

AN ASSESSMENT OF HOW BRAND AWARENESS INFLUENCES BRAND
RECOGNITION THROUGH PRODUCT PLACEMENT, APPLIED TO THE
AUTOMOTIVE INDUSTRY AND COMPUTERS.

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ABSTRACT

In an era where traditional forms of communication have been losing their effectiveness due to consumer saturation, marketers have been looking for alternative ways to reach their target. Therefore, in a scenario where brands compete fiercely to be seen, heard, but especially remembered in consumers' minds, product placement presents itself as an attractive and distinctive alternative to be explored.

Despite the growth of product placement in recent years, most empirical studies focus solely on assessing viewers recall and attitudes towards product placement. Thus, this research further contributes to existing literature by introducing the dimension of brand recognition. Moreover, it will direct its focus towards cars and computers product placement within movies, allowing for new and unique insights. This procedure also allows for an interesting segmentation of the distinct group of consumers which are likely to recognize brands in this context.

The present research is quantitative natured and comprises a brand awareness test and a brand recognition experiment. The brand awareness test allowed to group the brands into three distinct groups of awareness: top-of-mind, spontaneous awareness and the lowest level of awareness (Aaker, 1991). While the brand recognition experiment aimed to study consumers' ability to identify the brand's name through visual cues and other brand attributes.

The results suggest that there is a direct relationship between brand awareness and brand recognition in both product categories analyzed. It was also possible to identify profiles of brand recognition considering socio-demographic characteristics, viewing frequency of movies, knowledge of the product category, and consumer's attitude towards product placement.

Key-Words: Product Placement, Communication, Brand Recognition, Brand Awareness

JEL: M31, M37

RESUMO

Numa época em que as formas tradicionais de comunicação têm vindo a perder a sua eficácia devido à saturação do consumidor a estes estímulos, as marcas têm procurado formas alternativas para comunicar com o seu público alvo. Neste cenário, onde as marcas competem ferozmente para serem vistas, ouvidas, mas especialmente lembradas nas mentes dos consumidores, o *product placement* apresenta-se como uma alternativa atrativa e distinta a ser explorada.

Apesar do crescimento do *product placement* nos últimos anos, a maioria dos estudos empíricos concentra-se unicamente na avaliação do *recall* e das atitudes face ao *product placement*. Neste sentido, esta pesquisa contribui para a literatura existente introduzindo a dimensão do reconhecimento da marca. Além disso, direcionará o seu foco para o *product placement* de carros e computadores em filmes. Este procedimento permite também uma segmentação de diferentes grupos de consumidores de forma a identificar perfis de reconhecimento.

A presente pesquisa é de carácter quantitativo e compreende um teste de notoriedade e um teste de reconhecimento de marcas. O teste de notoriedade permitiu agrupar as marcas em três grupos distintos de notoriedade: *top-of-mind*, notoriedade espontânea e notoriedade baixa (Aaker, 1991). Ao passo que o teste de reconhecimento da marca pretendeu estudar a capacidade dos consumidores em identificar o nome da marca através dos seus elementos.

Os resultados sugerem que existe uma relação direta entre a notoriedade da marca e o seu reconhecimento, para ambas as categorias de produtos analisadas. Foi também possível identificar perfis de reconhecimento considerando características sociodemográficas, frequência de visualização de filmes, conhecimento da categoria de produto e atitude do consumidor em relação ao *product placement*.

Palavras Chave: Product Placement, Comunicação, Reconhecimento da Marca, Notoriedade da Marca

JEL: M31, M37

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CHAPTER 1- INTRODUCTION

1.1 Introduction to the topic

The saturation of advertising stimuli, coupled with a large number of ads, the proliferation of television channels, and the availability of zapping mechanisms are some of the reasons for the skepticism towards the effectiveness of traditional advertising (Kotler, 2005). In addition to these factors, the lower reliability inherent to advertising is also discussed. The advertising is viewed as partial information by the clarified consumer, which may lead to consumer resistance as a result of an intense advertising pressure (Bô and Ries, 2002).

In a scenario where brands compete fiercely to be seen, heard, but especially remembered in the minds of consumers, product placement presents itself as an interesting and distinctive alternative to be explored. By enabling brands to give visibility to their products in a non-intrusive way, which is set in their natural environment within movies, is also a plausible reason that may lead brands to invest in this type of strategy. This subtle nature of product placement can lead the spectator to not understand the practice as a commercial activity, not developing therefore restraints against brands and products (Bô, 1997).

This strategy has emerged in various forms of entertainment, being recognized as an advantageous form for brands to communicate their products or services (Dias, 2007; Lehu, 2005). It is an alternative to maximize their investment in communication, without compromising the image of the brand and simultaneously become more attractive for its target. Thus, as product placement becomes a very popular marketing communication strategy with vast potentials in awakening retreating audiences (Soba and Aydin, 2013), there is a need to deeply explore this subject to better understand the effects that this technique has on consumers.

According to data from PQ Media, in 2009, about 3.61 billion dollars were invested in this type of communication in the United States, while in Europe the value was around 610 million dollars. This investment includes product placement not only in movies but also television, music, games and other media.

The proliferation of product placement was somehow expected since researchers began to look at this strategy as an important tool in the communication strategy of brands (Karrh *et al.* 2003; Russell and Belch, 2005). And the fact is that product placement, and brand placement in movies have become highly attractive techniques of branded entertainment (Bressoud and Lehu, 2008). This attraction is reinforced by the fact that product placement enables brands to increase brand recognition (Youn, Lee and Doyle, 2003). Despite the visibility that the brand gets with product placement, especially when it has a significant role in the story or represents

an ideal of consumption, each brand is unique and has intrinsic characteristics. For this reason, the effectiveness of Product placement may differ depending on the level of awareness of each brand.

Therefore, it is relevant to understand the influence and importance of brand awareness on brand recognition through product placement. Does it make sense for brands which are not even considered in consumer's evoked set and have a low level of awareness, to adopt this strategy? Or is it a relevant strategy only for brands that are well reputed in the minds of consumers? The findings of this research are pertinent since it is imperative for brands to be able to optimize their investment in communication, even more at a time when the visibility of a brand is increasingly important.

1.2 Investigation Objectives

By employing quantitative research methods, this dissertation aims to, in a macro perspective, explore and understand how elements from brands with different levels of awareness impact brand recognition in the most commonly used product categories in product placement. These categories are: automotive industry and computers (Kramolis and Drabkova, 2012). Thus, the purposes are:

1. To figure out which brands are classified as top-of-mind awareness, spontaneous awareness and low level of awareness, in the categories of cars and computers;
2. To understand how brands with different levels of awareness are recognized through product placement, in the categories of cars and computers;
3. Verify if there is any category (cars and computers) where brand recognition is more effective;
4. To study the movies and television series viewing frequency and consumer's attitude towards the practice of product placement;
5. Verify how is gender related to the knowledge degree in cars and computer brands;
6. Identify profiles of brand recognition from the cross-information of the different levels of brand awareness with the variables age, gender, movies and television series viewing frequency, consumer's attitude toward the practice of product placement and degree of knowledge;

1.3 Thesis Structure

The overall structure of this dissertation takes the form of 5 chapters, including this introductory chapter. The following chapters are composed by:

- 1. Introduction** - The current chapter aims not only to introduce the main topic of this research - the emergence of product placement as a form of advertising, as well as the reasons inherent to the need of this study; moreover, the key objectives of the dissertation are discussed and, finally, the structure of the thesis presented.
- 2. Literature Review** - A thorough theoretical framework is the basis for accomplishing a solid research (Boote and Beile, 2005). Accordingly, the presented literature review comprises an overview of the emergence and importance of product placement. This theme has been theorized by several authors who consider essential elements such as degree of prominence (Gupta and Lord, 1998), type of product placement (Lehu, 2005), product placement modality (Russell, 1998, Auty and Lewis, 2004), among others.
- 3. Methodology** - The third chapter is concerning the methodologies used for the development of this research – quantitative approach. Thus, a description of the methodology is presented as well as the research questions.
- 4. Result Analysis** - Analyze and discuss the results obtained from quantitative research are the objectives of this chapter.
- 5. Conclusions and Limitations** - The last chapter presents a brief conclusion and critique of the findings while discussing the limitations of the overall dissertation.

CHAPTER 2- LITERATURE REVIEW

2.1 Introduction

Due to the increasing importance and preponderance of product placement, the literature and studies in this area are extensive and are constantly being updated. Many hypotheses were tested regarding its effectiveness in numerous contexts since it is a strategy that distances itself from the traditional communication and offers the possibility to strengthen the brand image. To frame the present thesis, most of this chapter provides a theoretical research on product placement. First, the focus will reside on the evolution of communication through the years, giving later evidence to less traditional methods of communication like product placement. Furthermore, the importance of communication for brand building will be covered, with a focus on brand image and brand awareness.

2.2 Marketing

2.2.1 Definition

The concept of marketing can be approached from a variety of perspectives. Kotler considered one of the greatest specialists in marketing, defined this concept as a social process through which people and groups of people get what they need and what they want, with the creation of supply and free negotiation of products and valued services (Kotler, 2000).

There were, however, some definitions over time, all of which had in common the component of creation and delivery of value to suppress the consumers' needs.

- *Marketing is the area of knowledge that encompasses all activities related to exchanges, oriented to the satisfaction of the desires and needs of the consumers. It aims to reach certain objectives of the organization or the individual, always considering the environment of action and the impact in the well-being of society (Las Casas, 2002).*
- *Marketing is the set of methods and means that an organization has to promote, in the target audiences it is interested in, the behaviors favorable to the achievement of its objectives. For a company to have the marketing spirit, it should focus particularly on the needs of consumers (Lindon et al., 2008).*

The American Marketing Association (AMA) (2008), came up with a new definition that eventually served as the groundwork for the development of Kotler *et al.*'s (2010) new term: 'Marketing 3.0'. Marketing was then defined as "*The activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offering that has value for consumers, clients, partners, and society at large*" (AMA, 2008). This was the first definition, which

considered that marketing had the ability to add value, by recognizing the large-scale impacts further than what occurs in the private dealings of individuals and companies (Kotler *et al.*, 2010).

2.2.2 Evolution

This new definition, given by the AMA, is characterized by a more macro perspective, giving more importance to the globalization of marketing, being a consequence of the development of the information and communication technologies (Meffert, Rauch, and Lepp, 2010; Rettie *et al.* 2012).

Before this development, marketing had gone through several phases. At an early stage, the main concern was the product, but as years went by, a greater importance was given to the customer. More recently, with the internet boom and the spread of information technologies, the connection between consumers and the sharing of experiences has increased. The development of forms of communication has greatly facilitated the exchange of information about products and services at a global level (Paradauraman and Zinkhan, 2002; Yadav & Varadarajan, 2005). With this knowledge about the products, the consumer starts to participate in their development (Kotler, Kartajaya, and Setiawan, 2011).

Marketing 3.0

The era of Marketing 3.0, also known as "values-driven era" emerged. The Marketing 3.0 is a type of marketing that aims to answer the present-day challenges, resulting from globalization issues (Kotler *et al.*, 2010).

Kotler *et al.* (2010) argue that this age is characterized by the age of values. In this context, consumers are seen as human beings in a whole, with mind, heart, and spirit. It is no longer sufficient to reach the client's mind; it is necessary to reach the heart. So, the role of brands as being only identifiers of products has been outdated. Jiménez-Zarco *et al.*, (2014) stated that "*companies must posit their brands instead, to seek to address to social, economic, and environmental issues as a way of engaging with society.*"

The definition of marketing has therefore undergone an evolution over time, mainly due to the development of information and communication technologies and consequently to a change in consumer-brand relationships. One of the current trends, and considered the next phase after Marketing 3.0, is without a doubt Big Data, which if managed efficiently can bring great improvements in the relationship between brands and consumers. The Marketing 4.0. is, therefore, the marketing of Big Data (Jiménez-Zarco *et al.*, 2017). According to Kotler *et al.*

(2017), Marketing 4.0 gives relevance not only to the focus on humans but also to content marketing, which will help brands to adapt to this new digital economy.

2.2.3 Functions

Marketing has a primary function in the company. Kotler in Maklan *et al.*, (2007), understands that the marketing function happens to be a facilitator of exchange. This function, more than any other, conditions its survival, prosperity, and growth.

Brito *et al.* (2006), explores this theme and summarizes the functions of Marketing in three stages.

In the first phase, identify needs and opportunities in the market that can be worked to become good businesses. In a second phase, support in the development of the business regarding price, distribution, potentially associated services, and the whole design of products and brands. Finally, to support business development with effective promotion and communication.

2.2.4 Dimensions

According to Toledo (1987 in Pipkin, 2012), to fully understand marketing, it is necessary to distinguish between three different dimensions, namely: philosophical, functional and operational.

- Philosophical dimension: The company, in an integrated way, should be oriented to add value to the customer. Hence all decisions made by the company are aimed at satisfying the needs and desires of customers.
- Functional dimension: This dimension seeks to adjust the relation between the different needs of the market and the innumerable offers of the market, which results in the process of exchange. For this process to occur, it is important to the company that the return from the exchange is greater than the costs for the composition of the offer. The customer, however, needs to evaluate whether the satisfaction with this offer will be superior than the value and the time he dispensed, among other factors that interfere in the purchase.
- Operational dimension: It refers to the act of operating the marketing concept, seeking to take advantage of the opportunities offered by the market, through the planning of controllable variables that influence the way consumers respond to the market, namely: product, price, distribution, and promotion. These are the four variables that make up the marketing mix.

2.2.5 Marketing Mix

The marketing mix is "*as a group of controllable marketing variables that the company uses to produce the response it wants in the target market.*" This concept arose from Borden (1953), who defined this concept, and was then later refined by Jerome McCarthy (1960) in his book "Basic Marketing." This author highlighted the points of interest to which organizations must be aware of the construction and materialization of their marketing objectives.

Therefore, the 4P's emerge, a simplification of the marketing mix constituents identified by Borden that condense all marketing mix variables into four "basic variables": Product, Price, Place, and Promotion.

This concept has become very relevant for companies, which is why it continues to be used in the formalization and implementation of marketing strategies (Chaffey *et al.*, 2009). With the evolution of the markets, the 4P's of marketing mix have adapted and evolved to the 7P's: People, Process and Physical Evidence (Chaffey and Smith, 2009).

The Communication, a marketing mix variable that will be discussed in more detail in this thesis, must be consistent with product, price, and distribution policies. This consistency will be the starting point for a clear communication plan that will contribute to the achievement of the marketing objectives (Castro, 2007).

2.3 Communication

2.3.1 Concept of Marketing Communication

According to Kunsch (2003), the concept of marketing communication is based on the integrated combination of persuasive communication tools, aimed at gaining consumers. It is a way for companies to be able to inform, persuade and remind consumers about the brands or products they provide. (Kotler and Keller, 2006).

Marketing communication is based on the fact that the simultaneous and convergent use of various communication techniques will produce better results than unrelated efforts (Castro, 2007).

2.3.2 Evolution of Marketing Communications

2.3.2.1 Traditional Mass Media

In a not so distant past, advertising agencies were the main responsible for companies' marketing communications. This happened since the traditional mass media advertising was the core of companies' communication campaigns, not only because investing in product promotion seemed the right decision, but also because marketers concluded that consumers

were a homogeneous group that would be best reached with mass media advertising. (Schultz 1996, Solomon and Englis 1994).

With the whole focus on advertising, it was natural that other forms of communication were neglected and seen only as auxiliary tools, which did not belong as an integral component in the marketing communications process. (Belch and Belch 1998; Englis and Solomon 1996).

However, during the 1980s, several companies understood the need for a more cohesive approach in their communication plan, so their strategies started to integrate advertising with a variety of other communication techniques.

2.3.2.2 New approach

This new approach integrated advertising with a variety of other communication techniques such as public relations, sales promotion, publicity, direct marketing, and event sponsorships. As concluded by Belch and Belch (1995) the integration of advertising and other forms of communication was more effective when coordinated altogether.

This change is also supported by Kotler and Armstrong (2010), who declares that "*probably no other marketing area is changing as deeply as marketing communications.*" According to the same authors, in this wireless and digital age, companies are changing their marketing strategies, which are moving from mass marketing campaigns to communications more directed to micro markets of consumers with common interests, allowing this way more intimate relationships. These transformations generate changes in the way companies interact with their customers through new media, which give greater control to the consumer as a decision maker of which, where, how and when to view the messages that they receive.

Kotler and Armstrong (2010) highlight that this development led to the creation of a new model of marketing communication, more personalized and interactive. This model merges traditional media with new digital media in an integrated way with the goal of transmitting a single universal message, integrated by the various channels of communication.

2.3.3 Integrated Marketing Communications

2.3.3.1 Definition

The concept defined by the authors Porcu, Barrio-García and Kitchen (2012) declares that the Integrated Marketing Communications (IMC) "*is like a systemic and interactive process of multifunctional planning and optimization of the messages for the stakeholders, with the goal of communicating with consistency and transparency in order to achieve synergies and lead to profit relationships in the short, medium and long-term*". For these authors, the IMC is not a

linear process, but a circular one that represents the set of relationships that are established, and that creates brand value regarding sales that come not only from attraction and retention but also from the increase in the number of customers.

According to Grove Carlston and Dorsch (2007), the integrated marketing communication plan is *"a way to effectively identify and attract the mass market through the transmission of an integrated message at the various points of contact between the organization and consumers."*

2.3.3.2 Development

According to Holm (2006), the IMC phenomenon is conceptually old but operationally new, as such, it was the recent developments that made its practice in companies possible. The development of the IMC was due to some factors, such as fast technological development, constant market developments, globalization of the economy, deregulation of markets, and individualization of consumption patterns (Kliatchko, 2005).

These factors led companies to feel the need to reconsider their critical success factors and to develop new strategies for a sustainable market positioning (Kliatchko, 2005). Furthermore, in a saturated market, characterized by the daily growth of new competitors, a different strategic approach is required in companies. This different approach is represented by the IMC which complements the traditional marketing theories used in communication management of corporations (Porcu, Barrio-García, and Kitchen, 2012).

Thus, the IMC is considered a "revolutionary paradigm" (Schultz *et al.*, 1994 in Torp, 2009) and a complex view of marketing communication elements and processes (Reid *et al.*, 2005).

2.3.4 Less traditional methods of communication

Due to the modifications in the marketing communications panorama discussed previously, a gradual proliferation of less traditional methods of communication had taken place.

To understand the nature of some of these less traditional methods of communication, it is crucial to realize the marketing communications environment of product placement. In general, the marketing communication mix, also commonly referred to as promotion mix (Kotler, 1997), is constituted by five types of communication: sales promotion, public relations and publicity, personal selling, direct marketing and advertising. According to Vysekalová (2010), a *"series of changes have been made to these traditional forms due to new specialized branches, techniques, and media that have emerged and which need to employ marketing tools even more."*

These changes stated by Vysekalová (2010), are visible in advertising, which is no longer associated only with typical direct advertising. As mentioned by Chapungu (2010), product placement, despite being a form of advertising, does not use any type of ads to communicate the product.

2.3.4.1 Advertising

Advertising has become such a crucial concept for companies to the point of being frequently confused with the concept of marketing. Pereira and Veríssimo (2004) define advertising as *"the set of operations related to the diffusion of an advertising message to its addressees, as well as the legal and technical relations that emerge between advertisers, advertising agencies and entities that exploit the Advertising media or engaged in advertising."* Also, Castro (2002) defines advertising as a *"marketing communication tool that companies pay to spread messages through the mass media."*

As a result of the decline in the efficacy of traditional modes of advertisement, brands have now shifted towards the adoption of strategies like product placement as an integrated marketing communication strategy (Mackay, Ewing, Newton and Windisch, 2009)

Thus, new forms of persuasive communication emerge to cope with the consumer's attitude towards saturation in advertising. The consumer is increasingly developing tools that allow him to be increasingly selective in his attention, ignoring any form of advertising that seems intrusive or unsolicited. As a result, the brands have pursued alternative solutions like product placement to replace traditional advertising. It is a way for brands to remain on TV, where most of their targets are, and continue to be associated with large-screen shows. Being a form of advertising and promotion (Cowley and Barron, 2008), product placement assumes itself as a communication tool, using the entertainment so that the message becomes subtler.

2.4 Product Placement

2.4.1 Definition

There were numerous authors, many of them specialists in Marketing, who explored and wrote about product placement. Consequently, the existing definitions of this scope are varied and represent the authors' experience over many years of study.

Balasubramanian (1994) defines it *"as a paid product message which is aimed at influencing viewers through planned and discreet entry of a branded product into a movie."* Karrh (1998) on the other hand, defines this communication strategy as a paid inclusion of branded products or brand identifiers, through audio and visual means within media programming. While Lehu and Bressoud (2008), in a simpler way, define product placement as a tool marketing where the

product is put into the movie scene, or its brand name is heard. Even though researchers agree with the main idea in product placement definition, it is possible to find in literature proposals for different designations. While some use the term "entertainment marketing" (Hackley and Tiwsakul, 2006), emphasizing this way the presence of the brand as part of the entertainment, others prefer to use "brand placement". In this case, the authors argue that this designation makes more sense since trademarks are being used, instead of generic brands (Delorme and Reid, 1999; Karrh, 1998; Karrh *et al.*, 2003).

This communication strategy has been gaining significance since it is also a "*harmonious combination of advertising and promotion, designed to quietly influence the audience by entering product brands in entertainment programs*" (Cowley and Barron, 2008). This non-obstructive placement of the brands, under a natural environment and synchronized to an audiovisual narrative, can be converted into an effective tool in the communication strategy of the brands (Karrh, McKee and Pardun, 2003).

