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THE EFFECTS OF PRODUCT PLACEMENT, IN FILMS, ON THE CONSUMERS' PURCHASE INTENTIONS

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ABSTRACT

Traditional forms of communication have been losing their once golden effectiveness due to, mainly, consumer saturation. Since the modern world is characterized by an advertising clutter, in wich each citizen living in urban areas is exposed daily to an average of 3,500 stimuli, companies are now looking for ways to differentiate themselves from competitors, and are now immersing their ways onto product placement.

As investment in product placements increases over the years, making it now a billion dollar industry, there is a necessity to deeply explore this theme to better understand what its main effects on consumers are.

Purchase intention is a step that mediates consumer attitude and effective behavior. The link between this stage of consumer behavior and product placement represents an area in which previous scholars' results have not been overly consistent, making it not as crystal clear as desired.

The present research conveys an experimental design resorting to eye tracking tools and softwares, providing data concerning the viewers' levels of attention. As this experiment also aims to denote differences between reactions to product placements in different contexts (comedy vs. drama), two experimental and two control groups were defined, totaling a sample of 85 subjects.

This paper covers the effects that the variables identified on the literature review have on brand attitudes, and subsequentely, on purchase intentions. The formulated hypotheses provide an in-depth look to how product placement affects consumers.

Key-Words: Product Placement, Communication, Purchase Intentions, Experimental Study.

JEL: M31, C91

RESUMO

As formas de comunicação tradicionais têm vindo a perder a sua eficácia devido à, essencialmente, saturação do consumidor. Dado que o mundo moderno é caracterizado por um ambiente com excesso de publicidade, em que um cidadão residente em áreas urbanas é exposto, em média, a 3.500 estímulos diários, as empresas estão à procura de novas formas de se diferenciarem da concorrência apostando cada vez mais em *product placement*.

À medida que o investimento em *product placement* aumenta, tornando-o numa indústria que movimenta milhares de milhões de dólares, surge a necessidade de explorar profundamente este tema almejando uma melhor compreensão dos efeitos que tem no consumidor.

A intenção de compra representa o primeiro passo no processo de decisão de compra do consumidor, e a ligação entre este patamar e o *product placement* representa uma área que não tem suscitado coerência em estudos passados, tornando-a pouco clara.

O presente estudo experimental recorre a ferramentas e software de *eye tracking*, proporcionando informação acerca dos níveis de atenção dos espectadores em relação aos estímulos definidos. Dado que esta experiência também pretende identificar diferenças nas reacções ao *product placement* em contextos distintos (comédia vs. drama), dois grupos experimentais e dois grupos de controlo foram definidos, totalizando uma amostra de 85 elementos.

Esta dissertação cobre os efeitos que diferentes variáveis identificadas na revisão de literatura têm nas atitudes do consumidor perante a marca, e consequentemente, nas suas intenções de compra. As hipóteses formuladas oferecem um olhar aprofundado sobre a forma de como é que o *product placement* afecta os consumidores.

Key-Words: *Product Placement*, Comunicação, Intenções de Compra, Estudo Experimental.

JEL: M31, C91

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EXECUTIVE SUMARY

Traditional forms of communication (especially TV advertisements) have been losing their effectiveness, in recent years. As companies are branching out to other forms of communication that may yield positive impacts near consumers, product placement present itself to be a more organic way of communication, as it represents the inclusion of branded products/services within the mass media.

This paper goal is to provide a better understanding to how product placement affects human beings on their roles as consumers. Since attention to this theme is fairly recent, the need to further explore the effects of this type of communication on consumer behavior arises with the aim of producing more consistent results, and subsequently, of providing insights that may optimize investments on product placement. Therefore, this study's objectives rely on the analysis of how product placement is linked with consumer behavior, more specifically, with consumers' purchase intentions.

After an approach to the literature review, hypotheses were formulated through the identification of variables that needed further development, as well by identifying gaps in said literature. An experimental study was carried out in this research. Two experimental groups watched two different movie excerpts (one from a comedy film and the other from a dramatic one) in their original versions (meaning that they contained product placements), while two control groups watched the same videos, but in their edited form (the scenes containing product placements were edited out from the presented excerpts). Reactions to product placement were measured by the subjects' responses to a quantitative natured questionnaire. First, a descriptive analysis of the respondents' answers is provided, followed by a series of statistical treatments that allow hypotheses testing to take place.

The main conclusion of this study is that product placement has a positive limited effect in shapping brand attitudes, through its prominence and celebrity endorsement aspects. Regarding the tested hypotheses, it was possible to verify that prominence and celebrity endorsement are positively correlated with how consumers perceive the level of creativity of the presented brand. Modality did not bear any significant impact, and can be seen only as the form of how a product is exposed within a film.

Attention served as a moderator variable for the relationships between Prominence and Modality with the Brand Attitude constructs. In this sense, it was verified that viewers with low levels of attention to the stimuli are more prone to positive changes in brand attitude than those with high levels of attention.

The film's genre (type of film) also served as a moderator, but in this instance, between the Brand Attitude variable and the Purchase Intention one. Moderation also occurred, and it was observed that comedy movies are more likely to originate higher levels of purchase intention than dramatic-ones under specific circumstances.

Through path analysis, no significant impacts of prominence, modality nor celebrity endorsement have been identified on purchase intentions. The results derived from said statistical procedure suggest that when combined, these variables actually have a negative impact on purchase intentions.

1. INTRODUCTION

1.1. The theme's pertinence

In 2007, Jason Reitman directed *Juno* – an independent comedy with a budget of $7.5 million[1] about teenage pregnancy. The film was both critically acclaimed, scoring glowing reviews, a total of four Academy Awards nominations, including Best Picture, and a box-office success, garnering $243 million worldwide[2]. In Reitman's film, the title character, played by Ellen Page, filled her boyfriend's (Michael Cera) mailbox with orange flavored Tic Tacs in order to regain his trust and to take their relationship to more stable grounds. In this context, those specific small hard mints are relevant to the plot since they are used with the purpose of shaping Michal Cera's character's personality, and of serving as a device to develop the narrative. In this example, the brand is strongly connected with the film's plot and its mere presence may be associated with an emotional response from the audience.

Juno's high box-office receipts indicate that the Tic Tac brand has been exposed to a considerable large audience, which may very well translate into high brand awareness levels by the people that constituted the audience.

Another example of how brands use films as vehicles to promote their products comes from Nokia. For the film-making industry, 2008 was a rather interesting year. Bollywood had come to Hollywood, with Danny Boyle's *Slumdog Millionaire* making a big splash in the box-office and sweeping the awards season, and David Fincher's fantasy epic *The Curious Case of Benjamin Button* enchanted audiences all over the world. However, the big event of the year was the summer release of the highly anticipated Batman sequel: *The Dark Knight* (directed by Christopher Nolan).

Surrounded by media frenzy (even though the unfortunate occurrence of Heath Ledger's death may easily account for part of said frenzy), *The Dark Knight* got the spotlight in that summer, generating strong buzz and word-of-mouth that reflected in its box-office results: The film opened to a staggering $158.4[3] million weekend in the US and continued to break box-office records during its run. Worldwide, its receipts totaled

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[1] http://boxofficemojo.com/movies/?id=juno.htm

[2] Ibid.

[3] http://boxofficemojo.com/movies/?page=main&id=darkknight.htm

over a billion dollars[4]. Several brands are depicted in Christopher Nolan's gritty comic book adaptation. Nokia used this film to expose its, at the time, yet to be released touchscreen phone in a scene where Christian Bale (the masked hero) needs it to bring a criminal back to American soil to face justice.

The Dark Knight's juggernaut box-office performance indicates that it reached to an extremely high number of spectators. Given this fact, Nokia may very well have delighted gadget lovers all around the globe, making them eagerly anticipate the release of the featured touchscreen cellphone.

Product placement is, then, defined as a paid inclusion of branded products or brand identifiers, through audio and/or visual means within mass media programming (Karrh, 1998).

Investment on product placement witnessed a strong boost over the last decade and, naturally, has become more prolific over the last years. Advertisers and marketers have come to realize that the traditional form of advertising has been losing steam near its targeted audiences, and are now looking for other ways to maximize their communications investments without compromising the brands image by keeping communicating their products and services in a way that may look attractive to their respective targets.

A Deloitte study (2010) supports the notion that product placement is bound to grow over the next five years, becoming more and more present in the films and shows we most love. This research states that "*In the US product placement grosses $3.6 billion in 2009 and is expected to reach $6.1 billion in 2014*".

However, the inherent success of product placement as a promotion tool lacks a cohesive and deep understanding of what makes this business model so attractive and successful. Kureshi and Sood (2010) pointed out that there's need for research to delve deeper into the relationship that viewers have with product placement, for understanding how it does exactly affects us as consumers.

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[4] Ibid.

Given this context, it is important for research to provide outcomes that may explain the aforementioned relationship, in order to potentiate the implementation of real brands in films.

1.2. Objectives

This paper's objectives can be presented as the following:

- Identification of the viewers' attention levels on scenes containing product placement;

- To establish a comparison between the influence that product placement have on purchase intentions depending on the context in which the placements occur (comedy vs. drama);

- To evaluate the effects of prominence, modality and celebrity endorsement on brand attitudes;

- To develop the understanding of how product placement affects the construction of brand attitudes, and subsequently, the development of purchase intentions.

- To enrich existent literature by applying a new methodology in the product placement context – an eye tracking experiment.

1.3. Thesis Structure

This thesis is organized in six main chapters:

Introduction – The first chapter is dedicated to explaining the pertinence of studying product placement as a communication practice and to the explanation of this paper's objectives.

Literature Review – The second chapter covers the definition of the main concepts usually used regarding product placement, the evolution of product placement since the dawning days of Hollywood to the present and the types of existing placements. The literature review chapter also serves the purpose to synthetize the essential information

retrieved from other scholars' works, namely, pertaining the variables that were included in the present research.

Conceptual Framework – In this chapter, the conceptual model – delineating the variables used in the research and their respective interactions – is presented. Research hypotheses are exposed and justified.

Methodology – The fourth chapter covers the procedures carried out in order to gather data that could be statistically analyzed, the aspects that concern the employed videos, and consequently, the placements incorporated in said videos, the questionnaire construction and, finally, the statistical procedures that were used to analyze the retrieved data.

Results – In this chapter, the statistical analysis of collected data was performed. Descriptive analyses of the questionnaire as well as of the information gathered by conducting the eye tracking experiment are presented. The test of hypothesis (and supporting analysis) ensues.

Conclusions and Discussions – The sixth and final chapter regards concluding commentaries to the results observed from the previous chapter with links to other scholars' findings. The managerial and literature implications, research limitations and directions for future research are also exposed in the sixth chapter.

2. LITERATURE REVIEW

2.1. Product Placement: Definition and History

Product placement, also known as brand placement, can be defined as a paid inclusion of branded products or brand identifiers, through audio and/or visual means within mass media programming (Karrh, 1998). Panda (2004) defines brand placement as "*commercial insertions within a particular media program, intended to heighten the visibility of a brand, type of product or service*". While the exact definition of a product placement is still not yet thoroughly set in stone (Fontaine, 2002)[5] it is possible to say that most authors do not show any criticism towards Karrh's or Panda's definitions of product placement.

The media programming Karrh (1998) refers to does not only cover films and televised series but also songs or novels (Lehu, 2009), and in that way, product placements may be visual, audible, or even a combination of the two in order "*to maximize the impact*" (Lehu, 2009).

According to Steorz (1987)[6], a placement can be a logo, a brand name, a product or its packaging and when used in its "*least elaborate form*" it only allows for the appearance of a certain brand or product onscreen (Lehu, 2009). However, and if a product placement is handled carefully and used effectively then it will become so intrinsically connected with the storyline that it simply merges with the film – "*its presence seems logical, even indispensable*" (Lehu, 2009).

Product placement is considered to be a hybrid form of communication since it embodies different aspects of several communications tools, such as celebrity endorsements, public relations and sponsorship (Hackley *et al*., 2008). It is a growing practice in numerous media forms, and in the future, will be part of sophisticated communication strategies (Lehu, 2009). But how exactly has this communication technique been evolving throughout the years?

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[5] Mentioned in Lehu, J.M. (2009), *Branded Entertainment: Product placement & brand strategy in the entertainment business,* 2nd edition, Pentonville Road, London: Kogan Page.

[6] Ibid.

2.1.1. The Evolution of Product Placement

The integration of branded products on scenes from movies is a technique that has been used since the primordial times of Hollywood, even before the First World War (Galician, 2004): In 1916, the LKO/Universal studio produced a silent film with the explicit title *She Wanted a Ford*. In 1929, Alfred Hitchcock shot a scene that showed a luminous sign for Gordon's Gin in *Blackmail*. Later on, in Stanley Kubrick's *Dr. Strangelove: Or How I Learned to Stop Worrying and Love the Bomb* (1964) a Coca-Cola vending machine is prominently exposed, becoming actually relevant to the story (Lehu, 2009).

The incorporation of products within films intensified during the 30s, when studios "*slowly advanced the idea of promoting products in movies by sending marketers shot-by-shot breakdowns of scripts with promotional opportunities clearly indicated to marketers*" (Galician, 2004). Metro-Goldwyn-Mayer was the first studio to open a placement office, back in 1939 and Walt Disney Studios began selling merchandise that depicted images from its, at the time, most popular films (Galician, 2004).

Marketers and advertisers started to take notice on this practice when berets' sales to US women increased exponentially after the release of *Bonnie and Clyde* (1967, Penn), a film in which "*Faye Dunaway proudly sports her beret throughout the length of the film*" (Lehu, 2009). However, the event that made attention towards this subject soar through the roof was the release of Steven Spielberg's *E.T. The Extra-Terrestrial* (1982): In a particular scene, the actor Henry Thomas uses a brand of sweets – Hershey's *Reese's Pieces* – to attract the alien. The movie was a big hit with the box-office, generating $359 million in receipts[7]. Three months after *E.T.*'s release, Hershey made a claim that the sales for the pieces of candy portrayed in the film increased 65% (Gregorio & Sung, 2010) during that period.

Witnessing product placement's commercial impact, marketers began to get more and more involved with this form of communication in order to boost their company's sales. In 1998, the North American theater audience for Hollywood movies was estimated at 1.5 billion moviegoers, while the international audience was twice that, 3 billion. By realizing the enormous audience Hollywood movies had, marketers concluded that

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[7] http://www.boxofficemojo.com/movies/?id=et.htm

Hollywood films were an excellent communication vehicle that could very well influence consumers all across the globe (Galician, 2004). In 1998, approximately 1,000 brand marketers had incorporated product placement in their overall advertising mix.

2.1.2. Product Placement Today

Fontaine (2006) argues that the communication made in the traditional media has lost its once golden effectiveness. With the evolution that has been witnessed in consumer behavior, consumers nowadays are becoming more and more conscious, hard to impress, complex and selective. In a world where consumers are constantly showered with communication stimuli, one cannot process all the information he/she receives in a single day. This context supports the necessity of using different forms of communicating products, services or brands. With the oversaturation of the traditional media, product placement's development was characterized by a strong acceleration in recent years.

Lehu (2009) supports the urge to shift the current communication paradigm claiming that "*the placement principle rests on the fact that this unofficial 'advertising insertion' departs from the traditional screens that are generally reserved for it and therefore speaks to an audience in a context different from that of classic advertising communication*".

Being the target of high investment, product placement is now a billion-dollar industry. From 2004 to 2008, investment on this hybrid form of communication benefited from a strong boost, translating in a 27.1% CAGR[8] increase. In 2009, brands in the United States of America invested $3.61 billions of dollars in this practice, representing its first decrease, of 2.8%, on this kind of investment. Although this decline is easily explained by the economic crisis that has been haunting the world's economy, investment on brand placement is bound to see a strong growth in the next five years[9].

Nowadays, the presence of brands in movies is becoming more and more prolific, and they are investing in more movies *per annum* than ever: To identify the main players in

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[8] Compound Annual Growth Rate - a measure of the annual return on an investment over many years. It is equivalent to the annual interest rate required to achieve the same return on investment for that period.

[9] http://www.pqmedia.com/about-press-20100629-gbem2010.html

this industry, as of January 2011, and according to www.brandchannel.com, the biggest brands[10], based on their presence in movies that opened at the number one spot at the USA box-office, on the product placement industry during the year of 2010 were: Apple, Nike, Chevrolet, Ford, Sony, Dell and Range Rover[11].

2.2. Types of Product Placement

Lehu (2009) identified four different types of product placements, proceeding to characterize them, giving illustrative examples and naming their potential advantages and possible disadvantages:

Classic Placement – This type of placement is the oldest and most common form of placement that has been noticed as it exists since this form of communication has been originated. It takes a more tactical approach than strategic, since it simply consists on making a product or brand appear on screen.

The author advances with numerous examples such as the FedEx courier service in *Red Dragon* (2002, Brett Ratner); Amnesty International in *Collateral* (2004, Michael Mann); and Motorolla phones in *The Bourne Supremacy* (2004, Paul Greengrass).

Advantage: it is simple and easy to put in place at a relatively low cost, or even at no cost at all.

Disadvantage: it can pass unnoticed, especially in cases where a high number of brands are featured in the same film.

Corporate Placement – In this form of product placement, the brand is prioritized over the product. By communicating the brand instead of a specific product, it is easier to include the former in a particular shot. Effective brand placements can lead to benefits to all the products and services it sells.

Steven Spielberg's *Minority Report* (2002) serves as an example for corporate placement: In this futuristic action-thriller movie, advertising placards for Reebok,

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[10] The recurring presence of these brands in this industry, over the years, suggests that they find value in investing in product placements, even though its direct impact on sales is not easily measurable.

[11] http://www.brandchannel.com/brandcameo_brands.asp?brand_year=2010#brand_list

Pepsi and Aquafina – among many others – are spotted throughout the film, but the viewer doesn't effectively see their products or services.

Advantage: this form of placement is often easier to exploit onscreen, including after filming, and it ages less rapidly.

Disadvantage: it may pass unnoticed if the viewer does not know the brand before watching the film.

Evocative Placement – The author states that this is a much more subtle type of placement than the previous ones, since the brand is not required to appear, or to be clearly cited on screen. In this scenario, prior reflection is needed in order to adequately integrate the product/service/brand into the plot. Lehu also adds that "*it is essential to have a product that is original and whose design is sufficiently distinctive to evoke its name or in any case its specificity in the mind of the target*".

The use of Rubik's Cube in *The Pursuit of Happyness* (2006, Gabriele Muccino) is illustrative of evocative placement, as it is automatically identified as soon as it appears on screen. Another example is the Moët & Chandon champagne used in the remake of the homonymous 1969's classic *The Italian Job* (2003, F. Gary Gray). In this film, the viewer can see the characters celebrating by drinking champagne. However, no brand is ever actually mentioned or seen onscreen. Since bottles are passed from hand to hand, the brand Moët & Chandon is easily identified due to its unique bottle shapes and labels, which are evocative enough for the targeted audience. This form of placement also allows brands to take a more humorous approach to communication and to be playful towards the audience, example in case: *Forrest Gump* (1994, Robert Zemeckis). In the 1994 Best Picture Academy Award Winner, the Apple brand is cited as a "*fruit company*".

Advantage: its subtlety suggests differentiation between the brand and its competitors.

Disadvantage: it may not be identified by viewers who are not familiar with the brand.

Stealth Placement – It is the most discreet form of product placement that the author identified. Stealth placement, as it name suggests, is often well integrated into the scene and its unobtrusive presence grants it an extremely organic aspect, which may very well lead to a more powerful impact when the placement is identified.

Examples of stealth placement include Gwyneth Paltrow's dress by Donna Karan in *Great Expectations* (1998. Alfonso Cuarón) and Givenchy's presence in 1964's *Paris When It Sizzles* (Richard Quinne).

<u>Advantage</u>: the perfect brand integration into the story or scene in which it appears in overcomes any criticism of commercial intent.

<u>Disadvantage</u>: it is extremely easy to pass completely unnoticed.

2.3. Prominence and Plot Connection

The aim of product placement is "*to integrate brands seamlessly into the feature as part of the plot or characterization, thus enhancing the verisimilitude and dramatic force of the scene*" (Hackley et al., 2008). In order to achieve this goal, brands need to know what characteristics can be worked in order to expose their products.

Existing literature on product placement identified two main characteristics that are descriptive of this type of communication practice: prominence and plot connection.

Prominence can be separated in two different categories, as defined by Gupta and Lord (1998). On one hand, prominent placements occur whenever a product (or other brand identifier) is made highly visible on screen due to its size and/or position, or due to its centrality to the action in the scene. On the other, subtle placements are those in which the brand is not shown prominently and they may appear in a vast array of circumstances (small size, the brand may be used as a prop in the background, low time of exposure among others).

Moving on to the second characteristic, plot connection can be regarded as "*the degree to which the brand is associated with the film's scenario*" (Russell, 2002). That same degree indicates the level of association that a brand establishes with the development of the plot, or with the personalities of the film's characters. According to Panda (2004), placements that have low plot integration don't usually contribute much to the story, whereas placements with high plot connections constitute "*a major thematic force, taking a major place in the storyline or building the persona of the character*". Panda's point of view regarding plot connection is, therefore, in tune with Russell's.

Plot connection is also extremely important to brands in order to reach to their final audience. When a certain brand is paired with a character who displays one or more desirable traits, then that placement is bound to be more effective than others that aren't (Karrh, 1998).

2.4. Product Placement Modalities

Product placement modalities have their sight on working audiences' senses through the manipulation of stimuli during the time audiences are focused on the film. Depending on their nature, those modalities can be categorized into three groups (Gupta and Lord, 1998): visual only; audio only; and audio-visual.

The first mode, visual only, is used to display a product, logo, billboard or any other visual brand identifier without the resource of sound (Gupta and Lord, 1998). This mode also serves the purpose of making sets and scenes more realistic: branded products, while used as props, create the context in which the story is set (Russell, 2002).

The second modality, audio only, regards the mention of a brand name in a dialogue (Russell, 2002) without the aid of the brand's product visual presentation (Gupta and Lord, 1998). Instances where "*the brand may be creatively alluded to, without actually mentioning the brand*" (Galician, 2004) also fall into this category. Since the auditory channel is used, "*information presented auditorily is inherently more meaningful than visual information*" (Russell, 2002).

The main contrast between these two types of modality is better identified by its effects on the audience's capacity of processing information: The auditory mode has a greater effect than the visual mode because individuals can process the information they get from auditory stimuli even when they are not looking at the screen (Rolandelli *et al.*,

1991)[12]. For that reason, the auditory mode is also considered to be more intrusive than the visual modality (Posner, Nissen, and Klein, 1976)[13].

Finally, the third modality, audio-visual, combines the two previous modalities. Gupta and Lord (1998) define it as the inclusion of a brand in a certain scene, by showing it at the same time the brand is mentioned.

2.5. Ethics

Nowadays, marketing is considered to be an ethically controversial topic based on arguments that state that it is an activity that "*encourages overconsumption by fostering greed and materialism*" (Hackley *et al*., 2008). Marketing communication is also a target to those criticisms since it represents the face of marketing, and it is easily the most visible aspect of it (Hackley *et al*., 2008). Product placement, as a form of marketing communication, also raises important ethical questions.

From an industry point of view, directors, writers and producers express concerns as to where product placement is going, and what its effects on the industry are. Excessive use of this technique raises problems in two distinctive ways: On one hand, it "*draws the ire of the audience*", and on the other hand, it corrupts artistic work that had no intention on being commercial in the first place (Galician, 2004). With the oversaturation of product placement in movies, one of the goals of this communication tool may be in jeopardize – the creation of realism in movie scenes. Brands only look to appear in movies under a positive light, one that enhances brand's qualities. However, and because placements under those conditions are being overly used, realism is at loss. Constant brand glorification leans into a false realism, turning product placement into a deceptive tactic (Galician, 2004).

The artistic merit of those involved in producing movies is also endangered. Financial support is of the most extreme importance in order to create a movie, and nowadays, one of the film's funds sources is composed by companies that are looking for ways to

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[12] The authors were cited in Russell, C.A. (2002), "Investigating the Effectiveness of Product Placements in Television Shows: The Role of Modality and Plot Connection Congruence on Brand Memory and Attitude", *Journal of Consumer Research*, 29, 306-318.

[13] Ibid.

incorporate their own brand and products on movies. That scenario puts artists into a compromised position: either they decide to incorporate product placements in their movies, tarnishing their artistic value and creating a final product that does not resembles what those artists first had in mind, or those same artists won't get the green light to develop their projects: "*in a business where the 'clout' to say no is fragile and elusive, 'uncooperative' or 'difficult' creative workers can be replaced by others who 'see the light'*" (Galician, 2004).

From the audiences' stance, the topic of product placement also raised ethical questions about the clarity of its purposes. Consumers are generally at ease with product placement and they only present minor reservations towards it (Hackley *et al.*, 2008). Consumers' perceptions on the ethics of product placement can be categorized into two main aspects: general ethical concerns about the practice and specific ethical concerns about the particular product categories (Gupta and Gould, 1997).

2.5.1. General Ethical Concerns

Regarding general ethical concerns about the practice, most critics point out an element of deception, stating that product placements are not properly identified as advertisements and that they serve as a vehicle for subliminal or subconscious promotional effects. They also state that product placement can "*affect people below their level of conscious awareness, so that they are not necessarily able to control their acceptance or rejection of the product placement messages*" (Gupta and Gould, 1997; Hackley *et al*., 2008; Morton and Friedman, 2002). Another criticism pointed towards the deceptive nature of this technique is that it may engage people who are not aware of the commercial intent of product placement in purchase behavior (DeLorme and Reid, 1999).

Still on the subject of general ethical concerns about product placement, questions about the segments that the technique tries to reach out to have emerged: specifically, children are labeled as a "*particularly vulnerable group (...) because they have not yet developed sensitivity to this type of subtle promotional tool*" (Avery and Ferraro, 2000)[14]. Since

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[14] Authors mentioned in Hackley, C., Tiwsakul, R.A., Preuss, L. (2008), "An ethical evaluation of product placement: a deceptive practice?", *Business Ethics: A European Review*, 17, 109-120.

their awareness of the commercial intents of advertising is not fully developed until around 10 years of age, children are considered to be a highly susceptible group to promotions. This problem reflects important ethical questions in the way that "*children have no voice in public debate*", so it passes virtually without comment (Hackley *et al.*, 2008).

But what do regulatory entities do in order to control product placements that may be ethically controversial? The scenarios differ whether we talk about North-American entities or European ones.

"In the United States (US), product placement is a rising trend that is encouraged by regulators.

In Europe, on the other hand, the product placement trend has just begun to set in. In fact, European regulators are implementing strict rules and regulations about product placement.

Contrary to the approach in the US, European regulators do not want to conceal product placements. They want the consumers to know that certain products are being sold to the audience through media.

Product placement disclaimers will be aired before and after shows that featured them."[15]

Analyzing the previous contextual piece of information regarding product placements, it is possible to see that European entities are taking a much stricter approach to this form of communication. They look to inform viewers that the film they are about to watch contains product placements. This is a way to diminish the effects of product placement, and also, to decrease the number of criticisms about the deceptive nature of this communication practice.

In the USA, regulatory entities work closer with studios, production companies, corporations that are looking to get their brands placed into entertainment vehicles and with product placement agencies to guarantee that the product placement in question is

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[15] http://www.productplacement.biz/201008182762/news/movies/us-and-europe%E2%80%94different-approaches-to-product-placement.html

exposed in a seamless or organic way in the plot (Galician, 2004). Actually, the Entertainment Resources and Marketing Association's (ERMA) purpose is "*to set and uphold the highest level of business standards and to lead its members in creating new and innovative brand integration strategies*"[16] and it also has its own Code of Ethics[17] that covers a wide range of ground regarding ethical concerns.

2.5.2. Specific Ethical Concerns

In their study about consumers' perception of the ethics and acceptability of product placements in movies, Gupta and Gould (1997) defined two categories of products that they analyzed further in their research: ethically charged products (ones "*that arouse ethical concerns and differences across consumers regarding their marketing and consumption*") and neutral products (products that do not fall in the description of ethically charged products).

