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**How a Cross-Media Strategy – Out of  
Home and Mobile - affects Brand Trust**

Understanding the impact of Privacy Concerns

Sofia Cardoso dos Santos Coelho

Dissertation report presented as partial requirement for  
obtaining the Master degree in Information Management

NOVA Information Management School  
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**HOW A CROSS-MEDIA STRATEGY AFFECTS BRAND TRUST**  
UNDERSTANDING THE IMPACT OF PRIVACY CONCERNS

Student m20200440  
Sofia Cardoso dos Santos Coelho



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**Advisor:** Paulo Rita

**Co-Advisor:** Ricardo Filipe Ramos

## **ABSTRACT**

The current project attempts to comprehend how brand trust is influenced by a cross-media approach involving mobile and out-of-home (OOH) marketing, as well as the impact mediated by privacy concerns. This study employed an online survey with 289 valid responses. To assess their behavior in various scenarios, the survey asked respondents whether they owned a smartphone and whether mobile ads were targeted at them. To evaluate the results, SMART PLS was used. Results show that multichannel marketing have a higher positive relationship with brand trust when compared with each channel individually. However, a multichannel approach does not reduce the impact of privacy concerns. Regarding the relationship between privacy concerns and brand trust, they have a negative relationship. Thus, retailers should focus in integrating these two channels, focusing on the relation between the channels and how privacy concerns can be reduced to build a relationship of trust with the consumer.

**KEYWORDS:** Out of Home Marketing, Mobile Marketing, Multichannel, Brand Trust, Privacy Concerns

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## LIST OF ABBREVIATIONS AND ACRONYMS

|             |                             |
|-------------|-----------------------------|
| <b>OOH</b>  | Out of Home Marketing       |
| <b>MM</b>   | Mobile Marketing            |
| <b>MT</b>   | Multichannel Marketing      |
| <b>BT</b>   | Brand Trust                 |
| <b>PC</b>   | Privacy Concerns            |
| <b>KPI</b>  | Key Performance Indicator   |
| <b>ROI</b>  | Return on Investment        |
| <b>HTMT</b> | Heterotrait-Monotrait Ratio |
| <b>AVE</b>  | Average Variance Extracted  |
| <b>VIF</b>  | Variance Inflation Factor   |

# 1. INTRODUCTION

## 1.1 PROBLEM DEFINITION AND RELEVANCE

Throughout the years, marketers have started to use multiple channels to deliver impactful levels of reach to their campaigns (Lesscher et al., 2020). This synergy between channels occurs when the combined effect of multiple marketing strategies exceeds the sum of their individual effects (Voorveld 2011). This is causing advertisers to put more effort into driving cross-media campaigns than in a single platform strategy (Lim et al. 2015).

Among researchers there is some consensus that cross-media strategies lead to positive audience reactions (Havlena, 2007; Voorveld, 2011; Avery et al., 2011) and even some show how different results that can be obtain by using a specific combination of channels (Lim et al., 2015; Stolyarova & Rialp, 2014). Nielsen's Outdoor Advertising survey (OAAA, 2016) showed that 33% of consumers who had seen an outdoor advertisement would search for the corresponding brand or product on their mobile devices. Chandrasekaran et al. (2017) indicated that the informational content of offline advertisement correlates with the increase of online searches. These studies have consistently inspired advertisers to promote the merge of outdoor and mobile advertising (Wei et al. 2021).

However, these opportunities of cross-channels are influence by aspects such as privacy concerns and consequently influence a very important key performance indicator, brand trust (Shankar et al. 2002; Oliveira et al., 2017). Privacy concerns are proved to affect consumer behavior during the purchasing process, making them avoid purchasing in environments where they must provide personal information (Krafft et al., 2017).

On the one hand, research suggests that by having an anytime and anywhere interactive ecosystem have accelerated the flow of misinformation having a negative impact on brand trust (O'Connor, 2019; Kalogeropoulos et al. 2019; Edelman, 2020). On the other hand, studies also indicate that when customer gets involved with a brand, a positive assessment of the brand is reflected. This leads to a social emotional dependence that can later translate into an increase of brand trust (Kim & Ko, 2012; Tumer et al. 2019).

With this controversy in research and the fact that literature is lacking information about the effect that aligning these strategies have on brand trust, this dissertation proposes to expand on that knowledge.

## **1.2 OBJECTIVE, CONTRIBUTIONS AND RESEARCH QUESTIONS**

This study aims understand the difference that a multichannel marketing strategy can have over a single platform's strategies such as mobile and out-of-home advertising, by analyzing the consequent brand trust perceived by the consumer. Through this flow, it also has the objective of analyzing the impact of privacy concerns.

