the extent to which processing activity is directed toward a specific stimulus, as outlined by Solomon (2016). This level of focus can vary based on the characteristics of stimulus and receivers (the individuals' mental state at the time), as influenced by their experiences. Despite living in an "information society," too much information may overwhelm consumers. Individuals often experience sensory overload, being exposed to more information than they can or want to process.

Another crucial trend to note is perceptual vigilance, where consumers become more attentive to stimuli related to their current needs. Additionally, adaptation plays a significant role, determining the extent to which consumers continue to perceive a stimulus over time. The adaptation process occurs when consumers cease to pay attention to a stimulus due to its familiarity.

In the case of Apple, a company renowned for its emphasis on design, innovation, and ecosystem integration, consumer behavior perception directly influences the brand's image and its relationship with customers. Research on Apple's consumer behavior underscores the significance of establishing emotional connections with customers, as proposed by Fournier (1998). With its iconic products like the iPhone and its meticulous focus on design, Apple has succeeded in fostering a community of loyal and engaged consumers.

Authenticity theory, as outlined by Gilmore and Pine (2007), underscores consumers' pursuit of authentic and genuine experiences. Apple excels in this regard by crafting products that transcend mere functionality and resonate with the values and aspirations of its consumers. This influences the perception of consumer behavior, as the brand is perceived as authentic and in harmony with the lifestyle of its customers.

Furthermore, Apple's understanding of consumer behavior is intricately connected to the user experience and usability of its products. Research by Parrish (2016), sponsored by Forrester, confirms that a positive user experience greatly contributes to customer loyalty and the recommendation of the brand to other consumers.

In the realm of the iPhone, consumers' attitudes toward usability, design, and integration with the Apple ecosystem directly shape their perception of brand behavior. Research like that of Moon and Kim (2001) delves into how the perception of value and perceived quality impact consumer attitudes and behavior regarding technological products.

Therefore, considering the aforementioned points, it is evident that the perception of Apple's consumer behavior plays a crucial role in forging enduring and

meaningful relationships with its customers. Brand authenticity, the establishment of emotional connections, and positive user experience are all factors that influence consumer behavior perception and, consequently, their attitude and loyalty toward the brand.

METHODS AND PROCEDURES FOR COLLECTION AND ANALYSIS OF STUDY DATA

The research is classified, in terms of objective, as exploratory. In terms of methodology, it draws from literature on the topic under study, aiming to gather data through hypothesis generation.

With a single stage of field data collection, the research employed a focus group to elucidate the sensibilities of young iPhone users from Rio de Janeiro when navigating through such a device, assessing their comprehension of user experience and how this perception influences their relationship with Apple. Through the focus group, evidence was gathered to stimulate future research by generating hypotheses.

According to Zikmund and Babin (2011), exploratory research is valuable for refining a marketing problem or identifying a market opportunity. Therefore, the selection of this research type seems appropriate in terms of the objective, as it aims to potentially uncover opportunities based on the research findings.

The focus group is suitable for gathering information about perception, emotions, products, or activities. In exploratory research, its aims are to generate ideas or hypotheses and stimulate the researcher's thinking, as outlined by Dias (2000).

To conduct the proposed study, a focus group was held in the field phase, comprising six young consumers from the south zone of Rio de Janeiro, of both genders, aged between 18 and 24. All participants were iPhone users, with no restrictions based on income range. This selection criteria were chosen due to the extensive use of technology in the daily lives of individuals in this age range. The objective is to explore how users perceive the usability experience when interacting with the iPhone interface and how this perception influences their relationship with the Apple brand.

The target audience mentioned was defined based on accessibility criteria, as well as similarities in location and lifestyle. This approach was chosen to facilitate access to this group and ensure that the information sought could be obtained efficiently during the focus group stage. As recommended by Gil (2008), the size of the sample used in a focus group should ideally range from six to ten participants. Larger groups can limit the exchange of ideas, hinder recording, and prevent a deep exploration of the topic.