The findings of Gupta and Gould's study (1997) revealed that the product placement of neutral products is bound to be more acceptable than ethically charged ones. They also found out that consumers display some susceptibility towards certain product categories, such as cigarettes, alcohol and guns. Some studies about cross-cultural generalizability of consumers' acceptance of product placements in movies showed that those acceptance levels are not exactly the same, and that they differ by country and culture. Acceptance of ethically charged products is consistent over all countries: generally speaking, consumers' have a feeling of indifference towards it. However, the same cannot be said regarding neutral products. They show high levels of acceptance throughout different cultures, but those levels vary among the different cultures studied (Eisend, 2009).

2.6. Type of film: Making consumers laugh on their way to the shopping aisles?

There still has not been done much research about the correlation between the effects that brand placements have on consumers' purchase behaviors with the type of movies

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[16] http://www.erma.org/content/erma-bylaws

[17] Ibid.

they occur in. Is it better for companies to place their brands in humorous movies, or non-humorous ones?

Affect, as defined by Jin and Villegas (2007), consists on the representation of a consumer's feelings or emotions towards an object. Emotions play an important part on consumer behavior and are characterized by three dimensions: arousal, hedonic valance and dominance (Detenber *et al.*, 1998)[18].

There have been some studies conducted about humor in advertisement and in which ways does it make an impression on the consumer. Scott *et al.* (1990)[19] advance with the theory that when the humor depicted in the advertisement is appropriated for the product category that is being exposed then attention, credibility, recall, evaluation and purchase intention are enhanced.

Jin and Villegas (2007) state that "*the fundamental goal of humor is to increase comprehension of and ad, yield positive consumer attitudes towards an ad, and therefore enhance consumer attitudes towards the advertised product*". It is commonly regarded that the use of humor effectively calls attention to an advertisement, so does this also reflects in the use of branded products during humorous movie scenes?

Humor may positively affect consumer emotions and play an important role in reducing negative consumer attitudes towards a targeted brand (Jin and Villegas, 2007). The authors also claim that emotions can also play a fundamental role in the purchase or consumption of an entire product category if the product plays an emotional role in the consumer life.

In their study about consumers' emotional responses to humorous stimuli regarding the placement of product in films, Jin and Villegas (2007) defined a hypothesis that covered the relationship between humor and purchase behavior. Their findings were particularly interesting: the authors found out that when a product is effectively shown in a humorous context, then the consumer would adopt a more favorable attitude towards the placement itself. However, that conclusion does not extend to other fields. They found

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[18] Mentioned in Jin, C., Villegas, J. (2007), "The effect of the placement of the product in film: Consumers' emotional responses to humorous stimuli and prior brand evaluation", *Journal of Targeting, Measurement and Analysis for Marketing*, 15, 244-255.

[19] Ibid.

out that product placements are more accepted when shown in humorous scenes, but did not found any evidence that supported the hypothesis that those same placements originated favorable attitudes towards the placed target brand, nor do they elicit higher purchase intent.

2.7. Actors and Actresses: The role celebrities play in communication

The use of a celebrity to put a face into a product is often used. Companies try to grab the consumers' attention by associating a personality whom they are familiar with, in order to sell them their own products. Celebrities of "*superlative, unattainable beauty*" are used to influence the targeted audience (Marshall *et al.*, 2008)[20] because consumers look up to them – they admire, aspire to be like, and they want to share values with celebrities (Miciak and Shanklin, 1994)[21]. Consumers' fascination with movie stars who have "*delightful and pleasant*" characteristics leads to purchase behaviors, in the sense that consumers want to link themselves with those "*ideal individuals*" (Choi *et al.*, 2005)[22].

According to Solomon (2009), when messages are conveyed by celebrities they are bound to be much more effective due to the reason that "*our brains pay more attention to famous faces*", translating into higher efficiency when we process information about those specific images. The author also reports that celebrities are used as communication sources because they can increase awareness and "*enhance both company image and brand attitudes*". However, this doesn't mean that a company should choose a random celebrity to endorse its products. The celebrity selection is extremely important and vital for the effectiveness of this particular form of communication.

First, it is necessary to understand that there must be a logical connection between the star and the product (Solomon, 2009). Communication is aimed to a specific target, and if there isn't a link connecting the target with the celebrity in use, then effectiveness will be extremely poor. This is related to another aspect which is relevant to be analyzed:

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[20] Authors cited in Alnawas, I. (2010), "The Influence of Using Celebrities on Consumers Buying Behavior", *Interdisciplinary Journal of Contemporary Research in Business*, 2, 257-282.

[21] Ibid.

[22] Ibid.

The cultural meanings that celebrities embody (Solomon, 2009). The same celebrity is regarded differently by different groups of individuals. Solomon states that status and social class, gender, age and personality types are all relevant criteria that define how a consumer sees a certain celebrity. In that sense, actress Jessica Alba, actor Christian Bale or even the thespian Daniel Day-Lewis may mean one thing to consumer x, and another to consumer y.

In order for companies to reach out to the true potential that celebrity endorsements have, they need to look out for three different factors in the celebrities they are searching: a) trustworthiness; b) expertise (Alnawas, 2010); and c) attractiveness (Pornpitakpan, 2003)[23]. Pornpitakpan claimed that a celebrity that embodies all of the three aforementioned characteristics will have a greater influence in stimulating that targeted audience's purchase behavior.

Literature review on this subject has been mixed: Bower & Landreth (2001)[24] found out that "*using a celebrity had a positive influence on respondents in terms of brand choice which translated to generating a greater purchasing intention*". That conclusion is not reflective of other findings, namely the one made by Metha (1994)[25]: the author hypothesized and concluded that respondents' willingness to purchase did not differ significantly whether they saw a product being associated to a celebrity or a non-celebrity. Alwanas (2010) approached this matter and hypothesized the following statement: "*Using celebrity influences consumer's behavior positively*". Taking into account the convenience sample he used for his study, Alwanas did not found evidence to support the previous statement, leading him to reject the hypothesis.

2.8. Brand Recall and Brand Attitude

Product placement can contribute to build awareness, generate recall and shape attitudes (Morton & Friedman, 2002) thus, it is important to see what the state of the art of research in this field is. For that purpose, this paper will review the existing literature on the relationships between product placement and brand recall, as well with brand attitude.

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[23] Ibid.

[24] Ibid.

[25] Ibid.

For purposes of context, definitions for brand recall and for brand attitude are presented below:

Brand Recall – "*The extent to which a brand name is recalled as a member of a brand, product or service class, as distinct from brand recognition*"[26].

Brand Attitude – "*Opinion of consumers toward a product determined through market research. The brand attitude will tell what people think about a product or service, whether the product answers a consumer need, and just how much the product is wanted by the consumer. Knowledge of brand attitude is very helpful in planning an advertising campaign*"[27].

2.8.1. Brand Recall

Many studies have provided information about the effects of product placement on the consumers' memory. Gupta and Lord (1998) found out that recall of prominent placements is significantly higher than the observed in subtle placements. This condition happens because this effect relies on the prominent exposure of the product on a certain scene instead of relying in the "*idiosyncratic characteristics of the product or movie*". Generally speaking, the impact that product placement has on brand recall focuses mainly on short-term memory (Balasubramanian *et al*., 2006). Product placement can be the source of long-term brand recalls in certain instances: when product placements prompt more conscious processing during their exposure, long-term memory is stimulated, originating lasting brand recalls (Balasubramanian, 2006).

Product placement's modality can also affect brand recall. Kaijansinkko (2003) cited a study conducted by Steortz which concluded that placements that combined visual and verbal elements were recalled best, with the auditory-only modality coming in a close second place. Visual only modalities were placed in a distant third place registering the lowest levels of brand recall.

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[26] http://www.asiamarketresearch.com/glossary/brand-recall.htm

[27] http://www.answers.com/topic/brand-attitude

2.8.2. Brand Attitude

There doesn't appear to be a consensus regarding this particular field. Balasubramanian et al. (2006) found some incongruences and stated that "*Karrh (1994) found no changes in evaluations of placed brands, even when those brands were made more memorable. Conversely, Russell (2002) found positive attitude change even when recognition of a placed brand was low*".

Since brand attitudes denote the subjective opinion a consumer has towards a particular product/brand they are bound to change throughout time. Although there are different elements – going from social structural variables such as gender, ethnicity, education, age and income, to socialization agents such as peers and media (Gregorio and Sung, 2010) – that can contribute to shifts in brand attitudes, this paper will only focus on the influence that product placement, as a form of communication, has on attitudes.

The effects of branded placements on audience reactions obey to two major laws, according to Reijmersdal (2009). The first one states that product placement prominence has a positive effect on brand memory, especially when placements are used in audiovisual media. The second law states that brand placement can affect attitudes and behavior without memory of the placement, thus it is likely that product placement can have implicit effects.

Negative effects of product placement on brand attitude have been observed (Cowley and Barron, 2008). These effects occur in specific circumstances, and there are two major factors that contribute for negative attitudinal changes: a) viewers' involvement – A case in which the audience is not engaged with what they are seeing, translating into a low involvement context, can be harmful to the construction of "healthy" brand attitudes; and b) viewers' awareness of the commercial intents of the branded placements.

Conjugating the two aforementioned factors, the inclusion of brands in movie scenes is bound to have negative effects on brand attitudes due to the fact that when viewers find themselves immersed in a low involvement context, their attention is not totally focused on the story or the action that is happening on screen. As their minds begin to wander off from the plot, they start to notice other things that are featured on screen. By noticing a brand, or a branded product, cognitive defenses against persuasion are

triggered if viewers feel that the brand or branded product was specifically placed on that scene with commercial intentions only (Cowley and Barron, 2008).

Prominence is the link between branded placements and brand attitudes that has been more studied in past research. Even though Cowley and Barron (2008) found some negative effects of this type of communication on brand attitude, the authors also concluded that when in a situation characterized by high involvement and low awareness, viewers will form positive brand attitudes.

Homer (2009) developed research in this topic, adding another construct into the relationship between placements and brand attitude: repetition. She found out that prominent placements have a more incisive effect on brand attitude when paired with low repetition. If prominent placements are subjected to moderate/high repetition then brand attitude will suffer a substantial decrease (Homer, 2009). In contrast, subtle placements produce a positive influence on brand attitude when exposed with moderate/high repetition and may not have any effect when showed with low repetition (Homer, 2009).

2.9. Attention and Eye Movements

Duchowski (2007) stated that "*Humans are finite beings that cannot attend to all things at once*". This is particularly deemed to be true, as the consumer, nowadays, is embedded in an environment that constantly bombards him with information. As human beings do not have the capacity to process the information derived from each stimulus that they are exposed to every single day, only a specific set of stimuli capture the consumers' attention. Attention can, then, be defined as "*the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or train of thoughts*" (James, 1890)[28].

Vision is a particularly important sensory system because marketers rely heavily on visual elements to communicate their products' meanings (Solomon, 2009). The ability that humans have to read, drive, watch television, watch a movie or play a video game

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[28] Mentioned in Duchowski, A. (2007), *Eye Tracking Methodology: Theory and Practice*, 2nd Edition, Clemson University, Clemson, SC, USA.

is called sharp vision, and it is only possible due to a particular eye component – the fovea: a part of the eye located at the center of the macular region of the retina[29].

We move our eyes in order to bring a particular portion of the visible field of view to high resolution, so we can look at it into high and clear detail (Duchowski, 2007). Most often, humans also divert their attention to that point so that they can focus their attention (even though it may only last for brief moments) on the object or region of interest.

The paths that humans do while scanning over the scenes that trigger their interest have two main characteristics – fixations and saccades – that can be distinguished as following:

- A fixation occurs when the foveal attention lingers on a specific object that captured the observer's attention.

- A saccade represents the movements made by the viewer's eyes from one fixation to another.

To better illustrate the differences between these two concepts, they can be observed in figure 2.1:
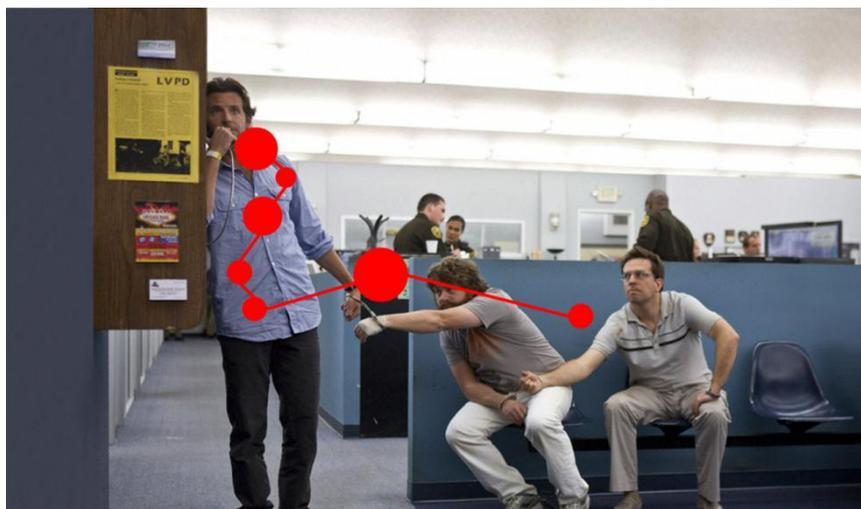
Figure 2.1 - Differences between Fications and Saccades

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[29] http://eyetrackingupdate.com/2010/01/18/fixations-and-saccades-in-eye-tracking/

The dots represent fixations, as the viewer fixated that specific spot for a determined period of time, while the lines represent saccades, indicating the observer's eye movement throughout a specific time frame. The size of the dots are representative of the duration a viewer fixated that specific spot, meaning that they are larger the longer the viewer fixates it.

The research in this paper will only focus on the fixations, as its purpose is to verify what the subjects' attention levels are on pre-defined areas of interest.

2.10. Product Placement and Purchase Intention

There have been several cases in which a product benefited from strong boosts in sales after being depicted in a movie. Lehu (2009) advances with several examples: In Stephen Frears' *Dirty Pretty Things* (2002) a Staples wall clock was used as a prop intended to serve as set decoration. Some months later, that clock became one of Staples' best-selling products. *Sideways* (2004, Payne) depicts the journey of two men across sunny California's vineyards. In a scene from that film, the two main characters dine at the "The Hitching Post" restaurant. A 30% increase in business was registered in that restaurant after the release of the movie. More impressively, the sales of pinot noir wine rose 22% two months following the film's opening, and those of the pinot noir brand Blackstone leapt up a staggering 150% in the same period (both the product category and the brand are discussed in the film).

Lehu (2009) states that "*on the classic principle of identification and the desire to look like such and such a star, a (sometimes significant) part of the audience is often quick to wish to own the same accessories, to dress in the same way or to consume the same products as the star in question*". This would constitute the foundations in which the assessment that product placement indeed has a say on consumer behavior is supported.

There have been evidences that branded placements may influence short-term purchase intention. In his review on the theme of product placement, Karrh (1998) identified findings that reiterate the previous judgment: In a study (Baker and Crawford, 1995) in which 43 students were gathered to watch *Wayne's World* (1992, Penelope Spheeris) the findings dictate that there was a 16% higher reported purchase intention for products

that were featured in the movie over the brands respondents had previously claimed to be their favorites.

Karrh (1998) also adds that research pertaining impacts that product placements have on purchase intentions produced "*consistent but mild effects on audience memory from brand placement while none have found significant impact on audience attitudes toward placed brands or the programs themselves*".

Karrh (1998) suggests that, typically, branded placements involve only few – or even a single – exposures to familiar brands and that "*ceiling effects might limit significant findings*". Although product placements studies' findings do not always go hand to hand with what it is observed in reality (because there are definitely examples of products that benefited from being shown in films), the author advances with the idea that different approaches to this topic must be taken in order to obtain greater insight into "*brand, audience, and/or placement characteristics that produce stronger communication effects*".

3. CONCEPTUAL FRAMEWORK

3.1. Proposed Conceptual Model

Many studies approached the effects that product placement has on several variables such as attitude towards brands, acceptability, memory among others (Kureshi and Sood, 2010). However, these authors claim that "*research in this arena is still relatively scarce*" and therefore, advance with numerous suggestions for future research. One of those directions is to study the effects of product placement on consumer behavior. That would be the starting point of this paper. The conceptual model presented below (Figure 3.1.) denotes the hypothesis generated in this paper and their links between the different constructs that will be studied:
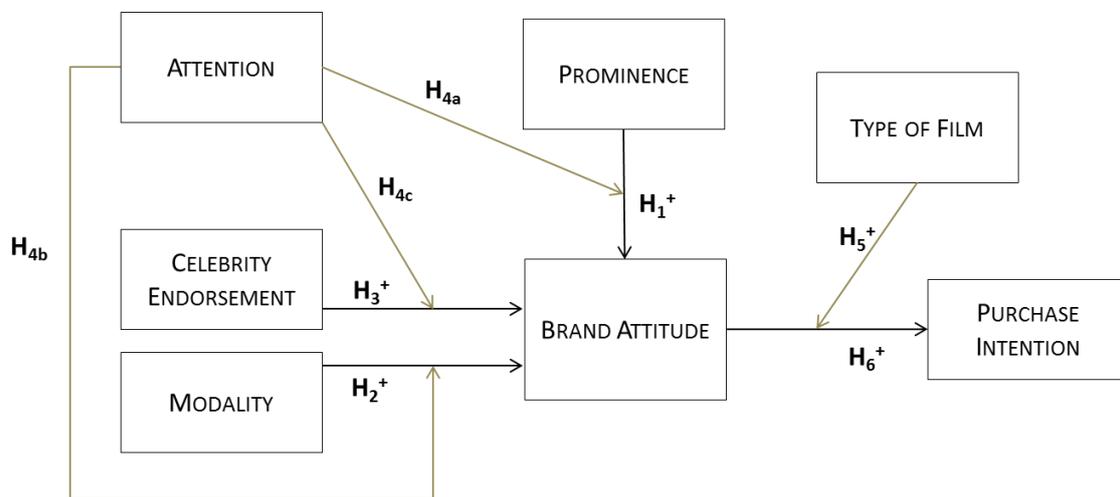
Figure 3.1 - Proposed Conceptual Framework

3.2. Research Hypotheses

Prominence has been tackled in prior existing literature. However, researchers focused more on the effects that prominence has on brand recall than on brand attitude. Therefore, the relationship between prominence and brand attitudes is still in need of further development.

While it has been proven that the more prominent the brand placement is, the better the audience's brand memory is, the same cannot be applied to brand attitude (Reijmersdal, 2009).

Cowley and Barron (2008) found evidence that suggest that prominence can have negative effects on brand attitude, when done under specific circumstances. In this scenario, involvement and product placement awareness are the two key factors: When viewers show high involvement with the program and do not show awareness to product placement, then prominence plays a positive effect on brand attitudes. However, in a case where low involvement levels are shown by viewers and they are aware to product placement, then prominence registers a negative effect on brand attitude, as the viewer's cognitive defenses – counterarguments – are triggered (Cowley and Barron, 2008; Mathes *et al.*, 2007).

By referring a different element – repetition – in the discussion on the effects of prominence in brand attitudes, results are suggested to contrast with previous ones. Homer's (2009) research denoted that when a brand placement assumes a prominent position on screen and is paired with low repetition, in order to prevent an overbearing exposure of the product (and consequently, to prevent the viewer to reach a state of boredom/irritation that arouses suspicion and later on counter argumentation) then a consumer favorably shapes his attitude towards the brand. Following that stream of thought (as the placements used in the present research adopt low repetition), and to stimulate discussion regarding this topic, the first hypothesis that will be tested in this paper is:

> **H1: Prominent placements have a positive influence on Brand Attitude.**

Whether the placement can only be seen, only heard, or even seen and heard, its modality is also connected with the shaping of brand attitudes, as proposed by a plethora of authors.

The main difference observed between audio placements and visual placements relies on the fact that the information processed auditorily is inherently more significant than the one presented in a visual only format because the individual can absorb the information even when he is not looking at the screen (Russell, 2002). While the verbal mention of brands in films may constitute the most significant way to expose a certain product, it also can be considered as a more intrusive and hard to avoid way of communication (Russell, 2002), which then leads to more negative responses from audiences (Homer, 2009). Since visual-only placements elicit less suspicion, irritation

and counter argumentation, they are typically seen as mere props in a movie, contributing to positive reactions on the behalf of viewers.

Consistently, Panda (2004) found out that when a branded product is presented under a visual only format then it generates more positive consumer evaluative responses than others which are verbally exposed as well. The next hypothesis covers the potential positive influence visual-only placements may have on brand attitude:

> **H2: Placements used through visual-only Modalities have a positive influence on Brand Attitude.**

Another theme that has been tackled in the existing literature is the correlation between the identification that consumers establish with actors and the former's purchase behaviors. As stated by DeLorme and Reid (1999) "*consumers connect the film world to their own, mapping their aspirations onto the products placed in the film*" and Peachman and Shih (1999)[30] added that "*it influences attitude and consumption norms*".

The effects of using celebrities to stimulate consumer buying behavior are still equivocal in existent literature, and the results are contradictory (Alnawas, 2010). Alnawas (2010) advances with other authors' researches to prove that situation: "*Metha (1994) pointed out that respondents did not perceive celebrity endorsement favorably, while Fireworker and Friedman (1977) reported that using a celebrity influenced respondents' attitudes positively toward the endorsed products*".

In the midst of a non-clear literature regarding this theme, the necessity to find out if the act of a celebrity consuming/using a certain product, within a film, has any influence on shaping brand attitudes is important to the present research. As product placement is a communication tool that borrows elements from other communication tools (and in this specific case, celebrity endorsements) and as movie casts are composed majorly by celebrities, the third hypothesis establishes the relationship between the moment a character (played by a celebrity) in a film uses a certain brand and brand attitude:

> **H3: Brands used by a film's character have a positive influence on Brand Attitude.**

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[30] Mentioned in Wiles, M.A, Danielova, A. (2009), "The Worth of Product Placement in Successful Films: An Event Study Analysis", *Journal of Marketing* 73, 44-63.

Covering a gap identified in existent literature, the next hypothesis looks to verify the role that attention, measured through foveal vision, plays as a moderator for the relationships between the constructs that are intrinsically related to product placement – Prominence, Modality and Celebrity Endorsement – and Brand Attitude. In that sense, the underlined assumption to this structure is that attention to the product placement may have any sort of impact on brand attitude, depending on the viewers' attention levels. Reijmersdal (2009) states that when viewers are involved with the content they are watching and develop awareness to the placed brand, they become judgmental of it, activating self-defense mechanisms towards the commercial intentions behind it, leading to negative impacts on brand attitude. However, and in situations where viewers don't get a full grasp of those commercial intentions, then product placement reveals to have a slight positive effect on brand attitude. The level of foveal attention to the product placements serve as an indicator of the viewers' awareness levels to it, and in that sense, it will be used to verify if the moderation effects of attention on the aforementioned relationships are statistically significant in situations of low and high levels of attention.

H4: Attention moderates the relationship between:

    a. **Prominence and Brand Attitude.**

    b. **Modality and Brand Attitude.**

    c. **Celebrity Endorsements and Brand Attitude**.

Emotions play a huge role on the relationship that the audience establishes with a movie and it can influence purchase or consumption decisions (Jin and Villegas, 2007).

Jin and Villegas (2007) found out that while comedy can be used to enhance audience's acceptance of placements, they did not found any suggestion that it can be used to enhance purchase intentions towards the product depicted in the humorous moment. To enrich existing literature, the next hypothesis explores the link between the exposure of products under comedic lighting and consumers' purchase intentions.

While Jin and Villegas results give insights on the link between the use of comedy to expose products and the consumers' purchase intentions, there is still a need to further explore this link. Just how much influence can the type of the film have on consumers'

purchase intentions? Will their purchase intentions enhance after watching a comedy film? Does that also applies to dramatic films or is it futile to place brands on them? After witnessing a dramatic film that packs a strong emotional punch and contemplates serious subjects, will consumers have the predisposition to engage in purchase behaviors towards brands featured in that same film? These questions are just some examples that allow for new ground to be covered, which brings us to the next hypothesis:

> **H5: Comedy movies have a more positive influence in the relationship between Brand Attitude and Consumer Purchase Intentions than Drama movies.**

Finally, and linking up the potential influence that product placement may have on consumers' purchase behavior, it is of the most importance to verify if it indeed has any say on the consumers' purchase intentions. Karrh (1998) suggest that should be taken new approaches in order to study the potential link between the exposure of products in movie scenes and purchase intentions. This suggestion comes from the fact that while indeed there are products that benefited from appearances in movies, results on this field are still not solid enough to support the idea that product placement has effectively a positive influence on purchase intentions. Some questions arise when confronting product placement and the audiences' predisposition in engaging in purchase behaviors: After experiencing a movie containing branded placements, will movie-goers feel the need to engage in purchase behaviors? Will the featured brands serve as a trigger to stimulate a purchase intention on the consumer? Does product placement enhance brand attitudes, which then, leads to higher purchase intentions? These questions lead to the next hypothesis that will be tested:

> **H6: Brand Attitude generated by product placements in movies has a positive influence on Consumer Purchase Intentions.**

4. METHODOLOGY

4.1. Contextualization

As previously mentioned, research regarding branded placements has been relatively scarce (Kureshi and Sood, 2010). These two authors classified and structured the papers they reviewed into this scheme (Figure 4.1):
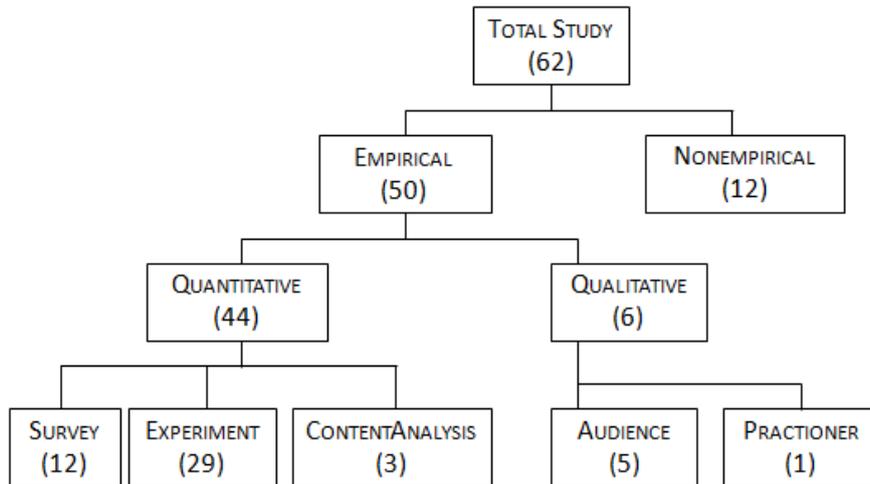
Figure 4.1 - Classification of papers reviewed by Kureshi and Sood (2010)

The research conducted in this paper will take an empirical approach to the theme of product placement and its effects on consumers' purchase intentions. In order to support the test of the aforementioned hypothesis and to extract primary data with the purpose of comparing existing results in literature, this research will be quantitative natured. The experimental nature of this research derives from the development of an experiment employing eye tracking tools and software.

4.2. Experimental Research Design

Regarding the experimental study that took place, and within the context of true experimental designs, a posttest-only control group design was defined. In this design, subjects were randomly allocated to experimental groups and to control groups (Malhotra, 2009). In this scenario, no pre-treatment measures were administered (Malhotra, 2009). While the treatment was not applied to the control groups, posttest measures were administered in all groups. In the context of this paper, the design can be symbolized as a 2x2 matrix as it can be seen on figure 4.2:

	Original	Edited
Comedy	Cell 1	Cell 3
Drama	Cell 2	Cell 4

Figure 4.2 - Research Design

4.3. Procedure

To collect primary data on the consumers' reactions to product placement, two procedures were conducted: one that used Eye Tracking software and tools (Procedure A), and other that consisted on the administration of an online survey (Procedure B).

4.3.1. Procedure A

To carry out the empirical study resorting to Eye Tracking software and tools, a five-step procedure has been conducted.