This study attempts to address the previously mentioned knowledge gap through a conduction of an online survey that was after analyzed though the SmartPLS Program. The survey will test 7 hypothesis that were formulated regarding this flow between an offline-online strategy and the positive/ neutral or negative relation that can have with the mentioned Key Performance Indicator (KPI).

Three significant contributions are made by this work. First, one of the least researched media is outdoor advertising (Kovai, 2012). Academic studies of outdoor advertising have primarily concentrated on measuring strategies, visual effects, and commercial inventiveness (Baack et al. 2015; Page et al. 2018). Therefore, this study will expand on this knowledge by analyzing the out of home advertising marketing strategy. Second, it will address the knowledge gap by providing insights on the effect that the combination of offline-online, as well as these two channels individually, have on privacy concerns. Thirdly, it will also contribute to the effect of each channel on the brand trust.

This study will reach its objective by empirically validating the following research questions that lead and guide this research on the presence of cross-channel advertising effects.

**RQ1:** Does a multichannel strategy have better results than a single channel strategy in creating brand trust?

**RQ2:** How does each channel deal with privacy concerns?

**RQ3:** To what extent does this indicator effect brand trust?

### **1.3 STRUCTURE**

The present study is composed of the following structure. The following and second chapter conducts a profound examination of previous literature. As the theoretical background is developed, the hypotheses are described. The third chapter is devoted to the construct and conceptual framework. The fourth is about methodology, including the research approach and design and the employed. The fifth chapter undertakes an analysis of results, involving the sample characterization, construct validity and reliability as well as hypothesis testing. The sixth brings conclusions to light, as well as theoretical and managerial implications, limitations, and suggestions for future research.

## **2. LITERATURE REVIEW**

In marketing campaigns, marketers seek to maximize the Return on Investment (ROI) by exploiting the unique strengths of each medium (Pc, 2021). It becomes crucial to have knowledge on how different channels interact between them (Voorveld, 2011). In the next chapters, mobile and OOH marketing will be further analyzed, both individually and together to understand their effects.

### **2.1 MOBILE MARKETING**

Mobile phones are a significant instrument for establishing a more effective communication with the target audience on a 24/7 basis, regardless of place or time (Oztas, 2015). Its' significance is also explained due to its superiority to Internet marketing since it allows to reach more customers since they are used more frequently at all hours of the day (Chaffey, 2021)

Current literature refers to mobile marketing as a marketing channel that allows marketers to create and deliver highly personalized mobile targeting content via SMS, in-app or even push notifications based on real-time customer context such as location, time, and environment, among others (Ramos et al., 2019; Tong et al., 2020).

Current literature on this subject suggest that consumers are concerned about brand trust and permission-based advertising (Persuad & Azhar, 2012; Almunawar et al., 2015). They have additional privacy and control-related concerns about when and how they will engage in mobile marketing to improve the marketing of services by commercial organizations. In their study on consumer attitudes about mobile marketing, Watson et al. (2013) concluded that although mobile marketing can be used to build customer relationships, its use has been constrained by evidence-based studies. As a result, both academics and practitioners in the industry should critically evaluate how customers' concerns about privacy and trust relate to mobile marketing. This study aims to extend on this knowledge.

### **2.1.1 Mobile Privacy Concerns and Trust**

When talking about informational privacy, online is the primer environment where it happens since it is where the information is transferred, collected, and stored (Bergström, 2015). The rapid development of mobile advertising is causing privacy concerns to rise due to its ability to become extremely intrusive in an intimal personal space (Cleff, 2007). The current very competitive market has stressed the importance of mobile marketing among businesses (Vivek et al., 2012). However, its use requires customers' authorization to access their personal profiles. This factor has been raising concerns about permissions, trust, and privacy risk among consumers, serving as an impeding factor to use mobile marketing applications (Teo & Liu, 2007; Gana & Koce, 2016).

In current studies, is referred to the degree to which people perceive a loss of control over their personal information (Jung & Park, 2018). Mobiles can evoke privacy risks such as location, mobile payments, legislation, product quality, leading to the disclosure of information and consequently deterring consumers from using this channel (Reith et al., 2019), since it is always susceptible to theft, tracking, and hacking (Wu et al., 2012).

Despite the significance of understanding consumer preferences, little prior research has been done on consumers' attitudes toward mobile marketing communications in the smartphone era. As a result, marketers are still finding it difficult to realize the potential of mobile marketing communications due to privacy and trust-related concerns (Watson et al., 2013; Persaud & Azhar, 2012; Mort & Drennan, 2012; Muk, 2007).