Therefore, products and brands seem logical elements to be integrated into movies, since their role is to enhance reality, in an environment where the characters need all these brands that are represented in products or services to give veracity to the plot (Perez and Rufi, 2004).

2.4.2 Evolution of Product Placement

Product placement was already used in movie production long before it was known as such and recognized by industry agents as an effective source of financing. The perfect example of this situation happened in the United States of America, where this practice is, and has always been, very popular for many decades. At the beginning of the 20th century, *Jack Warner* of *Warner Studios* used cars from *General Motors* in its movies due to a product placement agreement (Bressoud and Lehu, 2008). However, according to Segrave (2004), at the initial period of this practice this strategy was always hidden and never admitted, and the opposition to the practice declined only by the end of 1970's when it became the most natural thing in Hollywood.

Since this strategy has always been used, the exact origin of product placement is not consensual at all. One theory is given by Sutherland (2005), that argues that this practice began to show results in the 30's, using as an argument the movie "*It Happened One Night*," where the actor *Clark Gable* was filmed without using an undershirt. This caused sales of undershirts, which until then were extremely common, to decrease significantly. However, as the author states, the situation is not demonstrating the efficiency of product placement, but the influence of role models that can create or end trends. A better example that illustrates the power of product placement is the appearance of Reese's Pieces in *ET* Movie. According to Karrh (1998),

Hershey (the producer of Reese's Pieces) claimed there was a 65% increase in sales when the product appeared in the movie. This sparked the interest of marketers from the 1980s, and since then, the practice of product placement has grown significantly during the past 20 years.

Although the beginning of product placement is not precise, it is known that this practice had several developments over the past decades. It all started with the goal of increasing the reality of movies by adding real brands and products (Brennan et al .1999). Consequently, products of a specific brand that appeared in the movies registered increases in sales, thus showing an opportunity that brands could take advantage.

In addition to the brands themselves, movie producers saw this strategy as a way to increase their budget. According to Magiera (1990), the budget constraints caused many filmmakers to be dependent on product placement. This symbiosis between movie producers and brands increased the use of product placement in movies, causing the spectators to stay more tolerant and accustomed to this practice. Currently, this strategy has become increasingly important for business strategies, particularly in Europe where in recent years product placement has been very receptive (Pato, 2005). This importance made product placement increase not only in movies but also tv series, books, games, music and even theater (Lehu, 2005; Lee and Lee, 2007; Waldt, 2005).

2.4.3 Types of Product Placement

Lehu (2005: 9-10) states that product placement can be subdivided into four different types with distinctive features:

Classic Placement - This form of product placement is one of the oldest and most common. The use of this technique is more tactical than strategic and aims to make a brand or product appear on the screen during the movie. This kind of product placement is uncomplicated to implement and has a relatively reduced cost. Apple's placements in movies are a good example as they are usually easy to put into context. However, brands that use this type of placement can be unnoticed, especially when inserted into movies with a high number of placements.

Corporate Placement - As the name implies, this type of product placement gives priority to the brand over the product itself. It has a degree of risk since the target may not recognize the brand before seeing the movie, and if so, it may go completely unnoticed. It has the advantage of being more durable than the product, and the same product placement can also be used on another occasion. As an example, in the movie "*Minority Report*" there are signs of *Pepsi* without any product associated. This type of placement should be practiced by brands with high

prestige and recognition, otherwise, the viewers could not associate the brand with their products – therefore invalidating the purpose of the practice of product placement.

Evocative Placement - This type of product placement is more discreet since the brand does not appear or is not clearly mentioned in the movie, which ends up requiring either a high integration with the storyline. Not all products/brands can be used in this approach; it is essential to be an original product whose design is sufficiently distinctive to evoke its name in the target's mind. Companies may run the risk of not being identified by the audience if not familiar with the brand. A good example is *Moët & Chandon* product placements, since the shape of the bottle and the label are evocative enough so the target audience can identify the brand without hesitation.

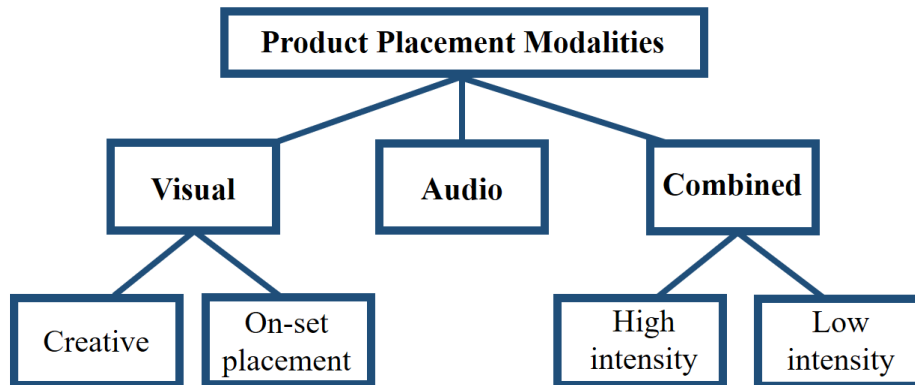
Stealth Placement - Its identification can generate a powerful impact on the viewer when it is discovered by itself because of its hidden nature. It is a very discreet form of product placement, almost imperceptible, and in most of the times, it is so well integrated with the scene that conveys a huge naturalness, maximizing the impact. However, its detection is difficult due to its framing in the movie scene, and it has a high probability to pass through unnoticed.

2.4.4 Product Placement Modalities

Authors of reference in this area have proposed numerous forms of categorization that have been used to measure the effectiveness of product placement. Among them, Gupta and Lord (1998) proposed that product placement strategies were categorized in three different ways, namely:

- 1) **Visual Only** - When the brand is shown, even if there is no verbal reference that draws attention to it. The visual dimension can be practiced in two different ways: The creative placement presupposes a "hint" of the brand in the movie, for example through the placement of billboards in scenes filmed in the street. On the other hand, on-set placement corresponds to the placement of the brand in a plausible and logical environment, such as food brands in scenes recorded in a kitchen.
- 2) **Audio Only** - The verbal dimension implies a mention of the brand, without however showing the product. The evaluation of placement implies the analysis of several factors, namely the context, the frequency and the emphasis of the suggestion to the product. Regarding this last aspect, the tone of voice, the location in the dialogue and the character that mentions it are some of the determining factors in the appreciation of the effectiveness of the product placement.

- 3) **Combined Audio-visual** – The brand is shown and mentioned, involving a combination of the visual and verbal components. It can be understood as the degree of connection between product and plot, up to a point where it takes a prominent role in the narrative, or because it contributes to the construction of a character. The combined placement shows to be more relevant than the other modalities, by revealing greater communicative effectiveness regarding memorization (Lehu, 2005).



Graphic 1 - Product Placement Modalities, adapted from: Russell (1998)

The effectiveness of product placement in any of these three modalities can be analyzed according to their degree of prominence (Dias, 2007; 8; Gupta and Lord, 1998).

In prominent placement cases, the actor is identified with the brand, and the brand turns into the main element in the plot. The product can also occupy a central position in the scene, or it is highly visible due to its size and value to the narrative. However, other specifications make a brand have a prominent product placement. As such, Cowley and Barron (2008) gathered a set of characteristics raised by several authors, decisive for the classification of a prominent placement: "Product size or logo, centrality on the screen, script integration, centrality in the script, number of mentions, screen duration, placement strength and / or mode."

In contrast, the subtle placements refer the product to the background, outside the central field of view, and may thus pass unnoticed in various situations.

According to Babin and Carder (1996), the prominent placement stimulates the recall of the brand, contrary to the subtle placement. However, the analysis of the communicative efficacy of product placement, taking into account its modality and degree of prominence, revealed, in a study by Russell (2002): "*product placements that were merely placed in the background were persuasive as verbal placements that were highly congruent with the script.*" In this sense, subtle visual placements hold the same communicative effectiveness as prominent verbal placements. It should also be noted that a subtle visual placement has a greater impact on implicit memory, which may translate into buying behavior. These different ways of using

product placement are therefore directly linked and aligned with the type of strategy outlined for the brand.

2.4.5 Product Placement Strategies

Lai-man and Wai-yee (2008) defined three main product placement strategies, namely: implicit, explicit integrated and explicit not integrated.

The first strategy, the implicit one, is to put a product, brand or service on the scene, usually placed in a subtle way, in the background, without any contribution to the audiovisual narrative.

On the contrary, the explicit integrated strategy involves putting the product placement in the audiovisual narrative, with an active role through the handling of the actors.

The last strategy, explicit not integrated, is characterized by the direct exposure of the brand, without being integrated into the narrative.

The product placement strategy has a considerable impact on the recall rate. In explicit non-integrated and implicit strategies, only 28% of respondents said they saw the product. Regarding the explicit integrated strategy, this number increases to a total of 70% of the respondents declaring to have seen the placement. The authors concluded that *"the most crucial factor in the effectiveness of a product placement is explicit or integrated execution styles, manipulated in ways that are effective and persuasive."*

2.4.6 Balance Model of Sitcom Product Placement

Product placement can also be analyzed according to the Balance Model of Sitcom Product Placement. This model comes following a study by (Russell and Stern, 2006), that examined the influence of product placement in television serial comedies on consumer attitudes towards the products.

This model considers the central role of the character that uses the brand, product or service, in a tripartite influence process. The stage one of this process is a relationship between the character and the product within the program. The stage two is a relationship between the consumer and the character, and stage three a relationship between the consumer and the product.

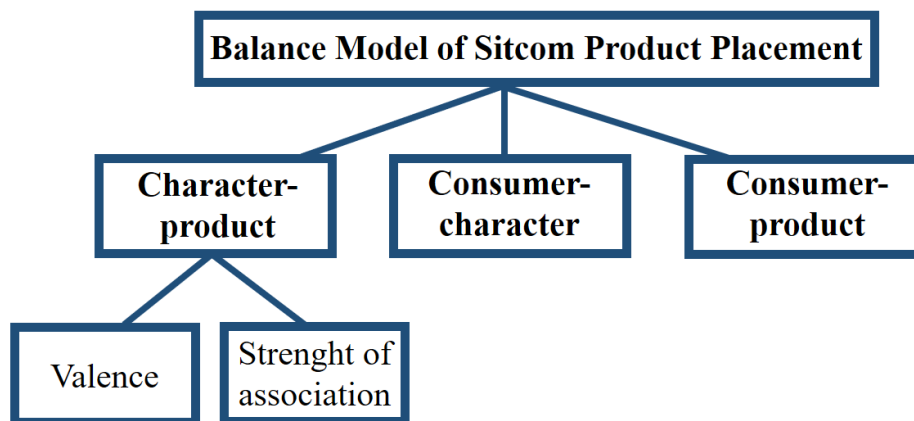
The first stage, the character's attitude towards the product, can be analyzed in two dimensions: valence and strength of association. The valence can be negative or positive depending on the attitude of the character towards the product. However, characters should not automatically assume a favorable attitude toward a given product. On the contrary, the character must adopt

a more discreet attitude, otherwise, it will eventually trigger an attitude of reactance in the audience.

Regarding the second dimension, the strength of association, these may be strong or weak. Weak associations are considered to be those in which the products are merely arranged in the background to enhance the realism of the scene. On the other hand, strong associations refer to products used more explicitly - they can convey ideological information about a character, enriching their identity building and reflecting their values.

The second stage, concerning to the relationship between the consumer and the character, the authors considered the consumer's attitude towards the character, i.e., the feeling that comes from the character's overall posture during his performance, and the consumer's social relation to the character. This last one reflects the degree of identification between the consumer and the character, i.e., the sense of closeness that the consumer experiences.

Thirdly, in the relationship between the consumer and the product, the authors considered the attitude of the consumer to the product inserted into the program. In other words, the consumer's willingness to respond favorably or unfavorably to the product, brand or service inserted in the audiovisual narrative.



Graphic 2 - Balance Model of Sitcom Product Placement, adapted from: Russell, Cristel, Stern, Barbara (2006)

2.4.7 Benefits and reasons to use Product Placement

According to Redondo and Bernal (2016), *“product placement among users of well-established products, produce stronger effects on brand choice when integrated into movies than when presented the independent ads.”*

Product placement is an alternative to traditional advertising, so there are several reasons why brands choose this form of communication. The fact that amplifies the reach of the message, even outside the traditional circuits of diffusion, is one of the good reasons for this practice

(Gupta, Balasubramanian, and Klassen, 2000). This amplification naturally leads to an intensification of brand awareness, which can increase by 20% in TV shows (Cebrzynski, 2006). These higher results of brand awareness originate not only a stronger brand recall, but also higher purchase intention (Tsai, Liang, and Liu, 2007).

Besides brand awareness, the increase in consumer memory and recall of the brand has been studied by several authors, such as Pokrywczynski (2005). He states that the audience can properly recall placed brands in movies, using free and aided recall measures. Also, when the product appears in an early stage of the movie and over several times (being verbally referenced at least one time) increases brand recall (Romaniuk, 2009). Srivastava (2014) also studied this subject, concluding that product placement in movies may be an alternative to advertisement for better brand recall, purchase intentions, change in perceptions towards the brands and improving attitude towards the brand.

Product placement, if carried out within successful movies, makes brands more likely to achieve a better reputation, and consequently increase the shelf life of the product placement (Daugherty and Gangadharbatla, 2005; d'Astous and Seguin, 1999).

According to Delorme and Reid (1999), the use of this technique influences the audience to develop familiarity and a sense of being associated with the brand. The development of this sense of familiarity can also be generated using products or services of a particular brand by actors who lend credibility to the brand (Waltdt, 2005). Also, an investigation carried out by Sapolsky and Kinney (1994), demonstrated that when the brand was shown along with a main actor, it originated more visibility to the brand. Furthermore, this study also verified that brand recall was higher when the scenes had both verbal references and visual cues of the product. The objective of product placement can not only be to increase the commercial performance of the product, since one of the main objectives is also to increase the familiarity of the brand among consumers (d'Astous and Chartier, 2000).

Regarding movie producers, product placement allows not only to increase the budgets of movies, but also give more realism to the sequences and audiovisual narrative (Rubbo and Berneman, 2004; Waltdt, 2005; Balasubramanian, Karrh, and Patwardham, 2006).

This strategy turns out to also be an asset in the long-term, because as Babin and Carder (1996) stated, *“the product placement causes the brand name to be remembered among viewers for a long period of time.”* Jan and Martina (2013) also reached favorable results regarding this matter, concluding that *“Marketers are sure that product placement is efficient. The product placement belongs to a long-term marketing field where the brand building is also included”*.

2.4.8 Downsides of using Product Placement

There are quite a few disadvantages in product placement, including the possibility of negative character/actor association, lack of control by the companies, and also regarding ethical issues (Cowley and Barron, 2008).

Regarding the negative association with a particular character/actor, sometimes certain brands' products are used by a more controversial character who has had some infelicitous attitude. This way, the brand can end up being harmed when being associated with this person.

Another disadvantage, much debated, in this case by Daugherty and Gangadharbatla (2005), is the little control that brands have in the incorporation of their products into the scenes and narrative the of the movie. Although most products appear within a maximum of 5 seconds (La Ferle and Edwards, 2006), brands should pay close attention to how their products are exposed. This way they are able to not only get the maximum return on their investment, but also make sure that the brand is not passed completely unnoticed or involved in controversial and sensitive issues.

It is also important for brands to ensure that they are not too intrusive, as if this is the case, some viewers might develop neutral or negative attitudes towards the brand (Waldt, 2005).

Another disadvantage is related to ethical issues, where several authors who held a negative perspective towards product placement. Lamb (2005) also highlights that viewers need to be able to distinguish what is an advertisement and what is not.

2.4.9 Ethics

Nebenzahl and Secunda (1993) were pioneering regarding studies in the field of ethics and product placement. It was found that the spectators had a position of acceptance of this practice, and the minority who opposed were moved by ethical issues (Stern and Russell, 2004). This acceptance of the practice of product placement has been evaluated in comparative studies in several countries. Besides the United States of America, Germany (DeLorme *et al.*, 2000), Austria and France (Gould *et al.*, 2000), Australia (Brennan *et al.*, 2004) and Singapura (Karrh *et al.*, 2001) also studied this theme.

In general, positive attitudes about product placement are related with a positive attitude towards the products presented (Gupta and Gould, 1997). Viewers who show high levels of connection to a particular program, know and are influenced by the products used during the show and react to the product placement more favorably, although they may not recognize the commercial intention (Russell and Puto, 1999).

These results, obtained in the USA, are consistent with another investigation regarding a soap opera transmitted in *TV Globo*, conducted in a small rural community in the Northeast of Brazil. This study indicated that viewers who identify themselves with the episodes and follow systematically such programs, do not react negatively to the persuasive efforts of the product placement since they see it as an integral part of the narrative (La Pastina, 2001).

This situation can be justified because unlike advertising, product placement does not take an explicit persuasive stance (the brand is framed in a story) and its persuasive effort is usually secondary to the main story of the movie (Nebenzahl and Jaffe, 1998).

Some researchers point out that this difference between the two communication techniques is because viewers process these two types of persuasive messages differently (McCarty, 2003).

Over time, and due to the greater emphasis about product placement, the attitude of viewers concerning product placement continued to be studied (Brennan *et al.*, 2004; DeLorme *et al.* 2000). It was verified that the majority continued to tend to accept this communication technique, for adding realism to scenes, by enhancing familiarity with the fictional situation, helping to define the role of the characters and to relate to the day-to-day viewer (Delorme and Reid, 1999). Therefore, these ethical reservations do not appear to be shared by viewers, since the opinion tends to be positive, although for those types of products which contain moral constraints (e.g. tobacco, alcohol, weapons) this position is rather less favorable (Gupta and Gould, 1997).

More recently, Manyiawa and Brennan (2016) carried out a study, which concluded that consumers' perceptions about the ethicality of product placement mediate the relationship between materialism and product placement acceptability. The people who score higher on materialism find product placement more acceptable than those who score lower.

There are, however, some researchers that continue to raise some ethical issues, since there is no explicit reference to the presence of brands within programs (Stern *et al.*, 2007). Many authors feel that this practice is sinister and should be forbidden or at least clearly revealed at the end of the movie (The Economist, 2005).

Thus, some researchers consider this communication technique as surreptitious, since the audience may not be aware that they are subject to advertising messages. Nebenzahl and Jaffe (1998) complement this position by defending that this situation is about invasion of individual privacy since it gives no right to choose or to be informed. Lamb (2005) also highlights that “viewers have the right to distinguish between what is an advertisement and what is not,” so he considers the current practice of product placement as unethical.

2.5 Importance of Communication for Brands

The adoption of a long-term integrated communication strategy is vital to achieving a recognized brand in the market. The message of the company must be consistent with the positioning and image of the brand, concepts that will be scrutinized in the next chapter.

The importance of communication for brands is evidenced by Kapferer (1991) "*the brand only exists through communication.*" It is by communicating the brand that it actually comes into existence both physically and emotionally. If this does not happen, brands, in addition to not disclosing their products and services, will not have any support for the brand image and will have much more difficulty in maintaining or increasing their reputation. This position was braced by Bowersox and Morash (1989), who stated that one of the communication roles was to inform the consumer about what their brand and product or service consists of, and among other things, to act as a differentiating factor, strengthening the brand identity.

Moreover, Fill (2009) declares that communication has a vital role in the growth of brands, and is the way regular products become brands and then successful brands. It is a tactic that makes customers realize how different the product is and what the brand benefits are.

So, one of the major objectives of integrated marketing communication is brand building. However, it is important to highlight that branding is not just inserting a symbol or a name on a product, it is also a set of attributes that have a meaning, an image and produce associations with the product (Pickton and Broderick, 2005).

2.6 Brands

2.6.1 Definition

For Kotler (1998) the brand is a name, term, sign, symbol or combination thereof, which is intended to identify goods or services of a seller or group of sellers and to differentiate them from competitors. This concept can be further explored and developed in three complementary definitions (Lencastre, *et al.*, 2007): "*Brand name*", which is characterized by the part of the brand that can be vocalized; The "*Brand mark*", which is the part of the brand that can be recognized, but not vocalized; And "*Trademark*", which is assumed as a brand with legal protection, legally valid, with protection of exclusive rights, whether the sales rights, name or graphics.

The definition of Kotler, although widely used, has been criticized by some authors, who consider it very simple and reductive (Brito, 2010; Chernatony and Reily, 1998; Lencastre and Côte-Real, 2010). In the light of this definition, the concept of brand appears to cover only the

creation of graphic signs to distinguish different products. From a marketing point of view, brands are not mere signs. Brands are not just simple elements that help to position products and companies (Brito, 2010).

There are, therefore, other complementary definitions such as Brito (2010) that notifies that brand building is also a process involving customers, and as explored later on, are essential in the context of Brand Equity determinants.

2.6.1 Global Brand Identity

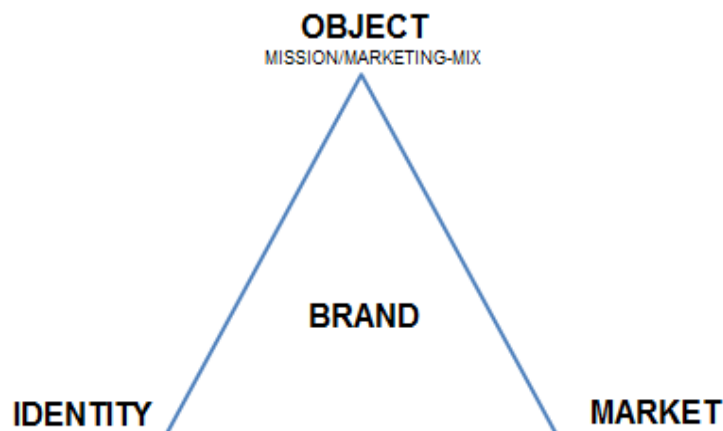
2.6.1.1 Brand Triangle

Lencastre and Côrte-Real (2010) define the brand in the perspective of semiotics as not being just a label, a product, an organization or its stakeholders, but rather the interaction of all of them. These authors are based on Peirce's Theory of Signs, in which a sign is anything, which is in the place of anything, to be interpreted by someone. They define the brand in three pillars:

I) The identity pillar - Represents the sign or set of signs of brand identity.