Firstly, participants were asked to fill out the first part of the questionnaire. They were told that the study's purpose was to identify Portuguese undergraduate students' main habits concerning Cinema. This stance was taken because, at this point, the true purpose of the experiment could not have been revealed – if participants knew it before they took part in the experiment, then the empirical study would have been compromised, resulting in a contamination of the results. Other authors have not revealed the true purpose of their studies before carrying out their experiments, as suspicion levels could very well enhance, making subjects assume a different posture than the one they would normally have (Gupta and Lord, 1998; Russell, 2002; Jin and Villegas, 2007).

As Eye Tracking tools (Tobii T120) and software (Tobii Studio™ 2.2) were used, the following step is related to the correct use of the aforementioned elements. By using that technology, it was possible to exactly pin-point where were the subjects looking at during the time they were being exposed to the stimuli.

The second step of the procedure was sight calibration. Taking into account the fact that Eye Tracking devices were being used it was necessary to make sure they were used

correctly. By adjusting the participants' sight it was assured that all eye movements were captured by the tools used throughout the course of the experiment. An incorrect calibration would not translate into proper data recollection, making the experience unsuccessful.

After sight calibration, subjects were, then, invited to watch a movie segment. Depending on which group the subjects were allocated to, they watched one of two different videos (comedy movie in its original version or drama movie in its original version).

In this step, a brief contextualization of the video the participants were going to watch took place. Since the videos were edited from full length features, a brief description of the film's plot was orally presented in order to ensure higher levels of involvement from the subjects. This constituted step three and is consistent with Gupta and Lord (1998).

The fourth step regarded the video watching. Participants were told they were about to watch a 10 minute video, and the importance of keeping eye contact with the screen was emphasized to guarantee the experiment's success.

In the final step, the fifth one, participants were asked to fill out the second part of the questionnaire, after watching the short film segment previously presented. Afterwards, participants were informed about the true purpose of the experiment. Since they already had watched the video, their behaviors while watching it were not influenced.

This experiment took place in a laboratory, taking up to forty one 20 minute individual sessions in order to retrieve part of the primary data for the present study.

4.3.1.1 Moderator Variable - Attention

The inclusion of a moderator variable in the present study aims to the examination of the statistical interaction between two independent variables (at least one of which is continuous) in predicting a dependent variable. Under these particular circumstances, Attention will constitute a specific type of independent variable (a nominal one) as it will serve as a moderator to the interaction between Prominence, Modality and Celebrity Endorsement (independent variables) and Brand Attitude (in this scenario, it can be defined as the dependent variable).

By gathering data from the Eye Tracking experiment, it is possible to define the Attention variable. This variable constitutes a moderator variable, as it was previously defined in the proposed conceptual model, because it is expected to have some sort of moderation effect on the relationship between the variables Prominence, Modality and Celebrity Endorsement and the variable Brand Attitude.

Since it is feasible to count the precise number of times that each viewer pin-pointed the areas of interest, then attention will be categorically natured. In that sense, and after recoding, the attention variable will be composed by two levels: Low and High.

In order to define the attention variable, the average of times that participants focused on the area of interest was calculated. Values higher than the identified mean will be classified as "High" whereas values lower than the aforementioned mean will be classified as "Low".

4.3.2 Procedure B

As the Eye Tracking tools were used to gather information that could serve as a basis of comparison between inter-subjects regarding the effects of the type of film (comedy vs. drama) on their judgments about product placement, they were not used in procedure B, even though this procedure will follow the same structure as A. By not using Eye Tracking tools, one of the steps carried out on procedure A was excluded from B (the sight calibration step).

The main difference between the two procedures relies on the presented videos. In procedure B, participants viewed the videos in their edited formats, meaning, they watched the videos with the absence of the studied brand. Two groups were formed (one groups watched the comedy movie in its edited version; and the other watched the drama movie in its edited version), and they will serve as control groups to the two other groups constituted in procedure A.

Since the same questionnaire was applied and by establishing the basis for comparisons between inter-subjects, it was possible to evaluate the effects of the presence of brands in films on the consumers' responses to product placements and their intentions to engage in purchase behaviors.

Procedure B compasses four different steps:

In first place, participants had to fill out the first part of the questionnaire, which was made available on-line.

The second step, constitutes the brief contextualization of the video. As the presence of a mediator did not occurred, the brief contextualization of the film that was verbally presented on procedure A was written and inserted onto the questionnaire.

Afterwards, they were invited to watch a short film segment uploaded onto the www.viddler.com website. To control if the participants actually watched the video, the number of views displayed on the Viddler pages were monitored. It is safe to assume that all the participants that underwent this procedure have seen the movie clips, as the number of views for the displayed videos totaled 28 and 26, for *The Hangover* and *The Road*, respectively – the links for the videos were not massively shared.

The last step of this procedure was the filling out of the second part of the questionnaire.

4.4. Sampling Method

4.4.1. Target Sample

According to Eisend (2009), young consumers constitute the main target for product placements in movies and they represent the majority of theater audiences. Gupta and Lord (1998) cited Simmons (1991) by saying that "*18-24 year olds have the highest movie attendance of any age bracket (over 55 percent in a typical ninety-day period and attending to 20 to 36 movies per year)*". The authors also stated that, as far as gender is concerned, the target's distribution represents a skew toward young males.

4.4.2. Sampling Method

The urgency of gathering enough subjects in order to guarantee the success of the present experimental study had a significant role in the sampling method chosen. In that sense, a non-probability sampling method was chosen: the Snowball Sampling method, that can be defined as follows: A random sample of individuals is drawn from a finite population. Then, each individual is asked to name a specific number of different

individuals in the population and so forth (Goodman, 1961). This way, and through the generation of word-of-mouth, a wider number of subjects is reached, potentially enhancing the sample size.

4.5. Selecting the featured brand and featured movie segments

The present study's target was the main focus in order to define which brand was featured in the short movie segments that were used in the empirical study.

As young adults were approached for the execution of the present study, astronomical priced products were not considered. To better evaluate the product placement's impact on the consumers' purchase intentions a more affordable product was taken into account, one that the study's target could easily afford. The chosen brand was Coca-Cola.

Coca-Cola incorporates product placement in their communication strategies, and according to www.brandchannel.com, the brand was present in a whopping 88 different films that opened at number one in the USA's box-office, over the last 10 years.

The two movies that were featured in the present study were chosen by taking into consideration two aspects: the first one was that they had to show the brand under similar conditions (the placements characterizations will be developed further in this paper), and the second one was the movie's genre: As a comparison between the effects that Comedy and Drama may have on purchase intentions was previously defined as a study object, both films could not belong to the same genre. Following this line of thought, one segment was taken from a light comedy film – *The Hangover* (2009, Phillips) – and the other was extracted from a heavy drama film – *The Road* (2009, Hillcoat).

The segments lasted approximately 10 minutes, a shorter duration when compared with other scholars' methodologies (Homer – 2009, for example, used 15 minute long videos in her experiment). This decision was made taken into account two different aspects: In one hand, there was a necessity of conducting the highest possible number of experiments within the given time frame (3 week days). The 5 minute reduction in the segments' length allowed for that necessity to become reality. The decision to not apply a substantially higher decrease in the segments' duration is strongly connected with the

viewers' levels of involvement. In order to re-create a scenario that would mirror a real theater experience, it was important to consider the viewers' level of involvement with the video they were watching, giving them room to establish a connection with the films' plots and their characters.

4.6. Placements characterization

Based on literature review, the Coca-Cola placement in the two aforementioned films can be synthesized in the following table (Table 4.1):

Table 4.1 - Product Placements' Characterization

	The Hangover (2009, Phillips)	The Road (2009, Hillcoat)
Type	Classic placement	Classic Placement
Modality	Visual only	Visual only
Used by characters?	Yes	Yes
Integration Level	Low	High
Repetition	Low	Low
Classification	Prominent Placement	Prominent Placement
Observations	• Brand not verbally mentioned; • Coca-Cola's characteristic lettering and color (red) are visible for brief seconds; • While Coca-Cola is not exactly featured in the center of the screen, a considerable effort to make it visible during the entire scene was noticed.	• Brand not verbally mentioned; • Coca-Cola takes the center of the screen when shared by the two protagonists; • The Coca-Cola can looks a little bit dusty, but its characteristic lettering and color (red) are easily identifiable.

4.7. Editing Process

After carefully choosing the films' segments that were used for this experience, it was necessary to edit them. The specific scenes in which Coca-Cola made an appearance were edited out for purposes of showing them to the control groups. The editing was

carried out to not make any transition between scenes seem abrupt, but seamless instead. The editing process is in tune with other studies that employed edited videos in their methodologies, namely, the one carried out by Homer (2009): "*Considerable effort was devoted to the editing process to ensure that the final 15-minute segments made sense to viewers (…) and that all edit transitions were relatively seamless*".

The software used to edit the film segments was Windows Movie Maker 2.6.

4.8. Questionnaire design

The questionnaire used in this research was based on previous surveys administered by authors that published articles on this topic (Appendix A – Table 56).

While the first part of the questionnaire aims to gather information pertaining the subjects' movie watching habits and demographic data about the obtained sample, it also compasses filler questions. Although the filler questions may be valuable to characterize the sample, they are not vital for the study of the effects product placements have on consumers' purchase intentions.

4.8.1 The First Part

The aim of the first part of the questionnaire is to gather data regarding the samples' demographics characteristics as well as their movie watching habits. Filler questions were included in this section in order to mask the true purpose of the experiment.

4.8.1.1 Movie Watching Frequency

Movie-watching frequency is a topic that has been included in past researches and provides essential information to decipher their acceptance levels towards product placement as there have been studies that suggest a correlation between movie-watching frequency and product placement reactions (Gupta and Gould, 1997; Brennan *et al.*, 2004). The scholars suggest that the higher the movie watching frequency, the more lenient the viewer gets towards product placement. The movie watching frequency construct took (table 4.2) into account the questions developed by Gupta and Gould (1997) and Brennan *et al.* (2004):

Table 4.2 - Questionnaire Design: Movie Watching Frequency

Movie-watching Frequency
02. How many movies do you see, in average, per month?   None   1 or 2   3 or 5   6 or 8   More than 8   **04. How often do you go to the Theatre?**   Every day   Every week   Every two weeks   Monthly   Quarterly   Semiannually   I don't go to the Theatre   **05. Do you rent DVDs/Blurays?**   Yes/No   **06. If you answered yes on the previous question, how often do you rent DVDs/Blurays?**   Once or twice per month   Three or four times per month   More than five times per month   **07. Do you usually buy DVDs/BluRays?**   Yes/No

4.8.1.2. Demographics

Another purpose of the first group is to collect demographic data – gender (Gupta and Gould, 1997; Brennan *et al*., 2004; Argan *et al*., 2007; Alnawas *et al.*, 2010), age (Gupta and Gould, 1997; Brennan *et al*., 2004; Argan *et al*., 2007), education (Gregorio and Sung, 2010) and occupation (Argan *et al.*, 2007) were the key variables identified in existent literature (Table 4.3).

Table 4.3 - Questionnaire Design: Demographics

Demographics
14. Age   **15. Gender**

Male/Female

16. Education
High-School
College Degree
Master Degree/PhD
Other

17. Occupation
Student
Self-employed
Worker on behalf of others
Other

4.8.1.3 Filler Questions

Many authors have included filler questions throughout their surveys in order to mask the true purpose of the study (Gupta and Lord, 1998; Homer, 2009; Russell, 2002; Jin and Villegas, 2007). By masking the true purpose of the study, the participants' suspicion levels can be diminished, or even make them non-existent, and because of that it is possible to gather more realistic results, thus this kind of approach will also be taken into consideration in the first group of the questionnaire. The presented filler questions (Table 4.4) were specifically developed for this questionnaire.

Table 4.4 - Questionnaire Design: Filler Questions

Filler Questions
01. Do you like Cinema?
Yes/No
03. Where do you watch more movies?
On the computer
On television
At the theatre
08. What do you look for in a movie when you decide to watch it?
To gain more knowledge about a certain subject
Entertainment
Intellectual stimuli
Other
09. From the following genres, select the two you enjoy the most:
Action

Adventure
Comedy
Musical
Crime/Gangster
Drama
Epic/Historic
Horror
Science Fiction
War
Western

10. Mark the two aspects you value the most in a film (mark "1" for the one you value the most, and "2" for the second you value the most)
Screenplay
Actors
Special Effects
Costume Design
Cinematography
Editing
Directing

11. What is your favorite actor/actress?

12. Name two characteristics that can be associated with your previous answer.

13. Do you feel bothered when your favorite actor/actress plays a role that bears negative characteristics?
Yes/No

4.8.2. The Second Part

To test the proposed conceptual model, a series of closed questions were developed in the second part of the questionnaire. The aim of this part is to evaluate in which ways does product placement affects consumer behavior. Likewise with the previous part, other scholars' questionnaires were consulted to build a consistent survey (Appendix A – Table 8.1).

4.8.2.1. Dependent Variable – Purchase Intention

Purchase Intention is the dependent variable in this research, as this paper's goal is to ultimately identify the impacts that other variables have on the aforementioned one. As past research denotes that product placement has the capacity to shape consumers' motivations towards a specific brand, the purchase intention variable will be analyzed

taking into account the impact that product placement has on the groups that were exposed to the presented stimuli (the placement itself) and on the control groups.

The purchase intention construct was built taking into consideration Karrh's (1998) and Morton and Friedman's (2002) published researches. While these authors applied a series of questions that covered purchase intention related matters, only four questions were applied in this questionnaire.

Purchase intention will, then, be evaluated by four items. Three of them take a more widespread approach to this issue of consumer behavior, as they are related to the practice of product placement in general. The other is directly related to the video the subjects watched during the filling of the questionnaire. These items were constructed as a five point Likert scale question (Table 4.5), where 1 stands for "strongly disagree" and 5 for "strongly agree" (Jin and Villegas, 2007 – Cronbach's alpha: 0.88):

Table 4.5 - Questionnaire Design: Purchase Intention

Purchase Intention
19. Taking into account the definition for product placement previously presented, classify your level of agreement with the following statements using a scale from 1 to 5 (1="Strongly disagree" and 5 "Strongly agree"):
19.c. I wanted to try a brand after seeing it in a film
19.f. I looked for a product in a store after seeing it in a film
19.g. I started using a product after seeing it in a film
22. The Coca-Cola brand often incorporates product placement in their communication strategies. Classify your level of agreement with the following statements, using a scale from 1 to 5 (1="strongly disagree" and 5="Strongly agree"):
22.e. I feel the need to buy a Coca-Cola

4.8.2.2. Independent Variable - Prominence

Prominence is considered to be an independent variable because it is possible to manipulate this variable in order to verify differences between groups. In that sense, and by editing the product placement out from the presented videos, prominence is manipulated, creating two different contexts for the previously defined experimental and control groups.

In order to measure the impact that Prominence has on Brand Attitudes (as it is possible to verify its interaction on the proposed conceptual model), four different statements were incorporated onto the questionnaire, based on other authors.

These four statements cover Prominence grounds in which respondents would have to mark their agreement levels with it in a five-point Likert scale (Table 4.6), where 1 stood for "Strongly disagree" and 5 for "Strongly agree" (Homer, 2009 – Cronbach's alpha for the items regarding perceived realism = 0.69, Cronbach's alpha for the remainder items = 0.70; Russell, 2002 – Cronbach's alpha $\geq$ 0,70).

Table 4.6 - Questionnaire Design: Prominence

Prominence
19. Taking into account the definition for product placement previously presented, classify your level of agreement with the following statements using a scale from 1 to 5 (1="Strongly disagree" and 5 "Strongly agree"):
19.a. The use of real products in films make scenes more realistic
22. The Coca-Cola brand often incorporates product placement in their communication strategies. Classify your level of agreement with the following statements, using a scale from 1 to 5 (1="strongly disagree" and 5="Strongly agree"):
22.a. The use of the Coca-Cola brand made the film more realistic
22.g. Coca-Cola plays an important role in the story
22.h. The Coca-Cola product is well connected with films' plots

4.8.2.3. Independent Variable - Modality

Likewise with the previous variable, Modality is also constituted by a set comprised by four different statements that were gathered through a scan from other authors' questionnaires. Also, similarly to the Prominence variable, this construct was subjected to manipulation by removing the featured brand from the context in which it appears in.

The four statements were used so that the respondents could mark their agreement levels towards them on a five point Likert scale (Table 4.7), where 1 corresponds to "Strongly disagree" and 5 to "Strongly agree". (Homer, 2009 – Spearman-Brown reliability coefficient = 0.91; Argan *et al*., 2007 – Cronbach's alpha: 0.83).

Table 4.7 - Questionnaire Design: Modality

Modality
19. Taking into account the definition for product placement previously presented, classify your level of agreement with the following statements using a scale from 1 to 5 (1="Strongly disagree" and 5 "Strongly agree"):
19.e. I pay attention to the visual exposition of brands
22. The Coca-Cola brand often incorporates product placement in their communication strategies. Classify your level of agreement with the following statements, using a scale from 1 to 5 (1="strongly disagree" and 5="Strongly agree"):
22.a. Coca-Cola is well integrated in films
22.c. The Coca-Cola brand interferes in films' plots *
22.f. Coca-Cola's position on screen distracts me from the film's plot *
Note: An asterisk denotes that the items were reverse coded.

4.8.2.5. Independent Variable - Celebrity Endorsement

Celebrities play an important role in product placement. By giving a face to the product, consumers may have a more easy way to connect with the product that is being placed, and therefore, evoke a more substantial and emotional response towards the brand (Alnawas, 2010). Once again, manipulation for this variable occurred by removing the featured brand from the movie excerpt in which it is included.

The celebrity endorsement construct is constituted by a five item five point Likert scale (Table 4.8), where 1 stands for "strongly disagree" and 5 for "strongly agree" (Dias, 2007 – Cronbach's alpha: 0,89; Russell and Stern, 2006 – Cronbach's alpha: 0,89; Alnawas, 2010 – Cronbach's alpha: 0.887; Argan *et al.*, 2007 – Cronbach's alpha: 0,86):

Table 4.8 - Questionnaire Design: Celebrity Endorsement

Celebrity Endorsement
19. Taking into account the definition for product placement previously presented, classify your level of agreement with the following statements using a scale from 1 to 5 (1="Strongly disagree" and 5 "Strongly agree"):
19.b. When a character I like uses a product in a film, I easily recall that product
19.d. I sympathize with brands used by my favorite actors
19.h. I like to compare my ideas with what my favorite actor says
19.i. I would like to personally meet my favorite actor
22. The Coca-Cola brand often incorporates product placement in their communication strategies. Classify your level of agreement with the following statements, using a scale from 1 to 5 (1="strongly disagree" and 5="Strongly agree"):
22.d. I remember seeing films' protagonists drinking a Coca-Cola

4.8.2.6. Mediator Variable - Brand Attitude

Brand attitude is a construct that has been explored by several authors. Cowley and Barron (2008) state that when an individual has high involvement levels with the film he/she is watching, and low awareness of the commercial intentions behind placed products, then he/she will shape favorably positive attitudes towards the brand.

Following this premise, the video segment the subjects had to watch lasted roughly ten minutes, giving them space to get involved with the film's plot and to establish some kind of emotional attachment to the film's characters.

To identify subjects' position towards the Coca-Cola brand a nine item five point Likert scale was also constructed (Table 4.9), in which 1 stands for strongly disagree and 5 for strongly agree, based on other authors research (Homer, 2009 – Cronbach's alpha: 0.93; Dias, 2007 – Cronbach's alpha: 0.90):

Table 4.9 - Questionnaire Design: Brand Attitude

Brand Attitude
21. Classify your agreement level with the following statements, using a scale from 1 to 5 (1=Strongly disagree and 5=Strongly agree)
22.a. I know the Coca-Cola brand
22.b. I regularly consume Coca-Cola products
22.c. Coca-Cola is a brand that promotes satisfaction and well-being
22.d. I think that Coca-Cola is a creative brand
22.e. Coca-Cola's products are healthy
22.f. I like to see Coca-Cola's advertisements
22.g. I feel good when I drink a Coca-Cola
22.h. I'm willing to pay a higher price for a Coca-Cola in detriment of other brands
22.i. I believe in the Coca-Cola brand

The Brand Attitude variable constitutes a mediator variable because it is implied that the higher the brand attitude, the higher the purchase intentions will be.

When it is argued that brand attitude may mediate the basic relationships between the independent variables and the dependent variable it is suggested that the influence of the independent variables will lead to higher levels of brand attitude, which subsequently leads to higher levels of purchase intention.

4.8.2.7. Moderator Variable – Type of Film

The inclusion of a moderator variable in the present study aims to the examination of the statistical interaction between two independent variables (at least one of which is continuous) in predicting a dependent variable. Under these particular circumstances, the type of film will constitute a specific type of independent variable (a nominal one) as it will serve as a moderator to the interaction between Brand Attitude (independent variable) and Purchase Intention (dependent variable).

The reason why the Type of Film variable is not composed by a different set of items, and therefore, is not metric natured derives from the fact that it is intrinsically related with the context in which the stimuli is presented. That is, the environment in which the brand appears within is what determines the "value" of the moderator variable. In that sense, the categorization of said variable was defined taking into account two different values that identify the nature of the movie segments participants watched throughout the conducted procedures: 1 stands for "Comedy", meaning participants watched the comedy movie excerpt taken from *The Hangover* and 2 stands for "Drama", which is to say that participants watched the dramatic movie excerpt taken from *The Road*.

4.8.2.8. Other Questions - Level of Involvement

The level of involvement the participants established with the video that was shown is measured by a single item five point semantic differential scale in which 1 stands for "Very low" and 5 for "Very High" (Table 4.10). The pertinence of including a question of this nature regards the potential link that the connections established by someone with the contents said person is watching may influence his or hers reactions to the placement itself.

Table 4.10 - Questionnaire Design: Level of Involvement

Level of Involvement
18. In a scale from 1 to 5 (1="Very Low" and 5="Very High") classify your level of involvement with the video you finished watching.

4.8.2.9. Other Questions - Recall

An aided recall question was applied right after the subjects finished watching the video segment that was allocated to them. A ten item question was constructed in order to see if the subjects recalled seeing any one of those ten items in the video they had finished watching. The item list is composed by elements that indeed appear in the video and by others that do not appear. The respondents had to mark "yes" if they recalled seeing the item and "no" otherwise. Since some subjects were exposed to a dramatic film segment and others to a comedic one, two different sets of items were constructed (Table 4.11):

Table 4.11 - Questionnaire Design: Recall

Recall
20. Indicate if you recall seeing the following items in the video you watched:

The Hangover (Comedy)	The Road (Drama)
a. A green BMW	a. An abandoned car *
b. A luminous billboard	b. A luminous billboard
c. A man dressed all in yellow	c. A lost dog
d. A rabbit	d. A gun *
e. A can of Coca-Cola *	e. A can of Coca-Cola *
f. Rayban Sunglasses *	f. A pair of Nike snickers
g. A McDonald's restaurant	g. An Omega watch
h. A Nokia cell phone	h. A swimming pool
i. A Police Officer *	i. A police officer
j. A poster for the film *Casablanca*	j. A shopping cart *

Note: An asterisk denotes the items that were effectively shown in the video.

4.8.2.10. Editing Validation

The seventh question's purpose is to see if the video's message got across correctly. The interest of making this question is to see if, during the editing process, the scene's message remained unaltered. The fact that Portuguese movie-watchers are used to see films with subtitles incorporated in them is also a pertinent observation regarding this question, as the participants in the eye tracking experiment did not watch the film segments with subtitles. The question is a multiple choice one, where only one of the alternatives is the correct one (Table 4.12):

Table 4.12 - Questionnaire Design: Editing Validation

Editing Validation
23. Select the correct answer, concerning the movie excerpt you watched: Why were the three protagonists sent to jail? a. Because they were caught consuming illicit drugs. b. Because they stole a police car. * c. Because they stole a store. d. Because they destroyed the hotel room. What was the boy trying to say when he said he wanted to meet his mother? a. He wanted to go to the refugee camp. b. He wanted to go home. c. He wanted to die. * d. He wanted to go for a long walk with his mother. **Note**: An asterisk denotes the correct answer

4.8.2.11. Film Familiarity

Finally, the last question approaches the question of familiarity with the short segment the subjects watched (Table 4.13). The necessity of making a question of this nature relies on the fact that when a person watches a film more than once, then he starts to notice other details present on screen, as he already knows how the plot will develop. The inclusion of a question of this nature is consistent with Gupta and Lord (1998).

Table 4.13 - Questionnaire Design: Film Familiarity

Film Familiarity
24. Have you ever seen "The Hangover"/"The Road" before? Yes No

The target for the present study was constituted by Portuguese viewers, and taking that information into account, the questionnaire was developed in their native language. The Portuguese version of the questionnaire can be found on appendix B.

4.9. Statistical Procedures

The data gathered throughout the procedures was analyzed with the resource of different softwares: Microsoft Office Excel 2010, PASW 18.0, AMOS 18.0, MedGraph and ModGraph.

The first step in order to proceed with data analysis will be scale validation, to test the internal consistency of the research tool used in the data collection process – the questionnaire – through the calculation and interpretation of the Cronbach's alpha for each variable.

The second phase of the statistical procedure will be a descriptive analysis of the data gathered: A descriptive look into the demographics aspects of the elements that compose the sample will be presented, as well as their movie-watching habits. A descriptive analysis of the participants' responses to the items presented in the second half of the questionnaire will also be presented. Eye tracking data collected from Tobii Studio software will also be descriptively analyzed.

The relationship structure of the dependent and independent variables present in this study was evaluated by an Exploratory Factorial Analysis (EFA) on the correlation matrix, with factor extraction by the method of principal components followed by Varimax rotation. The common factors to be retained taking into consideration three different indicators: i) eigenvalue must be superior to 1; ii) Scree plot; and iii) the percentage of retained variance. According to Marôco (2010), the use of only one criterion may lead to the retention of more/less factors than those that are actually relevant to describe the latent structure. To evaluate the adequacy of this analysis, it was necessary to verify if the following conditions are present: 1) The variables are metric; 2) The Kaiser-Meyer-Olkin statistic measures the adequacy of the analysis; 3) The variables must be correlated between themselves; 4) The Bartlett's test for matrix sphericity will confirm the correlations between variables.

After factorial reduction, new scale validation will take place, once again, to verify the internal consistency of the items that compose the different sub-scales originates by the EFA.

The following step, and final within the context of statistical procedures, will be the test of hypothesis.

Since the first three hypothesis aim to search for statistical association between variables, they will be tested through the Pearson Coefficient of Correlation.

Moderation takes place, in order to test the fourth and fifth hypotheses. To test if the variables "Attention" and "Type of film" have any statistical effect on the relationships proposed in the conceptual model, a three step hierarchical linear regression was applied. Afterwards, regression coefficients were inserted on the ModGraph application to create graphics that represent the interactions between predicators, moderators and outcome variables.

The last hypothesis aims to assess if the mediator effects that Brand Attitude has on the proposed conceptual model. Following this stream of thought, this hypothesis will be analyzed through path analysis – using AMOS 18.0 - and through the calculation of the Sobel Z-test, with resource to MedGraph.

5. RESULTS

5.1. Eye Tracking Results

In this section, the data gathered from the Eye Tracking experiment will be analyzed. IIn this context, the areas of interest will be defined and comparisons between the group that watched the comedy movie excerpt and the group that watched the dramatic one will be established.

5.1.1. Areas of Interest

To proceed with the analysis of the data collected from the eye tracking tools it was necessary to define three different areas of interest (AOI), as the software provides information covering the total duration of the movie segments.

The first step to define the area of interest was the identification of the scene in which the Coca-Cola brand appears. In *The Hangover* (2009, Phillips) the brand appeared in the last scene of the segment, whereas in *The Road* (2009, Hillcoat) Coca-Cola appeared in a scene sensibly at the middle of the segment. It was also necessary to take into account that, for analysis purposes, those scenes needed to present similar durations. The Coca-Cola scene in *The Hangover* lasted 20 seconds, and while the duration of the scene in *The Road* lasted longer, only the first 20 seconds of said scene were taken into consideration.