Furthermore, this target audience was chosen strategically due to the growing trend of extensive smartphone usage among young people. A study sponsored by Exame indicates that young Brazilians are among the most frequent users of electronic devices worldwide. The extensive use of smartphones by young people has made Brazil the country with the highest mobile device penetration among preteens and teenagers. Despite parental concerns about screen time, the study reveals

that 96% of young people in Brazil use cell phones, surpassing the global average, as reported by Gavioli (2022).

When conducting data collection, Gatti (2005) suggests that the meeting location should be conducive to promoting greater interaction among participants. This aligns with Trad's (2009) assertion that using at least two recorders is essential for capturing the focus group's discussions. Additionally, Flick (2009) emphasizes that moderators should ensure equal participation among participants, avoiding favoritism. Finally, Gatti (2005) addresses the duration of meetings and the number of sessions, suggesting that ideally, sessions should last between 1.5 to 3 hours. The focus group dynamic in this study lasted 1.5 hours, conducted in a single online session, successfully achieving its objectives.

To process the collected data for the study, recordings and videos of the focus group sessions were analyzed. Speeches were transcribed, and content analysis was conducted. Additionally, images were used to study participants' facial expressions and reactions during discussions. This approach is crucial for determining whether group members are genuinely engaged in the conversation and accurately expressing their sentiments.

In the analysis process, the steps outlined by Queiróz (1991) and Bryman (2004) are typically followed. Initially, the data is transcribed, and then content analysis is conducted to establish categories, which are exemplified by excerpts from the speeches of group members.

During the analysis process, it is common to observe asymmetry in participants' expressions or contradictions in the ideas of the same participant. At times, individuals might initially present statements on certain issues and then, as the discussion unfolds, repeatedly change their position. These dynamics become apparent through careful analysis and close observation of the reactions of group members.

According to Silverman (2001), ensuring the reliability of the research involves fidelity in transcribing statements and considering the contextual elements. Furthermore, when conducting content analysis, it is typical to follow the three methodological procedures suggested by Bardin (2009): pre-analysis, exploration of the material, and treatment of results. Pre-analysis involves organizing initial ideas and planning the analysis; material exploration refers to the coding process based on the rules formulated in the pre-analysis; and data processing involves interpreting the results obtained in line with the objectives of the study, comparing the statements of the participants.

PRESENTATION AND ANALYSIS OF RESULTS: DESCRIPTION OF THE PROFILES OF INTERVIEWEES

The focus group consisted of six young individuals living in the south zone of Rio de Janeiro, all of whom were iPhone users familiar with popular smartphones. They ranged in age from 18 to 24 years, with four men and two women, all with higher education backgrounds. Participants were selected based on convenience and accessibility.

Description and analysis of focus group results

The first question focused on why participants chose Apple as the company they are customers of, since they have an iPhone as their mobile electronic device (Why Apple?).

In response, out of the six participants, five had owned an iPhone for more than three years, and one said they had acquired the device a year ago. Five of them also highlighted that they had been using the iPhone's operating system (iOS) for a long time and found it to be far superior to Android, being more intuitive, simple, and efficient to use. This ease of use made it easy and quick for them to get accustomed to the device, fostering loyalty to the iPhone and consequently to Apple. One participant mentioned that "the iPhone is so intuitive that anyone can use it." The participant who recently purchased the iPhone was simply eager to test it because the previous devices they used had Android as the operating system.

Hence, according to the responses gathered, it is evident that the primary reason participants opt for Apple is largely attributed to Apple's operating system (iOS), perceived as superior to Android. This preference is further influenced by factors such as usability and intuitive navigation. Kucheriavy (2015) highlighted in his research that a seamless and intuitive user experience enhances user satisfaction, thereby fostering stronger connections with the brand or product.

The second inquiry focused on the usability and overall experience of the iPhone as motivations for browsing it. Specifically, participants were asked about the circumstances in which they utilize their iPhones (for what purposes do you use the iPhone?).