II) The pillar of the object - Covers the different offers of the brand as well as the organization and marketing actions that support them.

III) The market pillar - Encompasses target audiences and their different responses to the brand.



Graphic 3 - Triangle of the brand, adapted from Lencastre et al. 2007

IDENTITY

The identity of a brand can be analyzed from three factors: the name, a product and a logo (Sicard, 2001). The logo may include drawings and symbols, characterized by a particular lettering and an associated color. The name and logo form the basis of the identity mix (Lencastre, et al., 2007). This allows not only the identification but also the differentiation of a brand from its competitors. The creation of an image for the brand should never be facilitated, since it is vital in the construction of customer perceptions (Speer, 2005).

The tangible and intangible characteristics that the company has assigned to its brand and which it seeks to communicate to the consumer are included in the identity. This idea is backed up by Kapferer (1991), who affirms that the identity of the brand brings together the set of own characteristics, resulting from its history, its values, its properties, its physical aspect, and its relationship with the public.

Caetano (2007) says that *"it is from the creation of a good corporate identity that a good communication process is developed and, consequently a good image."* A planned identity helps the brand in achieving its objectives, positions it in the market and improves its financing capacity (Ruão, 2003)

OBJECT

The objective of the brand is a mission based on the company, product, and marketing actions, and its purpose is to identify the mission and differentiate it from the competition. In other words, the mission is materialized by the marketing mix (Lencastre *et al.*, 2007). According to Kotler (2000), the best mission statements are those guided by a vision, that gives the company direction for 10-20 years.

MARKET

The market pillar is related to the image that the company passes to the exterior. The image interpreted by the consumer may vary depending on the relationship that exists with the corporation. Therefore, customers may have a major role in brand building, and as Keller points out, *"although it is up to companies to promote the brand through marketing programs and other activities, ultimately the brand is anything that resides in the minds of consumers"*(Keller, 2003). This construction of brand image is a process that must involve the customers themselves, being them the reason for the existence of brand awareness, image, and loyalty, essential marketing concepts in brand management (Brito, 2010).

2.6.2 Brand Image

Brand Image is defined as the *"brand perceptions resulting from the associations the consumer makes to it"* (Keller, 2003). All the variables of the marketing mix and the way the company is managed influences this image (Brito, 2010).

"The image of a company is, therefore, the set of considerations that the public around it does, not what it thinks of itself" (Bernstein in Vilar, 2006). People construct an image based on a sum of beliefs, ideas, and impressions (Kotler, 1994). It is important for organizations to be able to pass on their messages in a clear way since it is not enough to be effective, it is also necessary to have an image that conveys this effectiveness (Oplatka, 2003).

However, creating a positive image in the clients' mind is a complex task, as it will always depend on the interpretation of who receives. As referenced by Guix (2008), the meaning of the message sent is measured only by the response given. This message will also have different interpretations depending on who receives it. As Vilar (2006) mentioned, "*the image differs according to the audience it is addressed, interacts with or engages with.*"

The challenge is to generate a strong and positive brand image, without being based solely and exclusively on aspects such as name, logo, signature, and jingle, because the brand image does not only depend on its signs of identity but on all its positioning.

2.6.3 Positioning

The positioning of a brand is based on the "*creation of a distinctive perception of the brand, considering that it is addressed to an unmet need or poorly satisfied and necessities to be differentiated from the other alternatives offered by the competition*" (Castro, 2002). At the base of the concept is the recognition that brands occupy positions in the mind of the consumer and that, accordingly, each corresponds to a distinct image (position), which allows its differentiation

Also, Colombo (2005) addresses this issue, defining positioning in the value that the institution undertakes to deliver. Therefore, the value proposition of any organization is the promise that individuals expect to be fulfilled.

2.6.4 Brand Equity

The image of the value of a brand for its stakeholders is usually referred to as the customer-based equity and financial-based brand equity (Lindemann, 2010). The first perspective of brand equity, which will not be explored in detail, is from a financial perspective, where the asset value of a brand is evaluated (Farquhar, Han, and Ijiri, 1991). The Customer-based brand equity is customers' brand beliefs and attitudes that affect their purchase behavior. (Rego, Billett, and Morgan, 2009)

Brand Equity is a series of assets or advantages that generates value, each in its own way, for both consumers and the company. For these assets to increase brand equity, they must be associated with the brand name or symbol (Christodoulides, De Chernatony, 2009).

The definition of the concept of brand equity (Aaker, 1991), addresses the value consumers associated with a brand, reflected in the dimensions of brand associations, perceived quality, brand loyalty, other proprietary brand assets and brand awareness. This last dimension, brand awareness, will be explored in more detail.

2.6.5 Brand Awareness

Keller (2003) describes brand awareness as *“the customers’ ability to recall and recognize the brand as reflected by their capacity to identify the brand under different conditions and to link the brand name, logo, symbol, and so forth to particular associations in memory.”* Farhana (2012) has a similar approach, where he relates brand awareness to the strength of a brand in consumers’ memory, as well as consumer ability to recognize different brand elements (e.g., brand name, logo, symbol, character, packaging, and slogan).

Besides, Percy and Rossiter (1992) define brand awareness as the ability of a buyer to recognize the brand within a category of products. These authors go even further by stating that consumers must remember the brand to make a decision, as by default the first brand to be remembered will be the customer's choice.

For this to happen, Keller (1993) points out that brand recognition requires that consumers remember the brand in their memory, which only happens if there are solid links between the brand and the category of products that the consumer needs (Hoeffler and Keller, 2002). This Brand recognition is associated to the extent to which the consumer can recognize the brand from its visual symbols.

The brand awareness is thus related to its memorization in the minds of consumers, as this memorization will reflect the ability of consumers to identify the brand under the most diverse conditions (Rossier and Percy, 1987).

Brand awareness also affects consumer opinion, as shown in several studies, where consumers act on any information that is important to them at the very moment the decision is made (Salancik and Conway, 1975; Pryor and Kriss, 1977). Thus, brands with a higher awareness are more likely to be stand out in a full shelf (Pechmann and Stewart, 1990).

Consumers use the most accessible information in situations of choice, due to less research effort and, due to the lack of time and availability. Therefore, the memory they have of a particular brand will help in the final process of choice of a particular product of a specific category, through their association with the brand (Pryor and Kriss, 1977). In short, brand awareness leads to increased sales, as consumers are more likely to think about the brand (Hoeffler and Keller, 2002), thus contributing to their value (Berry 2000).

Aaker (1991) categorizes brand awareness using a three-layer hierarchical approach, namely:

- Top-of-mind awareness – It is the highest level of awareness, and it represents the first brand being named in an unaided recall task (Aaker, 1991; Kucuk, 2010).

- Moderate level of awareness – Also known as “spontaneous awareness” (Laurent *et al.*, 1995); The brand recall is made by asking a person to name the brand in a particular product category
- Lowest level of awareness – The brand recognition is based on an aided recall test. In this case, the linking of the referred brands to the product category is likely to be low, and therefore the level of awareness that is ensured by brand recognition may also be low.

As seen previously, the notion of a brand is not limited to a set of signs that serve to distinguish products and services from one another (Elliott and Percy, 2007). As such, one easily perceives that it is simpler to recognize a brand than to mention it. For the same authors, assisted awareness is more important "*when the decision is made at the point of sale, where the need for the product is stimulated by the fact that the consumer sees the brand*" (Elliott and Percy, 2007, p. 237).

A significant change in the world of communication is happening, not only concerning the means that the brands use to get their messages through, but also in the way they communicate, and product placement is an example of this. The use of this type of communication aims at strengthening the visibility and identity of the brand, and is motivated by the appearance of new technologies and the consequent fragmentation of the target audiences (Kotler *et al.*, 2009).

CHAPTER 3 - METHODOLOGY

3.1 Research Questions

With the purpose of identifying the research questions, it is important to first turn to the literature review. As it was discussed, many are the authors who now direct their research to identify the effects of product placement in brands. Accordingly, findings suggest that product placement in movies may be an alternative for advertisement for better brand recall, purchase intentions, and improving attitude towards the brand. Redondo and Bernal (2016) for example, determined that product placement among users of well-established products, produce stronger effects on brand choice when integrated into movies than when presented the independent ads. Moreover, and according to Pokrywczynski (2005), the audience can properly recall placed brands in movies, using free and aided recall measures. Also, Tsai, Liang, and Liu (2007), concluded that brands with higher results of brand awareness originate not only a stronger brand recall but also higher purchase intention.

Although there is a significant volume of scholarly literature on product placement, the relevance of brand awareness to brand recognition in product placement remains underexplored, since many of the authors focused either on the effects of product placement on brand awareness, or on the effect of brand awareness on brand recall. So, it is necessary to take a step back, since it is an expanding technique, it is important to realize if these conclusions can be deduced for any brand, regardless of their level of awareness. New brands, or brands with low awareness may see this as an opportunity, but it is crucial to realize if its brand elements (name, packaging, logo, symbol, etc.) are strong enough to be recognized in a context where the brand's appearance is not always very explicit.

The same applies to the top-of-mind brands and brands with spontaneous awareness. At first sight, it would be instinctive to assume that brands that are in the evoked set of consumers and are considered top-of-mind would be more easily recognized when appearing in the movies. Still, having brands with high awareness in movies does not mean that their brand elements will be recognized with greater ease. Moreover, due to the proliferation of these brands by all types of movies, the integration of these brands is so rooted in the narratives of the movies, that their appearance becomes in the majority of the times very natural. This way, brands may even pass unnoticed to the viewers, not allowing its recognition.

Taken together the proliferation of product placement in recent years, alongside with the lack of studies on the influence of brand awareness on brand recognition, is a motive to question **how does brand awareness influence brand recognition in movies and television series** for

the automotive industry and computers. In the end of this dissertation, the primary objective is to verify if there is a relationship between different levels of brand awareness and brand recognition, more specifically brand recognition of the logos embedded in movies and television series.

Thus, the following research questions are presented:

RQ1: Which brands are classified as top-of-mind awareness, spontaneous awareness and low level of awareness, in the categories of cars and computers?

RQ2: How is Brand Awareness related to Brand Recognition in movies and television series in the automobile industry?

RQ3: How is Brand Awareness related to Brand Recognition in movies and television series in the computers category?

RQ4: Is Brand Recognition significantly higher in one of the categories, namely cars and computers?

RQ5: What kind of people are more likely to identify the brands considering their position regarding product placement, how often they watch movies, knowledge about the product category, age, and gender.

3.2 Conceptual Framework

In this chapter, the variables used in the research and their respective interactions are presented, as well as the research hypotheses that were tested.

The conceptual model presented below (Figure 1) represents the hypothesis generated in this paper, with the objective of perceiving what kind of people are more likely to identify the brands taking into account their position regarding product placement, how often they watch movies, knowledge about the product category, age, and gender. The following model is applied for both cars and computers category:

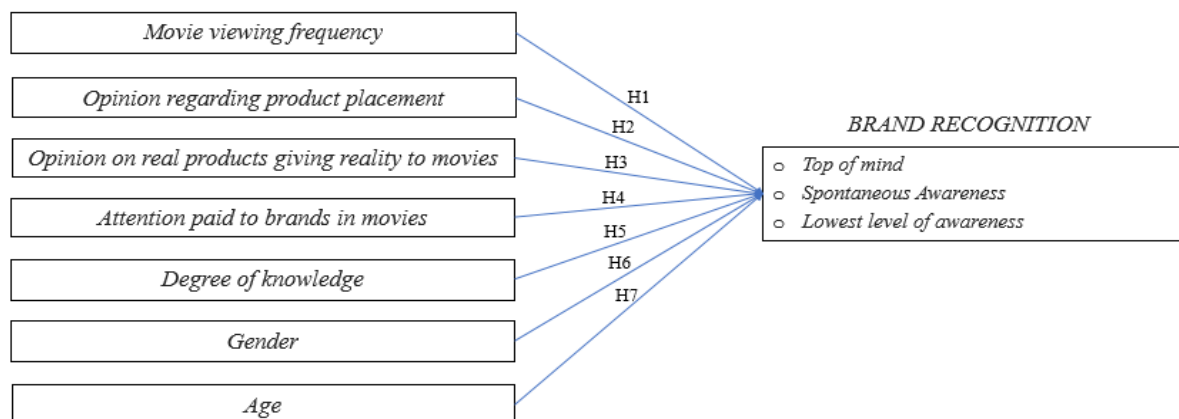


Figure 1 - Conceptual Framework

H1: The group of people who watch movies less regularly are the ones that has less brand recognition for the three levels of brand awareness.

H2: The group of people with the least favorable position regarding product placement are those who has less brand recognition for the three levels of brand awareness.

H3: The group of people who consider that real products do not add realism to movies has less brand recognition for the three levels of awareness.

H4: The group of people who pay less attention to brands in movies has lower brand recognition for the three levels of awareness.

H5: The group of people with low knowledge about the brand category has less brand recognition for the three levels of awareness.

H6: There are no differences in brand recognition at the three levels of awareness, between the male gender and the female gender.

H7: The brand recognition at all three levels of awareness is similar for all age groups.

The hypotheses above will be accepted or rejected in chapter 5 – Conclusion, after the realization of the respective statistical analyzes.

3.3 Methodological Approach

To successfully achieve the research objectives and deliver results with the highest quality and credibility, it is important to define the methods required for the development of this research. In this case, the research will be quantitative in nature, since it is the method that contributes more pertinently to the empirical research.

The methodological approach took place in two phases, namely: a brand awareness test and a brand recognition experiment. To ensure the validity and relevance of the brand recognition experiment, it was necessary to define the set of brands to be used. Therefore, a brand awareness test was prepared aimed to explore consumers' capability to recall the brand when given the product category, which allowed to identify the brands that are top-of-mind, have spontaneous awareness and the lowest level of awareness (Aaker, 1991). Posteriorly the quantitative research – the brand recognition experiment, took place, which allowed to study consumers' ability to confirm prior exposure to the brand when given the brand elements as a cue. The brand's product categories chosen for the research were the most commonly used product categories in product placement, namely: automotive industry, and computers (Kramolis and Drabkova, 2012).

3.3.1 Brand Awareness Test

The Brand Awareness test, which can be found in Appendix A, was done in order to define the set of brands that are top-of-mind, have spontaneous awareness and the lowest level of awareness, for the automotive industry and the computers category. To that end, 50 face-to-face interviews were conducted, with the purpose of representing the population, by selecting people of different age groups of both genders. The brand categorization was made by the three-layer hierarchical approach of brand awareness by Aaker (1991).

An identical categorization was made by Laurent, Kapferer and Roussel (1995), where there are suggested three layers of brand awareness in a certain product category: Spontaneous awareness, Top-of-mind awareness and aided awareness.

- Spontaneous awareness (unaided) - Interviewees are asked, without any stimulation, to name the brands they know in a particular product category. In this case the unaided awareness of a brand is the percentage that indicated they know that brand. The spontaneous awareness resulted from the sum of total references to the brand, whether in 1st place, 2nd, 3rd, 4th or 5th.
- Top-of-mind awareness - Using the same question, it represents the percentage of interviewees who name the brand in first place.
- Aided awareness – This level of awareness presupposed help for the respondents, as they were given the brand names of a product category to assess whether or not he knew the brand. It is the percentage of respondents who indicate they know that brand.

Thus, following this categorization the test was divided into two parts: Aided and unaided tests. The aided part intended to define the brands with the lowest level of awareness. To this end, the interviewees were given several brand names, to see if they knew them. Brands that were not widely known were not considered for the study since it would not make sense to measure brand recognition of the elements of a brand that is not known.

The other part, unaided test, must come first, and is aimed at defining the brands top-of-mind and with Spontaneous Awareness. The central goal was to realize which brands the public had more present in their mind. In unaided recall tests, it is possible to define with much more precision which brand is at the top of the mind of the public. Instead of showing a list of names, interviewees were asked to write the first five brands that came to mind when presented with a specific category of products. When combined, aided and unaided recall tests it was possible to define the set of brands to work with.

3.3.2 Quantitative Research - Brand Recognition Experiment

Kinnear and Taylor (1996) state that a questionnaire is the best method to reach a conclusive investigation. Therefore, the questionnaire applied in this thesis is part of a study about how brand awareness affects brand recognition in product placement, where two different product categories were approached.

With the proliferation of product placement and brands increasingly adopting this tactic, it is relevant to explore brand recognition of these brands in movies and television series. Thus, a brand recognition test in the form of a survey was done to measure people's recognition of brands. This survey, which can be found in Appendix B, was made through a quantitative perspective by an online questionnaire. This way, it was possible to verify how much the public can identify the brand's company through visual cues or other brand attributes—colors, logos, packaging and so forth.

The main goal is to complement these results with the ones obtained through the brand awareness test, searching, therefore, for relations with the brand recognition results.

3.3.2.1. Description of the Instrument: Questionnaire

The questionnaire was applied during the year of 2017, and it was released online in Qualtrics platform, where it was possible to create the survey, collect and store data, and produce the final report.

The questionnaire has four main parts (Appendix B):

1. In the first part, questions concerning socio-demographic characteristics are made, namely gender and age.
2. Secondly, more precise questions are presented regarding the movies and television series viewing frequency. This part also aimed to study consumer's attitude towards the practice of product placement.
3. Furthermore, the questionnaire turns to the brand recognition itself, where images taken from movies and television series are displayed. Each image contained a brand that was selected based on the brand awareness test, from brands with more awareness to those with less. The respondents had to answer if they knew the brand name of the brand presented in the image. If so, they would have to write it down. The use of images taken from movies was intended to simulate how brands appear in this type of content, where not only the logo but also other attributes of the product are displayed.

4. Finally, the last part was identical to part 3, but in this case, computer brands were used. Such as in the category of cars, the images used fit in the ‘classic placement’ type defined by Lehu (2005). Moreover, regarding the modality, as what was shown were images, the implicit strategy in this case was ‘visual only’, since what was shown was the brand, with no verbal reference.

3.3.2.2 Sample Design

The population under analysis includes Portuguese customers, aged between 18 and 65 years old. A valid sample of 482 respondents was obtained. In what concerns the sample size, it is important to highlight that, according to Uma (2003), a sample size between 50 and 500 is appropriate for researches, which is why we consider this sample to be suitable to perform the present analysis.

3.3.2.3 Statistical analysis conducted

The statistical analysis includes descriptive statistics, t-tests to compare means, association tests by using Pearson’s correlation coefficient and the ETA coefficient, frequency tables, bivariate analysis by constructs and also, multiple correspondence analysis. All the analyses were conducted using IBM SPSS 22.

CHAPTER 4 - RESULTS ANALYSIS AND DISCUSSION

4.1 Preliminary study: Brand Awareness Test

To carry out the brand recognition test, the main study of this dissertation, it was necessary to define which brands to use for each category of brand awareness, namely: Top-of-mind awareness, Spontaneous awareness and Lowest level of awareness.

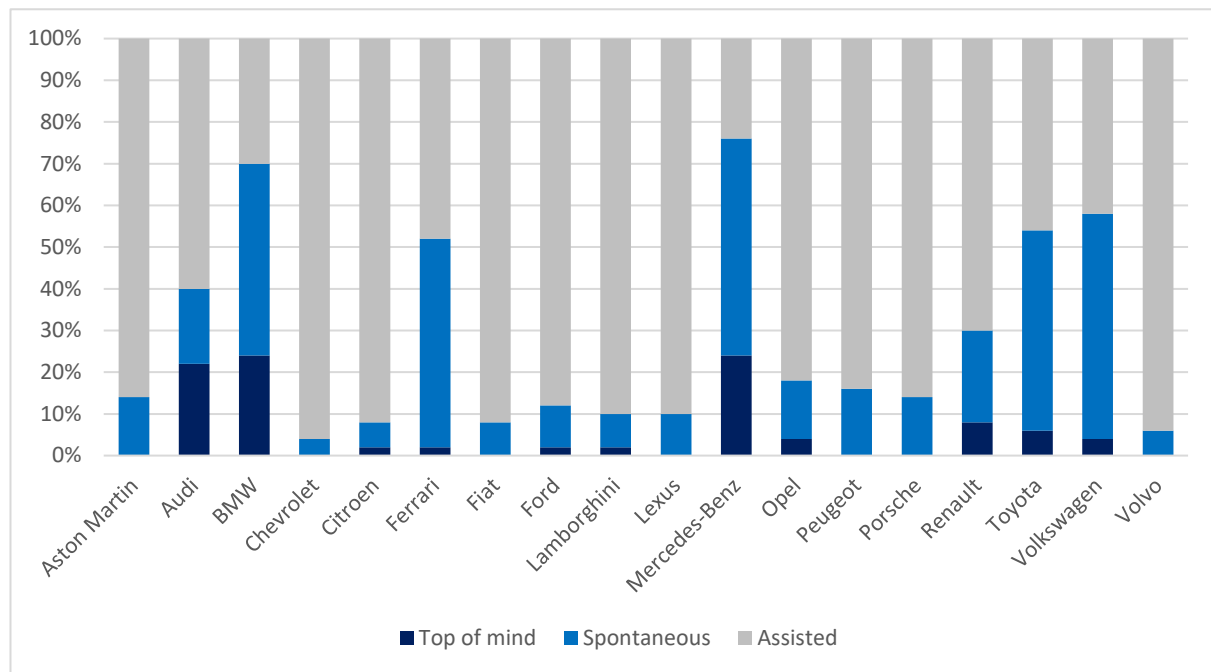
4.1.1 Cars category

After analyzing the interviews, it was possible to group the data and draw the respective conclusions. For a better understanding, it is important to highlight that brands with spontaneous awareness encompass the brands mentioned from the 1st to 5th reference, thus including the top-of-mind brands.