Through the dynamic movement of the product in the scene, three different areas of interest were defined: the first one is the inferior right corner of the screen (Figure 5.1) and the fixation on that scene lasted approximately 5 seconds; the second one corresponded to the superior right corner of the screen (Figure 5.2) and the fixation on that scene lasted approximately 8 seconds. The last area of interest corresponds to the bottom half of the screen (Figure 5.3), and in this case, the fixation on this scene lasted 7 seconds.
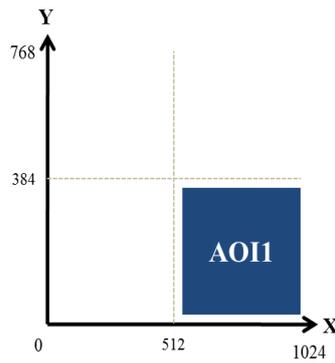
Figure 5.1 - Area of Interest 1
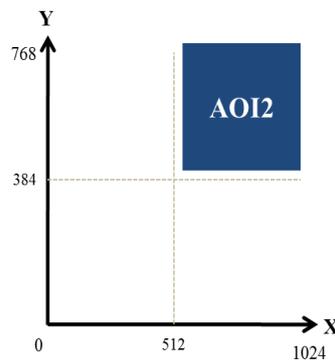
Figure 5.2 - Area of Interest 2
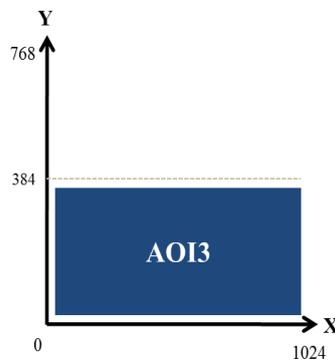
Figure 5.3 - Area of Interest 3

Since the software used in the experiment resorts to an X,Y coordinates grid, the AOI were defined as the following (Table 5.1):

Table 5.1 - Coordinates for Areas of Interest

	X Coordinates	Y Coordinates
AOI1	≥ 512	< 384
AOI2	≥ 512	≥ 384
AOI3	n.a.	< 384

5.1.2. Data

Analyzing the collected data, an important observation must be made: the information from two participants from the Comedy group and one from the Drama one was not considered on the analysis. For some undetermined reason, the data from these participants was erroneous. The most likely explanation for this occurrence is the loss of tracking during the course of the experiment. Holmberg (2007) also faced this problem on his research on "*Eye movements in Quake III: Arena*" in which he had to exclude the information garnered from two participants. The author stated that "*for some undetermined reason, more than 50% of the data of the two excluded participants was erroneous due either to loss of tracking or some malfunction in the connection to the engine*".

The data is presented under six different nomenclatures: Gaze Points on AOI, Valid Gaze Points, Time focused on AOI, Fixations on AOI, Total Fixations and Percentage of Fixations on AOI.

According to Tobii Technology (2010), the calculation of the number of fixations is based upon specific algorithms. By analyzing the position of the identified gaze points, those algorithms calculate whether raw data points belong to the same fixation or not. Essentially, the basic idea behind these algorithms is that if two gaze points are within a pre-defined minimum distance from each other, then they should be allocated to the same fixation. For the software, it is like the user has not moved the eyes between the two sampling points.

5.1.3. Area of Interest 1

Table 5.2 - Eye Tracking Data Regarding AOI1

	Gaze Points on AOI	Valid Gaze Points	Time allocated on AOI	Fixations on AOI	Total Fixations	% of fixations on AOI
Comedy	72.8	175.5	42.77%	2.1	5.55	41%
Drama	22.05	254.17	9.23%	1.55	8.44	18%

Averagely, and regarding the first AOI, participants on the comedy group only focused to the area in question 42.77% of the time that represents its duration (Table 5.2). It is

observable that these participants focused at least one time in the AOI1 – even though some participants' gaze points marked low scores such as 2 gaze points, an extremely minimal amount of time dispensed to the area containing the brand (Appendix C – Table 8.2).

As for the number of fixations, the participants', on the comedy group, average for the total observed fixations was 6, and out of those, only 2 focused the AOI. The rather low number of fixations in the area of the screen in which the brand appears in can possibly be explained by three different factors: i) the presence of other more attention worthy elements in that specific timeframe; ii) the element of "surprise" – and one can only speculate – because viewers were not expecting to see the Coca-Cola brand featured in the film; or iii) the short duration of the time defined for this specific AOI (5 seconds approximately).

Comparatively, the results for the dramatic AOI1 registered lower scores in most fields, with the exception of the Valid Gaze Points and the Total Fixations one. Averagely, participants from this group only attended to the AOI1 9.23% of the time. Regarding fixations, the average score for these participants was 8 total fixations, and 2 fixations that focused the AOI in question. While the number of fixations that focused the area of interest 1 is the same in both scenarios (comedic and dramatic), it is noticeable that the total number of fixations in the dramatic context reach a higher value which is indicative of higher attention deviation from participants, meaning that they spent less time on each fixation. Another difference registered between both groups regards lack of foveal attention to the AOI1 by a rather considerable number of participants in the drama group – 8 (44%) of the elements that constitute this group did not look once to the AOI1 (Appendix C – Table 8.3).

5.1.4. Area of Interest 2

Table 5.3 - Eye Tracking Data Regarding AOI2

	Gaze Points on AOI	Valid Gaze Points	Time allocated on AOI	Fixations on AOI	Total Fixations	% of fixations on AOI
Comedy	36.6	410.25	8.57%	2.05	14.55	14%
Drama	154.11	413.11	37.37%	5.39	14.78	38%

The second area of interest is characterized by a larger duration relatively to its predecessor area. In the comedy group, that increase in duration did not reflect higher attention scores: An incisive decrease of the time participants allocated to the AOI2 was noticed, as they only focused on it 8.57% of the 8 seconds of duration of said area (Table 5.3). In this context, 6 (30%) elements did not look at the defined area once (Appendix C – Table 8.4). Since the average for Valid Gaze Points heavily increased, very probably because of the augmentation in the AOI's duration, it is safe to assume that there were other elements in the video that captured the viewers' attention in a more distinctive way than Coca-Cola. The average for Total Fixations rounded 15, whereas the average for the number of fixations on AOI2 was roughly 2. Only 14% of the participants' foveal attention fixated on the area of interest 2 (Table 5.3).

Concerning the dramatic group, all fields registered higher scores (when compared with the predecessor AOI). Averagely, participants attended to the AOI2 37.37% of the time, which then translates into 5 fixations in said area. From an average of 15 fixations, it is possible to infer that participants had a higher level of involvement with the brand in this 8 seconds long segment than they had with the previous 4 seconds long segment. In this occasion, all participants from the group fixated the AOI2 at least once during the already mentioned timeframe (Appendix C – Table 8.5).

Foveal attention to the defined AOIs for this group registered a rather contrasting evolution, when comparing with the results obtained from the comedy group. While in the latter, a slight decrease in attention was noted from AOI1 to AOI2, the same did not occur with the former. Attention levels from AOI1 to AOI2 improved massively, indicating that viewers displayed more awareness to the presence of the Coca-Cola brand on screen.

5.1.5. Area of Interest 3

Table 5.4 - Eye Tracking Data Regarding AOI3

	Gaze Points on AOI	Valid Gaze Points	Time allocated on AOI	Fixations on AOI	Total Fixations	% of fixations on AOI
Comedy	248.5	396.9	60.13%	7.9	13.3	60%
Drama	91.5	314.94	28.74%	4.11	8.67	47%

The results for the third area of interest, regarding the comedy movie excerpt, denoted a substantial increase in attention dedicated to the mentioned AOI. During the last 7 seconds of the considered scene containing product placement, participants attended to that area 60.13% of that specific timeframe, which, comparatively with the previous AOI represents an increase of foveal attention devoted to the area containing the Coca-Cola brand. The average for Total Fixations was 13, indicating a slight decrease in that number when comparing with its predecessor AOI. This decrease represents higher focus/more time spent on specific parts of the screen. From the 13 average fixations observed, 8 of them covered the AOI3 (Table 5.4). One can interpret that viewers got more involved with the shown brand as the scene containing it progressed.

Participants that watched the dramatic movie excerpt registered lower results in almost fields with the exception of the Percentage of Fixations on AOI. Averagely, participants only focused the AOI3 for about 28.74% of the time and the average number of total fixations observed was 9, with 4 of them falling into the AOI in question (Table 5.4). While the Percentage of Fixations on AOI3 increased 9 pp when compared with the AOI2, this does not translate into a higher attention to the AOI3, *per se*. In this situation, and taking into account the difference observed between Percentage of Time and Percentage of Fixations on AOI, it is possible to verify that participants spent more time taking notice of other areas on the screen other than the area of interest.

Their brief focuses on the AOI3, in duration, can lead to some interpretations: (i) in a subconscious way, participants got saturated from seeing the brand on the screen, thus "self-defense" mechanisms against the commercial intentions of product placement may have been triggered, making participants look to other areas that do not contain branded products; (ii) viewers simply got bored from seeing the brand on screen and decided to search the screen in order to find other elements capable of arousing their enjoyment levels; (iii) viewers felt that they were exposed to the brand for a considerable time amount, making them interiorize the product's role in the portrayed scene. In this instance, viewers may also have felt the need to scan the screen in order to identify other interesting elements.

Note: Individual data for AOI3 can be consulted on Tables 8.6 and 8.7 on Appendix C.

5.1.6. Overall Comparisons: Comedy Vs. Drama
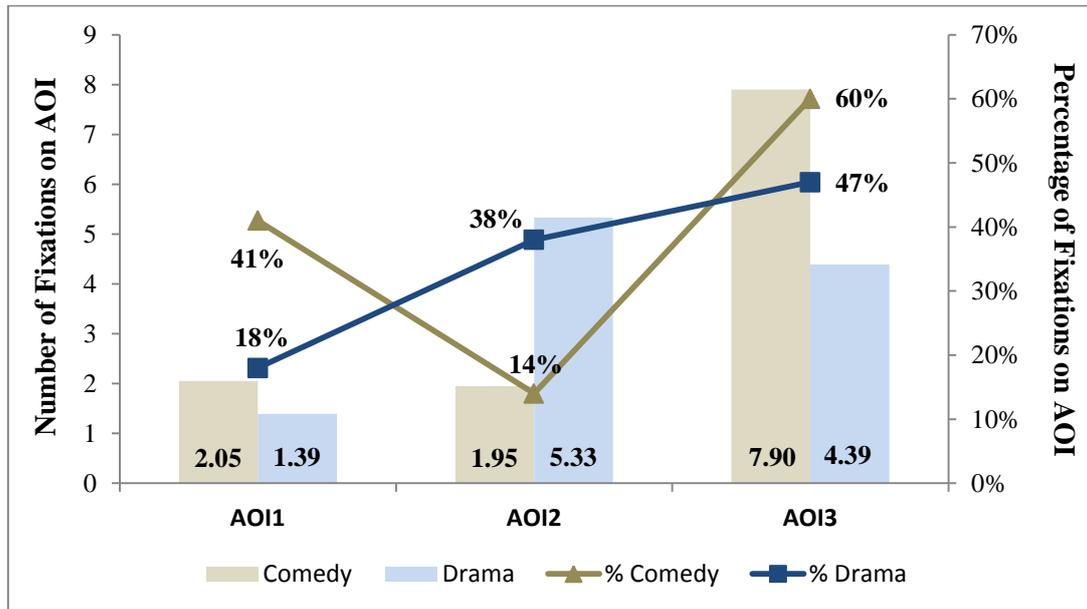
Graphic 5.1 - Evolution of Foveal Attention in Comedy and Drama Contexts

An analysis of the previous graph (Graphic 5.1) provides some interesting look into the evolution of the number of fixations (absolute) and of the percentage of fixations (relative) on the respective AOIs made by participants in both groups, throughout the scene progression.

It is clear that the evolution for attention in Comedy context denotes a different behavior from the Dramatic one – an inverse behavior, if it can be classified that way. Another clear observation one can make while looking at graphic 1 is that AOI2 represents an inflexion point to the evolution of the absolute values of foveal attention. While for the Comedy Group that inflexion point represents a substantial increase in foveal attention, the same meaning does not apply to the Drama Group, where foveal attention slightly decreases in AOI3.

Both groups registered rather low scores in the first AOI (2.05 average fixations on AOI1 with 41% of the total fixations falling into said AOI for the comedy group and 1.39 fixations with 18% of the total fixations falling into referenced AOI). The low score for both contexts can be derived by the small duration of the AOI1 and by the element of "surprise", as participants may have not been expecting to see the Coca-Cola brand incorporated in the movie segment they were watching. The relatively high

percentage of fovel attention by the Comedy group indicates that viewers' spent more time focusing the brand entrance than their Drama counterparts.

As the participants of the Comedy group continued watching the movie segment, they did not show improvements on foveal attention as the areas of interest shifted from 1 to 2. In this scenario, participants were, probably, paying more attention to any humorous moments that were portrayed in the scene, thus relegating the brand from their attention spans (absolute fovel attention decreased slightly from 2.05 to 1.95, and relative foveal attention decreased considerably from 41% to 14%).

In the AOI2, the average number for fixations on AOI from the Drama Group increases by a rather large margin (to 5.33). For the elements in this group, the increase on attention to the brand can be explained by the level of high level of brand integration that Coca-Cola has with the movie segment presented. Since participants were following closely the excerpt's storyline, and since Coca-Cola actually becomes relevant in said storyline, it is only natural for brand attention to increase as time goes by (relative foveal attention also increases from 18% to 38%).

The transition from the second area of interest to the third one is marked by the reversal of the evolution of the absolute foveal attention levels to the brand observed until that point.

In the comedic context, attention to the Coca-Cola brand soared, reaching the highest attention levels observed in the experiment (7.9 average fixations and 60% of the total fixations made by these participants focused the AOI), whereas in the dramatic context, the number of fixations on the AOI decreased to 4.39, while the percentage of fixations on the area of interest increased to 47%.

The upturn in attention in comedic context can be explained, possibly, by the fact that participants were already subjected to the presented humorous stimuli, and then decided to scan the screen in order to find other elements that could arouse their entertainment levels. At this point, the Coca-Cola brand gets heavily noticed.

On the other hand, the slight decrease in attention from the participants that watched the dramatic video may indicate that they got aware of the brand's presence on screen, and

subconsciously started to activate self-defense mechanisms towards the commercial intentions of the placed product.

These results suggest, given this research's sample's characteristics and placements used, that placements on comedic contexts are more effective than the ones on dramatic contexts, but they take longer time to capture viewers' attentions. On the other hand, brand integration must be carefully studied before placing a product in a movie scene. The results obtained from the present eye tracking experience suggest that the longer a well-integrated brand is shown, the more gradual decrease in attention it gets.

5.2. Scale Validation

To measure the internal reliability of the items that compose the questionnaire used in the procedures to gather analytical data about participants' responses to product placement, Cronbach's alphas for each variable will be calculated.

Cronbach's alpha reliability coefficient normally ranges between 0 and 1: High values for this coefficient (values closer to 1) are indicative of great internal consistency between the items used in the scale (Gliem and Gliem, 2003).

Gliem and Gliem (2003) advance with the rules of thumb suggested by George and Mallery (2003) that classify internal consistency depending of the Cronbach's alpha obtained (Table 5.5):

Table 5.5 - Cronbach's Alphas Classifications

Cronbach's alpha	Classification
]0.9;1.0]	Excellent internal consistency
]0.8;0.9]	Good internal consistency
]0.7;0.8]	Acceptable internal consistency
]0.6;0.7]	Questionable internal consistency
]0.5;0.6]	Poor internal consistency
≤ 0.5	Unacceptable internal consistency

While a high value for Cronbach's alpha denotes good internal consistency of the items used in the scale, it does not mean that the scale is unidimensional. In order to

determine the dimensionality of a scale, an exploratory factorial analysis is a better resource to verify that situation.

Cronbach's alpha for the 33 items that compose the variables previously is 0.839, which according to the classification attributed by George and Mallery (2003), denotes good internal consistency across all the items used.

The Cronbach's alphas for the different variables can be seen in the following table (Table 5.6):

Table 5.6 - Cronbach's Alphas for Conceptual Variables

	Purchase Intention	Brand Attitude	Celebrity Endorsement	Prominence	Modality
Cronbach's alpha	0.756	0.722	0.781	0.620	0.652
	(4)	*(9)*	*(5)*	*(4)*	*(4)*

(number of items)

According to the rules of thumb proposed by George and Mallery (2003), and as it is verifiable from the data presented in the table 20, all variables registered Cronbach's alphas that denote an acceptable internal consistency among each item that composes the different variables, except for the "Prominence" and "Modality" ones that can be classified as questionable consistency.

The variable "Celebrity Endorsement" is the one that scored the highest value for the reliability coefficient (0.781) whereas "Prominence" is the one the registered the lowest score for internal consistency (0.620).

Since all Cronbach's alphas deemed acceptable values for each variable, and a good value for the questionnaire as a whole, it is possible to affirm that the research tool – the questionnaire – is properly constructed.

5.3. Sample Characterization

In this section, a descriptive look into the results given by participants will take place. The sample will be characterized in its demographic dimension, and the movie watching habits of those who constitute the sample will also be analyzed. The last step in this

section will comprehend the analysis of respondents' answers to the second part of the questionnaire.

5.3.1. Demographics

Table 5.7 - Sample Characterization: Gender and Age

	Male	Female	Mean - Age
N	45	40	22.51
%	52.9%	47.1%	
Std. Deviation			1.485

Looking at Table 5.7, it is possible to verify how the sample is composed in terms of gender and age. Out of the 85 elements, 45 are male (52.9%) and 40 are female (47.1%). Gender-wise, the sample is rather homogenously distributed, with none of the genders registering a substantial higher number of elements than the other.

The mean for the Age variable scores 22.51 years old and the standard deviation for it is 1.485.

The sample's demographic characterization fits the cinema, and subsequently product placements', target, as suggested by other authors (Gupta and Lord, 1998) when they say that same target is composed by young adults (with a particular emphasis on individuals with ages in the 18-24 bracket), with a skew towards the male gender.

Table 5.8 - Sample Characterization: Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**High School**	2	2.4	2.4	2.4
	College Degree	45	52.9	52.9	55.3
	Master Degree/PhD	38	44.7	44.7	100.0
	Total	85	100.0	100.0	

Regarding Education, it is verifiable that the vast majority of the elements in the sample is currently – or have already – enrolled in University programs since 97.4% of the sample indicated they are frequenting or concluded a College Degree (52.9%) or Masters or Doctoral programs (44.7%). Only 2.4% of respondents (N=2) did not pursue higher levels of education, as it can be seen on table 5.8.

Table 5.9 - Sample Characterization: Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Student**	57	67.1	67.1	67.1
	Worker on behalf of others	26	30.6	30.6	97.6
	Self-employed	2	2.4	2.4	100.0
	Total	85	100.0	100.0	

As for their occupation, table 5.9 reveals that Student was the most chosen option out of the three possibilities. 67.1% (N=57) of respondents affirmed their occupation was Student, while 30.6% (N=26) are already immersed in the labor market. Two respondents (2.4%) claimed to be self-employed.

5.3.2. Movie Watching Habits
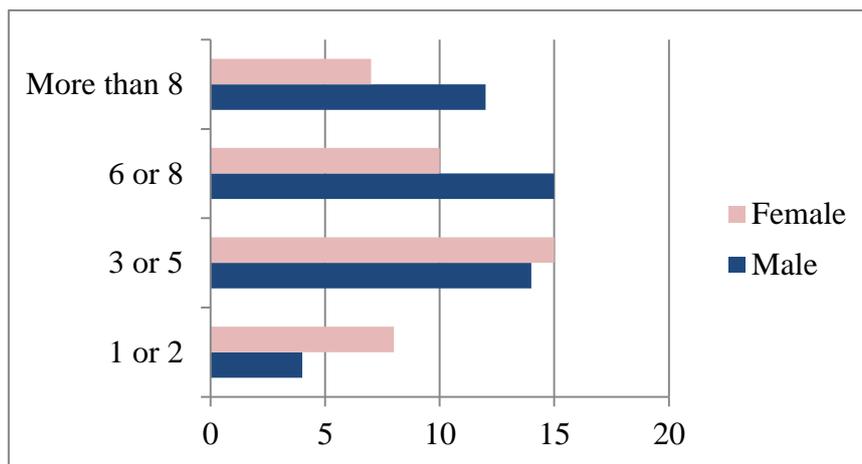
Graphic 5.2 - Movie Watching Frequency by Gender

When enquired about the number of movies they watch, averagely, by month the most frequent choice was "3 or 5" with 29 respondents opting for this answer. Out of these 29, 15 are female and 14 are male. The second most frequent answer was "6 or 8", given by 25 individuals (15 male, 10 female). The other two options, "More than 8" and "1 or 2", came in third and fourth place totaling 19 (12 male, 7 female) and 12 (4 male, 7 female) respondents' choices, respectively.

By looking at the Graphic 5.2 previously illustrated, it is possible to verify that the choices that regard a lesser movie watching assiduity ("1 or 2" and "3 or 5") were most

given by individuals of the female gender, while the others that regard a higher movie watching frequency ("6 or 8" and "More than 8") were mostly given by males.

This scenario raises one question: Is movie-watching frequency dependent on gender? To verify this question, Chi-Square analysis provides useful interpretation on the independence relationship between these two variables:

Table 5.10 - Chi-Square Tests for Movie-Watching Frequency and Gender

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.401[a]	3	.334
Likelihood Ratio	3.438	3	.329
Linear-by-Linear Association	3.081	1	.079
N of Valid Cases	85		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.65.

As it can be noticed on the previous table, the Chi-Square test's *p-value* of 0.334 (superior to α = 0.05) does not support the rejection of the null hypothesis associated with the mentioned test – H_0: Movie-Watching Frequency and Gender are independent. Given the fixated level of significance of 0.05, there is not statistical evidence to state that both of these variables are not independent.

Table 5.11 - Theatre Assiduity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Weekly**	8	9.4	9.4	9.4
	Every two weeks	16	18.8	18.8	28.2
	Monthly	36	42.4	42.4	70.6
	Quarterly	18	21.2	21.2	91.8
	Semiannually	7	8.2	8.2	100.0
	Total	85	100.0	100.0	

As for respondents trips to the theatre (Table 5.11), 42.4% (N=36) stated they attended the cinema on a monthly basis. 21.2% (N=18) said they went to the theatre once every three months, and 18.8% (N=16) responded that they went to see a film on the big screen roughly every two weeks. Only 8 individuals (9.4%) said they went to the theatre on a weekly basis, and 7 (8.2%) on a semiannually basis.

Table 5.12 - DVD/BluRay Renting Habits

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**yes**	12	14.1	14.1	14.1
	no	73	85.9	85.9	100.0
	Total	85	100.0	100.0	

Table 5.13 - DVD/BluRay Renting Frequency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Once or twice per month**	11	12.9	91.7	91,7
	Three or four times per month	1	1.2	8.3	100.0
	Total	12	14.1	100.0	
Missing	**System**	73	85.9		
Total		85	100.0		

When faced with the question "Do you rent DVDs/BluRays?" (Table 5.12) the majority of the respondents answered negatively to it (85.9%, N=73). Only 12 respondents (14.1%) said that they indeed engage on renting activities. Those 12 respondents had to answer an extra question to assess their frequency regarding said renting activities. 91.7% of the 12 respondents (N=11) said that they do it once or twice per month, and only 1 respondent (8.3%) stated renting DVDs/BluRays three of four times per month (Table 5.13).

The rather low adherence to the DVD/BluRay practice may be easily explained by the rather easy (and free, albeit illegal) way to have access to contents online. However, it is not this paper's aim to identify and delve deeper in the problem underlying low adherence to DVD/BluRay renting.

5.4. Descriptive Analysis: the second part of the questionnaire

5.4.1. Purchase Intention
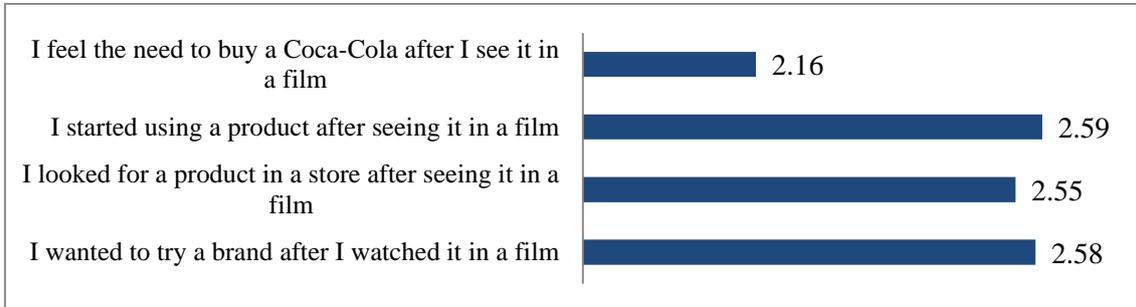
Scale: 1 (very low) to 5 (very high)

Graphic 5.3 - Means for Purchase Intention Items

Regarding Purchase Intentions (Graphic 5.3), respondents generally disagree with the statement "I feel the need to buy a Coca-Cola after I see it in a film" as that item's average is only 2.16. The other items registered relatively higher means: the average for "I wanted to try a brand after I watched it in a film" is 2.58, for "I looked for a product in a store after seeing it in a film" is 2.55 and for "I started using a product after seeing it in a film" is 2.59. The average score for the respondents' answers denote a position that, while it is not neutral, leans into disagreement levels. This scenario suggests that respondents feel that their purchase intentions are not necessarily triggered, enhanced or boosted by product placement.

5.4.2. Prominence
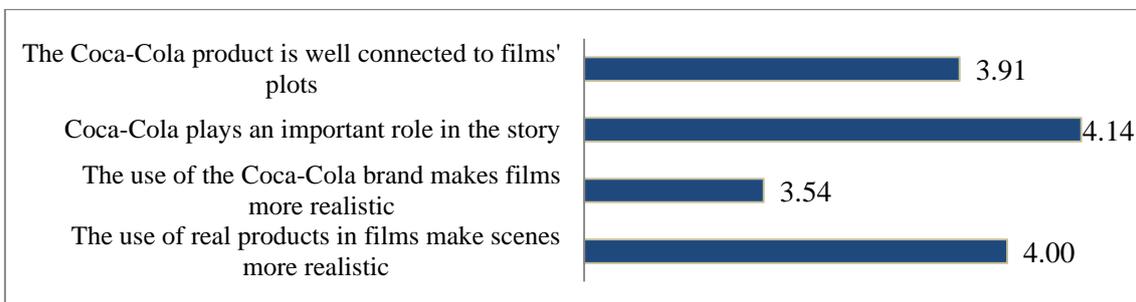
Scale: 1 (Very low) to 5 (very high)

Graphic 5.4 - Means for Prominence Items

Looking at the means for the responses regarding the items that compose the "Prominence" construct (Graphic 5.4), it is possible to verify that responses present

solid agreement levels towards the items "Coca-Cola plays an important role in the story" (4.14) and "The use of real products in films make scenes more realistic" (4.00). While the average for "The Coca-Cola product is well connected to the films' plots" is slightly lower than 4.00, the value of 3.91 denotes an overall agreement to that statement as well.

The item that scored the lowest mean is "The use of Coca-Cola brand makes films more realistic", with 3.54. This value indicates lower agreement levels, when compared with the other items, however, that value indicates a tendency to agree with the statement rather than a neutral position to it.