All six participants involved in the study utilize their iPhones for similar purposes. These include engaging with social networks (Instagram, WhatsApp, Twitter, among others); utilizing transportation applications like Uber; utilizing the camera for capturing photos and recording videos; accessing work and college-related applications such as Moodle, Microsoft Teams, and Trello; using streaming applications for watching football games; and employing music applications like YouTube and Spotify.

In conclusion, the study reveals that members use the iPhone for everyday activities integral to their daily routines, spanning professional, academic, and entertainment domains. This suggests a significant amount of time spent with smartphones nearby, as these activities recur consistently in individuals' routines. Gavioli (2022) asserts that the rate of smartphone usage among young people in Brazil stands at 96%, surpassing the global average. Hence, it is crucial to recognize the iPhone as an indispensable tool in the daily lives of young individuals.

One potential hypothesis is that over time, young people, particularly Generation Z, akin to the participants in the focus group, may encounter challenges when separated from their mobile devices. This is because the iPhone has seamlessly integrated into their daily routines, serving as the primary tool for the majority of their activities.

The third inquiry focused on evaluating the usability and experience of iPhone applications, categorized into native applications, which are developed specifically

for the iOS operating system and cannot be installed on other platforms, and non-native applications. The question was: how do you see/evaluate the navigability experience of the applications you routinely use, as mentioned in the previous topic, on the iPhone?

Two out of the six participants discussed the layout of iPhone apps, noting that they find it more aesthetically pleasing compared to the Android system — WhatsApp and Instagram were cited as examples of applications with superior layouts in comparison. One participant mentioned perceiving a sense of exclusivity between Apple and Instagram, expressing that photos posted in stories appear to have better quality on iPhones compared to Android devices. He highlighted differences in photo edges, noting that on the iPhone, edges are rounded, whereas on Android, they are straight. This participant believes that using non-native apps on an Android phone may result in a less optimal experience compared to using them on Apple.

One of the participants expressed a preference for Spotify over the iPhone's native music app (Apple Music), citing its superior accessibility and usability. He appreciates Spotify's interface, which allows for interaction akin to a social network, particularly in terms of following artists. Additionally, he highlighted positive experiences with other native applications, such as Safari for browsing and the Notes app for scanning documents, both of which they find easy to use. Moreover, the participant praised the accuracy of the native Weather app in providing weather forecasts. Alongside these native applications, he also mentioned non-native ones like the Office suite and YouTube, which he finds functional and user-friendly on iPhone. However, they expressed confusion regarding the native Files application, feeling unsure about locating files saved from the internet on their iPhone. They stated that if they could navigate it more effectively, they would use the app frequently.

Two members expressed reluctance to learn how to use unfamiliar native iP-hone applications. Additionally, one member noted that when Apple Music transitioned to a paid service, he discontinued its use and continued solely with Spotify, as he were already accustomed to using the app.

Two members discussed the usability of the iPhone's native email app, comparing it with non-native alternatives. Both individuals mentioned their familiarity with Gmail, stemming from their history of using it on their computers. One member expressed dissatisfaction with the native app, citing its lack of email filtering capabilities. Conversely, two other members reported using the native email application, citing their long-term familiarity with it since childhood and its automatic backup feature when changing devices. Additionally, one participant mentioned transitioning from the Gmail app to the iPhone's native email app and finding the experience positive. Furthermore, one member highlighted a perspective regarding user preference, emphasizing that the choice between native and non-native apps depends on individual habits and familiarity rather than inherent superiority.

Through this analysis, it is observed that participants interact with both native and non-native iPhone applications on a daily basis. Applications deemed to have superior usability are frequently used by participants, often on a daily basis.

According to Moon and Kim (2001), the perceived quality of technological products influences consumer attitudes and behaviors. Users tend to become accustomed to a particular format, whether native or not, and remain loyal to it, even when switching devices. Solomon (2016) discusses the perceptual process, specifically the adaptation factor, which refers to the degree to which consumers continue to perceive a stimulus over time. This adaptation occurs when consumers no longer pay attention to a stimulus due to its familiarity. Drawing a parallel, participants are so accustomed to applications they have been using for some time that they do not feel the need to download others. They simply continue using the ones they are familiar with and have adapted to.