	Top-of-mind Awareness	Spontaneous Awareness	Assisted Awareness
Aston Martin	0%	14%	100%
Audi	22%	40%	100%
BMW	24%	70%	100%
Chevrolet	0%	4%	100%
Citroen	2%	8%	100%
Ferrari	2%	52%	100%
Fiat	0%	8%	100%
Ford	2%	12%	100%
Lamborghini	2%	10%	100%
Lexus	0%	10%	100%
Mercedes-Benz	24%	76%	100%
Opel	4%	18%	100%
Peugeot	0%	16%	100%
Porsche	0%	14%	100%
Renault	8%	30%	100%
Toyota	6%	54%	100%
Volkswagen	4%	58%	100%
Volvo	0%	6%	100%

Table 1 - Brand awareness results - Cars

Graphically the analysis becomes more intuitive:



Graphic 4 - Brand awareness results - Cars

For the car category, all the brands under analysis were familiar to the respondents, since all brands registered 100% of assisted awareness.

As shown in Table 1, Audi, BMW and Mercedes-Benz have the highest value of top-of-mind, namely 22%, 24% and 24%, respectively. In other words, 35 of 50 people (70%) mentioned one of these three brands in the first place.

In the second level of awareness, it is possible to verify that in addition to the previous three brands, Ferrari, Toyota, and Volkswagen all have spontaneous awareness values above 50%.

To define the brands with the third and lowest level of awareness, it is important to select the brands that, even though are not present in the minds of the interviewees, are fully identifiable by them.

In this case, brands such as Chevrolet, Volvo and Lexus meet these requirements, since despite all respondents knowing the brand, only 2, 5 and 3 people, respectively, mentioned the brand spontaneously.

4.1.2 Computers category

	Top-of-mind	Spontaneous Awareness	Assisted Awareness
Acer	0%	42%	96%
Alienware	0%	14%	54%
Apple	26%	80%	100%
Asus	12%	66%	100%
Compaq	0%	6%	44%
Dell	0%	22%	92%
Fujitsu	0%	8%	100%
HP	32%	60%	100%
Lenovo	0%	28%	92%
LG	0%	24%	100%
MSI	0%	12%	36%
Samsung	6%	28%	100%
Sony	2%	50%	100%
Toshiba	22%	54%	100%

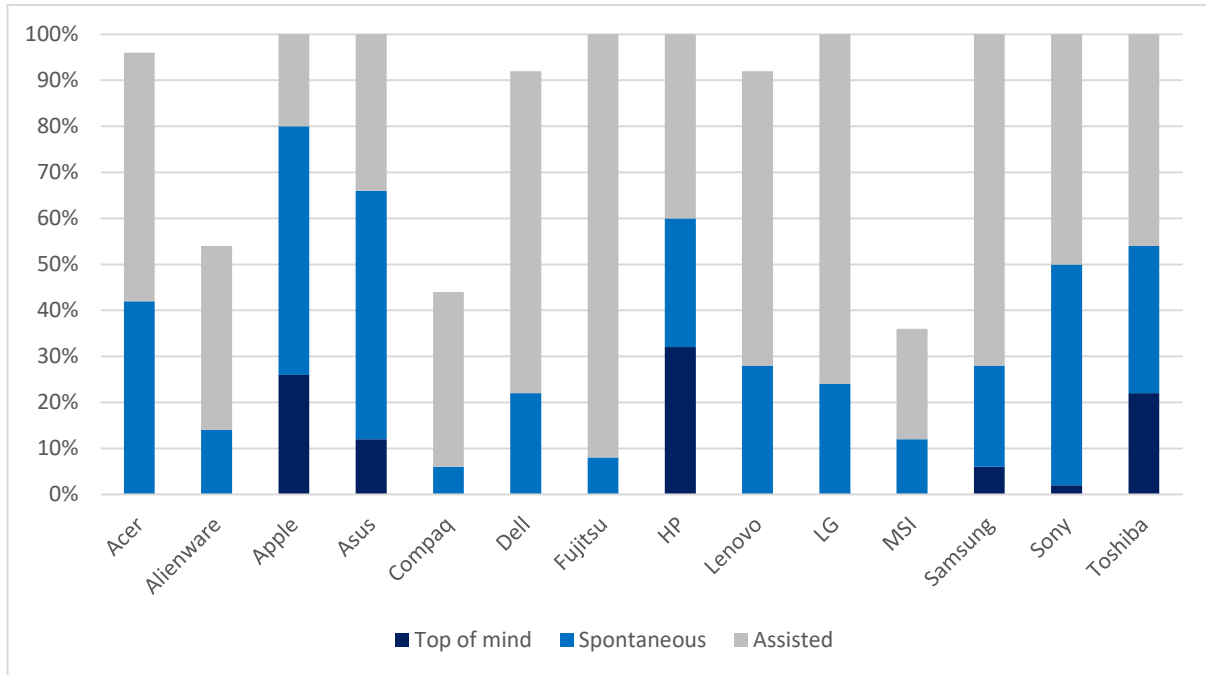
Table 2 - Brand awareness results - Computers

Regarding the computers' category, it is possible to verify in Table 2 that the familiarity of the brands of this category is lower when compared to the category of cars. Of the 14 brands presented, 6 were not familiar to all 50 respondents. The brands Alienware, Compaq and MSI, showed values of assisted awareness of 54%, 44%, and 36%, respectively. For this reason, these brands were not considered for the brand recognition test, as it was not relevant to assess the recognition of brands that are not well known.

Regarding top-of-mind brands, Apple, HP and Toshiba together represent 80% of the first references. That is, 40 of the 50 people, mentioned spontaneously and firstly one of these three brands.

For the second level of awareness, Asus, although not being the first reference of most respondents, registered 66% of spontaneous awareness, i.e., 33 out of 50 mentioned the brand in the 1st, 2nd, 3rd, 4th or 5th option. This is a curious fact, since HP and Toshiba, despite having higher top-of-mind values than Asus, did not have such high levels of spontaneous awareness. In addition to Asus and the top-of-mind brands themselves, Acer and Sony have also achieved interesting values of spontaneous awareness.

Finally, for the third-level of brand awareness, Dell, LG, Lenovo, and Fujitsu have all registered assisted awareness values above 90%. However, since Fujitsu does not use product placement, the brand was not considered for the study.



Graphic 5 - Brand awareness results - Computers

After this analysis, it is possible to select the brands to test in the brand recognition experiment, being that three brands were selected for each category of awareness.

For the category of cars:

- Top-of-mind: BMW; Mercedes-Benz; Audi
- Spontaneous awareness: Ferrari; Toyota; Volkswagen
- Lowest level of awareness: Chevrolet; Lexus; Volvo

For the category of computers:

- Top-of-mind: Apple; HP; Toshiba
- Spontaneous awareness: Asus; Acer; Sony
- Lowest level of awareness: Lenovo; Dell; LG

4.2 Quantitative Study - Brand Recognition Test

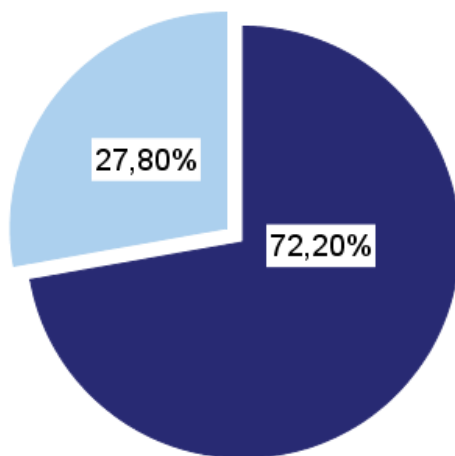
As far as the questionnaire is concerned, a valid sample of 482 respondents was obtained. It will be analyzed the brand recognition for each brand, as well the viewing frequency of movies and television series and consumer’s attitude towards the practice of product placement.

4.2.1. Socio-Demographic Analysis

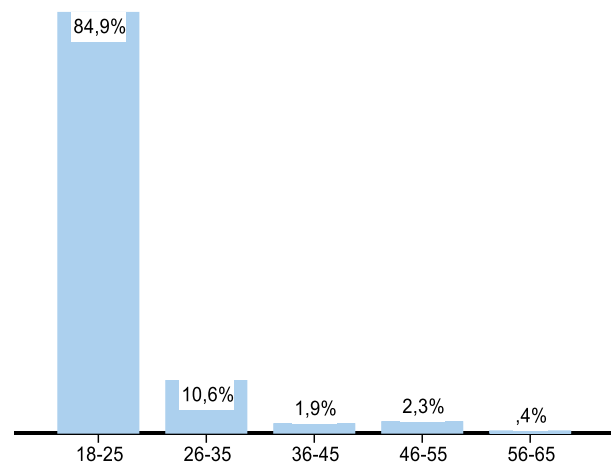
Socio-Demographic Analysis (N= 482)				
Gender	Female	72,2%	Male	27,8%
Age Group	18-25 years	84,9%	26-35 years	10,6%

Table 3 - Socio-demographic analysis

It is verified in Table 3 that 72.2% of the participants who answered the questionnaire are female, i.e. the female category is represented mostly in the sample. Regarding age, it is confirmed that 84.9% are in the age range 18 to 25 years, that is, it is mostly young / adult.



Graphic 6 - Gender



Graphic 7 - Age group

4.2.2. Movies and television series viewing frequency

The aspects related to the movie and television series viewing frequency revealed the following characteristics of the sample:

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
How frequently do you watch movies and/or television series?	482	1	5	2,12	,805

Table 4 - Movie viewing frequency

Regarding the frequency of *how frequently do you watch movies and/or television series*, it was observed that the opinion of the participants varies between 1 (Always) and 5 (Never), having a mean of 2.12 (Regularly) and a standard deviation of 0.805. On this sample, on average, it is considered that movies and television series are watched on a regular basis.

4.2.3. Attitude towards the practice of product placement

4.2.3.1 Integration of brands in movies and television series

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Define your level of agreement with the following sentences - I like the integration of brands in movies and television series	482	1	5	2,90	,916

Table 5 -Attitude towards product placement

Concerning the level of agreement on *I like the integration of brands in movies and television series*, in this sample the participants were differentiated as follows: Ranging from 1 (Strongly disagree) and 5 (Strongly agree), the mean is 2.90 (SD = 0.916). Thus, in this sample, on average, people neither agree nor disagree about the integration of brands in the movies or in television series, showing that they are somewhat indifferent to this practice.

4.2.3.2 Use of real products to make scenes more realistic

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Define your level of agreement with the following sentences - The use of real products in movies makes scenes more realistic.	482	1	5	3,80	1,003

Table 6 - Attitude towards reality of movies with brand integration

The opinion on *the use of real products in movies makes scenes more realistic* was as follows: The sample gives the minimum and maximum values (1 and 5, Strongly disagree and Strongly agree, respectively), mean (3.80) and standard deviation (1.003). Therefore, on average, the sample tends to somewhat agree (4) that real products contribute to making the scenes more realistic.

4.2.3.3 Attention to brands in movies

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Define your level of agreement with the following sentences - I pay attention to brands appearing in movies	482	1	5	3,29	1,165

Table 7 - Attention to brands in movies

The participants in this study, on average, considered that they did not agree or disagree (mean = 3.29, SD = 1.165) to: *I pay attention to brands that appearing in movies or television series.*

4.2.4. Compare Means

4.2.4.1 How is car brands knowledge related to gender (female vs. male)

To ascertain this question, the t-test was used for two independent samples since it allows comparing the mean of *how you evaluate your degree of knowledge in car brands* at two levels of the independent variable.

But first, the adhesion test to the Kolmogorov-Smirnov normal distribution for large samples was applied.

Tests of Normality				
	Gender	Kolmogorov-Smirnov ^a		
		Statistic	df	Sig.
How do you evaluate your degree of knowledge in car brands?	F	,237	348	,000
	M	,180	134	,000

a. Lilliefors Significance Correction

Table 8 - Test of normality

This test (to normality) has the following hypotheses:

H0: *How do you evaluate your degree of knowledge in car brands* has a normal distribution in male and female gender participants.

H1: *How do you evaluate your degree of knowledge in car brands* does not have normal distribution in male and female gender participants.

Decision rule:

Do not reject H0 if $\text{sig} > \alpha = 0,05$

Reject H0 and accept H1 if $\text{sig} \leq \alpha = 0,05$

In this case, given that in the two levels of the variable gender the sig is < 0.05 , then the H0 is rejected and it is concluded that *How do you evaluate your degree of knowledge in car brands* does not have normal distribution in any of the levels of the variable *gender*. However, since the two levels of the variable *gender* have $n > 30$, then the violation of this assumption does not have major consequences in the realization of the t-test for two independent samples (central limit theorem).

The t-test for two independent samples requires the fulfillment of another assumption: The homogeneity of variance in (k) levels of the independent variable. Therefore, the analysis of variance through the Levene test was applied:

This test (Levene) has the following hypotheses:

H0: *How do you evaluate your degree of knowledge in car brands* has equal variances at both levels of the variable gender.

H1: *How do you evaluate your degree of knowledge in car brands* does not have equal variances in the two levels of the variable gender, that is, there is a different level.

Decision rule:

Do not reject H0 if $\text{sig} > \alpha = 0,05$

Reject H0 and accept H1 if $\text{sig} \leq \alpha = 0,05$

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
How do you evaluate your degree of knowledge in car brands?	Equal variances assumed	1,840	,176	-9,632	480	,000	-,969	,101	-1,166	-,771
	Equal variances not assumed			-9,218	221,82	,000	-,969	,105	-1,176	-,762

Table 9 – Levene’s test for equality of variances

In this case, since the Levene test = 1,840; Sig = 0.176 > $\alpha = 0.05$ then the H0 that the variances are equal is not rejected

As such, the t-test can be performed for two independent samples. The t-test for two independent samples has the following hypotheses:

H0: *How do you evaluate your degree of knowledge in car brands* of women is equal to the average men's final score.

H1: *How do you evaluate your degree of knowledge in car brands* of women is different from the average men's final score.

Decision rule:

- Do not reject H0 if $\text{sig} > \alpha = 0,05$
- Reject H0 and accept H1 if $\text{sig} \leq \alpha = 0,05$

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
How do you evaluate your degree of knowledge in car brands?	Equal variances assumed	1,840	,176	-9,632	480	,000	-,969	,101	-1,166	-,771
	Equal variances not assumed			-9,218	221,82	,000	-,969	,105	-1,176	-,762

Table 10 – Independent samples test

Therefore, it is concluded that the average of *How do you evaluate your degree of knowledge in car brands* is different in one of the two levels of the gender variable ($t_{(480)} = -9.632$; $\text{Sig} < \alpha = 0.05$). In other words, men have different means than women's.

Group Statistics

	Gender	N	Mean	Std. Deviation
How do you evaluate your degree of knowledge in car brands?	F	348	2,23	,961
	M	134	3,20	1,060

Table 11 – Male vs. Female regarding degree of knowledge in car brands

With 95% confidence, it is confirmed that the difference in the average of *How do you evaluate your degree of knowledge in car brands* in male and female participants is in the range of -1.166 to -0.771. As the value zero is not included in this interval, it was confirmed that not only there are differences in means, but also which is the group that assigned the best evaluation (Male = 3.20 - Good).

The Table 12 below represents the percentage of recognition of all car brands divided by gender. It is possible to verify that the results are aligned with the previous study, where the masculine gender registered higher values for the variable *How do you evaluate your degree of knowledge in car brands*.

Do you know the brand's name? Cars Category

		No	Yes
Gender	F	29%	71%
	M	11%	89%

Table 12 - Car's brand recognition by gender

4.2.4.2 How is computer brands knowledge related to gender (female vs. male)

A t-test was used for two independent samples since it allows comparing the mean of: *How do you evaluate your degree of knowledge in computer brands* at two levels of the independent variable.

Tests of Normality

	Gender	Kolmogorov-Smirnov ^a		
		Statistic	df	Sig.
How do you evaluate your degree of knowledge in computer brands?	F	,231	348	,000
	M	,231	134	,000

a. Lilliefors Significance Correction

Table 13 - Test of normality

This test (to normality) has the following hypotheses:

H0: *How do you evaluate your degree of knowledge in computer brands* has a normal distribution in male and female gender participants.

H1: *How do you evaluate your degree of knowledge in computer brands* does not have normal distribution in male and female gender participants.

Decision rule:

- Do not reject H0 if $\text{sig} > \alpha = 0,05$
- Reject H0 and accept H1 if $\text{sig} \leq \alpha = 0,05$

In this case, given that at both levels of the variable gender the sig is <0.05 , then the H0 is rejected and is concluded that *How do you evaluate your degree of knowledge in computer brands* does not have normal distribution in any of the levels of the variable gender. But since the two levels of the variable gender have the value of $n > 30$ then the violation of this assumption does not have serious consequences for the accomplishment of the t-test for two independent samples (central limit theorem).

As it happened previously, the t-test for two independent samples requires the fulfillment of another assumption: The homogeneity of variance in (k) levels of the independent variable. Therefore, the analysis of variance through the Levene test was applied:

This test (Levene) has the following hypotheses:

H0: *How do you evaluate your degree of knowledge in computer brands* has equal variances at both levels of the variable gender.

H1: *How do you evaluate your degree of knowledge in computer brands* does not have equal variances in the two levels of the variable gender, that is, there is a different level.

Decision rule:

- Do not reject H0 if $\text{sig} > \alpha = 0,05$
- Reject H0 and accept H1 if $\text{sig} \leq \alpha = 0,05$

		Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
How do you evaluate your degree of knowledge in computer brands?	Equal variances assumed	,096	,757	-8,901	480	,000	-,858	,096	-1,047	-,668	
	Equal variances not assumed			-8,893	241,01	,000	-,858	,096	-1,048	-,668	

Table 14 - Levene's test for equality of variances

Since the Levene test = 0.096 and Sig = 0.757 > $\alpha = 0.05$ then the H0 is not rejected

As such, the t-test can be performed for two independent samples. The t-test for two independent samples has the following hypotheses:

H0: *How do you evaluate your degree of knowledge in computer brands* of women is equal to the average men's final score.

H1: *How do you evaluate your degree of knowledge in computer brands* of women is different from the average men's final score.

Decision rule:

- Do not reject H0 if sig > $\alpha = 0,05$
- Reject H0 and accept H1 if sig $\leq \alpha = 0,05$

		Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
How do you evaluate your degree of knowledge in computer brands?	Equal variances assumed	,096	,757	-8,901	480	,000	-,858	,096	-1,047	-,668	
	Equal variances not assumed			-8,893	241,01	,000	-,858	,096	-1,048	-,668	

Table 15 - Independent samples test

Therefore, it is concluded that the average of *How do you evaluate your degree of knowledge in computer brands* is different in one of the two levels of the gender variable ($t_{(480)} = -8,901$; Sig < $\alpha = .05$, that is, men have different means than women's).

Group Statistics				
	Gender	N	Mean	Std. Deviation
How do you evaluate your degree of knowledge in computer brands?	F	348	2,37	,947
	M	134	3,23	,949

Table 16 - Male vs. female regarding degree of knowledge in computer brands

With 95% confidence, it is confirmed that the difference in the average of *How do you evaluate your degree of knowledge in computers brands* in male and female participants is in the range of -1.047 to -0.668. As the value zero is not included in this range it is certain that there are differences in the means and which is the group that has the best ranking (Male = 3.23 - Good).

The Table 17 below represents the percentage of recognition of all computer brands divided by gender. As in the category of cars, the masculine gender shows a greater percentage of recognition. It is possible to verify that the results are in agreement with the previous results where the masculine gender registered higher values for the variable *How do you evaluate your degree of knowledge in computer brands*.

Do you know the brand's name? Computers Category

		No	Yes
Gender	F	27%	73%
	M	17%	83%

Table 17 - Computer's brand recognition by gender

4.2.5. Association Tests

4.2.5.1 How is car brands knowledge related to computer brands knowledge

For this purpose, the Pearson's correlation coefficient was used. The Pearson test confirms whether two interval variables are associated and their magnitude.

H0: There is no association between *How do you evaluate your degree of knowledge in car brands* and *How do you evaluate your degree of knowledge in computer brands*.

H1: *How do you evaluate your degree of knowledge in car brands* and *How do you evaluate your degree of knowledge in computer brands* are associated.

		How do you evaluate your degree of knowledge in computer brands?	How do you evaluate your degree of knowledge in car brands?
How do you evaluate your degree of knowledge in computer brands?	Pearson Correlation	1	,493 **
	Sig. (2-tailed)		,000
	N	482	482
How do you evaluate your degree of knowledge in car brands?	Pearson Correlation	,493 **	1
	Sig. (2-tailed)	,000	
	N	482	482

** . Correlation is significant at the 0.01 level (2-tailed).

Table 18 - Association test - Cars brand knowledge and computers brand knowledge

The Pearson correlation coefficient, *r*, can take a range of values from +1 to -1. A value greater than 0 indicates a positive association; that is, as the value of one variable increases, so does the value of the other variable.