Current literature also argues that trust is a pre-condition for the success of mobile marketing communications (Jansen et al., 2013; Gana & Koce, 2016). It is due to this, that consumers are sometimes hesitant to make a purchase unless they trust the seller. Chen et al. (2015) found that high trust and commitment on the part of the consumers influence most buyers purchase decisions leading to a higher ROI. In addition, Aydin and Ozer (2005) found that trust lessens uncertainty in an environment where buyers have less information about firms and its products.

As a result, consumer perceptions of trust and risk influenced mobile marketing uptake. This is because a positive substantial association exists between risk penetration of mobile marketing devices and the individual consumer's particular risk propensity (Hu & Liu, 2013).

Consumers' trust, therefore, becomes imperative in mobile marketing particularly in situations where consumers have little information about a company and its services (Gana & Koce 2016) and especially when there is an environment, where privacy concerns are high.

**H1a:** Mobile Marketing has a negative impact on Privacy Concerns.

**H1b** Mobile marketing by itself has a negative impact on brand trust.

## **2.2 OUT-OF-HOME MARKETING**

According to the Nielsen Out of Home Advertising Study 2016 (OAAA, 2016), OOH can have a massive reach within a market and since it cannot be skipped, blocked, and deleted, creates brand awareness, and recall more effectively.

It refers to all media formats specially created and intended to reach consumer outside the home, such as billboards, buildings, transit, or furniture advertising and so on (OAAA, 2022). Due to its various formats, OOH marketing can generate creative and innovative campaigns, which makes it easier to create an impact in the consumer's mind.

Fortunately, OOH is in another category of marketing which makes its tracking different from what is done online. This leads to a much more trusted environment where privacy concerns are greatly reduced, if not eliminated (Cote, 2022)

### **2.2.1 OOH Privacy Concerns and Trust**

Since OOH marketing has a one-to-many approach strategy, it allows advertisers to reach their target audience without making a one-to-one targeting. That means that it relies on anonymized location data to understand consumers movement patterns helping advertisers to know where, when, and how to position themselves (Chen, 2021). The anonymized nature of OOH audience means that it is exempt from the GDPR's concerns.

In OOH campaigns, even though literature is very scarce on this subject, there are still no evidence that effects privacy concerns. It is considered a much more controlled environment where a consumer is only traceable if he/she wants too. Consumers are more concerned about online information theft; therefore, offline data collection appears to be a nuisance (Wu et al., 2012).

This is related to the high degree of trust that is connected to this kind of approach (Alam & Yasin 2010). According to a 2019 OAAA study, 48% of brands use OOH as an offline channel to improve brand awareness. As a result, these brands' brand trust ratings have increased by 24%. It is even described as a modern "influencer". According to Sharma (2018), its simplicity, consistency, range, ability to be creative, its tangible nature and the fact they send a message that they invested a lot of time and money to build this type of advertisement, has a positive impact on the consumer, leading to create a trustworthy relationship. Having an offline presence provides consumers a safe platform to rely on the information (Bowen & Bowen, 2015).

**H2a:** OOH Marketing has a positive impact on Privacy Concerns.

**H2b:** OOH marketing by itself has a positive impact on brand trust.

### **2.3 MULTICHANNEL MARKETING (OOH AND MOBILE)**

The use of cross-media campaigns allows brands to establish long-term relationships and reduce advertising costs while leading consumers to interact with the brand (O'Grady, 2020). A multichannel synergy refers to the idea that an integrated communication strategy that distributes content through numerous platforms exceeds the effect brought by an only-channel approach (Choi & Greene 2017). It encourages consumers to switch from one medium to another and back (Naik & Peters 2009; Taylor et al. 2013; Kumar et al., 2017).

When analyzing the way OOH and mobile interact, two aspects gain form: one is the best form of contact with an audience (mobile) and the other is great in maximize reach (OOH), making their combination efficient and increasingly chosen by marketers (WallDecaux, 2019).

OOH urges as a relief from screen time or as an amplifier to the digital connection (Pandya, 2021). This is caused by its ability of connecting the consumer to the mobile without him/ her feeling digitally fatigued as it inspires to search, shop and share because they want/ choose to do it (Outfront Media 2018). It enables the customer to be aware of a certain product, create interest and then continue the journey via mobile.



Where OOH leaves off, Mobile picks up and delivers advertising messages to the most personal device a customer possesses (Nawaz et al., 2020). The customer journey can be continued online via the mobile, and the next steps in the purchasing process can be initiated.