A hypothesis emerges from the remarks of two participants who expressed reluctance to learn how to use certain applications, suggesting that usability may not be as intuitive or accessible for these individuals. This is particularly evident in their comments about navigating the Files app and other native applications.

The fourth question focused on identifying positive aspects of using iPhone. Participants were asked: what positive aspects are observed when using the iPhone?

One participant emphasized the positive experience of using the iPhone, attributing it to both accessibility and the ease of performing daily activities. Additionally, they highlighted the constant software updates that introduce new features, such as customization options and enhanced security. They also noted the benefit of receiving a greater number of updates over time on the same device.

Another participant mentioned the Airdrop feature, which facilitates quick and efficient transfer of information between iPhones. Additionally, one participant highlighted the functionality of the Find My app, which enables the transfer of photos from a lost or stolen device to another device. They also appreciated the automatic backup feature of the iPhone.

Two participants emphasized the excellent quality of the camera, noting its capability to capture outstanding videos and photos, with each new release improving upon the previous one. Additionally, one participant mentioned that the iPhone camera can easily replace a standalone camera, highlighting the convenience of being able to capture, edit, and store high-quality photos all in one device. The same participant expressed appreciation for the aesthetic enhancements introduced with each iPhone launch, such as new colors and formats, which serve as an incentive for them to upgrade to newer models. The sixth participant agreed with all the points raised by his peers.

Thus, the quality, efficiency, usability, and durability of the iPhone, when compared to its competitors, emerge as standout features that bolster Apple's image. It is evident that users highly value their experience with the device, remaining loyal to the iPhone due to its positive user experience, characterized by efficient, practical, fast, and intuitive task performance. Santos (2018) explains that Brazilians, in particular, highly prioritize the user experience, with 89% considering it a decisive factor in their purchasing decisions. Fournier (1998) explicitly notes the meticulous attention that big tech companies devote to product design, which aligns with the

sentiments expressed by one of the participants. Additionally, Gilmore and Pine (2007) underscore consumers' pursuit of authentic and genuine experiences, an area in which Apple excels.

Hence, a hypothesis can be formulated that Apple's native applications boast excellent UI, which significantly contribute to the overall positive user experience.

The fifth question aimed to identify negative aspects of using the iPhone. Participants were asked: what negative aspects are observed when using the iPhone?

All six participants brought up similar concerns regarding negative aspects of using the iPhone. Three of them expressed frustration regarding battery health, which affects their browsing experience when using an iPhone with a degraded battery. They noted that as battery health declines, the overall usage time diminishes. One participant mentioned that with each software update, the battery performance seems to deteriorate further.

Another participant expressed frustration with the Airdrop functionality, noting that it does not work for them even when Bluetooth is turned on, making it impossible to transfer information between devices. Additionally, one participant mentioned feeling underwhelmed by the lack of noticeable changes in new iPhone releases, particularly in terms of new features, which leads to feelings of frustration. The sixth participant highlighted a lack of freedom in terms of customization, contrasting the iPhone's limited interface customization options with the more flexible screen layout organization available on Android devices. Changes on iPhone are restricted to a grid format, limiting the extent of customization.

Many questions surrounding the topic of planned obsolescence are evident in participants' frustrations, as they feel compelled to purchase another device within a short timeframe, perpetuating revenue generation for big tech companies.

The sixth question addressed the topic of customer satisfaction specifically concerning Apple products.

Two out of the six respondents shared a similar perspective on their level of satisfaction with the brand. They both expressed a high degree of satisfaction, citing instances where Apple's customer service representatives provided personalized and efficient assistance, resolving issues promptly and offering optimal solutions to address the situation at hand.

Two other participants highlighted the price of Apple products as a negative aspect, suggesting that they do not offer good value for money. However, they admitted to continuing to purchase Apple products due to the comfort and sense of security they provide. One participant mentioned that their satisfaction with Apple fluctuates based on new iPhone updates, which they feel often fail to meet customer expectations, as there are minimal changes in aesthetics and usability. Additionally, one respondent expressed frustration with Apple's policy of refusing to address certain issues if the product has been serviced by a third-party company. This reflects a negative experience beyond the issue of outsourced stores. The fifth participant had a negative service experience, while the sixth participant expressed overall satisfaction, with the only negative point being the issue

of planned obsolescence, which he acknowledged as a common practice in the technology industry.