Decision: It is concluded that there is a moderate association between *How do you evaluate your degree of knowledge in car brands* and *How do you evaluate your degree of knowledge in computer brands* ($r = 0.493$, $p\text{-value} \leq 0.05$ - The alternative hypothesis is accepted, that there is an association). In other words, when *How do you evaluate your degree of knowledge in car brands* increases, *How do you evaluate your degree of knowledge in computer brands* also increases.

4.2.5.2 Relation between quantitative and nominal qualitative variables

To test this relation, the coefficient Eta (η) and the coefficient of determination Eta² (η^2) were used in all the tests since it is a measure of association between variables: quantitative and qualitative nominal. The quantitative variables studied were the following:

- *How frequently do you watch movies and/or television series;*
- *Define your level of agreement with the following sentences - I like the integration of brands in movies and television series;*
- *Define your level of agreement with the following sentences - The use of real products in movies makes scenes more realistic;*
- *Define your level of agreement with the following sentences - I pay attention to brands appearing in movies;*
- *How do you evaluate your degree of knowledge in car brands?*
- *How do you evaluate your degree of knowledge in computer brands?*

The aim was to verify if any of these variables were related to the brand recognition, for cars and computers, through the variable: *Do you know the brand's name?*

The following relationships were found:

4.2.5.2.1 Relation between *How do you evaluate your degree of knowledge in car brands* and *Do you know the brand's name? Mercedes*

Measures of Association	Interpretation:	
	Eta	Eta Squared
How do you evaluate your degree of knowledge in car brands? * Do you know the brand's name? Mercedes	,355	,126

Table 19 - Coefficient Eta (η) and coefficient of determination Eta² (η^2)

The degree of association between how do you evaluate your degree of knowledge in car brands and *Do you know the brand's name? Mercedes* is moderate (0.355 - roughly 0.4), meaning *Do you know the brand's name? Mercedes* explains 12.6% of the variation of *How do you evaluate your degree of knowledge in car brands*. Therefore, 87.4% of the variation of *How do you evaluate your degree of knowledge in car brands* remains unexplained.

4.2.5.2.2 Relation between *How do you evaluate your degree of knowledge in car brands* and *Do you know the brand's name? Chevrolet*

Measures of Association	Eta	Eta Squared
How do you evaluate your degree of knowledge in car brands? * Do you know the brand's name? Chevrolet	,417	,174

Table 20 - Coefficient Eta (η) and the coefficient of determination Eta² (η^2)

Interpretation: The degree of association between *How do you evaluate your degree of knowledge in car brands* and *Do you know the brand's name? Chevrolet* is moderate (0.417), i.e., *Do you know the brand's name? Chevrolet* explains 17.4% of the variation of *How do you evaluate your degree of knowledge in car brands*. Therefore, 82.6% of the variation of *How do you evaluate your degree of knowledge in car brands* remains unexplained.

4.2.5.2.3 *Relation between How do you evaluate your degree of knowledge in car brands and Do you know the brand's name? Lexus*

Measures of Association		
	Eta	Eta Squared
How do you evaluate your degree of knowledge in car brands? * Do you know the brand's name? Lexus	.440	.193

Table 21 - Coefficient Eta (η) and the coefficient of determination Eta² (η^2)

Interpretation: The degree of association between *How do you evaluate your degree of knowledge in car brands* and *Do you know the brand's name? Lexus* is moderate (0.44), meaning *Do you know the brand's name? Lexus* explains 19.3% of the variation of *How do you evaluate your degree of knowledge in car brands*. Therefore, 80.7% of the variation of *How do you evaluate your degree of knowledge in car brands* remains to be explained.

4.2.5.2.4 *Relation between How do you evaluate your degree of knowledge in car brands and Do you know the brand's name? Volvo*

Measures of Association		
	Eta	Eta Squared
How do you evaluate your degree of knowledge in car brands? * Do you know the brand's name? Volvo	.389	.151

Table 22 - Coefficient Eta (η) and the coefficient of determination Eta² (η^2)

Interpretation: The degree of association between *How do you evaluate your degree of knowledge in car brands* and *Do you know the brand's name? Volvo* is moderate (.389 - approximately 4), meaning that *Do you know the brand's name? Volvo* explains 15.1% of the variation of *How do you evaluate your degree of knowledge in car brands*. Consequently, 84.9% of the variation of *How do you evaluate your degree of knowledge in car brands* remains unexplained.

4.2.6. Brand Recognition Results

4.2.6.1 Top-of-Mind Car Brands

Do you know the brand's name? BMW

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	34	7,1	7,1	7,1
	Yes	448	92,9	92,9	100,0
	Total	482	100,0	100,0	

Table 23 - Brand recognition - BMW

Do you know the brand's name? Audi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	41	8,5	8,5	8,5
	Yes	441	91,5	91,5	100,0
	Total	482	100,0	100,0	

Table 24 - Brand recognition - Audi

Do you know the brand's name? Mercedes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	57	11,8	11,8	11,8
	Yes	425	88,2	88,2	100,0
	Total	482	100,0	100,0	

Table 25 - Brand recognition - Mercedes

Concerning recognition of the top-of-mind brands for the category of cars, there were values of 92.9%, 91.5% and 88.2% for the BMW, Audi, and Mercedes brands, respectively. On average, 91% of the respondents recognized correctly the top-of-mind brands in the car category.

4.2.6.2 Spontaneous Awareness Car Brands

Do you know the brand's name? Volkswagen

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	51	10,6	10,6	10,6
	Yes	431	89,4	89,4	100,0
	Total	482	100,0	100,0	

Table 26 - Brand recognition - Volkswagen

Do you know the brand's name? Toyota

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	100	20,7	20,7	20,7
	Yes	382	79,3	79,3	100,0
	Total	482	100,0	100,0	

Table 27 - Brand recognition - Toyota

Do you know the brand's name? Ferrari

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	98	20,3	20,3	20,3
	Yes	384	79,7	79,7	100,0
	Total	482	100,0	100,0	

Table 28 - Brand recognition - Ferrari

Regarding the second category of awareness defined for the category of cars, namely spontaneous awareness, Volkswagen, Toyota, and Ferrari registered values of 89.4%, 79.3% and 79.7%, respectively. Note that the Volkswagen brand has achieved a very high level of recognition, even exceeding the brand Mercedes. However, the average of the three percentages of recognition is 83%, a value lower than the percentage of top-of-mind brands.

4.2.6.3 Lowest Awareness Car Brands

Do you know the brand's name? Chevrolet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	221	45,9	45,9	45,9
	Yes	261	54,1	54,1	100,0
	Total	482	100,0	100,0	

Table 29 - Brand recognition - Chevrolet

Do you know the brand's name? Lexus

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	212	44,0	44,0	44,0
	Yes	270	56,0	56,0	100,0
	Total	482	100,0	100,0	

Table 30 - Brand recognition - Lexus

Do you know the brand's name? Volvo

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	205	42,5	42,5	42,5
	Yes	277	57,5	57,5	100,0
	Total	482	100,0	100,0	

Table 31 - Brand recognition - Volvo

Finally, for the category of lowest awareness brands of cars, recognition levels were clearly the lowest. At this low awareness level, negative response frequencies were very similar to the affirmative responses. The brands Chevrolet, Lexus, and Volvo registered values of 54.1%, 56.0% and 57.5%, respectively. Adding the values and making an average of recognition of the low awareness brands, the value of 56% is obtained.

4.2.6.4 Top-of-Mind Computer Brands

Do you know the brand's name? Apple

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	2	,4	,4	,4
	Yes	480	99,6	99,6	100,0
	Total	482	100,0	100,0	

Table 32 - Brand recognition - Apple

Do you know the brand's name? HP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	17	3,5	3,5	3,5
	Yes	465	96,5	96,5	100,0
	Total	482	100,0	100,0	

Table 33 - Brand recognition - HP

Do you know the brand's name? Toshiba

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	88	18,3	18,3	18,3
	Yes	394	81,7	81,7	100,0
	Total	482	100,0	100,0	

Table 34 - Brand recognition - Toshiba

The recognition of the top-of-mind brands for the category of computers registered values of 99.6%, 96.5% and 81.7% for the brands Apple, HP, and Toshiba, respectively. Being that the highlight undoubtedly goes to Apple since only two people out of 482, did not properly recognize the brand. On average, 93% of people recognized correctly the top-of-mind brands in the computer category.

4.2.6.5 Spontaneous Awareness Computer Brands

Do you know the brand's name? Sony

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	115	23,9	23,9	23,9
	Yes	367	76,1	76,1	100,0
	Total	482	100,0	100,0	

Table 35 - Brand recognition - Sony

Do you know the brand's name? Asus

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	101	21,0	21,0	21,0
	Yes	381	79,0	79,0	100,0
	Total	482	100,0	100,0	

Table 36 - Brand recognition - Asus

Do you know the brand's name? Acer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	64	13,3	13,3	13,3
	Yes	418	86,7	86,7	100,0
	Total	482	100,0	100,0	

Table 37 - Brand recognition - Acer

Regarding the second category of awareness defined for the category of computers, namely spontaneous awareness, the values of 76.1%, 79.0%, and 86.7% for Sony, Asus, and Acer were registered, respectively. Note that the Acer brand achieved a relatively high percentage of recognition, even exceeding the Toshiba brand. However, the average of the three percentages of recognition is 81%, a value lower than the percentage of top-of-mind brands

4.2.6.6 Lowest Awareness Computer Brands

Do you know the brand's name? Lenovo

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	203	42,1	42,1	42,1
	Yes	279	57,9	57,9	100,0
	Total	482	100,0	100,0	

Table 38 - Brand recognition - Lenovo

Do you know the brand's name? Dell

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	108	22,4	22,4	22,4
	Yes	374	77,6	77,6	100,0
	Total	482	100,0	100,0	

Table 39 - Brand recognition - Dell

Do you know the brand's name? LG

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	341	70,7	70,7	70,7
	Yes	141	29,3	29,3	100,0
	Total	482	100,0	100,0	

Table 40 - Brand recognition - LG

Finally, for the category of lowest awareness brands of computers, although the Dell brand had acceptable recognition values, 77.6%, the Lenovo and LG brands registered values of 57.9% and 29.3%, respectively. Adding these values and making an average recognition of low awareness brands, the value of 55% is achieved.

4.2.6.7 Car Brands vs. Computer Brands

	Top-of-Mind	Spontaneous Awareness	Lowest level of Awareness	Total average
Cars	90,9%	82,8%	55,9%	76,7%
Computers	92,6%	80,6%	54,9%	76,3%

Table 41 - Means of recognition of each level of awareness

Table 41 represents the means of recognition of each level of awareness for the category of cars and computers. It is possible to verify that the category top-of-mind is the one that represents a greater level of brand recognition for both categories under study. The percentages of recognition are, however, decreasing as the level of awareness also declines. The level of spontaneous awareness, for the category of cars and computers, registers 83% and 81%, respectively. Regarding the lowest level of awareness, the category of cars registered a value of 56% and computers 55%. From a more general perspective, there was no great difference in recognition from one category to another, so it cannot be said that one category is more easily recognized in movies and television series than another.

4.2.7. Bivariate Analysis by Constructs

After the individual analysis of the recognition from the 19 brands (9 of cars and 9 of computers), 6 new variables were created to make an average recognition of the brands belonging to each level of brand awareness for the category of cars and computers. These new variables were named *Brand Awareness High (Cars)*, *Brand Awareness Medium (Cars)*, *Brand Awareness Low (Cars)*, *Brand Awareness High (PC)*, *Brand Awareness Medium (PC)*, and *Brand Awareness Low (PC)*.

Thus, it was possible to draw relevant conclusions from the study when crossing each brand awareness group (previously defined in the brand awareness test) with the remaining variables: gender, age, viewing frequency of movies and television series and also consumer's attitude towards the practice of product placement. This way, a detailed and differentiated analysis was obtained.

To assess the quality and reliability of the instrument used, it was necessary to calculate the Cronbach's Alpha. This coefficient is a measure of internal consistency that ranges from 0 to 1. The closer to 1, the greater the internal consistency. If all the variables are totally independent of one another, then Alpha will be = 0. Therefore, the higher the Alpha, the more the items have shared covariance and possibly measure the same underlying concept. According to Hill and

Hill (2005), for the instrument to be reliable it is recommended that the coefficient value be at least 0.7.

4.2.7.1 Construct Calculation: *Brand Awareness High (Cars)*, *Brand Awareness Medium (Cars)*, *Brand Awareness Low (Cars)*

First, the internal consistency of the new variables: *Brand Awareness High (Cars)*, *Brand Awareness Medium (Cars)*, *Brand Awareness Low (Cars)*, were measured through Cronbach's Alpha to make sure that the variables being grouped measured the same construct.

Construct	N° of items	Variables	Cronbach's Alpha
<i>Brand Awareness High (Cars)</i>	3	(BMW, Audi, Mercedes)	0,6
<i>Brand Awareness Medium (Cars)</i>	3	(Ferrari, Toyota, Volkswagen)	0,4
<i>Brand Awareness Low (Cars)</i>	3	(Chevrolet, Lexus, Volvo)	0,7

Table 42 - Construct for cars brands

Table 42 identifies the value of Cronbach's Alpha and the number of variables that entered the analysis. In the case of *Brand Awareness High (Cars)*, the alpha is 0.6 (0.6 - Questionable). For *Brand Awareness Medium (Cars)* the Cronbach Alpha value is 0.4 (0.4 - Unacceptable). Finally, the *Brand Awareness Low (Cars)* produces an alpha of 0.65 (approximately 0.7 - acceptable).

Given that the elimination of any one of the variables would not result in a significant increase in any of Cronbach's Alphas, the following indicators were calculated: *Brand Awareness High (Cars)*, *Brand Awareness Medium (Cars)* and *Brand Awareness Low (Cars)* with its respective three initial variables: (BMW, Audi, Mercedes), (Ferrari, Toyota, Volkswagen) and (Chevrolet, Lexus, Volvo).

4.2.7.2 Construct Calculation: *Brand Awareness High (PC)*, *Brand Awareness Medium (PC)*, *Brand Awareness Low (PC)*

First, the internal consistency of the new variables: *Brand Awareness High (PC)*, *Brand Awareness Medium (PC)*, *Brand Awareness Low (PC)*, were measured through Cronbach's Alpha to make sure that the variables being grouped measured the same construct.

<i>Construct</i>	N° of items	Variables	Cronbach's Alpha
<i>Brand Awareness High (PC)</i>	3	(Apple, HP, Toshiba)	0,2
<i>Brand Awareness Medium (PC)</i>	3	(Asus, Acer, Sony)	0,4
<i>Brand Awareness Low (PC)</i>	3	(Lenovo, Dell, LG)	0,5

Table 43 - Construct for computer brands

Table 43 identifies the value of Cronbach's Alpha and the number of variables that entered the analysis. In the case of *Brand Awareness High (PC)*, the alpha is 0.2 (0.2-Unacceptable). For *Brand Awareness Medium (PC)* the Cronbach Alpha value is 0.4 (0.4 - Unacceptable). Finally, *Brand Awareness Low (PC)* registers an alpha of 0.5 (0.5 - Poor)

Given that the elimination of any one of the variables would not result in a significant increase in any of the Cronbach's alphas, the following indicators were calculated: *Brand Awareness High (PC)*, *Brand Awareness Medium (PC)* and *Brand Awareness Low (PC)* with its respective three initial variables: (Apple, HP, Toshiba), (Asus, Acer, Sony) and (Lenovo, Dell, LG).

4.2.7.3 Bivariate Analysis by Constructs – *Brand Awareness High (Cars)*

By crossing the *Brand Awareness High (Cars)* group with the variables under study, i.e., gender, age, viewing frequency of movies and television series and consumer's attitude toward the practice of product placement, the following conclusions were reached:

Note: Since in the age group only two people were between 56-65 years old this field will be ignored in the analysis since it does not make sense to make a comparison with such a small sample. The same applies to the variable *How often you watch movies and/or television series* which only recorded one response in *never*.

Concerning the variable *Brand Awareness High (Cars)*, it is observed that in this sample both female and male participants recognize the car brands: *BMW, Audi, Mercedes* (Appendix C – Table 47). Also in the *age group*, there were no low recognition averages, showing that all ages recognized well the brands under analysis (Appendix C – Table 48). However, it was in the other characteristics of the sample that there were some average differences between those who recognize more and those who recognize not so much the brands of automobiles: *BMW, Audi, Mercedes*. Regarding the frequency of viewing movies and television series, it was confirmed in this sample that the participants that *rarely* watch movies or television series are the ones

with the lowest brand recognition (mean = 1.77) for the brands: *BMW, Audi, Mercedes* (Appendix C – Table 49).

Another example of lower average recognition are the ones of participants who *somewhat disagree* (mean = 1.86) over liking the integration of brands into movies and television series (Appendix C – Table 50). As far as the opinion on the scenes of movies and television series becoming more realistic through the use of authentic products, it is verified that on average those who have lower recognition of these brands *BMW, Audi, Mercedes* are the participants that *neither agree nor disagree* (mean = 1.86) about this aspect (Appendix C – Table 51).

Regarding attention to the appearance of brands in movies and television series (Appendix C – Table 52), it was found that the participants in this study who *strongly disagree*, that is, those who never pay attention, are those who, on average, have lower brand recognition of the cars: *BMW, Audi, Mercedes* (mean = 1.87). Finally, as part of the self-evaluation on the degree of knowledge on car brands, it was confirmed that the participants with *poor* knowledge (mean = 1.70) are the ones who show a lower recognition of these brands by comparison with the remaining categories (Appendix C – Table 53).

4.2.7.4 Bivariate Analysis by Constructs – *Brand Awareness Medium (Cars)*

In terms of the *Brand Awareness Medium (Cars)* it is observed in the sample that the male participants recognize more the car brands: *Ferrari, Toyota, Volkswagen* (Appendix C – Table 54). On average, age groups between 18-25 and 46-55 were those that showed a lower average recognition (mean = 1.82) compared to the other categories (Appendix C – Table 55).

In the movies and television series viewing frequency, it has been confirmed in this sample that the participants that *sometimes* watch movies or television series (mean = 1.80) are those that have the lowest recognition of the brands: *Ferrari, Toyota, Volkswagen* by comparison with the remaining categories (Appendix C – Table 56). On the other hand, people who watch movies and television series *always* and *regularly* are the ones who have recognized the most brands. Another low average recognition is the ones of participants who *somewhat disagree* (mean = 1.81) over liking the integration of brands into movies (Appendix C – Table 57). It is pertinent to point out that people who *strongly agree* about the use of product placement have higher levels of recognition (mean = 1.96).

The opinion about movie scenes becoming more realistic by the use of authentic products reveals that on average those who have lower recognition of these car brands are the participants who *neither agree nor disagree* (mean = 1.76) (Appendix C – Table 58). Regarding the attention to the appearance of brands in movies, it was found that the participants in this study who

strongly disagree (pay no attention to the brands), present a lower recognition (mean = 1,75) (Appendix C – Table 59). In the self-evaluation on the level of knowledge of car brands it was confirmed that the participants with *poor* knowledge (mean = 1.64) on average are the ones that show a lower recognition of the brands, compared to the other categories (Appendix C – Table 60).

4.2.7.5 Bivariate Analysis by Constructs – *Brand Awareness Low (Cars)*

In terms of the variable *Brand Awareness Low (Cars)* it is observed in the sample that the female participants recognize on average much less than men, the car brands: *Chevrolet, Lexus, Volvo* (Appendix C – Table 61). In the other characteristics of the sample, there are some average differences between those who recognize more and those who recognize not so much the brands of automobiles: *Chevrolet, Lexus, Volvo*. In the sample, on average the *age group* comprised between 36 and 45 years old was the one which revealed a lower average recognition (mean = 1.52) (Appendix C – Table 62). In the movies and television series viewing frequency, it was confirmed in this sample that participants who *rarely* see movies or television series (mean = 1.39) are those who less recognize the brands: *Chevrolet, Lexus, Volvo*, while those who watch *always* are the ones who recognize the most (Appendix C – Table 63).

Another group that recognizes less the brands is the one from the participants who *somewhat disagree* (mean = 1.50) about liking the integration of brands into movies (Appendix C – Table 64). The opinion about movie scenes becoming more realistic using authentic products reveals that on average those who do not recognize the lowest brand awareness car brands are participants who *somewhat disagree* (mean = 1.47) (Appendix C – Table 65). Regarding paying attention to the appearance of brands in movies, it was found that the participants of this study, who *strongly disagree* (mean = 1.47), are the ones who recognize less those brands (Appendix C – Table 66). In the self-evaluation of the knowledge on car brands, it was verified that the participants with poor knowledge of car brands (mean = 1.26) are the ones that show less recognition of the brands: *Chevrolet, Lexus, Volvo* (Appendix C – Table 67).

4.2.7.6 Bivariate Analysis by Constructs – *Brand Awareness High (PC)*

In terms of the variable *Brand Awareness High (PC)* brands, it is observed in the sample that both male and female participants recognize computer brands: *Apple, HP, Toshiba* (Appendix C – Table 68). In the other characteristics of the sample, there are few average differences between those who recognize more and those who recognize not so much the high awareness brands of computers. In the sample, on average, the age group comprised between 36 and 45 showed a lower average recognition (mean = 1.85) (Appendix C – Table 69).

In the movies and television series viewing frequency it is verified in this sample that participants who sometimes watch movies or series, (mean = 1.88) are those who recognize less the brands: *Apple, HP, Toshiba* (Appendix C – Table 70). Regarding liking the integration of brands into movies, there were no low recognition averages (Appendix C – Table 71). The same happens in the opinion about the scenes of the movies becoming more realistic by the use of authentic products where the lower average is *somewhat disagree* (mean = 1,91), not being, however, a low average (Appendix C – Table 72). Regarding to paying attention to the appearance of brands in movies, it was found that the participants of this study that neither *agree nor disagree* (mean = 1.90) are those who on average recognize these brands slightly less (Appendix C – Table 73).