5.4.3. Modality
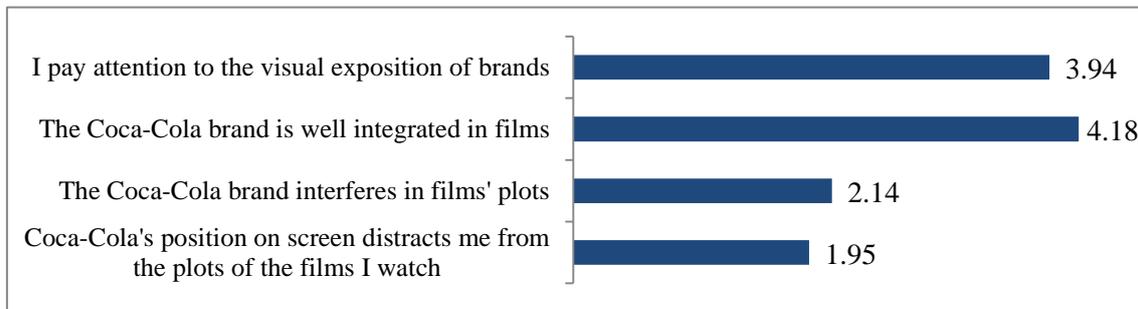
Scale: 1 (Very low) to 5 (very high)

Graphic 5.5 - Means for Modality Items

By looking at Graphic 5.5, "The Coca-Cola brand is well integrated in films" is the item that scored the highest agreement levels, registering a mean of 4.18, indicating that respondents are, generally, at ease with the way that Coca-Cola is incorporated in films. Respondents also agree with the statement "I pay attention to the visual exposition of brands" (3.94) meaning that they are aware of the practice of product placements in films.

Respondents don't agree with the statement "Coca-Cola's position on screen distracts me from the plots of the films I watch" (1.95), which is indicative that the mere presence of the Coca-Cola brand on screen is not powerful enough to deviate their attention from the plot. Regarding the item "The Coca-Cola brand interferes in films' plots", respondents still adopt a disagreeable stance towards it (2.14). From this interpretation, it is possible to infer that respondents may feel slightly annoyed with the

presence of Coca-Cola on screen, but do not feel that it interferes with the narrative's flow.

5.4.4. Celebrity Endorsement
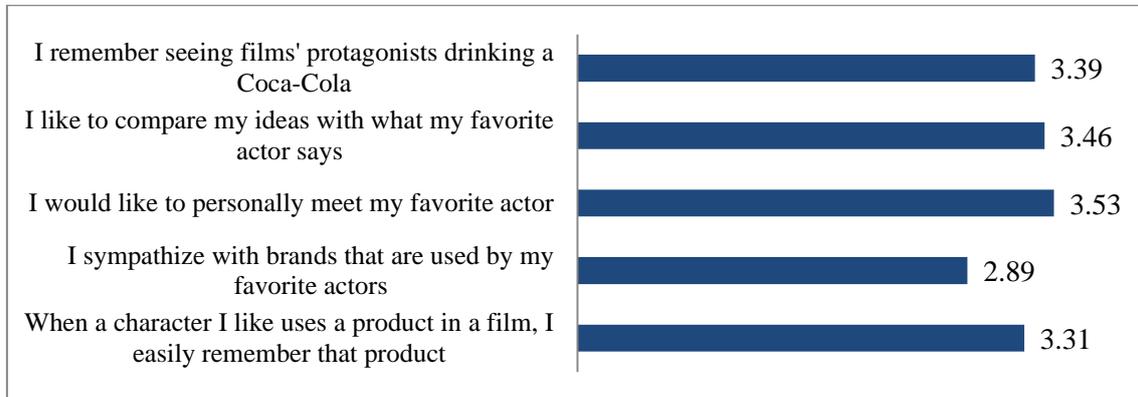
Scale: 1 (Very low) to 5 (very high)

Graphic 5.6 - Means for Celebrity Endorsement Items

Respondents' position on the items pertaining Celebrity Endorsement are rather homogeneous amongst themselves (Graphic 5.6). With the exception of the item "I sympathize with brands that are used by my favorite actors" – which has a mean of 2.89 indicating a neutral, leaning towards disagreement levels, position, respondents means for the other items reflect neutral, although leaning to agreement, levels. The item's "When a character I like uses a product in a film. I easily remember that product" mean is 3.31. the mean for the item "I would like to personally meet my favorite actor" is 3.53 (and this specific item is the one that registered the highest agreement level of all five that constitute the "Celebrity Endorsement" construct), the mean for the item "I like to compare my ideas with what my favorite actor says" is 3.46 and, lastly, the item "I remember seeing films' protagonists drinking a Coca-Cola" scored an average of 3.39.

The rather cohesive means for these particular items reflect that respondents don't necessarily have big affinity for their favorite actors nor are infatuated by them. One can speculate that respondents may feel that actors serve only as vehicles that help the narrative to move forward.

5.4.5. Brand Attitude
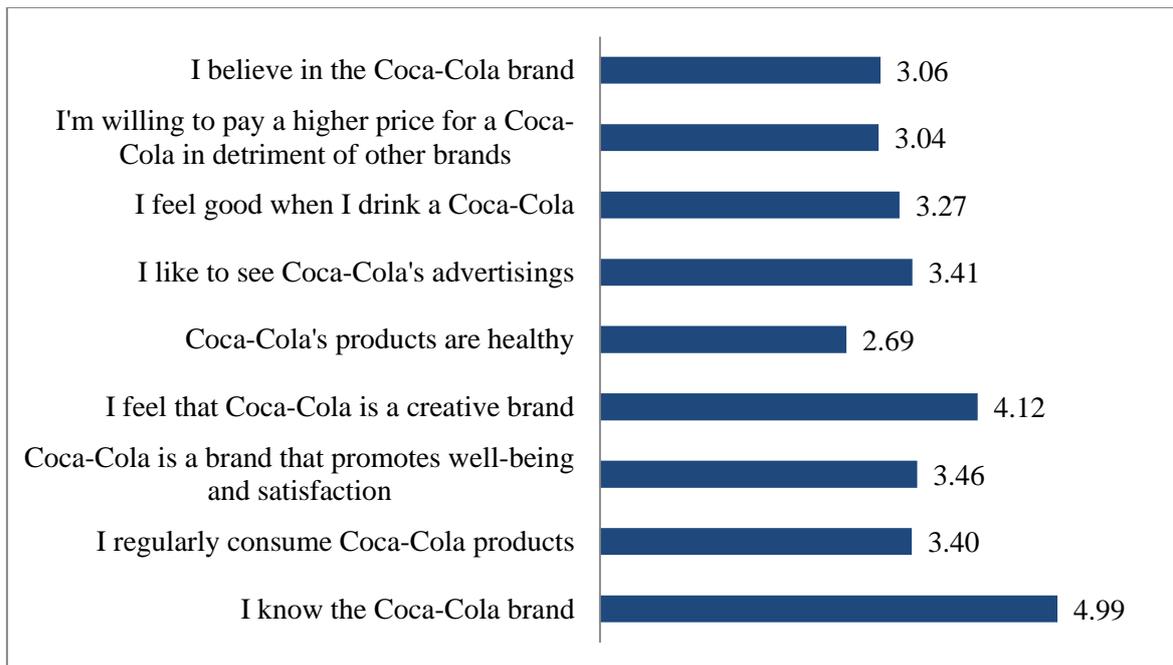
Scale: 1 (Very low) to 5 (very high)

Graphic 5.7 - Means for Brand Attitude Items

By analyzing the graph illustrated above (Graphic 5.7), relating to the mean scores for the items that approach the "Brand Attitude" variable it is possible to infer that. Overall, respondents do not have a negative brand attitude towards Coca-Cola. Almost every single respondent strongly agreed when confronted with the statement "I know the Coca-Cola Brand" (4.99). Generally speaking, respondents agree that Coca-Cola is a creative brand (4.12), and they enjoy seeing Coca-Cola's advertisings to some extent (3.41).

Even though respondents don't necessarily feel that Coca-Cola's products are healthy (2.69) they take a more favorable stance on statements such as "Coca-Cola is a brand that promotes well-being and satisfaction" (3.46) and "I feel good when I drink a Coca-Cola" (3.27). Despite leaning towards disagreement levels regarding the healthiness of Coca-Cola products, the mean score for the item "I regularly consume Coca-Cola products" is 3.40 – indicating that respondents, while they don't explicitly agree with the statement, are favorable to it.

The mean for two items marked respondents' answers as neutral to the suggested statements: The item "I'm willing to pay a higher price for a Coca-Cola in detriment of

other brands" scored an average of 3.04, reflecting that respondents do not disagree. nor do they agree, with it. This sample does not appear to be faithful to the Coca-Cola brand, as its responses reflect a neutral stance to an item that confronts Coca-Cola to other brands (even though they are not specified). The 3.06 average for the item "I believe in the Coca-Cola brand" reinforces this lack of faithfulness towards Coca-Cola from the respondents.

5.4.6. Level of Involvement

Table 8.8 (Appendix D) indicates that respondents denoted, generally, high to very high involvement levels with the presented videos as 48 respondents marked these two options (32 marked "High" and 16 marked "Very High"). Only 14 respondents affirmed to not being very much involved with what they were watching as 4 for them signaled "Very Low" and 10 marked "Low". The remainder respondents (23) marked their involvement level as being "Neutral". Within the two different movies watched, it is verifiable that 58% of the elements that have watched the *The Hangover* segment denoted positive levels of involvement. The percentage of respondents in those circumstances for group that watched the *The Road* segment was 55%. In that sense, it is possible to state that, generally speaking, respondents were involved with the video that was shown to them.

5.4.7. Recall

The tables 8.9 and 8.10 (Appendix D) presents the descriptive results for the Recall question. In order to analyze this question, in first place, a look into the responses from both Drama groups will be scanned, followed by the ones from the Comedy groups.

Concerning the dramatic groups, all viewers recalled having seen the item "Gun" (40 positive responses – table 8.9, Appendix D) since that object is used in a conversation between Viggo Mortensen's and Kodi-Smit McPhee's characters. The item "Coca-Cola" was also noticed by all elements that belong in the experimental group (19 positive responses), while the elements in the control group did not recall said item, which was expected – since it was not featured in the video segment they watched.

As for the other item that was present in both segments – "Shopping Cart" – only 11 out of the 45 subjects on the dramatic groups recalled seeing it. Such low recall levels derive from the fact that the shopping cart – in fact, shopping cars – appear amidst of a destroyed landscape, all rusty and covered in dust, almost stealth-like.

Regarding the items that were featured on both the original and edited comedy clips – "Rayban Sunglasses" and "Police Officer" – 32 respondents remembered having seen the first mentioned item, and 43 recalled the latter. The reason of why "Rayban Sunglasses" registered smaller recall scores may be related with the fact that said object appears at the beginning of the film, taking a rather low-key approach to how it was exposed. The high recall for "Police Officer" is related with the importance of said figure in the shown clips, as it was used as a way to conduct the scene's narrative (table 8.10 – Appendix D).

Another item that was shown to participants it was a Coca-Cola can (this item only appeared in the original clip and not in the clip in its edited form). At one point, Ed Helms' character says that he is going to buy a soda. Afterwards, he strolls on screen holding a Coca-Cola can. As it can be seen on table 8.10 (Appendix D), 16 out of the 22 elements that compose the experimental group recalled seeing the aforementioned product, denoting good recall levels towards the Coca-Cola's placement.

All other items registered low recall scores, as it was expected since they were not featured in the movie segment.

5.4.8. Film Familiarity

The majority of the elements on the comedy groups admitted to having seen The Hangover previously (53%, n=24), while only 20% (n=8) of the individuals on the experimental and control groups that watched the dramatic video had seen The Road before (Table 8.11 – Appendix D).

This difference can be relied upon the media exposure that both films got on the moment of their release – *The Hangover* got strong word-of-mouth on the Summer of 2009 and was backed up by a massive advertising campaign and wide distribution, making it to be one of the years' top grossing films (Worldwide Gross =

$467,483,912[31]$). On the other hand, *The Road* got a more selective distribution, opening on selected theatres and it was not as heavily promoted as *The Hangover* (Worldwide Gross = $27,635,305[32]$).

5.4.9. Editing Validation

In order to measure if the editing process did not interfere with the segment's overall message, one multiple-choice question pertaining the plot (restrained to the 10 minute scene) was presented to the subjects. Regarding *The Hangover* only 5 people did not answer correctly, as the other 40 managed to get the right option marked down (table 8.12 – Appendix D), which is indicative that the editing process did not create problem in getting the message across.

As for *The Road*, 21 individuals signaled the correct option, while 19 marked a wrong option (Table 8.12 – Appendix D). Even though the majority got the right answer, it is interesting to think about why such a high number of individuals got it wrong, and in that sense, one situation arises: The video they watched had no subtitles incorporated in them, as they were incompatible with the software used. Since Portuguese viewers are accustomed to subtitles in movies, the lack of that "visual aid" may account for a non-clear interpretation of the scene. Allied to this fact, a non-optimal level of attention to the video shown may be the cause for such high registered wrong options.

5.5. Exploratory Factor Analysis

5.5.1. Introduction

The Exploratory Factor Analysis (EFA) is a statistical technique that aims to analyze the structure of a set of inter-correlated variables in order to build a measure scale for factors that, somehow (more or less explicitly), control the original variables (Marôco, 2010). According to Hair *et al*. (2008), metric variables are suited for this type of analysis because they are easily measured by several types of correlations. As the variables that will be subjected to the EFA are all composed by sets of Likert-scale

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[31] http://boxofficemojo.com/movies/?id=hangover.htm

[32] http://boxofficemojo.com/movies/?id=road08.htm

items, then EFA is deemed to be acceptable taking into account the nature of this study's variables.

5.5.2. Assumptions for EFA

One assumption for the conduction of an EFA is that there is "*some underlying structure does exist in the set of selected variables*" (Hair *et al*., 2008). According to these authors, it is necessary for the correlation matrix to have sufficient correlations in order to justify the application of factor analysis: "*if visual inspection reveals no substantial number of correlations greater than .30 then factor analysis is probably inappropriate*" (Hair *et al*., 2008).

Another assumption that needs to be validated to assess the appropriateness of factor analysis relies on the examination of the entire correlation matrix. In this sense, the **Bartlett's test of sphericity** provides information vital for said examination. This test has a null hypothesis − H_0: The correlation matrix is an identity matrix − that needs to be rejected to proceed with the EFA. The rejection of this hypothesis occurs when Bartlett's *p-value* is inferior to the probability of occurrence of a Type I error (the error of rejecting a true null hypothesis) fixed at 0.05 ($\alpha=0.05$).

The third assumption regards the sampling adequacy. To validate this assumption, the **Keyser-Mayer-Olkin (KMO)** measure will be interpreted. The KMO measure regards the variable's homogeneity that compares the simple correlations with partial correlations observed between the variables (Marôco, 2010). The values for the KMO measure of sampling adequacy can be classified as the following (Table 5.14):

Table 5.14 - Classification for KMO Values

KMO Value	Classification
]0.9;1.0]	Excellent
]0.8;0.9]	Good
]0.7;0.8]	Average
]0.6;0.7]	Mediocre
]0.5;0.6]	Poor, but acceptable
≤ 0.5	Unacceptable

5.5.3. Component Factor Retention

Three criteria will be used in order to define the number of factors to extract, during the Principal Components Method for extraction.

In the first place, the Kaiser criterion will be used. All factors that have eigenvalues superior to 1 will be the ones that will be retained. In this case, it is desired that each principal component accounts for more variance than each one of the original variables. However, this criterion can lead to the retention of more or less principal components than the ones that are actually relevant to the analysis (Marôco, 2010).

Secondly, the percentage of variance criterion will be applied. The purpose of use this criterion is to achieve a specific cumulative percentage of total variance that is explained by successive factors. In the social sciences context, a solution that accounts for 60 percent of the total variance is satisfactory (Hair *et al*., 2008).

The last criterion that will be used is the Screen Plot criterion. The Scree Plot gives a graphical representation of the principal components' eigenvalue, and the number of components to retain is defined by the graphic's inflexion point (Marôco, 2010). This criterion is used to identify the optimal number of components that can be extracted before the amount of unique variance begins to dominate the common variance structure (Hair *et al*., 2008).

When the number of components differs between the Kaiser's and Scree Plot's criteria (example: Kaiser criterion suggests the retention of 3 components, while the Scree Plot suggests 5 components for retention), it is necessary to take a closer look at the eigenvalues presented on the latter. If the values of the "extra" components are close to 1, then they can be included for retention purposes. If not, then they can not be considered.

5.5.4. Factor Rotation

To proceed with factor rotation, the VARIMAX method will be employed. The aim for this method is to obtain a factorial structure in which one, and only one, of the original factors is strongly related with a single factor (Marôco, 2010).

The VARIMAX method provides a more simplified understanding of what factors are associated with what components. The logic is that "*interpretation is easiest when the variable-factor correlations are (1) close to either +1 or -1, thus indicating a clear positive or negative association between the variable and the factor; or (2) close to 0, indicating a clear lacking of association*" (Hair *et al.*, 2008).

5.5.5. Purchase Intention

Table 5.15 - KMO and Bartlett's Test for Spericity: Purchase Intention

KMO	0.601
Bartlett's Test for Sphericity	0.000

The KMO measure for sampling adequacy for the items that constitute the Purchase Intention construct is 0.601 (Table 5.15), denoting mediocre sampling adequacy. The Bartlett's test for sphericity is 0.000, meaning that the null hypothesis that serve as background to this test is rejected – the correlation matrix is not an identity matrix, therefore, there are significant inter-item correlations. This is supported by looking at the correlation matrix (table 8.13 – Appendix E).

By analyzing the table 8.14 (Appendix E), it is suggested to retain only one component, with an eigenvalue of 2.426 and is accountable for 60.658% of the total variance explained.

However and as previously mentioned, retention taking into consideration only one criterion may lead to the retention of more or less components than those actually relevant.

The Scree plot (Figure 8.1 – Appendix E) suggests the retention of two different components, as the inflexion point occurs on component number 2. Since the eigenvalue for the second component is close to 1 (0.948), component 2 will also be retained.

In that sense, and after VARIMAX rotation (Table 8.15 – Appendix E), the two components are accountable for 84.364% of the total variance – component 1 explains 57.887% of it, while component 2 explains 26.477% of the same total variance. All communalities are higher than 0.50 (Table 8.16 – Appendix E).

By looking at the rotated component matrix (Table 5.16), it is possible to verify the factor loadings:

Table 5.16 - Rotated Component Matrix: Purchase Intention

	Component	
	1	2
I wanted to try a brand after I watched it in a film	.921	.231
I started using a product after seeing it in a film	.885	-.068
I looked for a product in a store after seeing it in a film	.821	.163
I feel the need to buy a Coca-Cola after I see it in a film	.104	.987

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

It is observable that component 1 has strong positive association with the factors "I wanted to try a brand after I watched it in a film", "I started using a product after seeing it in a film" and "I looked for a product in a store after seeing it in a film". These items are related with the influence that product placement has on the consumers' purchase behavior therefore component 1 shall be characterized as **Placement_Influence**.

On the other hand, component two has strong positive association with the factor "I feel the need to buy a Coca-Cola after I see it in a film". The mentioned factor regards the power in need creation that product placement, in this case Coca-Cola, may have on its viewers. Component 2 shall be characterized as **Coca-Cola_Placement_Influence**.

The Cronbach's alpha for the new **Placement_Influence** construct is 0.857 denoting good internal consistency across the three items that compose it.

5.5.6. Prominence

Table 5.17 - KMO and Bartlett's Test for Spericity: Prominence

KMO	0.674
Bartlett's Test for Sphericity	0.000

The KMO scored 0.674 (Table 5.17), denoting mediocre sampling adequacy, making the EFA adequate for this variable. The *p-value* of 0.000 concerning the Bartlett's Test

for Sphericity indicates that the correlation matrix is not an identity matrix, and that there exist inter-item correlations (Table 8.17 – Appendix E).

Based on the Kaiser criterion, the retention of one component is suggested (Table 8.18 – Appendix E): eigenvalue = 1.877, total variance explained 46.914%. However, and since the minimum satisfactory total percentage of variance explained is 50%, another component shall be retained. The loss of verticality in the eigenvalues occurs after component 2, by looking at the Scree Plot (Figure 8.2 – Appendix E), supporting, thus, the retention of two components.

After VARIMAX rotation, the two retained components account for 68.685% of the total variance (component 1 explains 35.123% and component 2 explains 33.561%) as it can be seen on table 8.19 on appendix E. All factors' communalities are superior to 0.5 (Table 8.20 – Appendix E).

Table 5.18 - Rotated Component Matrix: Prominence

	Component	
	1	**2**
The use of real products in films make scenes more realistic	.823	.144
The use of the Coca-Cola brand makes films more realistic	.816	.165
The Coca-Cola product is well connected to films' plots	.082	.850
Coca-Cola plays an important role in the story	.236	.757

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

The Rotated component matrix (Table 5.18) indicates that the factors "The use of real products in films make scenes more realistic" and "The use of the Coca-Cola brand makes films more realistic" are positively and strongly associated with the component 1, therefore, it shall be characterized as **Placement_Perceived_Realism**.

On the other hand, component 2 is positively linked with the factors "The Coca-Cola product is well connected to films' plots" and with "Coca-Cola plays an important role in the story", making it possible to characterize it as **Placement_Plot_Connection**.

In order to measure the internal reliability of these two components, cronbach's alpha was calculated. Placement_Perceived_Realism scored a cronbach alpha of 0.569 and Placement_Plot_Connection's Cronbach alpha equals 0.508. Even though these measures of internal consistency do not indicate strong reliability, the analysis of inter-item and item-total correlations (Tables 8.21 and 8.22 – Appendix E) denote strong reliability, as the inter-item correlations all scored values superior to 0.3, and the item-total correlations are superior to 0.5. Following this line of thought, these components shall be included in further statistical analysis.

5.5.7. Modality

Table 5.19 - KMO and Bartlett's Test for Spericity: Modality

KMO	0.564
Bartlett's Test for Sphericity	0.000

The KMO measure scored 0.564 (Table 5.19), a poor value but acceptable for sampling adequacy to the EFA. The Bartlett's Test for Sphericity of 0.000 denotes that there exists inter-item correlations between the items that compose the "Modality" construct (Table 8.23 – Appendix E), and therefore, EFA will be carried out on this variable.

Two components were identified for retention, as their eigenvalues are superior to 1 (component 1's eigenvalue is equal to 2.076 and component 2's eigenvalue is 1.058). These two components account for 78.351% of the total variance, so the assumption of at least 50% of the total variance explained is observed as well (Table 8.24 – Appendix E). The Scree Plot (Figure 8.3 – Appendix E) also suggests the retention of two components.

After orthogonal rotation, the two components still account for 78.351% of the total variance, but now component 1 explains 44.569% of it, and component 2 explains 33.781% (Table 8.25 – Appendix E). All factors' communalities are superior to 0.5 (table 8.26 – Appendix E).

The table 5.20, below, provides the level of association between each factor with each variable:

Table 5.20 - Rotated Component Matrix: Modality

	Component	
	1	2
Product Placement: I pay attention to the visual exposition of brands	.949	.080
Movie Placement: The Coca-Cola brand is well integrated in films	.924	.207
Movie Placement: The Coca-Cola brand interferes in films' plots	.118	.808
Movie Placement: Coca-Cola's position on screen distracts me from the plots of the films I watch.	.122	.806

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

As it can be seen on the previous table, component 1 is strongly and positively associated with the factors "I pay attention to the visual exposition of brands" and with "The Coca-Cola brand is well integrated in films". As both of these factors are related to the direct visual exposition of the brand on screen, component 1 is now characterized as **Placement_Visual**.

On the other hand, the factors "The Coca-Cola brand interferes in films' plots" and "Coca-Cola's position on screen distracts me from the plots of the films I watch" are positively and strongly associated with the second component, which can be described as **Placement_Distraction.**

The Cronbach's alpha for both of these dimensions are 0.877 for **Placement_Visual** and 0.499 for **Placement_Distraction**. As the reliability coefficient for the latter dimension is inferior to 0.5, it shall not be included on further analysis.

5.5.8. Celebrity Endorsement

Table 5.21 - KMO and Bartlett's Test for Spericity: Celebrity Endorsement

KMO	0.740
Bartlett's Test for Sphericity	0.000

The KMO measure for sampling adequacy for the set of items that compose the Celebrity Endorsement construct is 0.740 (Table 5.21), indicating average adequacy. The Bartlett's test for sphericity is, once again, 0.000 – a value inferior to $\alpha=0.005$,

which leads to the rejection of the null hypothesis that states the correlation matrix is an identity matrix. The inter-item correlations can be consulted on the table 8.27 on appendix E.

Based on the Kaiser criterion, only one component (the first one) is suggested to be retained as its eigenvalue is the only one superior to 1 – 2.943. The component is accountable for 58.862% of the total variance (Table 8.28 – Appendix E). Judging from the Scree Plot (Figure 8.4 – Appendix E), two different components should be retained, as the verticality of the eigenvalues tends to be dissipated after component number two. Since that component's eigenvalue is equal to 0.948, a value close to 1, then it will also be retained.

Analyzing table 8.29 (Appendix E), and taking into consideration the fixed retention of two components, it is possible to infer that the two extracted components explain 77.822% of the total variance (57.241% is explained by component 1, while 20.581% is explained by component 2).

Table 5.22 establishes the levels of association between the different factors and between the components:

Table 5.22 - Rotated Component Matrix: Celebrity Endorsement

	Component	
	1	2
I like to compare my ideas with what my favorite actor says	.955	.063
When a character I like uses a product in a film, I easily remember that product	.917	.147
I would like to personally meet my favorite actor	.913	-.002
I sympathize with brands that are used by my favorite actors	.514	.190
I remember seeing films' protagonists drinking a Coca-Cola	.105	.984

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Component 1 is strongly and positively related to the factors "I like to compare my ideas with what my favorite actor says", "When a character I like uses a product in a film, I easily remember that product", "I would like to personally meet my favorite

actor" and with "I sympathize with brands that are used by my favorite actors". This component can be characterized as **Celebrity_Influence**, as it regards a set of items that imply the celebrity's influence on viewers' judgments.

On the other hand, component 2 is only strongly associated with the factor "I remember seeing films' protagonists drinking a Coca-Cola", and it can be defined, then, as **Celebrity_Prod_Recall**.

The reason why the factor "I sympathize with brands that are used by my favorite actors" will not be included on any component relies on two different facts: 1) the association levels presented with both components do not indicate strong relationship with either component; and 2) the communality (Table 8.30 – Appendix E) for that factor is only 0.30, while all others are superior to 0.5.

The Cronbach's alpha for the first component, Celebrity_Influence, is 0.861 which is indicative of good internal consistency.

5.5.9. Brand Attitude

Table 5.23 - KMO and Bartlett's Test for Spericity: Brand Attitude

KMO	0.634
Bartlett's Test for Sphericity	0.000

Looking at table 5.23, the KMO measure for sampling adequacy value is 0.634, a value that is indicative of mediocre sampling adequacy. The Bartlett's test for sphericity *p-value* of 0.000 is inferior to α=0.05, leading to the rejection of the null hypothesis associated with said test – the items that compose the Brand Attitude construct are correlated between themselves. The inter-item correlations can be consulted on table 8.31 (Appendix E) there are no observable null correlations.

Analyzing table 8.32 (Appendix E), it is possible to verify the suggestion of retaining three different components, as their eigenvalues are superior to 1 (component 1=3.327; component 2=1.651; component 3=1.386). These three components are accountable for 70.711% of the total variance (component 1 explains 36.970%, component 2 explains 18.340% and component 3 explains 15.402%). The Scree plot for the components identified on the Brand Attitude variable (Figure 8.5 – Appendix E) suggests the

retention of 4 components, as it is noticeable a loss of verticality after component 4. However, and taking into account that the three previously identified components already explain a considerable amount of the total variance (70.711%) and all have eigenvalues superior to 1, whereas component 4 does not, the latter component shall not be retained.

After subjecting VARIMAX rotation to the components, it is now verifiable that component 1 accounts for 31.619% of the total variance, component 2 for 22.537% and component 3 for 16.554% (Table 8.33 – Appendix E).