Hence, the majority of respondents' experiences are positive, despite some reservations about the price. Nevertheless, participants continue to purchase the products, demonstrating loyalty to the brand. Santos (2018) asserts that a customer's experience with a product significantly influences their brand loyalty. In essence, if a customer perceives a product as efficient and satisfactory, they are more likely to develop or maintain a loyal relationship with the brand. This viewpoint aligns with Nielsen's (1993) concept of "best practices: methods that enable users to achieve maximum efficiency and satisfaction with a product or service," particularly in terms of satisfaction. Among the various aspects of usability, satisfaction stands out as a crucial attribute that contributes to the evaluation of user experience. Satisfaction denotes how enjoyable the product's use is, thereby increasing the likelihood of the user returning to use the product or service again. Therefore, a pleasant experience fosters satisfaction, which, in turn, cultivates loyalty to the brand.

CONCLUSIONS AND RECOMMENDATIONS FOR NEW STUDIES

This section provides a concise overview of the key findings of the investigation, emphasizing the contributions to the topic under study, as well as the theoretical and practical implications, in addition to the conclusions reached by the study.

This study explored how young iPhone users perceive UX design processes and examined the usability of the interface, along with its impact on consumer behavior. To delve deeper into the analysis, Solomon's (2016) perspective on consumer behavior, including attitudes, perceptions, and their influence on brand behavior, was investigated. The study also drew on the theoretical insights of Nielsen (1993) and Norman (1998) concerning technical aspects of UX design. Additionally, Zikmund and Babin's (2011) work on focus group dynamics informed the implementation, treatment, and analysis of data collected during the study.

To accomplish the intended objectives, dynamic field research was conducted with a focus group to investigate how UX design practices are perceived by young iPhone users residing in the South Zone of Rio de Janeiro, aged between 18 and 24 years old, and how this perception influences their consumer behavior toward the Apple brand.

Based on the conducted research, it can be concluded that participants perceive UX design practices during the usability and navigability of the iPhone, even without explicit reference to technical terminology in the field. This experiential aspect significantly influences consumption behaviors and shapes perceptions of the Apple brand.

The results confirmed that the user experience of the iPhone is directly correlated with individual satisfaction and plays a significant role in fostering customer loyalty to the brand. Additionally, the research revealed an intriguing finding: iPhone users exhibit a consistent consumer behavior of routinely upgrading their

old devices for new iPhones, without contemplating the purchase of devices with alternative operating systems.

In comparing devices with different operating systems, the study highlighted the remarkable intuitiveness of navigating iOS devices, particularly when contrasted with Android devices. Furthermore, the consistent updates to the iPhone, both in terms of aesthetics and usability, were noted as advantageous factors favoring Apple.

In terms of the purposes for which the iPhone is utilized, participants' daily routines are significant. The device is employed for various purposes, including entertainment, commuting, and work, on a daily basis. Participants expressed that the layout on the iPhone is perceived as more beautiful and intuitive compared to Android devices, which are seen as having lower quality and less intuitive layouts. A notable observation was made regarding the social network Instagram. Participants notice that Apple presents clearer photos in stories, in addition to a higher quality layout when reposting stories, which have square edges, instead of curved ones, as on the iPhone.

Regarding the profile of iPhone users, it is suggested that individuals from Generation Z may comprise a significant portion of the user base for this device and the Apple brand overall. This concentration of users within this demographic group is assumed to be due to the considerable amount of time that Generation Z individuals spend using their devices.

Regarding the consumption behavior of iPhone users, the study confirmed a strong relationship between having a positive experience in areas such as intuitiveness, usability, UI, and aesthetic values, and the development of long-term user loyalty to the product and, consequently, to the brand. This phenomenon can be attributed to the iPhone's user-friendly operating system, which facilitates the efficient completion of daily tasks.

