CONSUMER PREFERENCE ON THE USE OF THE FORD SYNC SYSTEM: A NETNOGRAPHIC STUDY

Preferência de consumo no uso do sistema Ford SYNC: um estudo netnográfico

Iury Barreto[1]
Emílio Arruda Filho[2]

ABSTRACT

The decision to purchase a car is strongly loaded with symbolism and unique approaches in the field of marketing, thus being necessary to study this phenomenon from the perspective of technological innovation. The present work shows an analysis of user's preference in the automobile segment, taking into account the convergence with the new multimedia systems, such as Ford SYNC. It applies the netnographic research method for this intent. It aims to understand how the variables hedonism, utilitarianism, social value and self-extension influence the intention of buying the car, taking into account the new multimedia systems, such as the Ford brand SYNC, integrated into the car. From the analyzes developed, three categories with implicit subcategories were found. The results demonstrate that the values discussed in the theory directly influence the context and are preponderant in the decision of the consumers. Therefore, this article contributes with essential consumer preference results for the automobile industry, leading to marketing reflections that help better understand future demands of potential consumers.

Keywords: Automobile. SYNC. Consumption motivation. Netnography. Technology convergence.

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1 He is part of the Technology Marketing Research Group (MKTt) since February 2014. He obtained his bachelor (December 2014) and master degree (2017) in Business administration from the University of Amazon (UNAMA) in the north of Brazil. His research interest is based on technology products concerning integration in new environments as automotive sector with multimedia services relating usage and preference according marketing values as hedonism, utilitarianism, social values among others correlated. Currently he is a substitute Lecturer at the Federal Rural University of Pará - UFRA.
Address: Business Administration Graduate Program - PPAD, University of Amazon (UNAMA), Av. Alcindo Cacela, 287 – 66060-902, Belém – PA, Brazil. E-mail: iurybarreto@hotmail.com; Mobile: (55) 91 98707-0040
2 He was awarded his Ph.D. in marketing and e-commerce from the University of Bergamo, Italy in March 2009 where he researched issues on telecommunications convergence usage. He has published and presented widely in the areas of hedonic versus utilitarian consumer values in mobile telecommunications, including articles in Telematics and Informatics, International Journal of Information Management, International Journal of Innovation and Learning, among others related. In 2007 and 2008 he was a visiting researcher at the Research Institute for Telecommunications and Information Marketing at the University of Rhode Island, Kingston RI – USA. Currently he is an associate Marketing Professor at the University of Amazon (UNAMA) in Belém City, and at the FUMEC University in Belo Horizonte City, both in Brazil.
Address: Business Administration Graduate Program - PPAD, University of Amazon (UNAMA), Av. Alcindo Cacela, 287 – 66060-902, Belém – PA, Brazil. E-mail: emilio.arruda@unama.br, Phone: +55 (91) 4009-3017 Cell phone: +55 (91) 98135-4200.
ORCID: http://orcid.org/0000-0002-1574-8332

RESUMO

A decisão de compra de um automóvel é fortemente carregada de simbolismo e de abordagens singulares no campo do marketing, sendo necessário um estudo pela ótica da inovação tecnológica. O presente trabalho evidencia uma análise da preferência de consumo dos usuários do segmento automobilístico, levando em consideração a convergência com os novos sistemas de multimídia, como o SYNC da Ford. Utiliza para isto o método de pesquisa netnográfica. Objetiva compreender como as variáveis hedonismo, utilitarismo, valor social e extensão de si influenciam na intenção de compra dos automóveis, levando em consideração os novos sistemas de multimídia, como o SYNC da marca Ford, integrados ao automóvel. A partir das análises desenvolvidas, três categorias com subcategorias implícitas foram encontradas. Os resultados demonstram que os valores discutidos na teoria influenciam diretamente o contexto e são preponderantes na decisão de compra dos consumidores. O artigo, assim, contribui com resultados essenciais de preferência de consumo para o setor automobilístico, levando a reflexões de marketing que ajudem a melhor compreender futuras demandas de consumidores potenciais.

Palavras-chave: *Automóveis. SYNC. Motivação de consumo. Netnografia. Convergência tecnológica.*

1 INTRODUCTION

The topic of consumption in the automotive industry is widely studied, nationally and internationally, exploring various perspectives and aspects of the purchasing behavior, which is surrounded by symbolism and influences of several social actors (EARL, 2012; FARIA; CASOTTI; CARVALHO, 2014). In this context, car consumption in Brazil is a particularly interesting object of study, when considering that the country is the 4th largest global market in vehicle sales, according to AutoEsporte Magazine (AUTOESPORTE, 2014).

Although there were already prototypes and previous experiences, the initial landmark of the automotive industry's history was the launch of the Ford Model T – created by Henry Ford in 1913 –, the first car made in serial production (MARTINS; LAUGENI, 2005). Since the creation and commercialization of the Model T, the automotive industry has undergone a process of diffusion, involving members of a very judicious social system (MARTINS; LAUGENI, 2005; ROGERS, 2003). For decades, cars have been modernized and have become one of the objects of the greatest desire for consumers (BELK, 2004). Consumers seek self-expression and a form of social identification through their vehicles (FRANCA; CASOTTI; FARIA, 2013).

Cars became popular, both for social status and for the utility regarding transportation. The desire or need for this particular good leads countless Brazilian families to financial indebtedness (FRANCA, CASOTTI; FARIA, 2013). The desire and need to have a car is also based on the failures in the provision of public transport services, considered to be inefficient. In addition, cars serve the needs of people with disabilities, who can benefit from specific adaptations in the vehicles to cope with limitations (FARIA, CASOTTI; CARVALHO, 2014).

Cars are categorized as utilitarian goods (ARRUDA FILHO; CABUSAS; DHOLAKIA, 2008), and therefore their main role is to provide mobility to individuals during their daily tasks. However, over time, the consumption of cars was related to other aspects such as hedonism (OKADA, 2005) – which is the consumption for pleasure, satisfaction, and fun, including the use of high technology –, and fashion and social status (KATZ; SUGIYAMA, 2006) – which has to do with having something that is worth displaying, a good that "fits" the owner, uses high technology, and is connected to the construction of the consumer's personality.