The level of association of each factor with each component can be seen on table 5.24, below:

Table 5.24 - Rotated Component Matrix: Brand Attitude

	Component		
	1	**2**	**3**
I'm willing to pay a higher price for a Coca-Cola in detriment of other brands	.876	.056	-.205
I believe in the Coca-Cola brand	.825	.045	-.188
I feel good when I drink a Coca-Cola	.810	.305	.163
I regularly consume Coca-Cola products	.765	.113	.343
I feel that Coca-Cola is a creative brand	.055	.886	.127
I like to see Coca-Cola's advertisings	.257	.862	-.036
Coca-Cola is a brand that promotes well-being and satisfaction	.271	.279	.768
Coca-Cola's products are healthy	-.016	-.560	.691
I know the Coca-Cola brand	-.115	.000	.429

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Component 1 is positively associated with the factors "I'm willing to pay a higher price for a Coca-Cola in detriment of other brands", "I believe in the Coca-Cola brand", "I feel good when I drink a Coca-Cola" and "I regularly consume Coca-Cola products". Since all these items reflect the level of consumers' faithfulness towards the brand, the component can be characterized as **Brand_Faithfulness**.

Component 2, on the other hand, is positively associated with the factors "I feel that Coca-Cola is a creative brand" and with "I like to see Coca-Cola's advertisings". Taking into consideration the fact that both these items are linked with the creative image that Coca-Cola gives as well as the capacity to inject creativity into their advertisements, component 2 shall be characterized as **Brand_Perceived_Creativity**.

Lastly, component 3 denotes positive association with the factors "Coca-Cola is a brand that promotes well-being and satisfaction" and "Coca-Cola's products are healthy". These items refer to the intrinsic composition of Coca-Cola's products – to their potential to increase a person's well-being and satisfaction levels by simply consuming it, to the level of perceived healthiness of these specific beverages. In that sense, component 3 can be characterized as **Brand_Health**.

The item "I know the Coca-Cola brand" does not present satisfactory association levels with any component (the higher registered is with component 3, assuming a positive association value of 0.429), so it will not be linked with any of the three components. The exclusion of this factor also derives from the analysis made regarding the factor's communality: Looking at the table 8.34 (Appendix E), the communality for the mentioned factor is 0.197, while all other factors registered communalities higher than 0.5.

The reliability of the extracted components is measured by the following Cronbach's alphas: Brand_Faithfulness Cronbach's alpha = 0.851 (good internal consistency); Brand_Perceived_Creativity Cronbach's alpha = 0.770 (acceptable internal consistency); Brand_Health Cronbach's alpha = 0.466 (unacceptable internal consistency).

Since Brand_Health Cronbach's alpha is extremely low, this component shall not be included in further analysis.

5.6. Test of Hypothesis

After presenting the literature review, conceptual framework, methodology and the statistical analysis of data collected, the test of hypothesis will now be developed.

5.6.1. Correlation Analysis – Pearson Coefficient of Correlation

The first three hypothesis proposed in the conceptual framework will be tested through the assessment of correlation analysis, using the Pearson Coefficient of Correlation.

The correlation analysis for the validation of the aforementioned hypothesis is pertinent because correlation measures the linear level of association between variables, meaning that variables evolve in the same way if the correlation is positive, and evolve in an inverse way if it is negative (Martinez and Ferreira, 2010).

The Pearson Coefficient of Correlation is considered to be an adequate measure of linear association between variables in the social sciences context because it uses the variables' absolute values, providing richer information. It ranges between -1 and 1, and in this sense, negative values denote negative correlation between variables, positive values denote a positive correlation between variables and 0 (or values close to 0) indicate the absence of association between variables. As defined by Cohen (1988), the association levels between variables can be classified as the following:

Table 5.25 - Classification of Correlations

Classification	Negative	Positive
Absent	-0,09 to 0	0 to 0.09
Low	-0.3 to -1	0.1 to 0.3
Medium	-0.5 to -0.3	0.3 to 0.5
High	-1 to -0.5	0.5 to 1

When analyzing correlations with the resource to Pearson Coefficient, it is also important to take notice that it has a test of hypothesis implied. In this case, the underlying null hypothesis is that the correlation between variables is zero.

Since the hypothesis proposed in the conceptual framework state that there is association between variables, it is necessary for the null hypothesis associated with the Pearson Coefficient for Correlation to be rejected. By fixating the level of significance at 0.05 (α, the probability of a type I error: rejecting a true null hypothesis), all *p-values* inferior to the mentioned α will reject the null hypothesis.

The first three hypotheses will be tested through the analysis of Pearson coefficient of correlation. The correlation analysis focuses the comparison between the responses

given by participants that watched the video segments in their original formats, meaning that the brand was shown and that participants were exposed to the stimuli, with the responses given by participants that watched the video with the absence of brand.

5.6.1.1. **H1: Prominent Placements have a positive influence on Brand Attitude**

Table 5.26 - Pearson Coefficient of Correlation for Experimental Groups: Prominence

		Placement_Perceived_Realism	Placement_Plot_Connection
Brand_Faithfulness	**Pearson Correlation**	-.166	.050
	Sig. (2-tailed)	.301	.757
	N	41	41
Brand_Perceived_Creativity	**Pearson Correlation**	.241	.330[*]
	Sig. (2-tailed)	.128	.035
	N	41	41

*. Correlation is significant at the 0.05 level (2-tailed)

The dimension Placement_Perceived_Realism did not register any significant correlation with the dimensions that concern Brand Attitude, as all *p-values* are superior to $\alpha = 0.05$ (Table 5.26). On the other hand, the dimension Placement_Plot_Connection scored one statistically significant correlation. In that sense, Placement_Plot_Connection has a significant and positive correlation with Brand_Perceived_Creativity (*p-value* = 0.035 < α = 0.05) but does not have a significant correlation with the dimension Brand_Faithfulness (*p-value* = 0.757 > α = 0.05).

Table 5.27 - Pearson Coefficient of Correlation for Control Groups: Prominence

		Placement_Perceived_Realism	Placement_Plot_Connection
Brand_Faithfulness	**Pearson Correlation**	.053	.082
	Sig. (2-tailed)	.734	.595
	N	44	44
Brand_Perceived_Creativity	**Pearson Correlation**	.057	-.032
	Sig. (2-tailed)	.715	.838
	N	44	44

As for the correlations regarding the Control Groups, no statistically significant correlations have been found between the dimensions that compose the Prominence construct and the ones that constitute the Brand Attitude ones (all *p-values* > 0.05) (Table 5.27).

The difference observed between both scenarios makes it possible to upheld, partially and limitedly, H1.

5.6.1.2. **H2: Placements used through visual-only modalities have a positive influence on Brand Attitude**

Table 5.28 - Pearson Coefficient of Correlation for Experimental Groups: Modality

		Placement_Visual
Brand_Faithfulness	Pearson Correlation	-.058
	Sig. (2-tailed)	.717
	N	41
Brand_Perceived_Creativity	Pearson Correlation	.241
	Sig. (2-tailed)	.130
	N	41

Regarding Modality, no statistically significant correlations have been observed between Placement_Visual and the two dimensions that constitute the Brand Attitude construct, within the experimental groups. As it can be seen on table 1, all *p-values* are superior to 0.05 (Table 5.28).

Table 5.29 - Pearson Coefficient of Correlation for Control Groups: Modality

		Placement_Visual
Brand_Faithfulness	Pearson Correlation	-.093
	Sig. (2-tailed)	.548
	N	44
Brand_Perceived_ Creativity	Pearson Correlation	-.035
	Sig. (2-tailed)	.824
	N	44

The same situation can be verified for the control groups. No statistically significant correlations have been identified, since both *p-values* are superior to 0.05, denoting the existence of non-statistically significant correlations (Table 5.29).

As no differences between experimental and control groups were found, H2 is rejected – It is not possible to state that placements used through visual-only modalities have a positive impact on Brand Attitude.

5.6.1.3. H3: Brands used by a film's character have a positive influence on Brand Attitude.

Table 5.30 - Pearson Coefficient of Correlation for Experimental Groups: Celebrity Endorsement

		Celebrity_Influence	Celebrity_Prod_Recall
Brand_Faithfulness	**Pearson Correlation**	-.085	-0.067
	Sig. (2-tailed)	.597	0.677
	N	41	41
Brand_Perceived_Creativity	**Pearson Correlation**	-.085	.381*
	Sig. (2-tailed)	.596	0.01
	N	41	41

*. Correlation is significant at the 0.05 level (2-tailed)

The Celebrity_Influence dimension did not register any significant scores with any of the dimensions that consistute the brand attitude construct, as the observed *p-values* are all superior to the significance level of 0.05 (Table 5.30). On the other hand, the dimension Celebrity_Prod_Recall registered a significant medium positive correlation with the dimension Brand_Perceived_Creativity ($r = 0.381$, *p-value* $= 0.01 < \alpha = 0.05$), leading to the rejection of the null hypothesis – there is no correlation between variables – associated with Pearson's coefficient of correlation. However, Celebrity_Prod_Recall did not scored significant correlations with any other dimension (remainder *p-values* superior to 0.05).

Table 5.31 - Pearson Coefficient of Correlation for Control Groups: Celebrity Endorsement

		Celebrity_Influence	Celebrity_Prod_Recall
Brand_Faithfulness	**Pearson Correlation**	-0.019	-0.098
	Sig. (2-tailed)	0.900	0.527
	N	44	44
Brand_Perceived_Creativity	**Pearson Correlation**	0.163	0.197
	Sig. (2-tailed)	0.290	0.199
	N	44	44

As for the observed correlations for the data gathered from the control groups (Table 5.31), it is verifiable that no statistically significant correlations have been observed, as all *p-values* are superior to the probability of occurrence of a type I error, the probability of rejecting a true null hypothesis, which was previously fixed at 0.05.

Likewise with the first hypothesis, differences have been observed between both groups. On the experimental groups one statistically significant correlation has been identified between the Celebrity_Prod_Recall and the Brand_Perceived_Creavitry dimensions. On the other hand, no significant correlations have been found for the control group. This difference partially and limitedly supports H3, since an impact has been observed on the subjects that were exposed to the visual stimuli of a branded product in a movie scene.

5.6.2. Moderation

To test the fifth proposed hypothesis, a look into the moderator effect that the variable "Type of Film" may have on the relationship between the dimensions that compose the "Brand Attitude" and "Purchase Intentions" variables will be analyzed. According to Baron and Kenny (1986), moderation refers to the statistical interaction between two independent variables (at least one of which is continuous) in predicting a dependent variable. The moderator variable can be consulted in the figure below (Figure 5.4):
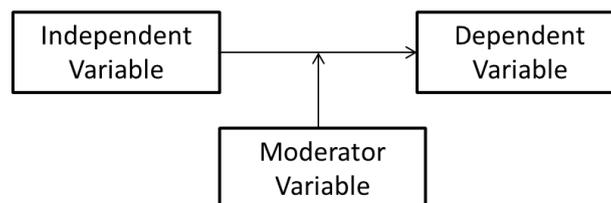
Figure 5.4 - Moderation Model

Another characteristic of moderation is that it is preferable for the moderator variable to be independent in its nature, and it is also desirable that it is uncorrelated with both the predictor and the outcome variable (Baron and Kenny, 1986).

5.6.2.1. **H4a: Attention moderates the relationship between Prominence and Brand Attitude**

Table 5.32 - Hierarchical Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.530	.162		3.272	.002
	Prominence	.133	.130	.164	1.026	.311
2	(Constant)	.689	.222		3.108	.004
	Prominence	.121	.130	.149	.931	.358
	Attention	-.325	.310	-.168	-1.050	.301
3	(Constant)	.748	.224		3.338	.002
	Prominence	-.237	.302	-.292	-.784	.438
	Attention	-.225	.316	-.117	-.712	.481
	PRxA	.198	.151	.494	1.312	.198

a. Dependent Variable: Brand Attitude

Table 5.32 provides the data needed to construct the moderation graphic. It represents an hierarchical linear regression in which the first step regards the entry of the dependent variable. Looking at its B of 0.133, it is suggested that, based on this model, both dependent and independent variables evolve in the same way, meaning that when Prominence evolves in a positive manner, then Brand Attitude also evolves positively.

Then, the moderator variable entered. This variable's main effect on the dependent variable can be seen by its B of -0.325, denoting a negative main effect.

Lastly, the interaction between the independent variable and the moderator variable was entered. The B of 0.198 indicates a positive association between Prominence and Attention.

To better infer on the moderation effects that Attention may have on the relationship between Prominence and Brand attitude, a graphic was constructed with resource to the ModGraph application:
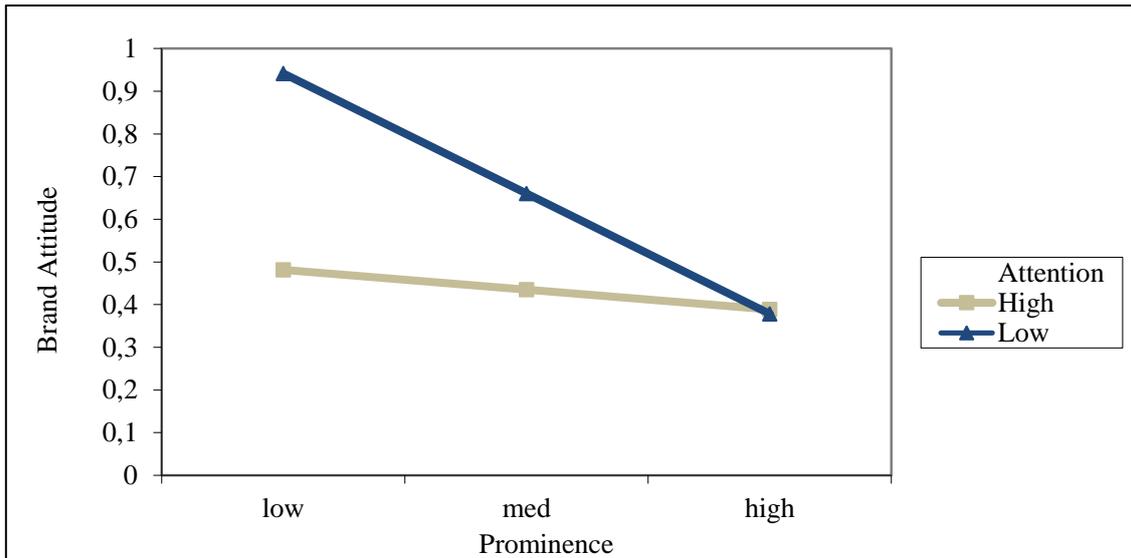
Graphic 5.8 - Moderation of Prominence and Brand Attitude by Attention

According to Paul Jose (2008), one key element one must have in mind while interpreting the graphical outputs of his application is that statistically significant interactions occur when the represented lines are not parallel.

As it can be seen on the previous graphic (Graphic 5.8), there is an absence of parallel line reflecting a statistically significant interaction between the independent, moderator and dependent variables.

It is possible to infer that Prominence is bound to be more effective in shaping brand attitudes when the viewers' attention is low.

The negative slope of both lines indicate that as viewers' are more aware to the placements' prominence, then brand attitude levels tend to decrease. At the point where that awareness reached high values, brand attitude levels are virtually the same, independent of the observers' attention levels. These interactions can be justified by the viewers' awareness to the commercial intents of product placement: Subjects who displayed high levels of attention are bound to have lower brand attitude levels towards the featured brand because they understand the commercial force behind the placement. By having that in mind, viewers' brand attitude levels do not suffer drastic changes regardless of the their level of awareness to the placement's prominence. However, the reason behind the negative tendency in brand attitude evolution for subjects with low levels of attention can also be justified by that same commercial intent awareness. When these subjects recognize the placement's strong prominence, then defense mechanisms

towards the placement's commercial intentions may be triggered, resulting in lower brand attitude levels.

In that sense, and since statistically significant moderation between the three illustrated variables was observed, hypothesis 4a is upheld.

5.6.2.2. **H4b: Attention moderates the relationship between Modality and Brand Attitude**

Table 5.33 - Hierarchical Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.563	.159		3.549	.001
	Modality	.104	.173	.097	.598	.553
2	(Constant)	.726	.219		3.318	.002
	Modality	.087	.174	.081	.502	.619
	Attention	-.337	.313	-.174	-1.079	.288
3	(Constant)	.677	.220		3.080	.004
	Modality	-.076	.213	-.071	-.359	.722
	Attention	-.307	.310	-.159	-.989	.329
	MODxA	.104	.079	.260	1.307	.200

a. Dependent Variable: Brand Attitude

An analysis of Table 5.33 indicates that in the first step Modality entered, registering a B of 0.104 denoting a positive association with Brand Attitude. This association reveals that as modality evolves in a positive way, then brand attitude will also evolve positively.

The entry of Attention constituted step two of the hierarchical linear regression. The B denotes the main effect that Attention has on the dependent variable, and in this case, that effect is negative as the beta value corresponds to -0.337.

With the entry of the interaction between the independent variable – Modality – and the moderator variable – Attention – the hierarchical regression reached its third step. A positive association between these two variables is noticed, as the interaction's B is 0.104.

Graphic 5.9 illustrates the moderation relationship between the three mentioned variables:
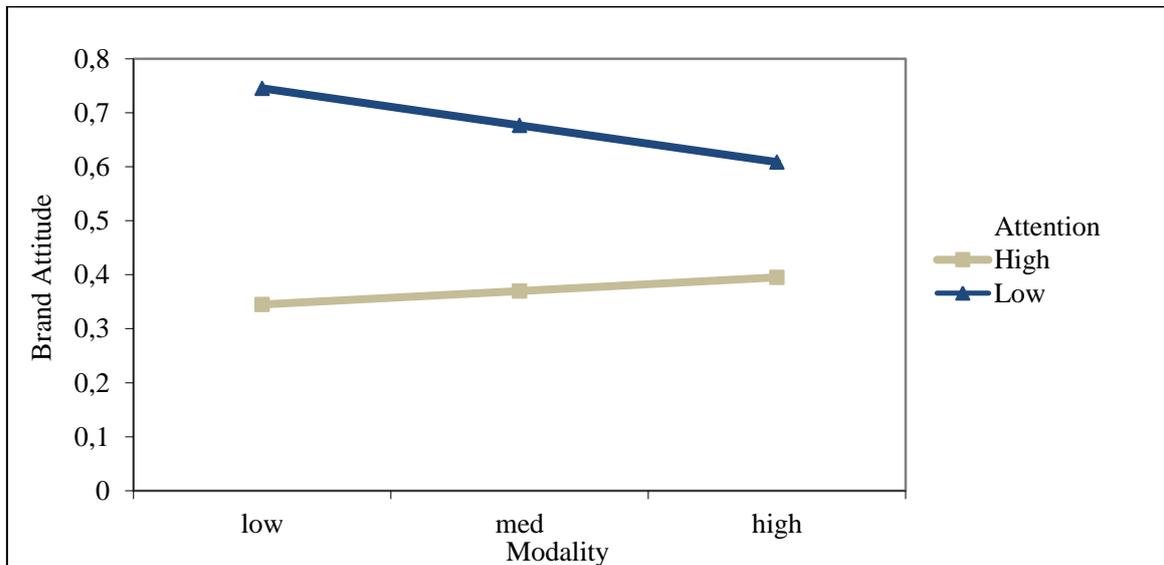
Graphic 5.9 - Moderation of Modality and Brand Attitude by Attention

The absence of parallel lines is noticed on graphic 5.9, confirming a moderation effect of Attention on the relationship between Modality and Brand Attitude.

Once again, low levels of attention prove to be a more efficient context for Modality to shape brand attitudes, as in all instances of reactions towards the Modality aspect of product placement, brand attitudes always register higher scores.

The main difference in this graphic lies on the lines' slopes: In a context characterized by low attention levels, the slope denotes a negative tendency as awareness to Modality increases, while in situations concerning high levels of attention, then that slope evolves positively as reactions to modality evolve in the same manner. The negative slope in brand attitude levels observed for subjects with low levels of attention can be explained by the increase in their awareness levels to modality, which in turn allows them to realize that a brand is being shown. By realizing this situation, subjects may engage in thinking that the commercial intents of the placement jeopardizes their own entertainment, thus, originating lower brand attitude levels.On the other hand, and taking into consideration that high attention levels draw negative thoughts about the reason why a brand is being placed, subjects with high levels of attention denote a rather interesting evolution in their brand attitude levels as their awareness to modality increases. Judging from the film excerpts used in the present research, there is a

possibility that these viewers already gone through the phase of judging the placement merely for its commercial intents, and started to think about how did it conjugated with the scene in which it was inserted. In this instance, viewers may have considered the Coca-Cola brand to be used under a realistic and conceivable way, injecting a dash of realism in the scene that portrayed it.

As moderation effects are statistically significant between the three variables, hypothesis 4b is supported.

5.6.2.3. **H4c: Attention moderates the relationship between Celebrity Endorsements and Brand Attitude**

Table 5.34 - Hierarchical Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.583	.156		3.737	.001
	Celeb_End	-.085	.170	-.081	-.499	.621
2	(Constant)	.741	.216		3.424	.002
	Celeb_End	-.050	.172	-.048	-.291	.773
	Attention	-.333	.318	-.173	-1.049	.301
3	(Constant)	.737	.224		3.289	.002
	Celeb_End	-.087	.436	-.083	-.200	.843
	Attention	-.333	.322	-.172	-1.032	.309
	CExA	.018	.190	.038	.093	.927

a. Dependent Variable: Brand Attitude

Table 5.34 provides the coefficients for the hierarchical regression of Celebrity Endorsement, Attention and the interaction between Celebrity Endorsement and Attention on Brand Attitude.

In the first step, Celebrity Endorsement entered, yielding a negative B of -0.085 which establishes a negative association with the dependent variable in question. As Celebrity Endorsements increases positively, Brand Attitude decreases.

On the second step, Attention entered. By looking at the table 52, it is verifiable that Attention bears a negative main effect on the dependent variable as its B is a negative value: -0.333.

The last step corresponded to the entry of the interaction term between Celebrity Endorsement and Attention. The B of 0.018, a value extremely close to zero, suggests the absence of an interaction between these two variables.

Looking at the following graphic (Graphic 5.10), it will be possible to verify the existence of moderation effects of Attention on Celebrity Endorsement and Brand Attitude:
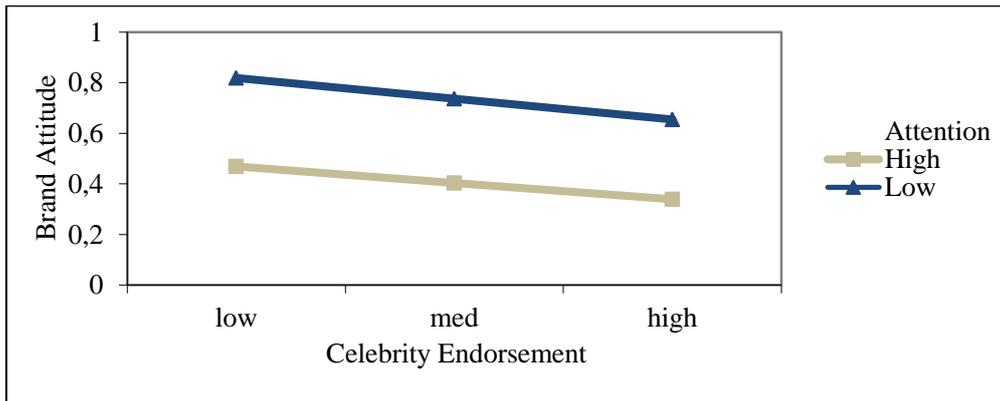
Graphic 5.10 - Moderation by Attention on Celebrity Endorsement and Brand Attitude

In this scenario, two parallel lines are observed on graphic which indicates the absence of statistically significant moderation.

Subjects with high attention levels, as observed previously, denote lower brand attitude levels than subjects with low attention levels than viewers with low attention levels. For both of these groups, brand attitude is deemed to be lower when subjects have a higher grasp on the commitment level between a specific character and a specific branded product. The fact that attention does not moderate the relationship between the attention and Brand Attitude variables may be justified by the fact that the sample's subjects do not show a severely positive attatchments towards movie actors (the descriptive results for the Celebrity Endorsement construct indicate that these respondents do not necessarily feel extremely connected to their favorite actors).

Taking this information into consideration, hypothesis 4c cannot be supported, leading to its rejection.

5.6.2.4. **H5: Comedy movies have a more positive influence in the relationship between Brand Attitude and Consumer Purchase Intentions than Drama movies.**

Table 5.35 - Hierarchical Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.258E-6	.152		.000	1.000
	Brand_Att	.234	.148	.171	1.584	.117
2	(Constant)	.145	.209		.695	.489
	Brand_Att	.244	.148	.179	1.650	.103
	Type of Film	-.309	.305	-.110	-1.011	.315
3	(Constant)	.170	.205		.829	.409
	Brand_Att	.616	.230	.451	2.682	.009
	Type of Film	-.315	.299	-.112	-1.053	.296
	BAxTF	-.619	.296	-.350	-2.088	.040

a. Dependent Variable: PI

Analyzing the previous table (Table 5.35), it is possible to verify the main effects for the hierarchical linear regression that was conducted.

On the first step, Brand_Attitude entered, registering a positive B of 0.234, denoting positive interaction with the dependent variable in question – Purchase Intention. This means that as Brand Attitude evolves, Purchase Intention evolves in the same way.

Afterwards, on the second step, Type of Film was introduced. It is possible to verify through its negative beta of -0.120 that it has a main negative effect on the dependent variable.

Lastly, corresponding to the third step, the interaction between Type of Film and Brand Attitude was introduced. The unstandardized beta of -0.619 indicates a negative association level towards the dependent variable. The moderation effects are illustrated in the following graph (Graphic 5.11):
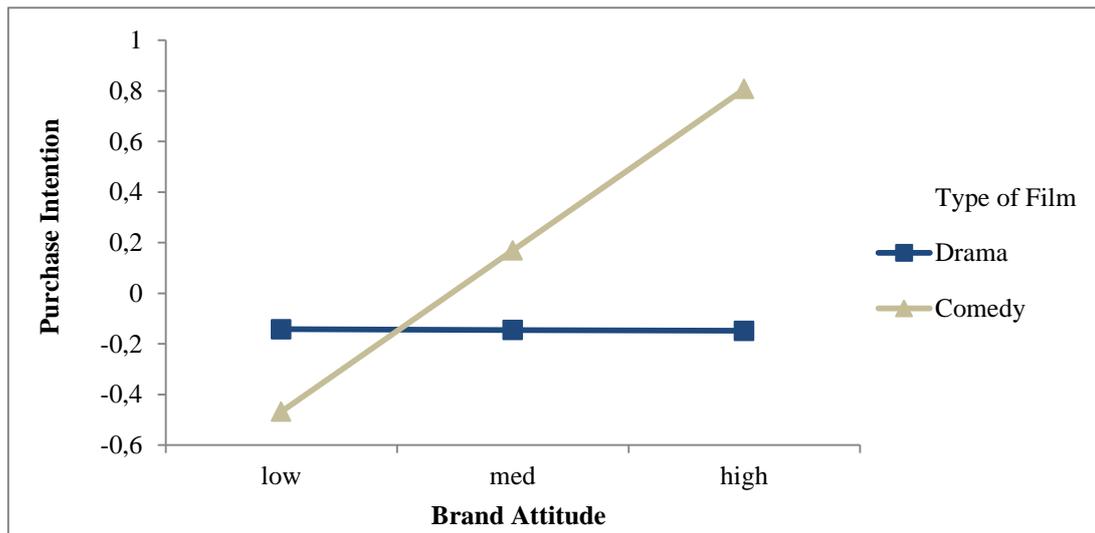
Graphic 5.11 - Moderation of Brand Attitude and Purchase Intention by Type of Film

As it can be seen on the previous graphic, the absence of parallel line reflects a statistically significant interaction between the independent, moderator and dependent variables.

The interaction indicates that the association between Brand Attitude and Purchase Intention is significantly different between the two groups. What the graphic suggests is that subjects who watched the comedic film (The Hangover) yield a positive correlation, while the slope for those who watched the dramatic film (The Road) is practically non-existent. Other scholars' found out that humour has an impact in shaping brand attitudes, and in these results mirror those findings. When a brand appears under comedy circumstances, then shifts in brand attitude levels are bound to be more incisive than those that are presented under dramatic circumstances. By giving viewers' high and pleasant enjoyment levels, they are likely to be receptive to engage in purchase behaviors, whereas those that are subjected to dramatic contents may not be interested in doing so (most likely due to the bleak scenarios drama movies often portray).