Among the negative aspects of the brand, the price of its products stands out. Participants mentioned a lack of good value for money, as well as concerns about planned obsolescence. Additionally, there were comments regarding the annual updates and releases, which were perceived as not sufficiently innovative to meet users' expectations.

For future developments, it is suggested to investigate the behavior of other demographic groups and explore more segmented Apple products. This could involve studying adults, residents of other regions within the city of Rio de Janeiro, and users of devices such as iPads, Apple Watches, MacBooks, iMacs, among others, with the aim to assess whether the user experience and design consistency remain constant across different products, and whether they have a similar impact on fostering brand loyalty. Furthermore, conducting case analyses of Apple consumers, tracking their journey from initial product purchase to integration into the Apple ecosystem with interconnected devices, could provide valuable insights. Sequential studies of this nature could guide the company in prioritizing strategic initiatives aimed at enhancing the Apple ecosystem, with a focus on design and user experience. This could ultimately lead to the development of strategic priorities that promote a positive impact on ecosystem development, by aligning planning and UX design.

REFERENCES

AGNI, Edu. Etapas do *design* centrado no usuário. **Medium**, Rio de Janeiro, 9 maio 2016. Available from: https://www.mergo.com.br/blog/design-thinking/etapas-do-design-centrado-no-usuario-2/. Cited on: Sep 14, 2023.

AJZEN, Icek; FISHBEIN, Martin. **Understanding Attitudes and Predicting Social Behavior**. Hoboken: Prentice-Hall. 1980.

BARDIN, Laurence. Análise de Conteúdo. Lisboa: Edições 70, 2009.

BRYMAN, Alan. Social research methods. Oxford: University Press, 2004.

DAVIS, Fred D. Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. MIS Quarterly, v. 13, n. 3, p. 319-340, 1989. https://doi.org/10.2307/249008

DIAS, Cláudia A. Grupo Focal: técnicas de coletas de dados em pesquisas qualitativas. **Informação & Sociedade**, v. 10, n. 2, p. 1-12, 2000. Available from: http://periodicos.ufpb.br/ojs2/index.php/ies/article/viewFile/330/252. Cited on: Sep 17, 2023.

FLICK, Uwe. Uma introdução à pesquisa qualitativa. Porto Alegre: Artmed, 2009.

FOURNIER, Susan. Consumers and their brands: Developing relationship theory in consumer research. **Journal of Consumer Research**, v. 24, n. 4, p. 343-353, 1998. https://doi.org/10.1086/209515

GATTI, Bernardete A. Grupo Focal na pesquisa em Ciências Sociais e Humanas. Brasília: Líber Livro, 2005.

GAVIOLI, Allan. Jovens brasileiros são os que mais utilizam aparelhos eletrônicos no mundo. Exame, São Paulo, 13 maio 2022. Available from: https://exame.com/carreira/jovens-brasileiros-sao-os-que-mais-utilizam-aparelhos-eletronicos-no-mundo/. Cited on: Sep 14, 2023.

GIL, Antônio C. Métodos e técnicas de pesquisa social. 6. ed. São Paulo: Atlas, 2008.

GILMORE, James H.; PINE, B. Joseph. **Authenticity**: What consumers really want. Boston: Harvard Business School Press, 2007. Available from: https://books.google.com.br/books?hl=pt-BR&lr=&id =VpTSBgAAQBAJ&oi=fnd&pg=PP1&dq=Pine,+B.+J.,+%26+Gilmore,+J.+H.+Authenticity:+What+consumers+really+want.+Harvard+Business+Review,+v.85,+n.12,+p.134-139,+2007&ots=46XtLM-Rjx&sig=DF3klw6v_9_GLBLfpqfUlltgyd8#v=onepage&q&f=false. Cited on: Sep 13, 2023.

GOODWIN, Kim. Designing for the Digital Age. Indianápolis: Wiley, 2009.