The introduction of technological convergence in cars has provided the Ford Motor Company with greater flexibility and capacity to expand innovation processes, as well as to accelerate the products' upgrade cycle and evolve the multimedia system embedded in the cars.

The company managed to accelerate these processes at a rate as fast as that of electronic mass consumption, a speed not yet observed in the automotive industry (GHANGURDE, 2010). Against this backdrop, this research analyzes the consumption behavior of customers who purchase cars from the Ford Motor Company, which was the third company in car sales in Brazil in 2013 and produced the world's best-selling car in the same year (Ford Focus) (BRASIL ..., 2014). The company incorporated several technological items into its models, establishing a partnership with Microsoft to create SYNC®, a system that integrates smartphones into the vehicles, enabling the use of voice commands to make calls and connections via Bluetooth, synchronizing phone contacts, calendar, GPS, and other items.

As well as observing the context, this study explores the current research on consumer behavior to understand how the variables hedonism, utilitarianism, social value, and self-extension influence the intention of buying cars, particularly considering the new multimedia system SYNC, embedded in the Ford Motor Company's cars. Therefore, the research questions are: what characteristics of the cars' multimedia systems influence the consumers' purchase decision? Do consumers perceive greater value because of the embedded multimedia systems when purchasing a car?

The study explored a variety of online discussion forums on the subject, which characterized it as a netnographic research as proposed by Kozinets (2002, 2010). Participating in Brazilian groups and forums on the internet, the researchers accessed discussions and comments, establishing categories and profiles of consumers of technological products, defining characteristics to describe their consumer behavior.

The choice of the SYNC system was strategic to obtain a greater contribution from the Brazilian online forums studied. This system was chosen because of the ease of access to data on the usability of the services, since there is much information about the system in several places such as the company's website, forums, blogs, and online discussions on the Internet, with many opportunities to access and analyze free discussion and participation on the subject.

Thus, the collection of data in netnographic research – considering the marketing theories supporting the knowledge on the topic studied – helps to understand these specific cultural groups that express values and desires based on common consumption, recognizing the cultural diversity of the subjects and the different perceived benefits.

The next section of the article presents the theoretical framework on consumer behavior, building the design of the research based on the function of the factors that influence the consumers' preferences. The following section describes the methodology, including the procedures for collecting, analyzing, and interpreting the data. The fourth section presents the results and the categories of consumers, comparing the findings with the marketing theory in the consumers' choice and decision-making processes. The fifth and final section presents the conclusion, limitations, and contributions of the research, and suggestions for future studies.

2 THEORETICAL FRAMEWORK

This section emphasizes the technological context of consumers' behavior, involving the variables hedonism, utilitarianism, social value, and extension of the self. These elements were defined according to the characteristics of the behavior based on consumption needs or desires. The characteristics related to needs and desires that delineate these elements and are described in studies on technology (ARRUDA-FILHO; LENNON, 2011), often discussed in research works on automobile consumption (EARL, 2012).

This study used several references and theories to help form a concise understanding of the theme, allowing solid interpretations of the symbolic context analyzed. Two topics divide the theories that form the core of technological consumption behavior: technological convergence and automobile consumption.

2.1 Technological convergence and the SYNC system

Market trends point to a convergence of multiple technologies in a single device (NUNES; WILSON; KAMBIL, 2000), a phenomenon that consists of the clustering of networks in a single multifunctional convergent structure, allowing the use of diversified services in new devices.

Thus, it is possible to improve the service to satisfy potential clients since the integration allows more functions in the same interface (KIM; LEE; KOH, 2005), considering that people believe they are saving money when purchasing integrated products and the perception of use increases (NUNES, 2000).

Operating in this environment, organizations adopting strategic thinking visualize opportunities and minimize the threats that the market imposes, adapting to the consumer's desires and generating a process of effective adoption (BASS, 1969), since innovation and the context derived from the convergence of services/devices may generate a greater interest in the use of new technologies.

The multimedia SYNC system embedded in the Ford Motor Company's cars is in line with this scenario of high convergence. The system portrays the idea of democratizing infotainment systems among the brand's consumers, presenting multi-functionalities and integrating services, networks, and the devices of the car's panel. The convergence in a single system is the result of consumer surveys, which have pointed to the items navigation, music, and safety as the most desired in vehicles. Therefore, the automotive industry sought to understand how to integrate these desires into a single object.

Based on the technological convergence, the current systems integrate a cell phone to the vehicle through a Bluetooth connection, allowing to synchronize the users' contacts, make and receive calls, and play music on the car's sound system. The driver controls all these resources through voice commands, therefore without diverting attention from the road (GHANGURDE, 2010). Ghangurde (2010) mentions that a market survey identified a decrease in the interest in GPS integrated into the car, and an increased desire for the integration of cell phones and music. The reason for this phenomenon is that smartphones are part of people's daily lives, and are used to keep almost uninterrupted communication with family, friends, and work, as well as, in general, offering geolocation tools.

A new concept of 'drivability' is born with handsfree technology, a concept influenced by the need for navigation, connectivity with smartphones, and music while driving, as observed by Ghangurde (2010). The author points out that the SYNC system is a pioneering technology in the market, an infotainment tool that allows the user to converge their digital lifestyle with their life on the road. For the author, 'infotainment' is the relation between important utilitarian attributes and leisure.

The computational attributes embedded in cars are among the aspects and characteristics that stimulate consumption. Some of these attributes are GPS, multimedia system with touch screen, hands-free technology, Bluetooth, voice command, and other innovative services that focus on utility and social presence.

The feelings of hedonism, utilitarianism and social value add up and serve as an explanation, justification, and support to guarantee consumption without generating feelings of guilt related to a purchase. Also, the design is a relevant factor for the consumer during the decision-making process for this type of product. The client wishes to have something different, but, beautiful (ARRUDA FILHO, CABUSAS; DHOLAKIA, 2008).