In the self-evaluation of the knowledge of computer brands it was confirmed that the participants with *poor* knowledge (mean = 1.90) on average, are the ones that show the lowest recognition of these brands: *Apple, HP, Toshiba* (Appendix C – Table 74). At an average ranging from 1 to 2 (with 1 = not recognizing and 2 = recognizing) it is noticeable that most of the results were above 1.90, meaning that there were no large groups that did not recognize the brands.

4.2.7.7 Bivariate Analysis by Constructs – *Brand Awareness Medium (PC)*

Concerning the *Brand Awareness Medium (PC)* it is observed in the sample that the female participants recognize less the brands: *Sony, Asus, Acer* in comparison with the male participants (Appendix C – Table 75). In the other characteristics of the sample, there are other average differences between those who recognize more and those who recognize less these computer brands. In the sample, on average, the age group comprised between 36 and 45 showed a lower recognition (mean = 1.48) (Appendix C – Table 76).

In the movies and television series viewing frequency, it was verified in this sample that the participants who *rarely* watch movies and television series (mean = 1.71) are the ones that do not recognize the brands: *Sony, Asus, Acer*. (Appendix C – Table 77). Another reduced brand recognition comes from the participants who *somewhat disagree* (mean = 1.77) about liking the integration of computer brands into movies (Appendix C – Table 78). The opinion about movie scenes becoming more realistic using authentic products reveals that on average those who recognize slightly fewer computer brands are the participants who *somewhat disagree* (mean = 1.75) (Appendix C – Table 79).

Regarding the attention to brands in movies, it was found that the participants of this study, who *strongly disagree* (mean = 1.77), are those who, on average, recognize the brands less

(Appendix C – Table 80). In the self-evaluation of the knowledge of computer brands it was confirmed that the participants with *poor* knowledge (mean = 1.68) on average are the ones that show the lowest recognition of the brands (Appendix C – Table 81)

4.2.7.8 Bivariate Analysis by Constructs – *Brand Awareness Low (PC)*

By analyzing the variable *Brand Awareness Low (PC)* it is observed in the sample that in comparison to the other levels of awareness, both male and female participants recognize less computer brands: *Lenovo, Dell, LG* (Appendix C – Table 82). In the other characteristics of the sample, there are some average differences between those who recognize more and those who recognize less these computer brands. In this sample, on average, the age group comprised between 36 and 45 revealed less recognition towards the brands displayed (mean = 1.15) (Appendix C – Table 83). In the movies and television series viewing frequency, it was observed in this sample that the participants who *rarely* and *sometimes* watch movies or television series (mean = 1.47) are the ones who do not recognize as much the brands: *Lenovo, Dell, LG* (Appendix C – Table 84).

Another group with slightly reduced recognition of the brands is the one who *strongly disagree* (mean = 1.44) over liking the integration of computer brands into movies (Appendix C – Table 85). Regarding the opinion about movie scenes becoming more realistic using authentic products, no group stands out, since the results reveal that on average those who recognize slightly less these computer brands are the participants who *somewhat disagree, agree or disagree* and *somewhat agree* (mean = 1.54) (Appendix C – Table 86). Concerning the attention paid to the appearance of brands in movies, it was found that the participants of this study, which *somewhat disagree* (mean = 1.53), are those who, on average, recognize these brands slightly less (Appendix C – Table 87).

In the self-evaluation of the knowledge of computer brands with low brand awareness it was verified that the participants with *poor* knowledge (mean = 1.42) on average are the ones that reveal less recognition of these brands: *Lenovo, Dell, LG* (Appendix C – Table 88). In a general way, it is visible that there is more ignorance regarding the elements of these brands, since the averages of recognition in all the variables were considerably lower.

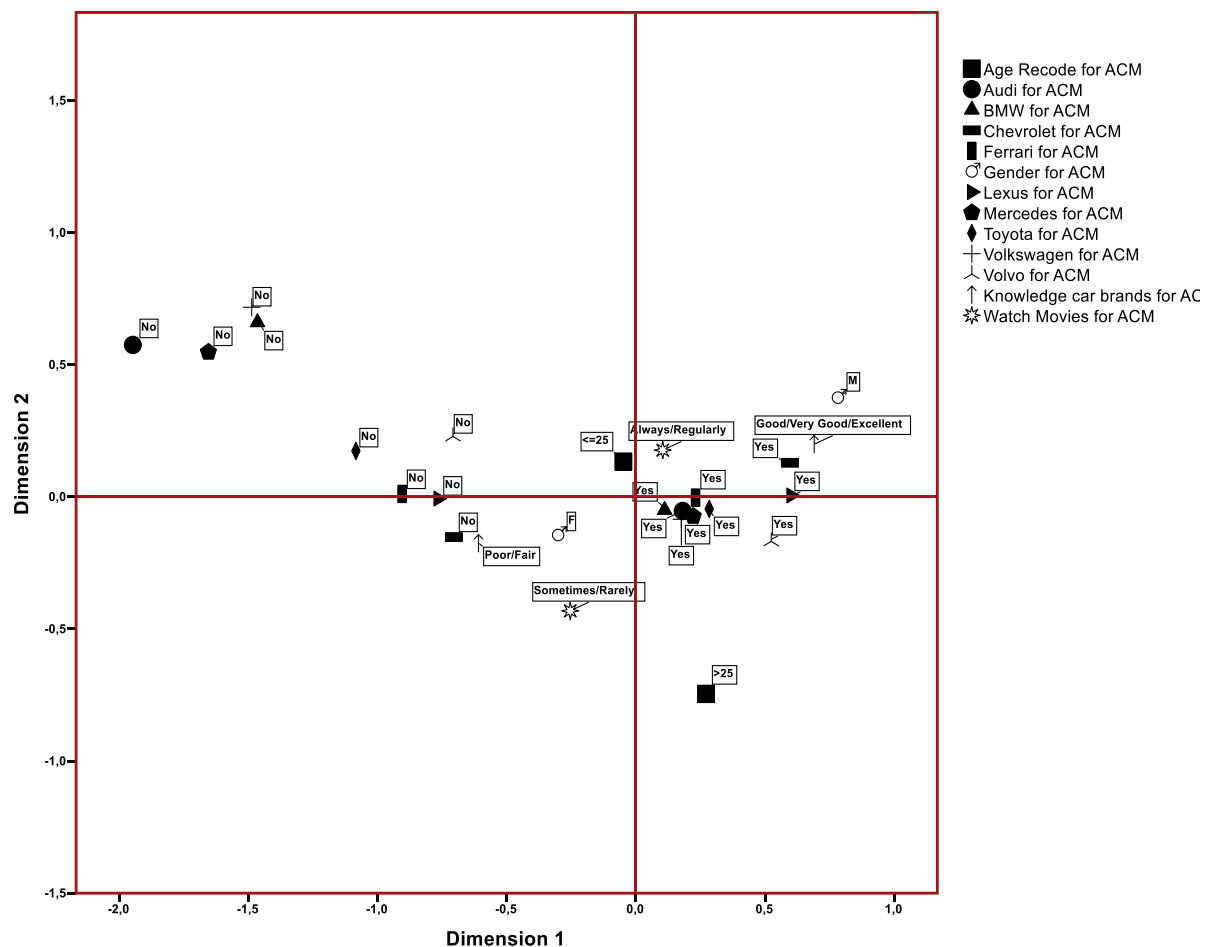
4.2.8. Multiple Correspondence Analysis

The Multiple Correspondence Analysis is a statistical technique used to simultaneously analyze the relationship between categories of variables, to identify associations and oppositions through a multidimensional and relational reading of categorized variables.

4.2.8.1 Multiple Correspondence Analysis – Cars

From the variables that integrate this study, the aspects related to the knowledge of car brands, the frequency with which respondents watch movies and television series, age, and gender were selected. Based on these variables, it was intended to identify the profiles of brand recognition, that is, to verify if people were effectively differentiated through these sociodemographic characteristics: age and gender, as well as their knowledge about cars and also their viewing frequency of movies and television series.

For this purpose, a dichotomization of its original scale, defining for the variable age group two categories: ≤ 25 years old and > 25 years old; The variable *How frequently do you watch movies and/or television series* was recoded in two categories: *always / regularly* and *sometimes / rarely* to reduce their dispersion. The variable: *How do you evaluate your degree of knowledge in brands* was recoded in *poor/fair* and *good/very good/excellent*.



Graphic 8- MCA for car brands

Graphic 8 confirms the configurations of the associations between all categories of variables and their respective profiles of car brand recognition. If on the one hand the dimension 1 differentiates the participants by gender and by the recognition of the car brands. On the other hand, dimension 2 distinguishes by age and movies and television series viewing frequency.

Based on the level of brand recognition, in Graphic 8 it is possible to confirm the results presented previously, with the complement of other variables. For example, dimension 1 differentiates the male participants who consider themselves to have good/very good/excellent recognition on the brands: Chevrolet, Lexus, Volvo, from the female participants with poor/fair recognition of the car brands but which predominantly recognize the brands: BMW, Audi. Mercedes, as well as, the brands: Ferrari, Toyota, and Volkswagen. Dimension 2 differentiates the participants aged over 25 years and that watch sometimes/rarely movies and television series, from the participants under the age of 25 years old who always/regularly watch movies and television series.

		Cluster Number of Case					
		Type 1		Type 2		Total	
		N	Column N %	N	Column N %	N	Column N %
Age Recode for ACM	<=25	202	94,8	207	77,0	409	84,9
	>25	11	5,2	62	23,0	73	15,1
Gender for ACM	F	146	68,5	202	75,1	348	72,2
	M	67	31,5	67	24,9	134	27,8
Watch Movies for ACM	Always/Regularly	168	78,9	174	64,7	342	71,0
	Sometimes/Rarely	45	21,1	95	35,3	140	29,0
Knowledge car brands for ACM	Poor/Fair	125	58,7	131	48,7	256	53,1
	Good/Very Good/Excellent	88	41,3	138	51,3	226	46,9
BMW for ACM	No	30	14,1	4	1,5	34	7,1
	Yes	183	85,9	265	98,5	448	92,9
Mercedes for ACM	No	49	23,0	8	3,0	57	11,8
	Yes	164	77,0	261	97,0	425	88,2
Audi for ACM	No	38	17,8	3	1,1	41	8,5
	Yes	175	82,2	266	98,9	441	91,5
Ferrari for ACM	No	54	25,4	44	16,4	98	20,3
	Yes	159	74,6	225	83,6	384	79,7
Toyota for ACM	No	72	33,8	28	10,4	100	20,7
	Yes	141	66,2	241	89,6	382	79,3
Volkswagen for ACM	No	47	22,1	4	1,5	51	10,6
	Yes	166	77,9	265	98,5	431	89,4
Chevrolet for ACM	No	110	51,6	111	41,3	221	45,9
	Yes	103	48,4	158	58,7	261	54,1
Lexus for ACM	No	118	55,4	94	34,9	212	44,0
	Yes	95	44,6	175	65,1	270	56,0
Volvo for ACM	No	132	62,0	73	27,1	205	42,5
	Yes	81	38,0	196	72,9	277	57,5

Table 44 - Brand recognition profiles - Cars

Table 44 shows the crossing of the variables under study in the MCA with the two profiles. The following conclusions are drawn from the profiles, which can be complemented with Graphic 10 in the Appendix D. In *profile 1*, the majority of the participants are less than or equal to 25 years old, males, that watch movies and television series often / always, who consider that they

have poor/fair knowledge about car brands, and mainly reveal the less recognition of the following car brands: Volvo, Lexus, Chevrolet.

In profile 2, there are the female participants, who consider having a good/very good/excellent knowledge about car brands, and mainly confirm the greater knowledge of the brands BMW, Audi, and Mercedes. In this profile the Spontaneous Awareness brands are also integrated, since the participants present by comparison the greater percentage of recognition of Ferrari, Volkswagen, and Toyota brands.

4.2.8.2 Multiple Correspondence Analysis - PC

From the variables that incorporate this study, the aspects related to the knowledge of the computer brands, the opinion regarding the integration of brands in movies and about scenes becoming more realistic with the integration of products. The attention to brands appearing in movies and television series was also selected. From these variables it was intended to identify the profiles of recognition of computer brands, that is, it is intended to verify if the people were effectively differentiated through their attitude towards product placement.

For this purpose, a dichotomization of its original scale was realized to reduce its dispersion.

The variable: *How frequently do you watch movies and/or television series* was recoded in two categories: always / regularly and sometimes / rarely

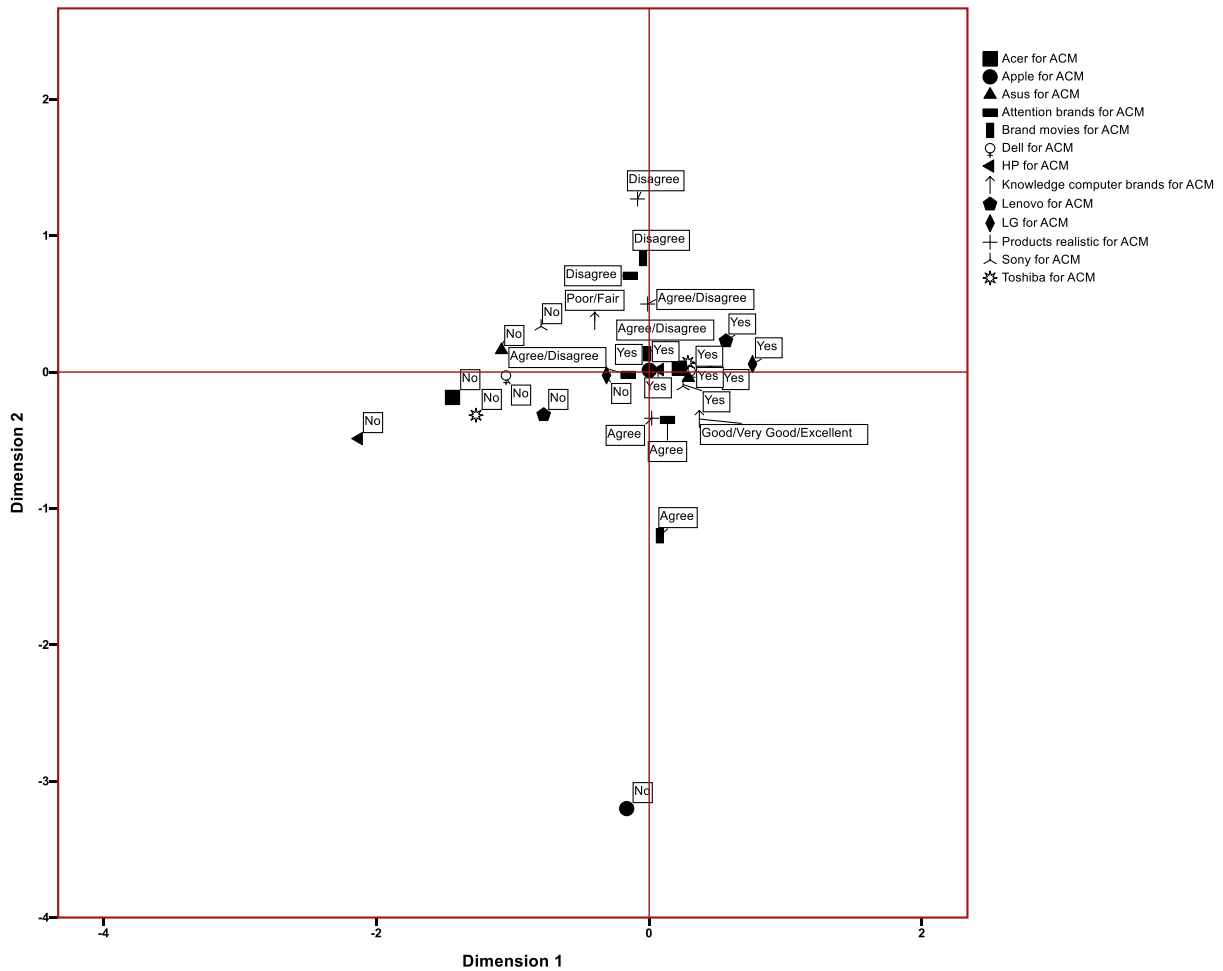
The variable: *How do you evaluate your degree of knowledge in computer brands* was recoded in two categories: poor/fair and good /very good/excellent.

The variables:

- *Define your level of agreement with the following sentences - I like the integration of brands in movies and television series;*
- *Define your level of agreement with the following sentences - The use of real products in movies makes scenes more realistic;*
- *Define your level of agreement with the following sentences - I pay attention to brands appearing in movies;*

Were all recoded into three categories: disagree, agree/disagree, and agree.

Influence of Brand Awareness in Brand Recognition Through Product Placement



Graphic 9 - MCA for computer brands

Graphic 9 confirms the configurations of the associations between all categories of variables and their respective profiles of car brand recognition. The dimension 1 differentiates participants that recognize from those who do not recognize the computer brands, as well as their different levels of knowledge about computer brands.

In dimension 2, there is differentiated those who are aware of computer brands in movies from those who are not. This dimension also separates those who like and do not like the integration of brands in the movies. Finally, it also differentiates those who think brands make the scenes more realistic from the ones that do not.

Influence of Brand Awareness in Brand Recognition Through Product Placement

		Cluster Number of Case							
		Type 1		Type 2		Type 3		Total	
		N	Column N %	N	Column N %	N	Column N %	N	Column N %
Brand movies for ACM	Disagree	109	51,4	5	3,2	36	31,6	150	31,1
	Agree/Disagree	100	47,2	47	30,1	58	50,9	205	42,5
	Agree	3	1,4	104	66,7	20	17,5	127	26,3
Products realistic for ACM	Disagree	49	23,1	3	1,9	12	10,5	64	13,3
	Agree/Disagree	47	22,2	8	5,1	17	14,9	72	14,9
	Agree	116	54,7	145	92,9	85	74,6	346	71,8
Attention brands for ACM	Disagree	84	39,6	11	7,1	33	28,9	128	26,6
	Agree/Disagree	45	21,2	32	20,5	26	22,8	103	21,4
	Agree	83	39,2	113	72,4	55	48,2	251	52,1
Knowledge computer brands for ACM	Poor/Fair	111	52,4	31	19,9	89	78,1	231	47,9
	Good/Very Good/Excellent	101	47,6	125	80,1	25	21,9	251	52,1
Apple for ACM	No	0	,0	2	1,3	0	,0	2	,4
	Yes	212	100,0	154	98,7	114	100,0	480	99,6
HP for ACM	No	1	,5	0	,0	16	14,0	17	3,5
	Yes	211	99,5	156	100,0	98	86,0	465	96,5
Toshiba for ACM	No	9	4,2	16	10,3	63	55,3	88	18,3
	Yes	203	95,8	140	89,7	51	44,7	394	81,7
Sony for ACM	No	42	19,8	19	12,2	54	47,4	115	23,9
	Yes	170	80,2	137	87,8	60	52,6	367	76,1
Asus for ACM	No	25	11,8	13	8,3	63	55,3	101	21,0
	Yes	187	88,2	143	91,7	51	44,7	381	79,0
Acer for ACM	No	7	3,3	8	5,1	49	43,0	64	13,3
	Yes	205	96,7	148	94,9	65	57,0	418	86,7
Lenovo for ACM	No	38	17,9	65	41,7	100	87,7	203	42,1
	Yes	174	82,1	91	58,3	14	12,3	279	57,9
Dell for ACM	No	29	13,7	16	10,3	63	55,3	108	22,4
	Yes	183	86,3	140	89,7	51	44,7	374	77,6
LG for ACM	No	132	62,3	100	64,1	109	95,6	341	70,7
	Yes	80	37,7	56	35,9	5	4,4	141	29,3

Table 45 - Brand recognition profiles - Computers

The following conclusions are drawn from these profiles, which can be complemented with Graphic 11 in Appendix D. In *profile 1* are mostly the participants who do not like the integration of brands into movies and television series, and that do not agree that the use of real products in movie scenes makes them more realistic. This profile also encompasses those who do not pay attention to the brands that appear in the movies and in television series. The profile 1 includes still the participants who consider having a poor/fair or good /very good/excellent knowledge about computer brands. From the 3 profiles, this one is the one which recognizes more the following computer brands: Acer, Toshiba, Asus, Dell, Sony.

In *profile 2*, are the participants who enjoy the integration of brands in movies and television series and agree on the reality conferred using real product brands in movies and television series. The *profile 2* also stands out since its participants pay attention to the appearance of product brands in the scenes of the movies and television series. Their knowledge of computer brands is rated as good/very good. Regarding the level of brand recognition, it is possible to observe that the top-mind awareness brands are the most recognized: Apple and HP. The *profile 3* is characterized by the indecision and indifference (agree or disagree) of their responses, so they reveal a reduced recognition of computer brands.

CHAPTER 5 – CONCLUSION

In this chapter, the major findings of the research are presented, through a critical analysis of the quantitative results, as well as their interconnection with the previous chapters. The contributions to theory and management are also described, as well as the limitations of the present study. Finally, the possible directions for future research areas are presented.

For several decades product placement has been used, but literature is scarce concerning brand recognition of brand elements in movies and television series, more precisely about the type of brands that are most easily recognized on the large screens. Studies to date focused mostly on brand recall and consumers' brand attitude.