It is observable that the interaction is at its strongest point when in situations of high Brand Attitude values and in the presence of a comedic themed movie. At low levels of Brand Attitude, dramatic films register higher influence on the interaction between Brand Attitude and Purchase Intention. As Comedy does not have a higher influence in originating purchase intentions at low levels of brand attitude, hypothesis 5 is, then, partially upheld.

5.6.3. Mediation

In order to test the sixth proposed hypothesis, the mediating effects of Brand Attitude on the conceptual model will be analyzed. In this case, the aforementioned construct represents a mediating variable, and in that sense, a brief look at Mediation will be presented firstly.

A given variable is considered to be a mediator variable when it accounts for the relation between the predictor – the independent variable – and the criterion – the dependent variable (Baron and Kenny, 1986). The different causal paths underlined in the mediation model are represented in the figure below (Figure 5.5):
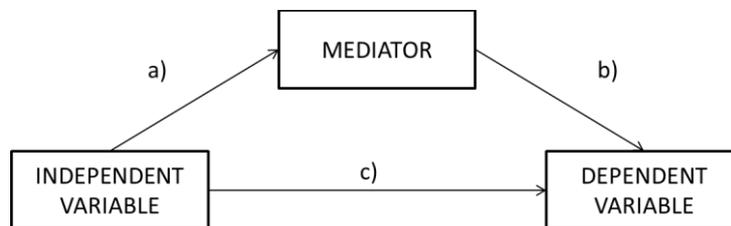
Figure 5.5 - Mediation Model

As it can be seen, path c) refers to the direct impact that the independent variable has on the dependent variable, and path b) represents the impact of the mediator variable on the dependent variable. Path a) symbolizes the relation between independent variable and the mediator.

In order to test mediation, a series of regressions should be calculated. First, it is necessary to regress the mediator variable on the independent one, afterwards regressing the dependent variable on the independent variable takes place, and the last regression concerns regressing the dependent variable on both the independent variable and mediator.

In this instance, a path analysis will be conducted in order to identify the statistically significant paths present in the proposed conceptual model. In this scenario, it is possible to decompose the association between variables in different effects, direct and indirect, like those that would be observable in a set of causal relationships (Marôco, 2010).

The mediator effects will be supported by the application of the Sobel tests.

5.6.3.1. **H6: Brand Attitude generated by product placements in movies has a positive influence on Consumer Purchase Intentions.**

One particular caution it is needed before proceeding with path analysis is to identify the presence of any outliers in the sample that may influence the coefficient results gathered through Regression analysis. In that sense, and resorting to the PASW 18 extension AMOS, the proposed conceptual model was outlined and afterwards, and by analyzing the Mahanalobis distance, outliers were identified. The ones that yield a p1 inferior to 0.05 were considered to be the outliers, and afterwards, they were removed from the PASW database. Two outliers were identified, thus, removed.

After conducting a series of regressions, the output diagram with all association between variables can be observed in the figure below (Figure 5.6):
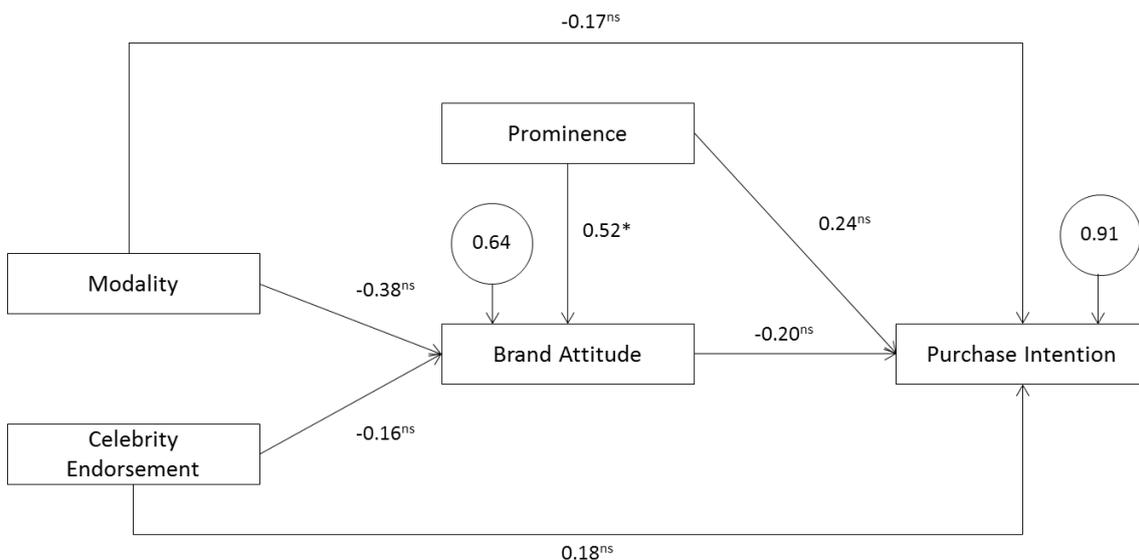
Figure 5.6 - Path Analysis

Only one statistically significant association was noted during the path analysis, and it is the one between Prominence and Brand Attitude. Taking into consideration its Beta of 0.52 (*p-value* = 0.019 < α = 0.05), it is possible to state that prominence yields a statistically significant association (albeit low) with Brand Attitude, meaning that they both evolve in the same way.

The remainder associations did not register *p-values* inferior to 0.05: the association between Modality and Brand Attitude (*p-value* = 0.073) is the closest one.

Even though the interaction between Brand Attitude and Purchase Intention did not score a statistically significant value (*p-value* = 0.34), its negative Beta of -0.20 suggest that has Brand Attitude evolves in a positive way, Purchase Intention tends to decrease, meaning that for the elements of the collected sample, product placement may not have a significant impact on shaping their purchase intentions.

This first interpretation on the causal paths between the presented variables indicated that Brand Attitude does not fulfill its role as a mediator variable between the variables that are related with product placement with the variable connected to consumer behavior. In order to delve deeper in this subject, Sobel tests were applied to all associations, having Brand Attitude has the mediator variable.

Resorting to the MedGraph application (Jose, 2003), the outputs are presented in the following table (Table 5.36):

Table 5.36 - Sobel Test

Path	Sobel Test
Prom-BrandAtt-PurchaseInt	-1.272179 significance 0.20331
Modality-BrandAtt-PurchaseInt	-0.155455 significance 0.876463
CelebEndors-BrandAtt-PurchaseInt	0.351065 significance 0.72554

The results produced from running the Sobel Z-test confirm the results gathered from path analysis. At significant value of 0.05, no association deemed any sort of mediation effect by Brand Attitude. Given the information gathered from the sample of this study, it is not possible to infer that Brand Attitude serves as a vehicle to enhance the communicational influence that product placement may have on consumers' purchase intention, and like that, hypothesis 6 is rejected.

6. CONCLUSIONS AND DISCUSSION

6.1. Conclusions and Discussion

6.1.1. Prominence and Modality

In regards to the main results gathered from analyzing the impact that Prominence and Modality have on Brand Attitude, it is possible to conclude that said impact is limited. On one hand, and concerning Prominence, viewers subjected to the assigned treatment (the Coca-Cola placement itself) only registered one statistically significant correlation between the brand's level of plot connection and its perceived creativity. On the other hand, elements on the control groups did not register any statistically significant correlation. The observed differences in experimental and control groups indicate that the viewers' perceived creativity of a brand is positively associated with how it is connected to a film's plot. Other than that, no effects of product placement have been identified on the consumers' brand attitudes. This finding is disruptive with Gupta and Gould's (1997) and Homer's (2009) findings, in which the authors found out that prominence placements have a negative impact on brand attitude because they are bound to be considered obvious and they motivate viewers to consider the inappropriateness of these promotional tools, in a way that viewers see them as distracting from the storyline. These differences may rely on the fact that the present research's subjects found the product to be well integrated with the storyline of the movie segments they watched: Coca-cola was not superimposed on the viewers but, instead, served as a realistic prop that, under the circumstances, its own inclusion became justified.

By analyzing the results derived from the correlation analysis performed on the relationship between Modality and Brand Attitude, no statistically significant correlations were found on both experimental and control groups. The main conclusion that is possible to draw from these results is that visual-only placements serve only as a vehicle to incorporate brands on a film, and that by itself, do not have any influence on shaping viewers' brands attitudes. This is not consistent with Russell (2002) in which the author found positive change in brand attitudes even when recognition of a placed brand was low. This paper's findings also contrast with Panda's (2004): The author found out that when a branded product is presented under a visual only format it has the

capacity to generate more positive attitudinal changes, than others which are verbally exposed as well. While this research did not included verbal placements in its experiment, the results do not suggest that the visual-only modality has any impact on provoking brand attitude changes on its consumers.

6.1.2. Celebrity Endorsement: Just another face in the crowd?

Solomon (2009) suggests that consumers link their own personalities with those of celebrities. By measuring the impact that the Celebrity Endorsement construct has on Brand Attitude, one statistically significant correlation has been found on the experimental groups, while none was found for control groups. Recall of a certain character using a product (in this case, a Coca-Cola product) registered a positive association with the viewers' perception of the Coca-Cola brand's creativity. However, the results suggest that respondents are not majorly influenced by Celebrities.

While a famous face, when using a specific branded product, may improve the viewers' levels of perceived creativity towards that brand, that does not necessarily translates into overall shifts in brand attitude. Only a small part that accounts for said construct is deemed to be affected by the influence of Celebrities.

This conclusion is partially consistent with Alnawas (2007), Tsai *et al.* (2007), and Metha (1994): These authors found no evidence that supported the hypothesis that Celebrities have a strong influence on shaping consumers' brand attitudes.

6.1.3. I spy with my little eye

Another interesting conclusion to be withheld from the carried experiment (involving the Eye Tracking tools) is that – in regards to the viewers' levels of attention – comedic themed movies are bound to be more effective than dramatic themed ones. Given the duration of the studied scenes in which a Coca-Cola placement occurred (roughly 20 seconds), the absolute and relative levels of attention to said placement registered rather interesting behaviors: In absolute terms, attention to the placement in the comedic film is optimum in the last area of interest - the last 7 seconds (the highest attention level scored on the experiment) -, while attention to the placement in the dramatic film registered its highest absolute value during the second area of interest (roughly during

the middle of the scene containing the product placement). By analyzing the relative attention levels, the third area of interest registers the highest values for both comedic and dramatic films, meaning that the viewers' foveal vision fixated at the Coca-Cola placement for longer periods of time. Regarding relative attention levels, both contexts (comedy and drama) denoted different behaviors: For the comedic film, attention severely decreased as the scene moved from the first area of interest to the second, only to exponentially increase with the transition to the third area of interest. On the other hand, relative attention towards the Coca-Cola placement in a dramatic context gradually increases as areas of interest shifted.

Witnessing this pattern in foveal attention, a hypothesis was formulated bearing in mind that attention could serve as a moderator for the relationships between the constructs directly linked with product placement (prominence, modality and celebrity endorsement) and brand attitude. Statistically significant moderation occurred for the relationships between Prominence and Brand Attitude and between Modality and Brand Attitude. In this sense, viewers' with low levels of attention are bound to shape attitudes towards the placed brand in a more favorable (positive) way than those with high levels of attention These findings are consistent with Gupta and Gould (1997), Homer (2009) and Russell (2002), where the authors inferred that the higher the awareness to a product placement is, the more negative its impacts on the consumer are.

No moderation occurred in the relationship between Celebrity Endorsement and Brand Attitude variables. The analysis, however, denotes that viewers' with low levels of attention to the placement have more favorable conditions to shape attitudes towards the brand, with the aid of celebrity endorsements.

6.1.4. Making consumers laugh on their way to the shopping aisles, indeed.

Another conclusion that can be drawn from this research is that Comedy films have proven to be more effective in persuading consumers to form purchase intentions than Drama films. This observation derives from the moderation effects that the type of film has on the relationship between brand attitude and purchase intention. The results point that Comedy films boost purchase intentions when the viewers' brand attitude levels are considered to be medium or high. At low levels of brand attitude, neither comedic nor dramatic films have a positive influence on consumers' purchase intentions. This

conclusion is, in part, consistent with Jin and Villegas (2007), as the authors stated that comedic natured films have a bigger influence in shaping positive brand attitudes towards the brand. However, the authors did not find evidence that supported that Comedy movies enhance consumers' purchase intentions. In this research, people who were subjected to comedy films, and have already medium to high levels of brand attitude, are more likely to form purchase intentions. The research also suggests that people with low brand attitude levels are not going to be influenced by humorous commercial appeals.

6.1.5. Are you thinking about buying a Coca-Cola?

Based on the assumption that purchase intentions are intimately related to brand attitude, and that if product placement elicits positive shifts on brand attitude, and subsequently, on purchase intentions, the results were not conclusive, meaning they were not statistically significant. What it is possible to infer from the results is that product placements may have a negative effect on purchase intentions, via brand attitudes. Morton and Friedman (2002) suggested that "*positive product portrayals in movies can contribute to a consumer's decision to use the product*" and that "*product placement can have a salient effect on (...) purchase intent*". The present research does not reflect that view. Even though no statistically significant relationships have been observed in the proposed conceptual model, the purchase intention variable is suggested to be negatively influenced by product placement.

On one hand, the sample's extremely high brand familiarity (measured by the questionnaire item "I know the Coca-Cola brand", scoring 4.99 in a scale ranging from 1 to 5, being 1 "Very low" and 5 "Very high") may account for these results. This value suggests that respondents already had knowledge about the brand before watching the movie segments (which is understandable, given the notorious status that Coca-Cola benefits from). It is also possible to infer that respondents already had formed attitudes towards Coca-Cola. In cases where subjects may denote a more apprehensive position towards the brand, the film may very well elicit slight and positive changes on brand attitudes, but that does not necessarily mean that purchase intentions will evolve automatically in the same way.

On the other hand, the own's product nature can account for these results. As the Coca-Cola product is an accessible and relatively affordable short-duration consumer good, that does not require an extensive decision making process, subjects may have not been interested in consuming one at the specific moment they participated in this research. An interesting thought regarding the subjects' purchase behavior regards the time volatility of purchase intentions: To what extent did the present experiment influenced these subjects on their future purchase intentions regarding Coca-Cola? Did they, at some point after the experiment, remembered the contents shown, specifically those pertaining Coca-Cola? Did those contents made them express a desire to consume a Coca-Cola product? Did they buy a Coca-Cola product based on those desires, propelled by the movie segments? These questions could very well be explored in future researches, as a way to have a broader look into the effects of product placement in film.

6.2. Research Contributions

Regarding existing literature, this research contributes by providing new insights on the effects that a placement's prominence, modality and celebrity endorsement have on the consumer, stimulating discussion in this area.

The direct comparison between Comedy and Drama films represents a research contribution. By placing side-by-side these two movie genres, it was possible to identify which may have a more compelling influence in conditioning consumer behavior, and to reiterate the notion that humor, indeed, has a more significant appeal for consumers than Drama.

This research also employs eye tracking software and tools, shedding a new light on the product placement theme. The eye tracking experiment deployed provides new and exciting information about the way viewers look at a movie. This is particularly useful given that is possible to extract information that may provide new ways of enhancing the desirable effects that product placement should have on the consumer mindset. By exactly pin-pointing where consumers are looking at any given moment, it is possible to infer on what are the films' characteristics that better capture their attention, and to infer on the efficiency of product placements.

6.3. Managerial Implications

The main managerial implications of this research are related to how products should be incorporated in movie scenes. Marketers should be extremely careful when delineating new communications strategies that include product placement. In this sense, and as results evidence, they should make sure that the products they are integrating have some level of connection to the plot of the film they are being inserted in. Another aspect that may play to the advantage of companies that look out for ways to incorporate their products in films is to carefully understand how the product will be used. If the product will be used in a light and creative way (rather than the usual way that specific product is used), then viewers' may see the brand under a new positive light – they may feel that the brand is playful, thus, shaping more favorable brand attitudes towards it.

Before deciding on using a celebrity to endorse their products/services, managers should carefully consider and study that investment. There is no apparent evidence that supports the notion that a specific product/service can benefit from higher sales just because it was used by a famous face. More importantly, managers must consider how will that celebrity use the product. If they manage to get ways to make a celebrity to use a product/service in a memorable way, than consumers' will perceive that brand to be a creative one – enhancing the chances for engaging in purchase behaviors concerning that specific brand.

Results also suggest that placements in Comedy films are bound to be more effective than in dramatic films, reinforcing the notion that comedy is a more suited vehicle to persuade consumers into purchasing behaviors than dramatic films.

The eye tracking results also provide insights on the optimal duration for products placed in comedic and dramatic contexts. For placements in Comedy, longer placements will elicit higher attention levels, while for placements in Dramatic contexts, shorter placements will be preferable.

6.4. Research Limitations

The sample size constitutes a research limitation. Its small size, and the fact that it was constituted by, majorly, college students does not allow for the results to be extrapolated to the population.

Time presented itself to be one of this research's main limitations. If more time was available to continue with the Eye Tracking experiment (instead of just three days), more individual laboratory sessions could have been held, resulting in a larger sample size and possibly in more solid results.

Another limitation that has been observed in this paper is that with the Laboratory conditions it was not possible to emulate an experiment closer to the act of going to the cinema. This limitation derives from the fact that only one participant could attend to the movie excerpt at a time (in a theatre context, the viewer is surrounded by other viewers) and the image quality deteriorated slightly when inserted on the Tobii software, making it more pixelated.

The chosen placements' level of integration with the plot also constituted a limitation. While both placements were prominent and visual-only, Coca-Cola was used in *The Hangover* merely as a prop, while it was used in a strong symbolic and positive context in *The Road*, almost like Coca-Cola was the silver lining in the dark turbulent times the characters in Hillcoat's film live in. However, it was not possible to identify more similar placements in comedic and dramatic contexts (it is an intensive time-consuming task) in order to carry out the data collection in the scheduled timeframe.

The fact that only one excerpt from a Comedy movie and one excerpt from a Drama movie also constitutes a limitation to the present research, as these results may not be generalizable across genres, given that specific fact. As only one product was used, the limitation of generalizability is also raised.

6.5. Directions for Future Research

As Karrh (1998) already stated, more studies focusing on the relationship between product placement and consumer intentions should be made to make results in this area more consistent. While this paper aimed to explore that same relationship, Karrh's direction for future research is corroborated as there are more to be explored concerning purchase intentions.

There also needs to be more studies that approach the differences observed in the effects of product placement in consumer behavioral fields by type of film. In this paper, a contrast between Drama and Comedy was made. In one hand, more studies are needed

to provide discussion grounds regarding the two aforementioned genres. On the other hand, research may extend to the influence of placements in films that belong in other genres (Action, Horror, Crime…) on consumer behavior.

In order to stimulate discussion, there is also a need to gear studies in using Eye Tracking tools. Conclusions drawn from the conduction of such experiments provide valuable input regarding the identification of the main areas that the viewer pays attention to when watching a movie, the elements that arouse the viewers' attention, the viewers' visual behavior when watching a movie. Through inferring the optimal duration of placements, the contexts that may bear most advantages for brand inclusion, and the identification of elements that may complement product placement, this form of communication can be boosted, translating into higher returns on investment based on a more seamless and organic way to incorporate brands into movie scenes.

Still on the subject of eye tracking experiments, it would be extremely interesting to review the viewers' foveal attention paths with each participant, after they finished watching the presented movie segment, and making them questions about why did they look at a specific part of the screen, why did they focused on a determined object instead of others, and so on. These questions would provide more insights to better identify what elements capture the viewers' attention and what elements don't. Since the whole procedure (watching the movie segment and filling out the questionnaire) lasted roughly around 20 minutes, it was not possible to carry out these "mini-interviews" without jeopardizing the sample size. Had there been more time to conduct the experiment, then those interviews would have been feasible.

Another direction for future research concerns the necessity of a better and deeper understanding of what viewers think about this hybrid communication tool that cannot be exuded through quantitative research. In that sense, in-depth interviews can provide new insights, new information, new perspectives that may broaden the covered ground by product placement.

Lastly, the last recommendation regards the whole process of purchasing behavior. While this paper's goal was to study the effects of product placement in films on the consumers' purchase intentions, it would be beneficial for literature to extend research on this matter in time and develop research that approaches the effects that product

placement may have on the whole process of purchase behavior: starting from the problem recognition, passing through the information search stage, the evaluation of alternatives stage and, finally, the product choice stage.

7. LIST OF REFERENCES

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APPENDIX

8. APPENDIX

Appendix A

Table 8.1 - Items used in the Questionnaire

Purchase Intention	1	2	3	4	5	Authors
I wanted to try a brand after seeing it in a film						Morton and Friedman (2002)
I looked for a product in a store after seeing it in a film						
I started using a product after seeing it in a film						
I feel the need to buy a Coca-Cola						Self constructed
Prominence						
The use of real products in films makes scenes more realistic						Homer (2009)
The use of the Coca-Cola brand made the film more realistic						
Coca-Cola plays an important role in the story						Russell (2002)
The Coca-Cola product is well connected with films' plots						
Modality						
I pay attention to the visual exposition of brands in films						Argan et al. (2007)*
Coca-Cola is well integrated in films						Russell (2002)
The Coca-Cola brand interferes in films' plots						
Coca-Cola's position on screen distracts me from the the films' plots						
Celebrity Endorsement						
When a character I like uses a product in a film, I easily recall that product						Morton and Friedman (2002)
I sympathize with brands used by my favorite actors						Argan et al. (2007)*
I like to compare my ideas with what my favorite actor says						Dias (2007)
I would like to personally meet my favorite actor						

I remember seeing films' protagonists drinking a Coca-Cola						Self constructed
Brand Attitude						
I know the Coca-Cola brand						Self constructed
I'm willing to pay a higher price for a Coca-Cola in detriment of other brands						Morton and Friedman (2002)
I regularly consumer Coca-Cola products						Homer (2009)
I think that Coca-Cola is a creative brand						
I like to see Coca-Cola's advertisements						
Coca-Cola is a brand that promotes satisfaction and well-being						Dias (2007)
Coca-Cola's products are healthy						
I feel good when I drink a Coca-Cola						
I believe in the Coca-Cola brand						

* Note: Argan *et al.* Used a 7 point Likert Scale in their research instrument. In order to maintain a level of congruence between all itens presented in this questionnaire, their scales were transformed to a 5 point Likert Scale.

Appendix B – Questionnaire (Portuguese Version)

Parte I

O presente questionário visa a recolha de dados estatísticos acerca da forma de como é que os estudantes universitários vêem o Cinema nos dias que decorrem e dos seus hábitos relativamente à 7ª arte. Agradeço desde já a sua colaboração.

Todas as respostas possuirão um caracter de confidencialidade e serão unicamente tratadas para fins estatísticos.

1. **Gosta de cinema?**

   Sim   ___

   Não   ___

2. **Quantos filmes vê, em média, por mês?**

   Nenhum   ___

   Entre 1 e 2   ___

   Entre 3 e 5   ___

   Entre 6 e 8   ___

   Mais de 8   ___

3. **Onde costuma ver filmes?**

   No computador   ___

   Na televisão   ___

   No cinema   ___

4. **Com que frequência vai ao cinema?**

   Todos os dias   ___

   Semanalmente   ___

   Quinzenalmente   ___

   Mensalmente   ___

   Trimestralmente   ___

   Semestralmente   ___

5. **Costuma alugar DVDs/BluRays?**

Sim   ___

Não   ___

6. Se sim, com que frequência?
1 a 2 vezes por mês   ___
3 a 4 vezes por mês   ___
Mais de 5 vezes por mês   ___

7. Costuma comprar DVDs/BluRays?
Sim   ___
Não   ___

8. O que procura num filme quando decide vê-lo?
Conhecer mais sobre determinado assunto   ___
Divertimento   ___
Estímulo intelectual   ___

9. De entre os seguintes géneros, escolha os dois que mais aprecia:
Acção   ___
Aventura   ___
Comédia   ___
Musical   ___
Crime/Gangster   ___
Drama   ___
Épico/Histórico   ___
Terror   ___
Ficção-Científica   ___
Guerra   ___
Western   ___

10. Refira os dois aspectos que mais valoriza num filme (coloque 1 para aquele que mais valoriza e 2 para o segundo mais importante)
História/Argumento   ___
Actores   ___
Efeitos-Especiais   ___
Guarda-Roupa   ___
Fotografia   ___
Montagem   ___
Realização   ___

11. Qual os seu actor/actriz preferido(a)?

12. Refira duas características que se associem à resposta que deu na questão anterior:

a) _____

b) _____

13. Sente-se incomodado(a) quando o(a) seu(sua) actor(actriz) preferido(a) interpreta papéis portadores de características negativas?

Sim   ____

Não   ____

<u>Dados Demográficos</u>

14. Idade   ____

15. Sexo

Masculino   ____

Feminino   ____

16. Habilitações Académicas (indique o grau que está a frequentar, ou no caso de não frequentar, o último frequentado)

Ensino Secundário   ____

Licenciatura   ____

Mestrado/Doutoramento   ____

Outra   ____

17. Ocupação

Estudante   ____

Trabalhador por conta própria   ____

Trabalhador por conta de outrém   ____

Outra   ____

Part II

O *product placement* consiste na inclusão paga de produtos cujas marcas são facilmente identificadas em cenas de filmes.

Ilustrando o conceito:

Lamborghini no filme *Batman Begins* (2005)

Sony no filme *Casino Royale* (2006)

18. Numa escala de 1 a 5 (1=Muito baixo e 5=Muito alto), atribua uma classificação ao seu grau de envolvimento com o vídeo exibido:

1	2	3	4	5
(Muito Baixo)				(Muito alto)

19. Tendo em conta a definição de *product placement* referida no início da segunda parte deste questionário, indique o seu grau de concordância com as seguintes afirmações, numa escala de 1 a 5 (1=Discordo totalmente e 5=Concordo totalmente):

	1	2	3	4	5
a. O uso de produtos reais em filmes tornam as cenas mais realistas.					
b. Quando uma personagem que eu gosto utiliza um produto num filme, lembro-me mais facilmente desse produto.					
c. Quis experimentar uma marca depois de a ter visto num filme.					
d. Simpatizo com marcas que são utilizadas pelos meus actores preferidos.					
e. Tomo atenção à exposição visual de marcas.					
f. Procurei por um produto numa loja após tê-lo visto num filme.					
g. Comecei a usar um produto depois de o ter visto num filme.					
h. Gosto de comparar as minhas ideias com o que o meu actor preferido diz.					
i. Gostaria de conhecer pessoalmente o meu actor preferido.					

20. Indique se se recorda de ter visto os seguintes itens no vídeo que acabou de visualizar:

(A Estrada)		(A Ressaca)	1	2	3
a.	Um veículo abandonado	Um BMW Verde			
b.	Um cartaz luminoso	Um cartaz luminoso			
c.	Um cão vadio	Um indíviduo vestido com roupas verdes			
d.	Uma arma	Um coelho			
e.	Uma lata de Coca-Cola	Uma lata de Coca-Cola			
f.	Um par de ténis Nike	Uns Óculos-de-sol Rayban			
g.	Um relógio Omega	Um restaurante McDonalds			
h.	Uma piscina	Um telemóvel Nokia			
i.	Um polícia	Um polícia			
j.	Um Carrinho de Compras	Um poster do filme *Casablanca*			

21. Indique o seu grau de concordância com as seguintes afirmações, numa escala de 1 a 5 (1=Discordo Totalmente e 5=Concordo Totalmente), referentes à marca Coca-Cola:

		1	2	3	4	5
a.	Conheço a marca Coca-Cola.					
b.	Consumo regularmente produtos da marca Coca-Cola.					
c.	A Coca-Cola é uma marca que promove o bem estar e a satisfação.					
d.	Considero que a Coca-Cola é uma marca criativa.					
e.	Os produtos da marca Coca-Cola são saudáveis.					
f.	Gosto de ver publicidade da Coca-Cola.					
g.	Sinto-me bem quando bebo uma Coca-Cola.					
h.	Estou disposto(a) a pagar um preço maior por uma Coca-Cola em detrimento de outras marcas.					
i.	Acredito na marca Coca-Cola.					