Thus, technological convergence in the area of communication, both in services and in products, offers several opportunities for this and other markets. The consumer, who before was limited to a choice anchored to a single purpose, now has the option of multiple complementary functions, supporting safety and fun (DAHL; HONEA; MANCHANDA, 2003, 2005). Therefore, the convergence of telecommunication and information technology products – predominant areas in the current media, showing high sales and new releases (NUNES, 2000) – can increase the audience of a given product through the various possibilities of connectivity and use it can offer (HARRIS; BLAIR, 2006; GILL, 2008).

The companies search for technological development leads to large investments in R&D, in a continuous effort to create intelligent systems, adapted to consumers' needs and desires. The partnership between Windows Embedded Automotive (also known as Microsoft Auto) and the Ford Motor Company to create the SYNC system is an example of these efforts (GHANGURDE, 2010).

The design of a new product is always a challenge for technology companies because it involves characteristics that are difficult to measure in terms of consumers' acceptance since the concepts and patterns of use are related to the personality of each user and are not in the brands' control (BAYE; HOPPE, 2003). Thus, sources that demonstrate the real desire and needs of the public are crucial, since they provide subsidies for the company to develop products based on the expectations of potential consumers.

Because of the tendencies in the automobile market regarding the use of embedded new systems and electronics, and the widespread use of these devices in society, it is possible to observe a reduction of costs and strong competition (CARVALHO, 2005). When using new technologies, consumers are empowered to disseminate their opinions about the experience they had with the product, which, for Solomon (2008), generates feedback for the industry, helping in the learning process by providing evidence and responses from the external environment.

2.2 Automotive consumption

The automobile industry and many others – if not all – is subject to strong influence from technological trends. This characteristic is noticeable in the new automotive models, from the most sophisticated (with functions controlled and enabled by the embedded technology) to the less elaborated ones. The impact of these technologies on the choice of consumers is increasingly strong (CARVALHO, 2005). In the current 'era of Information,' users of computer-mediated or mobile technologies have a behavior driven by the continuous connection. There is a clear need for technological mobility that allows a continuous and wireless connection (FERREIRA; ARRUDA FILHO, 2012).

This scenario of high connectivity is made possible by the innovation in products that integrate several characteristics in a single device (KIM; LEE; KOH, 2005). Thus, technological convergence (NUNES, 2000) has a strong influence nowadays, where more and more convergent systems integrate new products, services, and functions into one device (HARRIS; BLAIR, 2006), resulting in greater acceptance of consumers.

Integrated devices, such as cars' new multimedia systems, offer user-friendly features. Many of these features, however, are linked to hedonistic attributes that relate to personal pleasure, which leads to a reflection about a balance between the offer of hedonistic and utilitarian items at the time of purchase (OKADA, 2005; PIMENTEL; REYNOLDS, 2004).

Belk (2004) notes the predominance of some characteristics in enthusiastic men, who establish a passionate relationship with cars, expending time, money, and energy to learn about their vehicles. This is an almost homogeneous behavior in this group, for which the cars represent mobility, power, danger, competition, passion, and status – which are predispositions of men's behavior.

Cars are part of the category of symbolic goods, and they inspire in individuals a strong sense of necessity, which are often derived from the symbolic characteristics and social status related to having that good (HIRSCHMAN; HOLBROOK, 1982; BELK, 2004; FRANCA; CASOTTI; FARIA, 2013). Belk (2004) shows that cars' customization is a way for individuals to create an extension of themselves since the characteristics of the cars reflect human aspects. Hirschman and Holbrook (1982) describe in their research the relationship of consumption based not only on what objects can do but also on what they can 'say' when the product assumes the role of the user's identity.

Okada (2005) discusses consumption connected with pleasure, which may provoke a sense of guilt since it often involves a high cost for a non-utilitarian and non-rational purpose. Consumers, therefore, may spend much money on hedonic items (related to pleasure, emotion), thus requiring a justification (rational reason to explain the purchase decision) (DAHL; HONEA; MANCHANDA, 2005). Advertising also plays an important role in impulsive consumption of cars, making this a frequent behavior (SUAREZ; CHAUVEL; CASOTTI, 2012).

Franca, Casotti, and Faria (2013) discuss the feelings related to cars, a product that attracts either by its design, by the consumers' search for the good as an extension of themselves, by the emotions experienced before the purchase (reflected in the utilitarian benefits), or by the hedonic benefits (previous to the utilitarian ones, in the form of contentment and excitement).

Highly technological products are often considered expensive, making consumers feel the need to find a utilitarian justification for their hedonic satisfaction (DAVIS, 1989).

The hedonic attributes of technological goods are a form of entertainment for their users. However, these attributes can also be characterized as an attraction that raises the product social value (ARRUDA FILHO; CABUSAS; DHOLAKIA, 2008). Katz and Sugiyama (2006) consider the use of technologies as fashion since consumers tend to acquire products that are high fashioned and provide status.

In this scenario, the convenience of the all-in-one devices is a feature that consumers take into account (NUNES; WILSON; KAMBIL, 2000), since consumers are after multiple functionalities and want them together with social and hedonic elements.

There is also, according to Lambrecht and Tucker (2012), a non-monetary cost, characterized as "hassle cost." Many time-constrained consumers want to reduce this cost to the maximum in the use of services and improve their daily activities. Therefore, when new products or services collaborate to reduce the users' hassle costs, they become more attractive.

Thus, it is possible to say that consumers are looking for devices that facilitate their daily activities and tasks by offering functionalities and multiple integrated services, devices that are only viable because of the technological convergence (BASS, 1969; KIM; LEE; KOH, 2005; HARRIS; BLAIR, 2006; GILL, 2008). The media and navigation systems present in the new vehicles point to convenience and dynamism of users' activities, particularly through a data connection, which generates information and useful entertainment. Also, the new features of assistance to the driver are attributes that provide safety and comfort inside the car (CUNNINGHAM, 2014).

3 METHODOLOGY

The methodology adopted is based on Robert Kozinets' (2002) netnographic model. The model allows the extraction of comments posted on websites and blogs that count on the trust of readers, where the legitimacy of the comments offer credibility.

It is a qualitative approach that adapts techniques of ethnographic research to the analysis of cultures and communities online, which are constantly appearing in the context of Computer-mediated Communication (CMC) (KOZINETS, 2002). For Langer and Beckman (2005) netnographic research is less intrusive than the ethnographic.