GUPTA, Sumeet; KIM, Hee-Wong. Value-driven internet shopping: The mental accounting theory perspective. **Psychology & Marketing**, v. 27, n. 1, p. 13-35, 2010. https://doi.org/10.1002/mar.20317

KUCHERIAVY, Andrew. Good UX Is Good Business: How to Reap Its Benefits. **Forbes**, Nova York, 19 nov. 2015. Available from: https://www.forbes.com/sites/forbestechcouncil/2015/11/19/good-ux-is-good-business-how-to-reap-its-benefits/?sh=69c010514e51. Cited on: Sep 12, 2023.

LEE, Chul; PARK, Gunno; KANG, Jina. The impact of convergence between science and technology on innovation. **The Journal of Technology Transfer**, v. 43, n. 2, p. 522-544, 2018. https://doi.org/10.1007/s10961-016-9480-9

MOON, Ji-Won; KIM, Young-Gul. Extending the TAM for a world-wide-web context. **Information & Management**, v. 38, n. 4, p. 217-230, 2001. https://doi.org/10.1016/S0378-7206(00)00061-6

NIELSEN, Jakob. Usability Engineering. Rio de Janeiro: Elsevier, 1993.

NORMAN, Donald. O Design do Dia a Dia. Rio de Janeiro: Rocco, 1998.

PARRISH, Rick. The US Customer Experience Index, 2016. Forrester, Cambridge, 18 jul. 2016. Available from: https://www.forrester.com/report/The-US-Customer-Experience-Index-2016/RES131003. Cited on: Sep 12, 2023.

QUEIRÓZ, Maria Isaura P. Variações sobre a técnica do gravador no registro da informação viva. São Paulo: T. A., 1991.

SANTOS, Altair. Consumidor fideliza produto se tiver uma boa experiência. **Cimento Itambé**, São Paulo, 21 nov. 2018. Available from: https://www.cimentoitambe.com.br/massa-cinzenta/boa-experiencia-com-produto-fideliza-consumidor/. Cited on: Oct 5, 2023.

SILVERMAN, David. Interpreting qualitative data: methods of analyzing talk, text, and interactions. Thousand Oaks: Sage, 2001.

SOLOMON, Michael R. **O Comportamento do Consumidor:** comprando, possuindo e sendo. 11. ed. Porto Alegre: Bookman, 2016.

TRAD, Leny A. Bomfim. Grupos focais: conceitos, procedimentos e reflexões baseadas em experiências com o uso da técnica em pesquisas de saúde. **Physis: Revista de Saúde Coletiva**, v. 19, n. 3, p. 777-796, 2009. https://doi.org/10.1590/S0103-73312009000300013

ZAGUETTO, Fabio. A Experiência do Usuário (UX) e o Desenvolvimento de Produtos. **Medium**, Rio de Janeiro, 28 abr. 2020. Available from: https://medium.com/@fabio.zaguetto/a-experiência-do-usuário-ux-e-o-desenvolvimento-de-produtos-2c391d7a0abb. Clted on: Sep 14, 2023.

ZIKMUND, William G.; BABIN, Barry J. **Princípios da Pesquisa de** *Marketing*. 2. ed. São Paulo: Cengage Learning, 2011.

About the authors

João Renato de Souza Coelho Benazzi: Adjunct Professor at the Department of Public Relations of the School of Social Communication at Universidade do Estado do Rio de Janeiro and Assistant Professor at the Department of Administration of Pontifícia Universidade Católica do Rio de Janeiro. Ph.D. in Communication and Culture from the School of Communication at Universidade Federal do Rio de Janeiro.

Sabrina Uderman: Bachelor's degree in Administration by Pontifícia Universidade Católica do Rio de Janeiro.

Conflict of interests: nothing to declare – **Financial support:** none.

Authors' contributions: Benazzi, J. R. S. C.: Conceptualization, Investigation, Methodology, Project Administration, Supervision, Validation, Writing – Review & Editing. Uderman, S.: Conceptualization, Investigation, Data Curation, Formal Analysis, Investigation, Methodology, Project Administration, Visualization, Writing – Original Draft.