22. A marca Coca-Cola inclui o *product placement* nas suas estratégias de comunicação. Indique o seu grau de concordância com as seguintes afirmações, numa escala de 1 a 5 (1=Discordo Totalmente e 5=Concordo Totalmente), referentes à inclusão da marca Coca-Cola em filmes:

		1	2	3	4	5
a.	A marca Coca-Cola integra-se bem em filmes.					
b.	O uso da marca Coca-Cola torna os filmes mais realistas.					
c.	A marca Coca-Cola interfere nas histórias dos filmes que vejo.					
d.	Lembro-me de ver protagonistas de filmes a beberem uma Coca-Cola.					
e.	Sinto vontade de comprar uma Coca-Cola depois de a ver num filme.					
f.	A posição da Coca-Cola no ecrã distrai-me da história dos filmes que vejo.					
g.	A Coca-Cola desempenha um papel importante na história dos filmes que vejo.					
h.	Os produtos da Coca-Cola estão bem relacionados com a história dos filmes que vejo.					

23. No seguimento do vídeo a que assistiu, assinale a resposta correcta:

A Estrada: O que quis dizer o menino quando disse que queria ir ter com a sua mãe?

    a) Que queria ir para o campo de refugiados.
    b) Que queria ir para casa.
    c) Que queria morrer.
    d) Que queria voltar a dar longos passeios com a sua mãe.

A Ressaca: Porque razão foram os três protagonistas para a esquadra?

    a) Porque foram apanhados a consumir estupefacientes.
    b) Porque roubaram um carro da polícia.
    c) Porque roubaram uma loja.
    d) Porque destruiram o quarto do hotel.

24. Já tinha visto o filme «A Ressaca»/«A Estrada» anteriormente?
    Sim
    Não

Appendix C – Eye Tracking Data

Table 8.2 - Individual data for the Comedy Group: Area of Interest 1

Participant	Gaze Points on AOI	Valid Gaze Points	Time allocated to AOI	Fixations on AOI	Total Fixations	% of Fixations on AOI
1	4	193	2.07%	1	3	33%
2	116	192	60.42%	3	4	75%
3	110	195	56.41%	4	5	80%
4	134	195	68.72%	3	4	75%
5	105	181	58.01%	1	3	33%
6	12	14	85.71%	1	3	33%
7	29	195	14.87%	1	7	14%
8	46	176	26.14%	3	7	43%
9	175	195	89.74%	4	5	80%
11	86	174	49.43%	3	5	60%
12	113	194	58.25%	3	6	50%
13	83	184	45.11%	1	5	20%
14	49	194	25.26%	2	8	25%
15	51	195	26.15%	1	3	33%
16	115	178	64.61%	3	7	43%
17	2	195	1.03%	1	8	13%
18	11	114	9.65%	1	9	11%
19	158	195	81.03%	3	5	60%
20	23	182	12.64%	2	7	29%
21	34	169	20.12%	1	7	14%

Table 8.3 - Individual data for the Drama Group: Area of Interest 1

Participant	Gaze Points on AOI	Valid Gaze Points	Time allocated to AOI	Fixations on AOI	Total Fixations	% of Fixations on AOI
1	85	147	57.82%	5	9	56%
2	0	290	0.00%	0	12	0%
4	27	299	9.03%	1	3	33%
5	72	294	24.49%	4	9	44%
6	29	300	9.67%	2	5	40%
7	113	279	40.50%	5	11	45%
8	1	192	0.52%	1	12	8%
9	0	278	0.00%	0	11	0%

10	1	185	0.54%	1	11	9%
11	0	122	0.00%	0	4	0%
12	0	300	0.00%	0	7	0%
13	0	285	0.00%	0	7	0%
14	0	192	0.00%	0	9	0%
15	13	279	4.66%	5	8	63%
16	0	300	0.00%	0	6	0%
17	0	300	0.00%	0	4	0%
18	1	235	0.43%	1	12	8%
19	55	298	18.46%	3	12	25%

Table 8.4 - Individual data for the Comedy Group: Area of Interest 2

Participant	Gaze Points on AOI	Valid Gaze Points	Time allocated to AOI	Fixations on AOI	Total Fixations	% of Fixations on AOI
1	111	408	27.21%	4	15	27%
2	1	452	0.22%	1	19	5%
3	0	471	0.00%	0	8	0%
4	0	454	0.00%	0	10	0%
5	47	481	9.77%	3	19	16%
6	0	44	0.00%	0	7	0%
7	43	461	9.33%	3	14	21%
8	81	440	18.41%	4	17	24%
9	0	471	0.00%	0	12	0%
11	1	452	0.22%	1	13	8%
12	42	481	8.73%	2	6	33%
13	63	472	13.35%	4	18	22%
14	77	419	18.38%	5	25	20%
15	87	460	18.91%	3	10	30%
16	28	406	6.90%	3	23	13%
17	0	480	0.00%	0	15	0%
18	0	256	0.00%	0	17	0%
19	27	462	5.84%	2	18	11%
20	103	437	23.57%	4	12	33%
21	21	198	10.61%	2	13	15%

Table 8.5 - Individual data for the Drama Group: Area of Interest 2

Participant	Gaze Points on AOI	Valid Gaze Points	Time allocated to AOI	Fixations on AOI	Total Fixations	% of Fixations on AOI
1	16	450	3.56%	1	20	5%
2	164	439	37.36%	5	16	31%
4	113	467	24.20%	4	11	36%
5	8	372	2.15%	1	16	6%
6	196	393	49.87%	6	14	43%
7	76	362	20.99%	5	15	33%
8	115	421	27.32%	3	18	17%
9	212	433	48.96%	8	16	50%
10	80	205	39.02%	7	18	39%
11	161	309	52.10%	5	12	42%
12	332	480	69.17%	7	13	54%
13	249	452	55.09%	8	13	62%
14	78	431	18.10%	3	12	25%
15	171	438	39.04%	7	12	58%
16	133	469	28.36%	4	14	29%
17	159	453	35.10%	5	11	45%
18	298	383	77.81%	11	17	65%
19	213	479	44.47%	7	18	39%

Table 8.6 - Individual data for the Comedy Group: Area of Interest 3

Participant	Gaze Points on AOI	Valid Gaze Points	Time allocated to AOI	Fixations on AOI	Total Fixations	% of Fixations on AOI
1	229	427	53.63%	10	18	56%
2	335	455	73.63%	7	9	78%
3	230	484	47.52%	6	17	35%
4	384	443	86.68%	11	13	85%
5	287	483	59.42%	2	3	67%
6	44	52	84.62%	6	13	46%
7	297	436	68.12%	9	12	75%
8	362	441	82.09%	14	17	82%
9	344	477	72.12%	10	16	63%
11	338	428	78.97%	11	12	92%
12	322	469	68.66%	11	13	85%

13	363	474	76.58%	8	10	80%
14	6	110	5.45%	1	10	10%
15	311	475	65.47%	12	19	63%
16	108	423	25.53%	3	12	25%
17	347	483	71.84%	9	14	64%
18	94	243	38.68%	6	12	50%
19	287	447	64.21%	11	18	61%
20	190	411	46.23%	7	19	37%
21	92	277	33.21%	4	9	44%

Table 8.7 - Individual data for the Drama Group: Area of Interest 3

Participant	Gaze Points on AOI	Valid Gaze Points	Time allocated to AOI	Fixations on AOI	Total Fixations	% of Fixations on AOI
1	156	337	46.29%	4	8	50%
2	68	339	20.06%	6	9	67%
4	181	352	51.42%	4	7	57%
5	156	341	45.75%	5	10	50%
6	18	318	5.66%	1	8	13%
7	91	305	29.84%	5	11	45%
8	141	298	47.32%	7	13	54%
9	127	324	39.20%	5	9	56%
10	16	65	24.62%	2	13	15%
11	4	340	1.18%	1	6	17%
12	95	353	26.91%	6	8	75%
13	193	339	56.93%	9	11	82%
14	62	298	20.81%	4	8	50%
15	116	324	35.80%	6	10	60%
16	92	353	26.06%	4	7	57%
17	47	342	13.74%	1	3	33%
18	31	288	10.76%	3	12	25%
19	53	353	15.01%	1	3	33%

Appendix D – Descriptive results for Level of Involvement, Recall, Film Familiarity and Editing Validation

Table 8.8 - Level of Viewers' Involvement

	Very Low	Low	Neutral	High	Very High
The Hangover	3	6	10	18	8
The Road	1	4	13	14	8

Table 8.9 – Recall: The Road

		The Road (Original)		The Road (Edited)	
		yes	no	yes	no
a.	**An Abandoned Car**	**17**	**2**	**21**	**0**
b.	A luminous billboard	1	18	1	20
c.	A lost dog	1	18	0	21
d.	**A Gun**	**19**	**0**	**21**	**0**
e.	**A can of Coca-Cola**	**19**	**0**	**0**	**21**
f.	A pair of Nike snickers	0	19	0	21
g.	An Omega Watch	2	17	9	12
h.	A swimming pool	0	19	0	21
i.	A police officer	0	19	0	21
j.	**A shopping cart**	**7**	**12**	**4**	**17**

Table 8.10 – Recall: The Hangover

		The Hangover (Original)		The Hangover (Edited)	
		yes	no	yes	no
a.	A green BMW	0	22	2	21
b.	A luminous Billboard	5	17	6	17
c.	A man dressed all in yellow	6	16	5	18
d.	A rabbit	1	21	4	19
e.	**A can of Coca-Cola**	**16**	**6**	**3**	**20**
f.	**Rayban Sunglasses**	**13**	**9**	**19**	**4**
g.	A McDonald's restaurant	1	21	2	21
h.	A Nokia cellphone	4	18	5	18
i.	**A police officer**	**21**	**1**	**22**	**1**
j.	A poster for the film *Casablanca*	2	20	1	22

Table 8.11 - Film Familiarity: Have You Ever Seen the Film Before?

	yes	no
The Hangover	24	21
The Road	8	32

Table 8.12 - Editing Validation

	Right Answer	Wrong Answer
The Hangover	40	5
The Road	21	19

Appendix E – Exploratory Factor Analysis

PURCHASE INTENTION

Table 8.13 - Purchase Intention: Correlation Matrix

	I wanted to try a brand after I watched it in a film	I looked for a product in a store after seeing it in a film	I started using a product after seeing it in a film	I feel the need to buy a Coca-Cola after I see it in a film
I wanted to try a brand after I watched it in a film	1.000	.722	.765	.311
I looked for a product in a store after seeing it in a film	.722	1.000	.517	.200
I started using a product after seeing it in a film	.765	.517	1.000	.080
I feel the need to buy a Coca-Cola after I see it in a film	.311	.200	.080	1.000

Table 8.14 - Purchase Intention: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.426	60.658	60.658	2.426	60.658	60.658
2	.948	23.706	84.364			
3	.473	11.817	96.181			
4	.153	3.819	100.000			

Extraction Method: Principal Component Analysis.
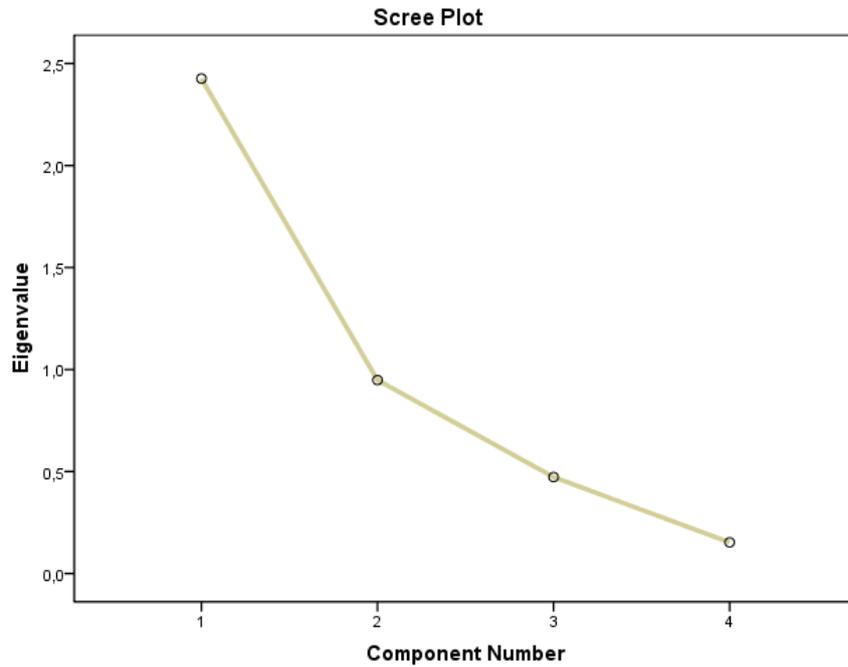
Figure 8.1 - Purchase Intention: Scree Plot

Table 8.15 - Purchase Intention: Total Variance Explained With Varimax Rotation

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.426	60.658	60.658	2.315	57.887	57.887
2	.948	23.706	84.364	1.059	26.477	84.364
3	.473	11.817	96.181			
4	.153	3.819	100.000			

Table 8.16 - Purchase Intention: Communalities

	Initial	Extraction
I wanted to try a brand after I watched it in a film	1.000	.902
I looked for a product in a store after seeing it in a film	1.000	.700
I started using a product after seeing it in a film	1.000	.787
I feel the need to buy a Coca-Cola after I see it in a film	1.000	.985

PROMINENCE

Table 8.17 - Prominence: Correlation Matrix

	The use of real products in films make scenes more realistic	The use of the Coca-Cola brand makes films more realistic	Coca-Cola plays an important role in the story	The Coca-Cola product is well connected to films' plots
The use of real products in films make scenes more realistic	1.000	.398	.262	.234
The use of the Coca-Cola brand makes films more realistic	.398	1.000	.284	.228
Coca-Cola plays an important role in the story	.262	.284	1.000	.345
The Coca-Cola product is well connected to films' plots	.234	.228	.345	1.000

Table 8.18 - Prominence: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.877	46.914	46.914	1.877	46.914	46.914
2	.871	21.770	68.685			
3	.655	16.364	85.049			
4	.598	14.951	100.000			

Extraction Method: Principal Component Analysis.
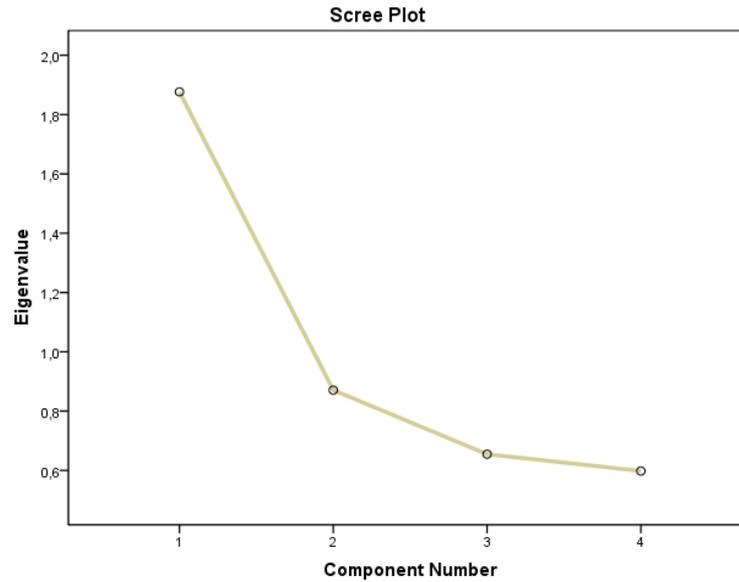
Figure 8.2 - Prominence: Scree Plot

Table 8.19 - Prominence: Total Variance Explained With Varimax Rotation

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.877	46.914	46.914	1.405	35.123	35.123
2	.871	21.770	68.685	1.342	33.561	68.685
3	.655	16.364	85.049			
4	.598	14.951	100.000			

Table 8.20 - Prominence: Communalities

	Initial	Extraction
The use of real products in films make scenes more realistic	1.000	.698
The use of the Coca-Cola brand makes films more realistic	1.000	.693
Coca-Cola plays an important role in the story	1.000	.628
The Coca-Cola product is well connected to films' plots	1.000	.729

Table 8.21 - Prominence: Inter-item and item-total Correlations

		The use of the Coca-Cola brand makes films more realistic	The use of real products in films make scenes more realistic	Brand_Perceived_Realism
The use of the Coca-Cola brand makes films more realistic	Pearson Correlation	1	.398**	.816**
	Sig. (2-tailed)		.000	.000
	N	85	85	85
The use of real products in films make scenes more realistic	Pearson Correlation	.398**	1	.823**
	Sig. (2-tailed)	.000		.000
	N	85	85	85

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

Table 8.22 - Prominence: Inter-item and Item-total Correlations

		Coca-Cola plays an important role in the story	The Coca-Cola product is well connected to films' plots	Placement_Plot_Connection
Coca-Cola plays an important role in the story	Pearson Correlation	1	.345**	.757**
	Sig. (2-tailed)		.001	.000
	N	85	85	85
The Coca-Cola product is well connected to films' plots	Pearson Correlation	.345**	1	.850**
	Sig. (2-tailed)	.001		.000
	N	85	85	85

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

MODALITY

<p align="center">Table 8.23 - Modality: Correlation Matrix</p>

	I pay attention to the visual exposition of brands	The Coca-Cola brand is well integrated in films	The Coca-Cola brand interferes in films' plots	Coca-Cola's position on screen distracts me from the plots of the films I watch.
I pay attention to the visual exposition of brands	1.000	.795	.184	.189
The Coca-Cola brand is well integrated in films	.795	1.000	.271	.269
The Coca-Cola brand interferes in films' plots	.184	.271	1.000	.332
Coca-Cola's position on screen distracts me from the plots of the films I watch.	.189	.269	.332	1.000

<p align="center">Table 8.24 - Modality: Total Variance Explained</p>

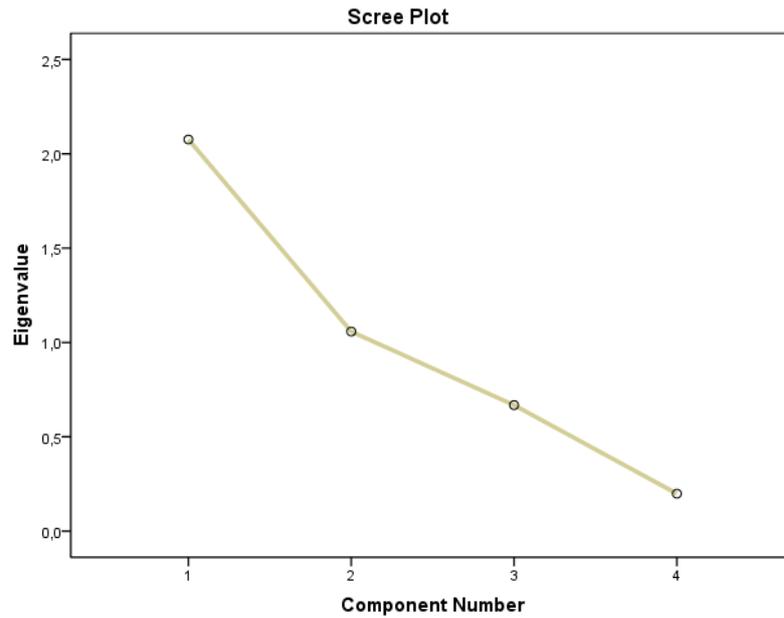| Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.076	51.904	51.904	2.076	51.904	51.904
2	1.058	26.446	78.351	1.058	26.446	78.351
3	.668	16.693	95.044			
4	.198	4.956	100.000			

Extraction Method: Principal Component Analysis.

Figure 8.3 - Modality: Scree Plot

Table 8.25 - Modality: Total Variance Explained With Varimax Rotation

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.076	51.904	51.904	1.783	44.569	44.569
2	1.058	26.446	78.351	1.351	33.781	78.351
3	.668	16.693	95.044			
4	.198	4.956	100.000			

Table 8.26 - Modality: Communalities

	Initial	Extraction
I pay attention to the visual exposition of brands	1.000	.906
The Coca-Cola brand is well integrated in films	1.000	.897
The Coca-Cola brand interferes in films' plots	1.000	.667
Coca-Cola's position on screen distracts me from the plots of the films I watch.	1.000	.664

Extraction Method: Principal Component Analysis.

CELEBRITY ENDORSEMENT

Table 8.27 - Celebrity Endorsement: Correlation Matrix

	When a character I like uses a product in a film, I easily remember that product	I like to compare my ideas with what my favorite actor says	I would like to personally meet my favorite actor	I remember seeing films' protagonists drinking a Coca-Cola
When a character I like uses a product in a film, I easily remember that product	1	0.875	0.756	0.237
I sympathize with brands that are used by my favorite actors	0.418	0.367	0.312	0.126
I like to compare my ideas with what my favorite actor says	0.875	1	0.87	0.185
I would like to personally meet my favorite actor	0.756	0.87	1	0.137
I remember seeing films' protagonists drinking a Coca-Cola	0.237	0.185	0.137	1

Table 8.28 - Celebrity Endorsement: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.943	58.862	58.862	2.943	58.862	58.862
2	.948	18.960	77.822			
3	.792	15.841	93.663			
4	.229	4.589	98.252			
5	.087	1.748	100.000			

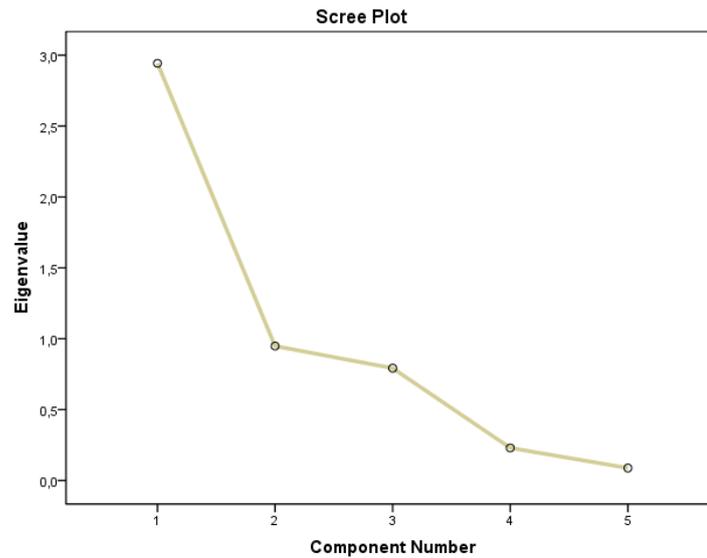Extraction Method: Principal Component Analysis.

Figure 8.4 - Celebrity Endorsement: Scree Plot

Table 8.29 - Celebrity Endorsement: Total Variance Explained With Varimax Rotation

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.943	58.862	58.862	2.862	57.241	57.241
2	.948	18.960	77.822	1.029	20.581	77.822
3	.792	15.841	93.663			
4	.229	4.589	98.252			
5	.087	1.748	100.000			

Table 8.30 - Celebrity Endorsement: Communalities

	Initial	Extraction
When a character I like uses a product in a film, I easily remember that product	1.000	.862
I sympathize with brands that are used by my favorite actors	1.000	.300
I like to compare my ideas with what my favorite actor says	1.000	.917
I would like to personally meet my favorite actor	1.000	.833
I remember seeing films' protagonists drinking a Coca-Cola	1.000	.979

Extraction Method: Principal Component Analysis.

BRAND ATTITUDE

Table 8.31 - Brand Attitude: Correlation Matrix

	I know the Coca-Cola brand	I regularly consume Coca-Cola products	Coca-Cola is a brand that promotes well-being and satisfaction	I feel that Coca-Cola is a creative brand	Coca-Cola's products are healthy	I like to see Coca-Cola's advertisings	I feel good when I drink a Coca-Cola	I'm willing to pay a higher price for a Coca-Cola in detriment of other brands	I believe in the Coca-Cola brand
I know the Coca-Cola brand	1.000	-.045	.123	.013	.141	-.047	-.054	-.081	.005
I regularly consume Coca-Cola products	-.045	1.000	.391	.187	.108	.236	.781	.462	.426
Coca-Cola is a brand that promotes well-being and satisfaction	.123	.391	1.000	.294	.304	.263	.341	.158	.117
I feel that Coca-Cola is a creative brand	.013	.187	.294	1.000	-.323	.659	.290	.115	.100
Coca-Cola's product are healthy	.141	.108	.304	-.323	1.000	-.426	-.103	-.181	-.121
I like to see Coca-Cola's advertisings	-.047	.236	.263	.659	-.426	1.000	.444	.256	.301
I feel good when I drink a Coca-Cola	-.054	.781	.341	.290	-.103	.444	1.000	.610	.488
I'm willing to pay a higher price for a Coca-Cola in detriment of other s	-.081	.462	.158	.115	-.181	.256	.610	1.000	.779
I believe in the Coca-Cola brand	.005	.426	.117	.100	-.121	.301	.488	.779	1.000

Table 8.32 - Brand Attitude: Total Variance Explained

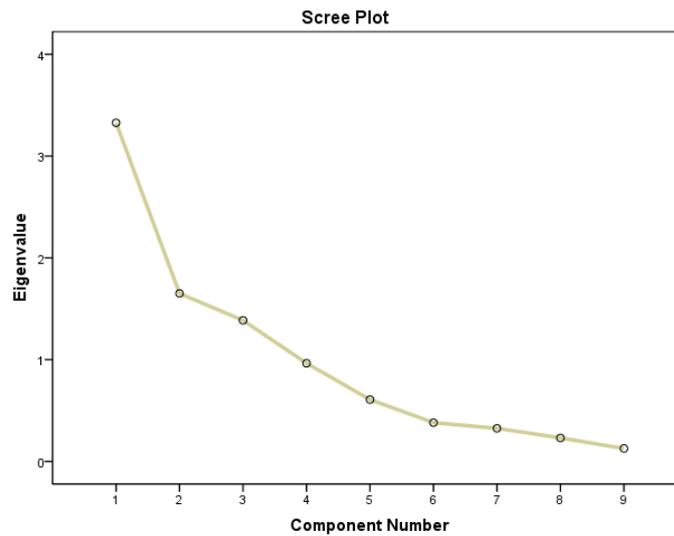| Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.327	36.970	36.970	3.327	36.970	36.970
2	1.651	18.340	55.309	1.651	18.340	55.309
3	1.386	15.402	70.711	1.386	15.402	70.711
4	.964	10.716	81.427			
5	.608	6.752	88.179			
6	.381	4.233	92.412			
7	.325	3.612	96.025			
8	.231	2.562	98.587			
9	.127	1.413	100.000			

Extraction Method: Principal Component Analysis.

Figure 8.5 - Brand Attitude: Scree Plot

Table 8.33 - Brand Attitude: Total Variance Explained With Varimax Rotation

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.327	36.970	36.970	2.846	31.619	31.619
2	1.651	18.340	55.309	2.028	22.537	54.156
3	1.386	15.402	70.711	1.490	16.554	70.711
4	.964	10.716	81.427			
5	.608	6.752	88.179			
6	.381	4.233	92.412			
7	.325	3.612	96.025			
8	.231	2.562	98.587			
9	.127	1.413	100.000			

Table 8.34 - Brand Attitude: Communalities

	Initial	Extraction
I know the Coca-Cola brand	1.000	.197
I regularly consume Coca-Cola products	1.000	.715
Coca-Cola is a brand that promotes well-being and satisfaction	1.000	.741
I feel that Coca-Cola is a creative brand	1.000	.804
Coca-Cola's product are healthy	1.000	.791
I like to see Coca-Cola's advertisings	1.000	.809
I feel good when I drink a Coca-Cola	1.000	.776
I'm willing to pay a higher price for a Coca-Cola in detriment of other brands	1.000	.812
I believe in the Coca-Cola brand	1.000	.718

Extraction Method: Principal Component Analysis.