The immersion in cybernetic culture is possible through the CMC – which Kozinets (2002) considers as a pure environment. CMC allows to identify traces of the identity of a specific group, and it is possible for the researcher to observe, analyze, and describe the behavior of the members in a given environment. This type of contact with the researched groups favors the understanding of habits and factors that may influence the consumers' behavior, and the acquisition of goods (KOZINETS, 1997).

Based on the netnographic method, it is easier to describe the factors that effectively influence the occurrence of a given behavior, since the analysis focuses on contents that evidence the desire and the feeling in the way users expressed them.

In addition, it is an approach that is easily applicable. It relies on common resources such as a computer with internet access, where the researcher can access information from different parts of the globe. The work of Gammarano, Arruda Filho, and Farias Filho (2012), which explains a cross-cultural analysis of the behavior of Latin American consumers, demonstrates the ease of use of this approach to compare inter-cultural behaviors, demonstrating how these technological values are similar all over the globe.

For Kozinets (2010), a netnographic model is an important tool of marketing that helps to understand the competitive landscape and the positioning of the companies in a macro environment. The method allows identifying the social patterns and conventions that influence the individuals' behavior and are reflected in the market through consumers' desires in a particular category, expressed in the online environment.

The netnographic method has been used for various purposes and with multilateral strands, addressing the intentions, perceptions, or motivations of these online groups, always observing that the communities are formed by participants with some common interest.

Langer and Beckman's (2005) study discussing cosmetic surgeries is an example. The authors work in a theme that requires some sensibility, considering that many of the researched individuals do not feel comfortable to express themselves. Since the internet has its stealthy side, these subjects opt for online discussions, and the authors use the netnographic method to collect data about the intentions of patients in this segment, generating information that would not be possible through an interview or another face-to-face model.

Kozinets (1998, 2002, and 2010) associates the netnographic method with the search for an effective tool for market research, where comments in online communities present consumers' needs and desires, opinions and experiences. In these online spaces, many consumers are free of the ties that could jeopardize their expression and influence the behavior when in a relationship with the researcher. Therefore, it is possible to access information about how the participants of the online communities behave regarding a product, taking into account their preferences.

This study used the variables hedonism, utilitarianism, and social value to categorize consumers, emphasizing their expressions regarding the technological attributes that influence purchasing behavior. The choice for these variables is supported by the fact that they are commonly present in the relation between consumption necessity and desire (ARRUDA-FILHO; LENNON, 2011).

The study focused on two online sources for data collection, and the researchers worked continuously to conduct the discussions. The sources are two (2) online discussion forums, aimed at the integration of users of Ford cars and, consequently, users of the SYNC system.

The comments were retrieved from American forums, and all comments were posted in English (the participants were from all over the world). In the forums, the users describe their experiences, exchange information, learn how to improve the usage and about the features of their devices. Several themes are addressed in the forums since the individuals feel free to express themselves, being faithful to the real experience.

In one of the forums only one discussion was considered for analysis, because it fit the criteria previously established for the study, it had a satisfactory number of respondents and did not present insults or vulgar language. In the other forum, two discussions were considered. Therefore, the corpus of analysis was formed with three (3) discussions. Based on the names and images of the participants' profile account in the forums, we believe that the sample is formed entirely of male users. All of the participants have cars, most of them are cars with the SYNC system embedded.

It is interesting to mention that all the participants showed advanced technological knowledge and were highly up-to-date regarding the automobile market. Their comments provided rich material for the study, describing in detail their previous experiences, technical characteristics of the systems and cars, updates, and opinions about the aspects that have been modified or improved, providing much more complete, and relevant comments for this study.

Based on the quality of the comments, it was possible to infer that the number of comments posted was sufficient to subsidize the research. The comments were converted to a document in Microsoft Word software, Times New Roman font, size 12, justified, resulting in 31 pages of content. Table 1 shows the respective sites from which the comments were extracted, retrieved through searches conducted on Google.com website, using the equation "forum" + keywords (consumer automobile, car FORD, SYNC FORD, discussion, and others).

Table 1 – Information on the online sources for the netnographic analysis

Researched websites	URLs of the Forums/Blogs
The Verge Ford Inside News	http://www.theverge.com/ http://www.fordinsidenews.com/
Date of the discussions' download	October 17, 2013 to January 15, 2014
Total pages of content	31 pages
Language used in the comments	English
Keywords used to search on Google.com	consumer automobile, car FORD, SYNC FORD, discussion SYNC

Source: Elaborated by the authors (2014).

Table 2 shows the details of the topics in the three discussions analyzed.

Table 2 – Information about the analyzed discussions

Source	Title of the topic	Number of words	Comments
The Verge	After five years, Ford Sync has been installed in five million vehicles	3.682	125
Ford Inside News	POLL: MyFord/MyLincoln Touch. Yay or nay?	784	75
	MyFord/Lincoln……………Touch	7.342	136
Total		**11.808**	**336**
Subject	The discussions developed around several aspects of the SYNC system, especially its functionalities, updates, feelings and comparison with other systems.		

Source: Elaborated by the authors (2014).

In the database the content was organized as follows: 2/3 were the comments made in the forums (occupying 31 sheets of the netnographic database), and 1/3 was formed by our description of the content and observations regarding the nature and characteristics of the content.

We analyzed the content of the netnographic database, comparing the information collected and reaching a consensus – among the researchers – on which interpretations stood out and whether there was a coherence of the positions expressed by the online users in their comments. In this way, it was possible to outline the user profiles according to the consumption behavior of the forum's participants.

The words that showed feelings related to the Ford SYNC System were highlighted, since they define behavior of predisposition and values expressed by users, providing a better cognition about these feelings, values, predictions, and perceptions.

Another document in Microsoft Word was elaborated to support the categories found during the netnographic analysis. The categories were elaborated after the identification of similar behaviors among users, which allowed a segmentation of the analyzed comments. The new document made it possible to condense 31 sheets of comments from the netnographic database into only 3, containing the main (most relevant) comments that showed specific values and perceptions for each group (category) of consumers.