For this reason, the model proposed in this research intended to answer the question: How does brand awareness influence brand recognition of brand elements in movies and television series? Therefore, it was possible to conclude not only what kind of people are more likely to identify brands considering their attitude towards product placement, the frequency with which they watch movies, age and gender, but also what types of brands are more recognized taking on account its brand awareness.

5.1 Main Conclusions

Question 1

About which brands are classified as top-of-mind awareness, spontaneous awareness and low level of awareness, in the categories of automotive industry and computers, most of respondents indicated similar responses without wide dispersion of brands. In the top-of-mind awareness brands for the car category, the top-tier cars, namely BMW, Mercedes, and Audi were the ones that obtained the most references. According to the most recent data from Associação Automóvel de Portugal (ACAP), these top three top-of-mind brands are among the top 10 best-selling brands in Portugal during 2016.

In the second level of brand awareness, i.e., the brands that although not being referred as first choice, stood out among the five choices of the respondents, the brands Volkswagen, Ferrari and Toyota brands were the ones that stood out. Finally, the brands with the lowest level of awareness, that is, although not mentioned by the respondents, when confronted with these brands, they were familiar with them. At this level of awareness were highlighted the brands: Lexus, Chevrolet and Volvo.

Regarding the category of computers, it was evident that the familiarity of the brands of this category was lower when compared to the category of cars. The top-of-mind brands, Apple, HP

and Toshiba together represented 80% of the first references. For the second level of awareness, Asus, Acer and Sony achieved interesting values of spontaneous awareness.

For the third and lowest level of awareness, Lenovo, Dell and LG have been selected. This last group is interesting since according to the values advanced by IDC Worldwide Quarterly PC Tracker, in the world sales of computers and ranking of manufacturers, Lenovo and Dell combined represent roughly 37% market share of the world computer sales. Also, HP, defined in the study as top-of-mind is well represented, reaching the second position in the ranking with a market share of 21%. These values can be justified by the significant presence of these brands in the business market.

Question 2 & 3

These brands were analyzed to understand how brands with different levels of awareness are recognized through product placement, in the categories of automotive industry and computers. From this analysis, it was possible to verify that the top-of-mind brands, both in the category of cars and computers, were the most recognized brands. This demonstrates that elements from brands with a high level of awareness were very familiar to the respondents, thus having registered more of 90% recognition in both categories.

The group of brands with spontaneous awareness had less recognition than the top-of-mind brands, while the lowest level of awareness group had the lowest levels of recognition. According to these results, it is possible to conclude that in general, there is a direct relation between brand awareness and brand recognition, since the more the level of awareness the higher its level of recognition, being this conclusion transversal to the two product categories analyzed.

Question 4

Regarding eventual differences in brand recognition in both categories, all levels of awareness had very similar recognition levels, so there is no category where brand recognition is more effective. These results demonstrate that these two categories have similar levels of recognition, being that the relationship found between these two variables can help to explain this conclusion since the more the degree of knowledge in car brands increases the more the degree of knowledge in computer brands increases.

Question 5

After completing the brand recognition for each level of awareness in each category, the profile of the people who integrated the study was analyzed to study their position regarding product

placement, how often they watch movies, knowledge about the product category, and also age and gender.

In general, the sample, composed mostly of Portuguese youngsters aged between 18-25, watches movies on a regular basis and does not have a well-formulated opinion on the practice of product placement. However, it was possible to conclude that although they do not pay much attention to the brands that appear in movies, they tend to agree that real products contribute to making the scenes more realistic. When analyzing the sample by gender, it was possible to conclude that in both knowledge of cars and knowledge of computers, not only do men consider themselves to be more knowledgeable about these product categories, but also confirm those results by recognizing more the brands of both categories, when compared to the female gender.

This analysis to the profile of the respondents was deepened with the intention of drawing more accurate and interesting conclusions for the study. In a general way, it was transversal to the two categories that the masculine gender recognizes more the brands, regardless of their level of awareness – The H1 is rejected: *There are no differences in brand recognition at the three levels of awareness, between the male gender and the female gender.* Concerning age, the age group of 36-45 years in the category of computers was who recognized the brands less. In the car category, the top-of-mind awareness group did not register low recognition in any age group, showing that the sample widely recognizes these brands. As for the spontaneous awareness brands, the ages between 18-45 years and 46-55 years were the ones that least recognized the brands of cars, whereas in the lowest level awareness, as it happened in the category of computers, was the age group of 36-45 years with less recognition – The H7 is rejected: *The brand recognition at all three levels of awareness is similar for all age groups.*

Regarding to movie and television series viewing frequency, it can be concluded that for both the car and computer categories, in all awareness groups, all those who see these movies rarely or sometimes are the ones that register less brand recognition – The H1 is not rejected: *The group of people who watch movies less regularly are the ones that has less brand recognition for the three levels of brand awareness.* Regarding the integration of brands in movies and television series, or in other words product placement, it is possible to conclude for both product categories that people who do not like this practice are the ones who recognize least brands – The H2 is not rejected: *The group of people with the least favorable position regarding product placement are those who has less brand recognition for the three levels of brand awareness.* Also, people who somewhat disagree or neither agree nor disagree on the fact that real products give reality to movies, are the ones who recognized less the brands - The H3 is not rejected:

The group of people who consider that real products do not add realism to movies has less brand recognition for the three levels of awareness.

In respect to paying attention to brands appearing in movies, for the category of cars and computers, in all 3 groups of brand awareness the people who pay no or little attention to the brands were those that recognized the brands less – The H4 is not rejected: *The group of people who pay less attention to brands in movies has lower brand recognition for the three levels of awareness.* Finally, it was verified in both categories that people who evaluated their degree of knowledge as poor were the ones that presented the lowest levels of recognition – The H5 is nor rejected: *The group of people with low knowledge about the brand category has less brand recognition for the three levels of awareness*

These conclusions regarding people who recognize less the brands can be summed up in the following Table 47:

	Cars			Computers		
	High	Medium	Low	High	Medium	Low
Gender	F	F	F	F	F	F
Age	-	46-55/18-25	26-35	36-45	36-45	36-45
Movie viewing frequency	Rarely	Sometimes	Rarely	Sometimes	Rarely	Rarely
Opinion regarding product placement	Somewhat Disagree	Somewhat Disagree	Somewhat Disagree	Somewhat Disagree	Somewhat Disagree	Strongly Disagree
Opinion on real products giving reality to movies	Neither agree nor disagree	Neither agree nor disagree	Somewhat Disagree	Somewhat Disagree	Somewhat Disagree	Neither agree nor disagree
Attention paid to brands in movies	Strongly disagree	Strongly disagree	Strongly disagree	Neither agree nor disagree	Strongly disagree	Somewhat Disagree
Degree of knowledge	Poor	Poor	Poor	Poor	Poor	Poor

Table 46 - Summary table – Non-recognition characteristics

These conclusions are supported by the MCA, since in the category of cars, the profile 1, which has mostly poor and fair knowledge, has lower levels of recognition, especially in the brands

with low level of awareness: Volvo, Lexus, Chevrolet. The same happens in the category of computers, where the profile 3, that displays the lowest level of knowledge in computers, generally recognizes less the brands of computers. Still in the category of computers, profile 2 confirms the studies by Lee, Sung and Choi (2011), where individuals that thought product placement contributed for a more realistic setting in a movie were those that were likely to pay more attention towards the actual placements.

5.2 Managerial Implications

The main innovative feature of the present study was the use of brands with different levels of brand awareness to analyze their impact on brand recognition. Thus, the main managerial implications of this dissertation are related to which products should be incorporated into movie scenes, given their level of brand awareness. It is important that when delineating new communications strategies that include product placement, to make sure that the products being integrated have already some awareness and is meaningful to the audience. According to this study, product placement may not be appropriate for product launches or for brands that do not yet have a minimum level of awareness. This way, it is possible to conclude that this technique will be less useful in these cases, being less effective in this phase of the product lifecycle, therefore being more appropriate to opt for other techniques to gain visibility in the market.

Product placement alone, as it is a non-intrusive form of communication, where mainly the brand's elements are highlighted, may not be enough to be used as a form of isolated communication, since brand elements are not sufficiently recognized. This situation was very evident in Lenovo's case, which, despite having a significant market share, was considered a brand with low level of awareness, registering this way the second lower level of recognition. On the other hand, Dell, unlike Lenovo, has been strongly investing in product placement and has built an easily identifiable image using this technique. This conclusion is aligned with the conclusion of Youn and Doyle (2003), which stated that product placement enables brands to increase brand recognition.

Therefore, it was not surprising that the brand was relatively recognized, even though it was only the sixth most recognized brand among 9, it was higher than the other two brands with the lowest level of awareness. This situation can be explained by the massive exhibition of Dell's products and its logo on the large screens, which brought some recognition of the brand logo, not being however enough to be included in the evoked set of consumers. Thus, the ideal is to complement this technique with other forms of communication, since the integration of advertising and other forms of communication is more effective when coordinated altogether (Belch and Belch, 1995). This way, there will be a reinforcement of the elements of the brand

using product placement, complemented with other tactics that create awareness and visibility for the brand.

5.3 Research Contributions

The recognition of brand elements considering their different levels of brand awareness still reveals few studies. Babin and Carder (1996) already studied viewers' recognition of brands placed within movies, however, the characteristics of the brands were not taken into account. Their studies consisted in verifying if people could successfully recognize the brands that were placed in two separate movies, namely Rocky 3 and Rocky 5. It was concluded that viewers not only were able to identify the brands that were represented, but also managed to say those that were not present. Therefore, it was necessary to give a step further and better understand how is brand recognition influenced.

The trend for brands to communicate in movies, regardless of their level of awareness, has been increasing since it is a marketing communication strategy with vast potentials in awakening retreating audiences (Soba and Aydin, 2013). In this sense, it is considered essential that researchers continue to test and discuss the communicative effectiveness of different brands in movies.

As verified, the existing literature does not explore this matter very much, so this research contributes by providing new insights into brand recognition in movies for brands with different levels of brand awareness in the category of cars and computers, as well as the profile of people who are more likely to recognize brands in this context.

The main conclusions of this study may be relevant at the academic level, particularly in how brand awareness contributes to the increase of brand recognition of brands in the category of cars and computers. The direct comparison between the cars category and computers category also represents a research contribution. By placing side-by-side these two categories, it was possible to identify which may have more propensity to be identified.

This research also encompasses a brand awareness test, thus giving an idea of the positioning of brands in these two categories in consumers' minds. This contribution is important since brands are seeking to find out how well known they are and also how they are positioned compared to the competition. By exactly pin-pointing which brands are more present in consumers' minds, it is possible to infer which brands will be better recognized in movies and television series.

5.4 Research Limitations

This study, just as most academic studies, was subject to some limitations. Regardless of the relevance of the results, the findings should be analyzed with caution. The relatively small size of the sample and the method used to collect data, namely to distribute the questionnaire to mainly Portuguese students, can contribute to bias the results.

The use of this type of method to collect data, through the internet and using an online database, has several advantages such as the geographical and occupational diversification of the respondents. However, it also had other disadvantages, such as the weak representation of the age group above the age of 26, which may bias the study. It is important to collect a balanced sample in the various characterization variables, to allow a more correct and reliable comparison between individuals with different characteristics.

Another limitation is the use of images for the brand recognition test. Although the aim is to give people the possibility to verify the brand, because what is being studied is the brand recognition, i.e., if the brand elements are recognized, the respondents had unlimited time to look at the image and recognize the brand. To counter this, the images of the brand's products were chosen to appear naturally and not very evidenced during the movies.

5.4 Directions for Future Research

Starting from the basis of this study, it seems to logical to extend the product categories under analysis, to not only confirm the validity of the conclusion but also to see if there are product categories where brand recognition is higher.

To overcome the limitations mentioned above about the use of non-timed images, it should be considered in the future to use a tool that replicate the normal viewing of movies. A simple solution would be to do a questionnaire also with images, but where the images only appeared during a certain time.

Another future approach could also be to carry out a qualitative approach through in-depth and group interviews, which would allow us to delve deeper into the issue now addressed.

CHAPTER 6 - LIST OF REFERENCES

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CHAPTER 7 - APPENDIX

Appendix A – Brand Awareness Test

Secção 1 de 7



Marketing Master

The present investigation is carried out within the scope of my research thesis in the Master in Marketing of ISCTE-IUL. The questionnaire is part of a study about product placement. Answer the questions in a spontaneous and natural way. There are no right and wrong answers. The confidentiality and anonymity of the responses are guaranteed.

The expected time to complete the questionnaire is about 3 minutes.

Secção 2 de 7



Car Brands

Descrição (opcional)

Q1) Write below 5 car brands that you know or have heard of *

Texto de resposta longa

Car Brands

Descrição (opcional)

Q2) Identify below the car brands you know or have heard of. *

	Yes	No
Aston Martin	<input type="radio"/>	<input type="radio"/>
Audi	<input type="radio"/>	<input type="radio"/>
BMW	<input type="radio"/>	<input type="radio"/>
Chevrolet	<input type="radio"/>	<input type="radio"/>
Citroen	<input type="radio"/>	<input type="radio"/>
Ferrari	<input type="radio"/>	<input type="radio"/>
Fiat	<input type="radio"/>	<input type="radio"/>
Ford	<input type="radio"/>	<input type="radio"/>
Lamborghini	<input type="radio"/>	<input type="radio"/>
Lexus	<input type="radio"/>	<input type="radio"/>
Mercedes-Benz	<input type="radio"/>	<input type="radio"/>
Opel	<input type="radio"/>	<input type="radio"/>
Peugeot	<input type="radio"/>	<input type="radio"/>
Porsche	<input type="radio"/>	<input type="radio"/>
Renault	<input type="radio"/>	<input type="radio"/>
Toyota	<input type="radio"/>	<input type="radio"/>
Volkswagen	<input type="radio"/>	<input type="radio"/>
Volvo	<input type="radio"/>	<input type="radio"/>

Secção 4 de 7



Computer Brands

Descrição (opcional)

Q3) Write below 5 computer brands that you know or have heard of *

Texto de resposta longa

Secção 5 de 7



Computer Brands

Descrição (opcional)

Q4) Identify below the computer brands you know or have heard of. *

	Yes	No
Acer	<input type="radio"/>	<input type="radio"/>
Alienware	<input type="radio"/>	<input type="radio"/>
Apple	<input type="radio"/>	<input type="radio"/>
Asus	<input type="radio"/>	<input type="radio"/>
Compaq	<input type="radio"/>	<input type="radio"/>
Dell	<input type="radio"/>	<input type="radio"/>
Fujitsu	<input type="radio"/>	<input type="radio"/>
HP	<input type="radio"/>	<input type="radio"/>
Lenovo	<input type="radio"/>	<input type="radio"/>
LG	<input type="radio"/>	<input type="radio"/>
MSI	<input type="radio"/>	<input type="radio"/>
Samsung	<input type="radio"/>	<input type="radio"/>
Sony	<input type="radio"/>	<input type="radio"/>
Toshiba	<input type="radio"/>	<input type="radio"/>

Secção 6 de 7



Sportswear Brands

Descrição (opcional)

Q5) Write below 3 Sports Apparel (sportswear) brands that you know or have heard of *

Texto de resposta longa

Secção 7 de 7



Sportswear Brands

Descrição (opcional)

Q6) Identify below the sports apparel brands you know or have heard of. *

Q6) Identify below the sports apparel brands you know or have heard of. *

	Yes	No
Adidas	<input type="radio"/>	<input type="radio"/>
Asics	<input type="radio"/>	<input type="radio"/>
Fila	<input type="radio"/>	<input type="radio"/>
New Balance	<input type="radio"/>	<input type="radio"/>
Nike	<input type="radio"/>	<input type="radio"/>
Puma	<input type="radio"/>	<input type="radio"/>
Reebok	<input type="radio"/>	<input type="radio"/>
Umbro	<input type="radio"/>	<input type="radio"/>
Under Armour	<input type="radio"/>	<input type="radio"/>

Appendix B – Brand Recognition Test

Product Placement

Q0 The present investigation is carried out within the scope of my research thesis in the Master in Marketing of ISCTE-IUL. The questionnaire is part of a study about product placement. Answer the questions in a spontaneous and natural way. The confidentiality and anonymity of the responses are guaranteed.

End of Block

Default Question Block

Q1 Gender

- Male (1)
 - Female (2)
-

Q2 Age

- 18-25 years old (1)
 - 26-35 years old (2)
 - 36-45 years old (3)
 - 46-55 years old (4)
 - 56-65 years old (5)
 - More than 65 years old (6)
-

Q3 How frequently do you watch movies and/or television series?

- Never (1)
 - Rarely (2)
 - Sometimes (3)
 - Regularly (4)
 - Always (5)
-

Q4 Define your level of agreement with the following sentences

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
I like the integration of brands in movies and television series (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The use of real products in movies makes scenes more realistic. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I pay attention to brands appearing in movies (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block

Block 1

Q6 How do you evaluate your degree of knowledge in car brands?

- Poor (1)
 - Fair (2)
 - Good (3)
 - Very Good (4)
 - Excellent (5)
-

Q61 How do you evaluate your degree of knowledge in computer brands?

- Poor (1)
- Fair (2)
- Good (3)
- Very Good (4)
- Excellent (5)

End of Block

Block 2

Q7 Pay attention to the following image



Q8 Do you know the brand's name?

Yes (1)

No (2)

Skip To: Q9 If Q8 = Yes (1)

Skip To: End of Block If Q8 = No (2)

Q9 What is the brand name?

End of Block

Block 3

Q11 Pay attention to the following image



Q12 Do you know the brand's name?

- Yes (1)
- No (2)

Skip To: Q13 If Q12 = Yes (1)

Skip To: End of Block If Q12 = No (2)

Q13 What is the brand name?

End of Block

Block 4

Q14 Pay attention to the following image



Q15 Do you know the brand's name?

- Yes (1)
- No (2)

Skip To: Q16 If Q15 = Yes (1)

Skip To: End of Block If Q15 = No (2)

Q16 What is the brand name?

End of Block

Block 5

Q17 Pay attention to the following image



Q18 Do you know the brand's name?

- Yes (1)
- No (2)

Skip To: Q19 If Q18 = Yes (1)

Skip To: End of Block If Q18 = No (2)

Q19 What is the brand name?

End of Block

Block 6

Q20 Pay attention to the following image



Q21 Do you know the brand's name?

- Yes (1)
- No (2)

Skip To: Q22 If Q21 = Yes (1)

Skip To: End of Block If Q21 = No (2)

Q22 What is the brand name?

End of Block

Block 7

Q23 Pay attention to the following image



Q24 Do you know the brand's name?

- Yes (1)
- No (2)

Skip To: Q25 If Q24 = Yes (1)

Skip To: End of Block If Q24 = No (2)

Q25 What is the brand name?

End of Block

Block 8

Q26 Pay attention to the following image



Q27 Do you know the brand's name?

- Yes (1)
- No (2)

Skip To: Q28 If Q27 = Yes (1)

Skip To: End of Block If Q27 = No (2)

Q28 What is the brand name?

End of Block

Block 9

Q29 Pay attention to the following image



Q30 Do you know the brand's name?

- Yes (1)
- No (2)

Skip To: Q31 If Q30 = Yes (1)

Skip To: End of Block If Q30 = No (2)

Q31 What is the brand name?

End of Block

Block 10

Q32 Pay attention to the following image



Q33 Do you know the brand's name?

- Yes (1)
- No (2)

Skip To: Q34 If Q33 = Yes (1)

Skip To: End of Block If Q33 = No (2)

Q34 What is the brand name?

End of Block

Block 11

Q35 Pay attention to the following image



Q36 Do you know the brand's name?

- Yes (1)
- No (2)

Skip To: Q37 If Q36 = Yes (1)

Skip To: End of Block If Q36 = No (2)

Q37 What is the brand name?

End of Block

Block 12

Q38 Pay attention to the following image



Q39 Do you know the brand's name?

Yes (1)

No (2)

Skip To: Q40 If Q39 = Yes (1)

Skip To: End of Block If Q39 = No (2)

Q40 What is the brand name?

End of Block

Block 13

Q41 Pay attention to the following image



Q42 Do you know the brand's name?

- Yes (1)
- No (2)

Skip To: Q43 If Q42 = Yes (1)

Skip To: End of Block If Q42 = No (2)

Q43 What is the brand name?

End of Block

Block 14

Q44 Pay attention to the following image



Q45 Do you know the brand's name?

Yes (1)

No (2)

Skip To: Q46 If Q45 = Yes (1)

Skip To: End of Block If Q45 = No (2)

Q46 What is the brand name?

End of Block

Block 15

Q47 Pay attention to the following image



Q48 Do you know the brand's name?