According to the literature on technological convergence, hedonism, utilitarianism, an extension of self, connected to consumer behavior, it was possible to set the limits of the research to aspects of use of the Ford SYNC system, establishing possible market trends for the segment, based on consumers' perceptions and the preferences resulting from these perceptions.

4 DISCUSSION AND ANALYSIS

The material collected in the netnographic procedures (KOZINETS, 2002, 2014) and the literature on marketing regarding consumer preferences allowed to conduct a content analysis based on the comments made in the online forums. It was possible to interpret and classify the consumers according to a profile based on their consumption intention and the way they use the product observed in this study. The comments were intersubjective, and the analysis was based on the text written, considering that the creation of the discourse is born from the interference of the environment around the individual (FARIAS FILHO; ARRUDA FILHO, 2013).

The analysis led to three main categories of users, established from the comments that expressed similarity and a potential behavioral profile. The categories are related to the theoretical aspects observed in the literature review and associated to the comments presented in the form of citation, with an indication of the page (P) and lines (L) where the comments are located within the research netnographic database.

The relationship between the comments and theories that justify the concepts and categories of use is important to consolidate the results obtained and clarify the effectiveness of the user's behavior.

The comments were originally posted in English, translated into Portuguese by the authors maintaining their precise meaning and intention, since the research was conducted in Brazil and Portuguese. The citation in this article, however, is the original collected from the forums, presented exactly as written in the online forums.

4.1 DEVOTED USERS

In this category, we considered two types of consumers: those oriented by devotion to the multimedia system and those oriented by devotion to the Ford brand (PIMENTEL, REYNOLDS, 2004). This behavior is characteristic of consumers who use the brand as a form of social differentiation between members of a group. Devotion makes the users able to integrate a specific group of consumers, who consider the brand as a "philosophy of life" (PICHLER; HEMETSBERGER, 2007).

Devotion in consumption can be compared to religious behavior, where devoted people express their precepts, guided by religious dogmas, being faithful to the concept they have adopted as a philosophy of life. In this relationship, users tend to attribute negative characteristics to other brands of the same segment, always seeking to stress the positive aspects of their favorite brand.

4.1.1 SYNC system's devoted users

We consider in this subcategory users who describe the system's hedonic aspects, identifying that these aspects have a strong influence on the purchase and use of the automobile, as well as of the system. In this case, the hedonic aspects are predominant in the decision to purchase a car of a particular brand.

According to Okada (2005), consumers prefer the hedonic aspects inspiring pleasure and happiness, offering good experiences in the use of the products. The integration of services into a single interface also influences consumers' decision and behavior, as all-in-one devices gain popular appeal. The comments below reflect this condition, reinforcing the multi-functionality and identity of the SYNC system:

> I had a Ford Focus as a rental for a month or so earlier this year until I picked out a new car. Sync was the absolute best thing about that car. [...] The kids loved it too. It was also great for Bluetooth pairing with my phone [...] I was really tempted to buy a Fiesta just because of Sync (P-2, L 16-21 / 23).

> Best system on the market especially with the level of voice recognition and commands for everything [...] (P-4, L 50-51).

> [...] The original Ford Sync is amazing. I have it in my 2011 Ford Fiesta, and I use it every day (P-1, L 37-39).

All users who participated in the discussion demonstrated a strong sentimental relationship with their cars regarding the embedded technology. This observation is supported based on the way the participants' comment, highly praising the system. This is a behavior frequently observed among men, who often consider that the car's role goes beyond its utilitarian function, and is connected to social status, a sense of prestige for the driver (KATZ; SUGIYAMA, 2006; BATRA; AHUVIA; BAGOZZI, 2012; HISCOCK et al., 2002; EARL, 2012).

Belk (2004) argues that the relationship between car and its owner can easily be compared to the relationship between humans, where men designate the time and effort to care for their objects, as well as showing deep affection for them.

4.1.2 Devoted users of Ford's automobiles

Some consumers become big fans of brands, defending the company and sharing its ideology, as well as adopting it as part of their identity (BATRA; AHUVIA; BAGOZZI, 2012). Users who are part of this group are attracted to the same interests regarding in relation to the brand and consider themselves members of a cohort in comparison to consumers. Brand devotion is related to the identity of the company. It is observed when the consumer feels part of the brand, for owning and using its products (PIMENTEL; REYNOLDS, 2004).

As for the behavior, these consumers defend and stress positive characteristics regarding their favorite brand, while attribute negative characteristics to others.

> You're comparing audi to ford. Compared to any other car in it's range (compact, sedan, etc), excluding luxury cars, Ford has a much better interface. It takes 10 seconds to set up a new device for bluetooth audio, calling, etc. I've also never lost connection when playing audio over bluetooth. You can't find that in a similar Honda, Mazda, Toyota, Chevy (P-4, L 22-27).
>
> [...] I was looking at buying a new Civic, and I went with the Focus because the Civic's UI wasn't as good. Plus, it doesn't look as well integrated into the rest of the console (P-4, L 37-40).
>
> I think I made it clear that the positives of the system outweigh the negatives. That said, "good enough" isn't good enough anymore regardless of how innovative something may be (P-16, L 31-34).
>
> It seems like good software that will only get better! (P-10, L 43).
>
> Mercedes, BMW, and VW/Audi have very technical systems, but lack in the ability for good voice control. Toyota/Lexus has also developed system in conjunction with Microsoft also. Chrysler/Dodge/Jeep is using Garmin's interface (think of the failed Garmin Phone) to control everything. The mystery player is what GM is doing (look at the CUE system). I don't know who is behind that software. Ford is still on the leading edge of using this technology and making it user friendly (P-5, L 1-10).

All the comments express a loyalty of the user regarding the brand, which is a great opportunity for the company to invest in the aspects that are considered positive, besides to realize how much the brand meets the intrinsic needs of its users (LIMA; FERREIRA; ARRUDA FILHO, 2012).

4.1.3 Sentimental users

The consumers in this subcategory develop an affective and emotional relationship with their vehicles. It is a relationship of attachment, as argued by Batra, Ahuvia, and Bagozzi (2012). This behavior of passion and affection toward the object may be compared to interpersonal love, and even to the devotion described by Pimentel and Reynolds (2004). The concepts designating the subcategories may complement each other, since one of the processes to make the user loyal to a brand is to develop a connection that transmits positive emotions, creating a self-identity of that user's profile that is very close to the devoted users' behavior.

> My dad has it on a 2013 Escape, and he loves it (P-2, L 45).
>
> My friend bought a Ford Fusion with it last year. Says he loves it (P-2, L 11-12).
>
> I've been driving a Ford Fusion with Sync for nearly 2 years and I love it (P-7, L 22).
>
> I love SYNC in my 2012 Focus 2012 [...] (P-5, L 50).

This relationship of use is described as a sentimental relationship, leaving aside any possibility of the car being just an object to facilitate transportation. It becomes an object that can generate prestige, social status, autonomy, and protection (EARL, 2012). For some men, the car is part of their self-assertion and their masculinity (HISCOCK et al., 2002).

4.2 UTILITY ENTHUSIASTS

The users in this category describe their experiences with their cars and the SYNC systems from a utilitarian point of view (DAVIS, 1989; VAN DER HEIJDEN, 2004), presenting their functionalities and practicality.

As users exalt the utilitarian appeal of their vehicles, they show behavior of enthusiast users. According to Belk (2004), they are car owners 'addicted' to learning and caring.' They become more and more specialized in subjects that interest them, investing time and money to improve the use of their objects.

> I have it and use it everyday. I really like it. There is about a one week learning curve of fiddling with it daily while driving to and from work [...] (P-2, L 48-50).
>
> Most interactions require the vehicle to be stopped. and its actually very useful (P-4, L 11-12).
>
> Bluetooth syncs without fail and the hands-free button lever fails me. It downloaded my contacts the first time and rechecks periodically for updates in contacts [...] (P-5, L 20-23).
>
> I just recently purchased a 2013 Focus and I love it. I have the touchscreen so it makes having all the features so much easier to use (P-3, L 8-10).

These consumers express true opinions about the system and their vehicles, highlighting utilitarian aspects perceived in daily use, as well as listing the existing functions of the SYNC system. Some cited characteristics can also be considered hedonic aspects. Indeed, the hedonic and utilitarian factors are not inversely proportional, on the contrary, they complete each other and facilitate the prediction of consumers' use (OKADA, 2005; ARRUDA FILHO; CABUSAS; DHOLAKIA, 2008).

4.3 INNOVATIVE USERS

This is the category of users that are interested in innovations, who put great energy in learning about the technology they are consuming, using manuals and the online forums to exchange knowledge (KNOTTS; JONES; UDELL, 2009).

The online environment is an important field for information exchange, allowing an approximation of users with common interests, even though they are not in the same physical environment. Thus, the learning process comes from the knowledge transfer from those that have more to those with less knowledge (GREGAN-PAXTON; JOHN, 1997).

These innovative users are a reference to others, since they hold a vast information framework regarding the technical characteristics of the products, as well as having previous experiences, thus generating an important positioning for the product. The discourse after the experience may generate acceptance or not from other users (KNOTTS; JONES; UDELL, 2009; LIMA; FERREIRA; ARRUDA FILHO, 2012).

> I agree with a comment above that the system is very responsive but not always intuitive. There is a whole separate manual for Sync (including the Nav system) and I've had to look things up several times when I couldn't figure them out from the touchscreen [...] (P-5, L 20-32).

> I just finished my Training on My Ford Touch today. It isn't that hard. The hard part will be showing the customer, all it has to offer (P-15, L 3-6).

> [...] regardless of the stories, I think most non tech type people have a longer learning curve. Along with the fact that most people are not given proper instruction when they have their cars delivered. My experience with Sync in my '08 Fusion has been nothing short of fantastic. (P-12, L 39-44).

Consumers understand the system and its integrations as a new device in the market, in addition, see the all-in-one products as a possibility of a wider use (NUNES; WILSON; KAMBIL, 2000; HARRIS; BLAIR, 2006). However, lack of previous experience may hinder the capacity of using the product.

The learning process facilitates the use. The so-called "geek" users constantly try out what is new in the technology market seeking to satisfy their interest for innovations (LIMA, FER-REIRA, ARRUDA FILHO, 2012).

5 CONCLUSION

The integration of the SYNC system provides a diversified range of utilities and feelings to consumers, and the system's functions are presented as fundamental tools to ease the users' daily life as observed in the results obtained in this study.

The system's utilitarian characteristics overshadow the hedonic ones in such a way that they create a utility justification for the purchase. However, it is possible to see that many consumers are still strongly guided by the system's hedonic aspects (related to the pleasure and fun offered), or by the status and social positioning connected to the use of the technology.

Many consumers point out in their comments how much they love the SYNC system because of its features, being strongly induced to purchase the car because of this technology. This statement is crucial to inspire future research that can lead to minimizing disagreements between consumers' expectations and the features the system offers. Knowing the target audience

is paramount in the consumption scenario.

Even if there are some flaws in the system, they are justified and defended by the devoted users and those who are passionate about the brand, who uses it as a model and take it as a parameter for comparisons with other brands considered "inferior." This behavior is typical of consumers who develop quasi-affective relationships with certain products, due to some experience during their consumption history, and can thus induce people in their social network to opt for specific products or brands.

Because it is a product that integrates devices and services, the SYNC system is very attractive for consumers. According to the comments analyzed, both from utilitarian and hedonic users, the system pleases individuals in their particularities, which is an asset that justifies such capacity of consumers' attraction. Consumption is the person's behavior toward achieving their goals, and the object consumed must meet the user's needs. Convergent products are presented as a differential in the market because they integrate different services and devices to serve multiple needs.

The need to have and use a product may come from the perception of dealing with a new product since it is not always possible to have parameters or references about previous experiences or similar products to support the purchasing decision. Despite the difficulty of using an innovative product, some consumers, so-called technology geeks, emphasize the possibility of learning for a better experience with the system, using their discussions on the Internet for this purpose, generating feedback for other possible users, less familiar with the technology.