Yes (1)

No (2)

Skip To: Q49 If Q48 = Yes (1)

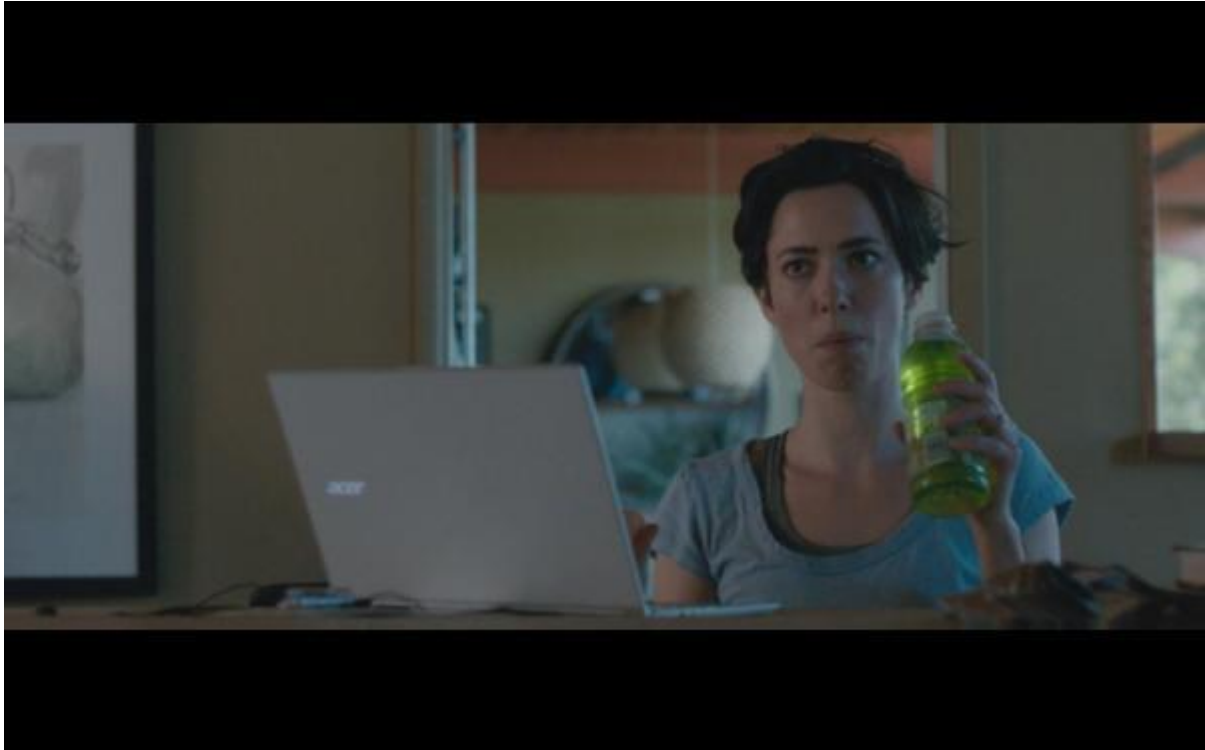
Skip To: End of Block If Q48 = No (2)

Q49 What is the brand name?

End of Block

Block 16

Q50 Pay attention to the following image



Q51 Do you know the brand's name?

- Yes (1)
- No (2)

Skip To: Q52 If Q51 = Yes (1)

Skip To: End of Block If Q51 = No (2)

Q52 What is the brand name?

End of Block

Block 17

Q53 Pay attention to the following image



Q54 Do you know the brand's name?

Yes (1)

No (2)

Skip To: Q55 If Q54 = Yes (1)

Skip To: End of Block If Q54 = No (2)

Q55 What is the brand name?

End of Block

Block 18

Q56 Pay attention to the following image



Q57 Do you know the brand's name?

Yes (1)

No (2)

Skip To: Q58 If Q57 = Yes (1)

Skip To: End of Block If Q57 = No (2)

Q58 What is the brand name?

End of Block

Block 19

Q59 Pay attention to the following image



Q60 Do you know the brand's name?

- Yes (1)
- No (2)

Skip To: Q61 If Q60 = Yes (1)

Skip To: End of Block If Q60 = No (2)

Q61 What is the brand name?

End of Block

Appendix C - Bivariate Analysis

Brand Awareness - High (Cars)

		Brand awareness high (BMW , Audi, Mercedes)	
		Mean	Standard Deviation
Gender	F	1,88	,24
	M	1,98	,09

Table 47 - Brand awareness high (cars) & Gender

		Brand awareness high (BMW , Audi, Mercedes)	
		Mean	Standard Deviation
Age group	18-25	1,90	,22
	26-35	1,96	,16
	36-45	2,00	,00
	46-55	1,94	,13
	56-65	1,67	,00

Table 48 - Brand awareness high (cars) & Age

		Brand awareness high (BMW , Audi, Mercedes)	
		Mean	Standard Deviation
How frequently do you watch movies and/or television series?	Always	1,93	,19
	Regularly	1,91	,21
	Sometimes	1,91	,21
	Rarely	1,77	,32
	Never	2,00	.

Table 49 - Brand awareness high (cars) & Movie viewing frequency

		Brand awareness high (BMW , Audi, Mercedes)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - I like the integration of brands in movies and television series	Strongly disagree	1,95	,20
	Somewhat disagree	1,86	,28
	Neither agree nor disagree	1,91	,20
	Somewhat agree	1,94	,15
	Strongly agree	1,93	,15

Table 50 - Brand awareness high (cars) & Opinion regarding product placement

		Brand awareness high (BMW , Audi, Mercedes)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - The use of real products in movies makes scenes more realistic.	Strongly disagree	2,00	,00
	Somewhat disagree	1,88	,26
	Neither agree nor disagree	1,86	,28
	Somewhat agree	1,91	,20
	Strongly agree	1,94	,17

Table 51 - Brand awareness high (cars) & Opinion on real products giving reality to movies

Influence of Brand Awareness in Brand Recognition Through Product Placement

		Brand awareness high (BMW , Audi, Mercedes)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - I pay attention to brands appearing in movies	Strongly disagree	1,87	,26
	Somewhat disagree	1,89	,22
	Neither agree nor disagree	1,93	,18
	Somewhat agree	1,92	,22
	Strongly agree	1,90	,20

Table 52 - Brand awareness high (cars) & Attention paid to brands in movies

		Brand awareness high (BMW , Audi, Mercedes)	
		Mean	Standard Deviation
How do you evaluate your degree of knowledge in car brands?	Poor	1,70	,33
	Fair	1,93	,17
	Good	1,97	,13
	Very Good	1,99	,04
	Excellent	1,98	,07

Table 53 - Brand awareness high (cars) & Degree of knowledge

Brand Awareness - Medium (Cars)

		Brand awareness medium (Ferrari, Toyota, Volkswagen)	
		Mean	Standard Deviation
Gender	F	1,79	,27
	M	1,94	,14

Table 54 - Brand awareness medium (cars) & Gender

		Brand awareness medium (Ferrari, Toyota, Volkswagen)	
		Mean	Standard Deviation
Age group	18-25	1,82	,26
	26-35	1,88	,21
	36-45	2,00	,00
	46-55	1,82	,23
	56-65	1,67	,47

Table 55 - Brand awareness medium (cars) & Age group

		Brand awareness medium (Ferrari, Toyota, Volkswagen)	
		Mean	Standard Deviation
How frequently do you watch movies and/or television series?	Always	1,84	,23
	Regularly	1,84	,25
	Sometimes	1,80	,27
	Rarely	1,83	,27
	Never	2,00	.

Table 56 - Brand awareness medium (cars) & Movie viewing frequency

Influence of Brand Awareness in Brand Recognition Through Product Placement

		Brand awareness medium (Ferrari, Toyota, Volkswagen)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - I like the integration of brands in movies and television series	Strongly disagree	1,84	,23
	Somewhat disagree	1,81	,28
	Neither agree nor disagree	1,82	,26
	Somewhat agree	1,85	,21
	Strongly agree	1,96	,11

Table 57 - Brand awareness medium (cars) & Opinion regarding product placement

		Brand awareness medium (Ferrari, Toyota, Volkswagen)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - The use of real products in movies makes scenes more realistic.	Strongly disagree	1,81	,22
	Somewhat disagree	1,82	,30
	Neither agree nor disagree	1,76	,29
	Somewhat agree	1,83	,25
	Strongly agree	1,87	,20

Table 58 - Brand awareness medium (cars) & Opinion on real products giving reality to movies

		Brand awareness medium (Ferrari, Toyota, Volkswagen)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - I pay attention to brands appearing in movies	Strongly disagree	1,75	,32
	Somewhat disagree	1,83	,26
	Neither agree nor disagree	1,83	,22
	Somewhat agree	1,85	,24
	Strongly agree	1,82	,26

Table 59 - Brand awareness medium (cars) & Attention paid to brands in movies

		Brand awareness medium (Ferrari, Toyota, Volkswagen)	
		Mean	Standard Deviation
How do you evaluate your degree of knowledge in car brands?	Poor	1,64	,30
	Fair	1,79	,26
	Good	1,90	,19
	Very Good	1,98	,08
	Excellent	1,98	,07

Table 60 - Brand awareness medium (cars) & Degree of knowledge

Brand Awareness - Low (Cars)

		Brand awareness low (Chevrolet, Lexus, Volvo)	
		Mean	Standard Deviation
Gender	F	1,48	,37
	M	1,76	,32

Table 61 - Brand awareness low (cars) & Gender

Influence of Brand Awareness in Brand Recognition Through Product Placement

		Brand awareness low (Chevrolet, Lexus, Volvo)	
		Mean	Standard Deviation
Age group	18-25	1,55	,38
	26-35	1,60	,37
	36-45	1,52	,34
	46-55	1,64	,38
	56-65	1,50	,24

Table 62 - Brand awareness low (cars) & Age group

		Brand awareness low (Chevrolet, Lexus, Volvo)	
		Mean	Standard Deviation
How frequently do you watch movies and/or television series?	Always	1,60	,36
	Regularly	1,59	,39
	Sometimes	1,50	,38
	Rarely	1,39	,39
	Never	1,67	.

Table 63 - Brand awareness low (cars) & Movie viewing frequency

		Brand awareness low (Chevrolet, Lexus, Volvo)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - I like the integration of brands in movies and television series	Strongly disagree	1,61	,36
	Somewhat disagree	1,50	,38
	Neither agree nor disagree	1,56	,37
	Somewhat agree	1,58	,39
	Strongly agree	1,85	,24

Table 64 - Brand awareness low (cars) & Opinion regarding product placement

		Brand awareness low (Chevrolet, Lexus, Volvo)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - The use of real products in movies makes scenes more realistic.	Strongly disagree	1,53	,33
	Somewhat disagree	1,47	,36
	Neither agree nor disagree	1,51	,42
	Somewhat agree	1,55	,38
	Strongly agree	1,65	,35

Table 65 - Brand awareness low (cars) & Opinion on real products giving reality to movies

		Brand awareness low (Chevrolet, Lexus, Volvo)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - I pay attention to brands appearing in movies	Strongly disagree	1,47	,36
	Somewhat disagree	1,56	,40
	Neither agree nor disagree	1,51	,38
	Somewhat agree	1,59	,37
	Strongly agree	1,60	,40

Table 66 - Brand awareness low (cars) & Attention paid to brands in movies

Influence of Brand Awareness in Brand Recognition Through Product Placement

		Brand awareness low (Chevrolet, Lexus, Volvo)	
		Mean	Standard Deviation
How do you evaluate your degree of knowledge in car brands?	Poor	1,26	,34
	Fair	1,45	,35
	Good	1,69	,31
	Very Good	1,84	,27
	Excellent	1,94	,17

Table 67 - Brand awareness low (cars) & Degree of knowledge

Brand Awareness - High (PC)

		Brand awareness high (Apple, HP, Toshiba)	
		Mean	Standard Deviation
Gender	F	1,91	,16
	M	1,96	,12

Table 68 - Brand awareness high (PC) & Gender

		Brand awareness high (Apple, HP, Toshiba)	
		Mean	Standard Deviation
Age group	18-25	1,92	,15
	26-35	1,97	,10
	36-45	1,85	,24
	46-55	1,91	,16
	56-65	1,67	,47

Table 69 - Brand awareness high (PC) & Age

		Brand awareness high (Apple, HP, Toshiba)	
		Mean	Standard Deviation
How frequently do you watch movies and/or television series?	Always	1,93	,14
	Regularly	1,95	,13
	Sometimes	1,88	,19
	Rarely	1,91	,15
	Never	1,33	.

Table 70 - Brand awareness high (PC) & Movie viewing frequency

		Brand awareness high (Apple, HP, Toshiba)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - I like the integration of brands in movies and television series	Strongly disagree	1,95	,12
	Somewhat disagree	1,92	,15
	Neither agree nor disagree	1,94	,14
	Somewhat agree	1,91	,18
	Strongly agree	1,93	,15

Table 71 - Brand awareness high (PC) & Opinion regarding product placement

Influence of Brand Awareness in Brand Recognition Through Product Placement

		Brand awareness high (Apple, HP, Toshiba)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - The use of real products in movies makes scenes more realistic.	Strongly disagree	1,97	,10
	Somewhat disagree	1,91	,18
	Neither agree nor disagree	1,94	,13
	Somewhat agree	1,93	,15
	Strongly agree	1,92	,17

Table 72 - Brand awareness high (PC) & Opinion on real products giving reality to movies

		Brand awareness high (Apple, HP, Toshiba)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - I pay attention to brands appearing in movies	Strongly disagree	1,96	,13
	Somewhat disagree	1,91	,16
	Neither agree nor disagree	1,90	,18
	Somewhat agree	1,94	,14
	Strongly agree	1,93	,15

Table 73 - Brand awareness high (PC) & Attention paid to brands in movies

		Brand awareness high (Apple, HP, Toshiba)	
		Mean	Standard Deviation
How do you evaluate your degree of knowledge in computer brands?	Poor	1,90	,18
	Fair	1,91	,17
	Good	1,93	,15
	Very Good	1,97	,10
	Excellent	1,97	,10

Table 74 - Brand awareness high (PC) & Degree of knowledge

Brand Awareness - Medium (PC)

		Brand awareness medium (Sony, Asus, Acer)	
		Mean	Standard Deviation
Gender	F	1,77	,28
	M	1,89	,19

Table 75 - Brand awareness medium (PC) & Gender

		Brand awareness medium (Sony, Asus, Acer)	
		Mean	Standard Deviation
Age group	18-25	1,81	,26
	26-35	1,92	,19
	36-45	1,48	,34
	46-55	1,70	,31
	56-65	1,33	,00

Table 76 - Brand awareness medium (PC) & Age

Influence of Brand Awareness in Brand Recognition Through Product Placement

		Brand awareness medium (Sony, Asus, Acer)	
		Mean	Standard Deviation
How frequently do you watch movies and/or television series?	Always	1,83	,24
	Regularly	1,83	,23
	Sometimes	1,76	,30
	Rarely	1,71	,35
	Never	1,00	.

Table 77 - Brand awareness medium (PC) & Movie viewing frequency

		Brand awareness medium (Sony, Asus, Acer)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - I like the integration of brands in movies and television series	Strongly disagree	1,85	,23
	Somewhat disagree	1,77	,31
	Neither agree nor disagree	1,80	,26
	Somewhat agree	1,84	,23
	Strongly agree	1,89	,17

Table 78 - Brand awareness medium (PC) & Opinion regarding product placement

		Brand awareness medium (Sony, Asus, Acer)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - The use of real products in movies makes scenes more realistic.	Strongly disagree	1,92	,15
	Somewhat disagree	1,75	,31
	Neither agree nor disagree	1,80	,25
	Somewhat agree	1,80	,26
	Strongly agree	1,83	,25

Table 79 - Brand awareness medium (PC) & Opinion on real products giving reality to movies

		Brand awareness medium (Sony, Asus, Acer)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - I pay attention to brands appearing in movies	Strongly disagree	1,77	,26
	Somewhat disagree	1,79	,26
	Neither agree nor disagree	1,79	,28
	Somewhat agree	1,82	,26
	Strongly agree	1,85	,25

Table 80 - Brand awareness medium (PC) & Attention paid to brands in movies

		Brand awareness medium (Sony, Asus, Acer)	
		Mean	Standard Deviation
How do you evaluate your degree of knowledge in computer brands?	Poor	1,68	,34
	Fair	1,77	,26
	Good	1,84	,24
	Very Good	1,90	,19
	Excellent	1,94	,13

Table 81 - Brand awareness medium (PC) & Degree of knowledge

Brand Awareness - Low (PC)

		Brand awareness low (Lenovo, Dell, LG)	
		Mean	Standard Deviation
Gender	F	1,51	,32
	M	1,65	,31

Table 82 - Brand awareness low (PC) & Gender

		Brand awareness low (Lenovo, Dell, LG)	
		Mean	Standard Deviation
Age group	18-25	1,55	,32
	26-35	1,70	,28
	36-45	1,15	,18
	46-55	1,39	,39
	56-65	1,00	,00

Table 83 - Brand awareness low (PC) & Age

		Brand awareness low (Lenovo, Dell, LG)	
		Mean	Standard Deviation
How frequently do you watch movies and/or television series?	Always	1,57	,31
	Regularly	1,59	,30
	Sometimes	1,47	,35
	Rarely	1,47	,37
	Never	1,00	.

Table 84 - Brand awareness low (PC) & Movie viewing frequency

		Brand awareness low (Lenovo, Dell, LG)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - I like the integration of brands in movies and television series	Strongly disagree	1,57	,35
	Somewhat disagree	1,57	,31
	Neither agree nor disagree	1,55	,32
	Somewhat agree	1,53	,33
	Strongly agree	1,44	,29

Table 85 - Brand awareness low (PC) & Opinion regarding product placement

		Brand awareness low (Lenovo, Dell, LG)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - The use of real products in movies makes scenes more realistic.	Strongly disagree	1,58	,29
	Somewhat disagree	1,54	,34
	Neither agree nor disagree	1,54	,32
	Somewhat agree	1,54	,33
	Strongly agree	1,57	,31

Table 86 - Brand awareness low (PC) & Opinion on real products giving reality to movies

Influence of Brand Awareness in Brand Recognition Through Product Placement

		Brand awareness low (Lenovo, Dell, LG)	
		Mean	Standard Deviation
Define your level of agreement with the following sentences - I pay attention to brands appearing in movies	Strongly disagree	1,55	,31
	Somewhat disagree	1,53	,31
	Neither agree nor disagree	1,55	,34
	Somewhat agree	1,54	,32
	Strongly agree	1,60	,32

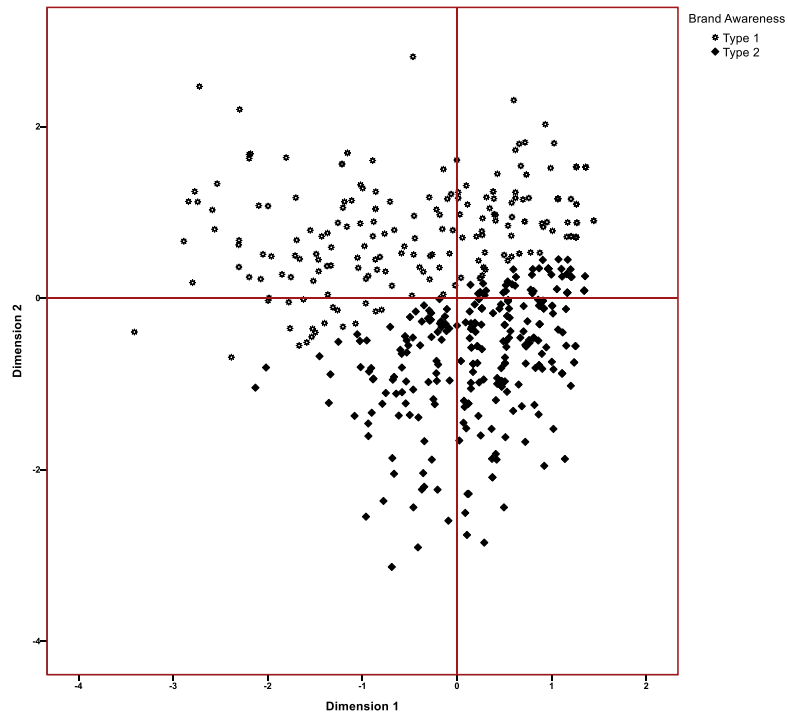
Table 87 - Brand awareness low (PC) & Attention paid to brands in movies

		Brand awareness low (Lenovo, Dell, LG)	
		Mean	Standard Deviation
How do you evaluate your degree of knowledge in computer brands?	Poor	1,42	,30
	Fair	1,51	,33
	Good	1,56	,30
	Very Good	1,67	,31
	Excellent	1,77	,28

Table 88 - Brand awareness low (PC) & Degree of knowledge

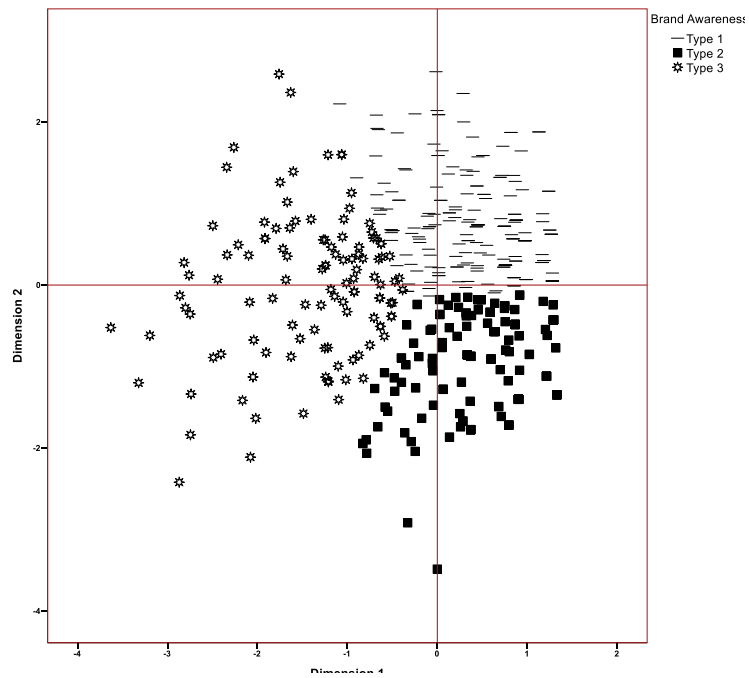
Appendix D – MCA

MCA - Cars



Graphic 10 - Profiles of recognition - cars

MCA - PC



Graphic 11 - Profiles of recognition - PC