Many consumers show a deep understanding of the system and its features, discussing new versions and upgrades for continuous improvement. This behavior is described by Belk (2004), who states that as consumers have an affective relationship with the products, they invest time and energy to learn more, and consider the product as an extension of themselves. This is a feature observed in the case of automobile consumption through the behavior of car enthusiasts.

It was possible to see that the variables discussed in the literature have a direct impact on consumers' purchasing decisions, particularly regarding hedonistic and utilitarian aspects. This happens because the system presents characteristics that offer new sensations as well as utilitarian elements, such as resources to help to complete work tasks, the appreciation of music applications, and the facilities of having an integrated system in daily life activities.

The social value differentiates members and connoisseurs of the subject in comparison to other buyers, since they use a technical language to speak of the attributes and updates of the system, and demonstrate their knowledge on the system and the cars. The universe of this consumption is predominantly male, with behaviors usually associated with social status, power, and prestige (EARL, 2012).

Responding to the questions proposed at the beginning of this article, it is possible to say that the multimedia systems influence (particularly on the utilitarian aspect) in the consumer purchase decision, since they offer enough justification for the acquisition of a car.

Also, there are apparent influences regarding the consumers' identity affirmation. When interconnecting the user's car and cell phone, the multimedia system provides a feeling of adaptation to the user's characteristics (with personalized lists of songs, preferred GPS routes, customized system's interface, for example) operating as a possibility of extension of the self.

The hedonic and social aspects also influence, as they promote a social differentiation and the possibility of fun and pleasure in driving the vehicle. It is worth stressing the results confirming the pleasure in using the system, observed in comments expressing these feelings. There-

fore, it is fair to say that many buyers purchase the vehicle precisely because of the SYNC system.

Although much marketing research explores the behavior of automobile consumption, few studies discuss the technological aspect as a prerogative for the purchase, which reflects the importance of making a theoretical construction on the subject. The SYNC system, as moderator in this consumption scenario, demonstrate the importance of technological convergence not only in the automobile industry but also in other sectors where technology may be added in the production line.

Companies may use these results to reflect in depth about the desire and expectations of their clients, mapping user profiles, and deciding on sales strategies based on robust and efficient marketing research. The need to understand the desire of consumers is paramount for the organization's permanence in the competitive market environment. This study presents reflections on consumers' preferences, which means that it has managerial implication and can contribute with other segments of the industry of technology and innovation.

The fact that the researchers did not participate in the discussion forum, acting as readers, is a limitation in the application of the netnographic approach since the researchers could not question or encourage users to provide more subsidies for the research. This approach followed the model proposed by Langer and Beckman (2005) and adopted by Arruda Filho, Cabusas, and Dholakia (2008). In future research, participant netnography is suggested, promoting more active participation in the discussion forums, in order to obtain deeper perceptions and opinions of the users.

Finally, we suggest the use of quantitative techniques in future work, comprising a larger sample of participants and identifying other consumption variables. Also, it is possible to approach the usability of the systems in Brazil, verifying how these users behave regarding the technology present in the cars.

REFERÊNCIAS

ARRUDA FILHO, E. J. M.; CABUSAS, J. J.; DHOLAKIA, N. Fator social versus tecnologia utilitária: marketing social versus marketing utilitário. **Revista de Gestão da Tecnologia e Sistemas de Informação**, v. 5, n. 2, p. 305-324, 2008.

ARRUDA-FILHO, E. J. M.; LENNON, M. M. How iPhone innovators changed their consumption in iDay2: hedonic post or brand devotion. **International Journal of Information Management**, v. 31, n. 6, p. 524-532, Dec. 2011.

BASS, F. M. A. New product growth for model consumer durables. **Management Science**, v. 5, p. 215, 1969.

BATRA, Rajeev; AHUVIA, Aaron; BAGOZZI, Richard P. Brand love. **Journal of Marketing**, v. 76, n. 2, p. 1-16, 2012.

BAYE, M. R.; HOPPE, H. C. The Strategic equivalence of rent-seeking, innovation, and patent-race games. **Games and Economic Behavior**, v. 44, n. 2, p. 217-226, Aug. 2001.

BELK, Russell W. Men and their IMachines. **Advances in Consumer Research**, v. 31, p. 273-278, 2004.

BRASIL fecha 2013 como o 4º maior mercado global de veículos. In: AUTOESPORTE. [Porto Alegre]: Globo, 21 fev. 2014. Disponível em: http://revistaautoesporte.globo.com/Noticias/noticia/2014/02/brasil-fecha-2013-como-o-4-maior-mercado-global-de-veiculos.html. Acesso em: 19 mar. 2017.

CARVALHO, E. G. de. Globalização e estratégias competitivas na indústria automobilística: uma abordagem a partir das principais montadoras instaladas no Brasil. **Gestão e Produção**, v. 12, n. 1, p. 121-133, 2005.

CUNNINGHAM, Wayne. **Best Tech Cars**, 2014. [S. l.], 2014. Disponível em: http://www.cnet.com/topics/cars/best-tech-cars. Acesso em: 19 mar. 2014.

DAHL, D. W.; HONEA, H.; MANCHANDA, R. V. The nature of self-reported guilt in consumption contexts. **Marketing Letters,** v. 14, n. 3, p. 159-171, 2003.

_____. Three is of interpersonal consumer guilt: relationship, reciprocity, reparation. **Journal of Consumer Psychology**, v. 15, n. 4, p. 307-315, 2005.

DAVIS, F. D. Perceived usefulness, perceived ease of use, and user acceptance of information technology. **MIS Quarterly**, v. 13, n. 3, p. 319-340, Sep. 1989.

EARL, Peter E. Experiential analysis of automotive consumption. **Journal of Business Research**, v. 65, n. 7, p. 1067-1072, 2012.

FARIA, M. D. de; CASOTTI, L. M.; CARVALHO, J. L. F. O processo de decisão de compra de automóveis adaptados por consumidores com deficiência motora. In: ENCONTRO DE MARKETING DA ANPAD, 4., 2014, Gramado. **Anais...** Gramado: ANPAD, 2014. p. 1-16.

FARIAS FILHO, M. C.; ARRUDA FILHO, E. J. M. **Planejamento da pesquisa científica**. São Paulo: Atlas, 2013.

FERREIRA, N. S.; ARRUDA FILHO, E. J. M. Preferência e usabilidade da imagem social no Facebook: uma análise netnográfica. In: SEMINÁRIOS EM ADMINISTRAÇÃO, 15., 2012, São Paulo. **Anais**... São Paulo: SEMEAD, 2012. p. 1-17.

FRANCA, M. S. de; CASOTTI, L. M.; FARIA, M. D. de. Sonhos parcelados das famílias: significados e sentimentos associados ao automóvel. In: ENCONTRO DA ANPAD, 37., 2013, Rio de Janeiro. **Anais**... Rio de Janeiro: ANPAD, 2013. p. 1-16.

GAMMARANO, I. L. P.; ARRUDA FILHO, E. J. M.; FARIAS FILHO, M. C. Inovação tecnológica e preferência de consumo: uma análise cross-cultural na América Latina. **Informação & Sociedade: Estudos**, v. 22, n. 1, p. 53-65, 2012.

GHANGURDE, M. Ford SYNC and Microsoft Windows Embedded Automotive make digital lifestyle a reality on the road. **SAE International**, v. 3, n. 2, p. 99-105, 2010.

GILL, T. Convergent products: what functionalities add more value to the base? **Journal of Marketing**, v. 72, n. 2, p. 46-62, 2008.

GREGAN-PAXTON, Jennifer; JOHN, Deborah Roedder. Consumer learning by analogy: a model of internal knowledge transfer. **Journal of Consumer Research,** v. 24, n. 3, p. 266-284, Dec. 1997.

HARRIS, J.; BLAIR, E. A. Functional compatibility risk and consumer preference for product bundles. **Journal of the Academy of Marketing Science**, v. 34, p. 19-26, 2006.

HIRSCHMAN, Elizabeth C.; HOLBROOK, Morris B. Hedonic consumption: emerging concepts, methods and propositions. **Journal of Marketing**, v. 46, n. 3, p. 92-101, 1982.

HISCOCK, R. et al. Means of transport and ontological security: do cars provide psycho-social benefits to their users? **Transportation Research Part D: Transport and Environment**, v. 7, n. 2, p. 119-135, 2002.

KATZ, J. E.; SUGIYAMA, S. Mobile phones as fashion statements: evidence from student surveys in the US and Japan. **New Media and Society**, v. 8, n. 2, p. 321-337, 2006.

KIM, Y.; LEE, J. D.; KOH, D. Effects of consumer preferences on the convergence of mobile telecommunications devices. **Applied Economics**, v. 37, n. 7, p. 817-826, 2005.

KNOTTS, Tami L.; JONES, Stephen C.; UDELL, Gerald G. Innovation evaluation and product marketability. **Marketing Management Journal**, v. 19, n. 2, p. 84-90, 2009.

KOZINETS, R. V. I want to believe: a netnography of the X-philes' subculture of consumption. **Advances in Consumer Research**, v. 24, n. 1, p. 470-475, 1997.

_____. **Netnography**: doing ethnography research online. London: SAGE Publications, 2010.

_____. **Netnografia:** realizando pesquisa etnográfica online. São Paulo: Penso Editora, 2014.

_____. On Netnography: initial reflections on consumer research investigations of cyberculture. **Advances in Consumer Research**, v. 25, p. 366-371, 1998.

_____. The field behind the screen: using netnography for marketing research in online communities. **Journal of Marketing Research**, v. 39, p. 61-72, Feb. 2002.

LAMBRECHT, Anja; TUCKER, Catherine. Paying with money or effort: pricing when customers anticipate hassle. **Journal of Marketing Research**, v. 49, n. 1, p. 66-82, 2012.

LANGER, Roy; BECKMAN, Suzanne C. Sensitive research topics: netnography revisited. **Qualitative Market Research:** An International Journal, v. 8, n. 2, p. 189-203, 2005.

LIMA, R. M. C.; FERREIRA, N. S.; ARRUDA FILHO, E. J. M. A preferência hedônica-utilitária de compra para consumidores de alta tecnologia: um estudo sobre o lançamento do iPad. In: V ENCONTRO DE MARKETING DA ANPAD, 5., 2012, Curitiba. **Anais**... Curitiba: ANPAD, 2012. p. 1-14.

MARTINS, P. G.; LAUGENI, F. P. **Administração da produção**. 2. ed. São Paulo: Saraiva, 2005.

NUNES, J. C. A. Cognitive model of people's usage estimation. **Journal of Marketing Research**, v. 37, n. 4, p. 397-409, 2000.

NUNES, P.; WILSON, D.; KAMBIL, A. The all-in-one market. **Harvard Business Review**, v. 78, n. 3, p. 397-409, May/Jun. 2000.

OKADA, Erica Mina. Justification effects on consumer choice of hedonic and utilitarian goods. **Journal of Marketing Research**, v. 42, n. 1, p. 43-53, 2005.

PICHLER, Elisabeth A.; HEMETSBERGER, Andrea. "Hopelessly Devoted to You": towards an extended conceptualization of consumer devotion. **Advances in Consumer Research**, v. 34, p. 194, 2007.

PIMENTEL, Ronald W.; REYNOLDS, Kristy E. A model for consumer devotion: affective commitment with proactive sustaining behaviors. **Academy of Marketing Science Review,** v. 5, n. 1, p. 1-45, 2004.

ROGERS, E. M. **Diffusion of innovations.** 5th ed. New York: Free Press, 2003.

SOLOMON, Michael R. **O comportamento do consumidor**: comprando, possuindo e sendo. 7. ed. Porto Alegre: Bookman, 2008.

SUAREZ, Maribel; CHAUVEL, Marie Agnes; CASOTTI, Leticia. Motivações e significados do abandono de categoria: aprendizado a partir da investigação com ex-fumantes e ex-proprietários de automóveis. **Cadernos EBAPE**, v. 10, n. 2, p. 411-434, 2012.

VAN DER HEIJDEN, H. User acceptance of hedonic information systems. **MIS Quarterly**, v. 28, n. 4, p. 695-704, Dec. 2004.