According to Outfront Media (2021):

- When OOH is added to the media mix, increases search's return on ad spend by 40%
- Consumers are 48% more likely to engage with a mobile ad after viewing the same ad on OOH first.
- Potential customers who have seen Mobile and OOH advertising are 3 to 5 times more likely to visit a store or look at a promotion than potential customers who have not seen both forms.

Although the combination of these two channels have been previously studied, the aim of this dissertation is to go further the present evidence of the relation that this combination can have on privacy concerns and consequently on brand trust.

### **2.3.1 Multichannel Privacy Concerns and Trust**

Despite the fact multichannel strategy's significance has been heavily discussed (Kumar, 2010; Zhang et al., 2010), they all emphasize that cross-channel strategies show more difficulties regarding building a safe environment and diminishing privacy concerns that the consumer might have. These strategies typically require third-party and tools, making difficult to maintain data security (Krafft et al., 2017).

By combining an offline with an online channel, the bridge between these two channels may affect the existence of privacy concerns, specifically when entering the digital environment (Krafft et al., 2017). Besides the advantages of a multichannel interaction, is also adds risk of compromising data integrity and security (Moreira et al., 2022).

In the context of multichannel retailing, trust built based on their offline may directly translate into trust at a company's online platforms (Kwon & Lennon, 2009). In the context of shopping at a retailer's app, offline brand trust may mitigate some of the negative perceptions a consumer may have about shopping online (Hahn & Kim, 2009), reducing the impact of a negative attitude towards the perceived quality of the retailer's mobile app.

Therefore, when analyzing brand trust in a multichannel environment, it is essential to understand the transfers of trust that occur across channels (Shankar et al. 2002). This study takes a distinctive approach in that direction and examines how a consumer’s trust can be enhanced if the brand has established presence in both channels - mobile and OOH.

**H3a:** Multichannel Marketing has a negative impact on Privacy Concerns.

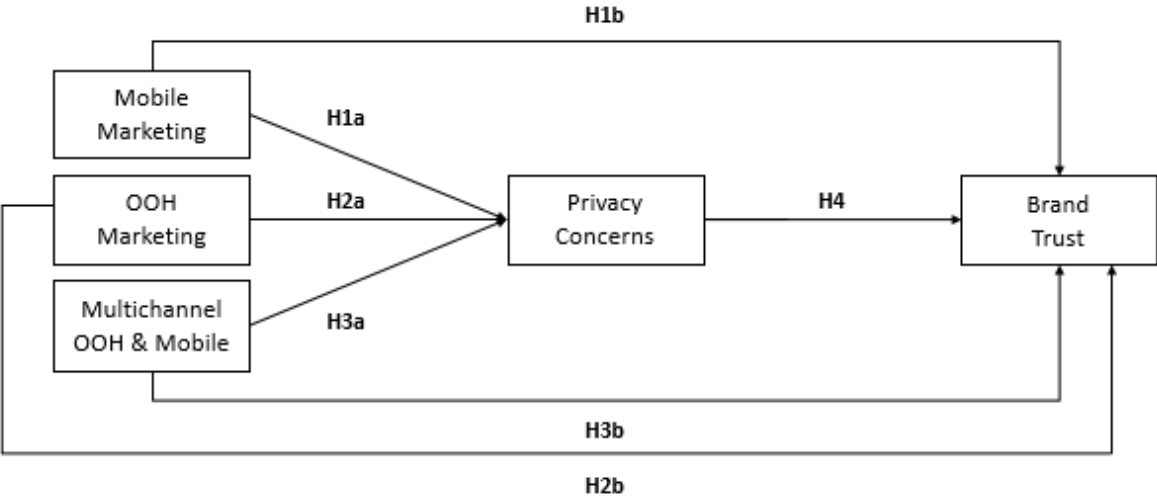
**H3b:** Multichannel Marketing has a positive impact on brand trust.

The success of any plan depends on brand trust and privacy issues (Moreira et al., 2022). From a commercial perspective, Ringle (2021) claimed that 90% of consumers are only willing to share their information with businesses they can trust and that nearly half of consumers will not make a purchase from a firm that raises privacy issues. There are other studies that show that privacy concerns have a significant negative influence on consumers brand trust on online platforms (Ayaburi & Treku, 2020; Alzaidi & Agag, 2022). This study aims to show that regarding the channel used, if a consumer has concerns about their privacy, it will have a negative impact on brand trust.

**H4:** Privacy Concerns have a negative impact on Brand Trust.

The hypotheses represent the following conceptual model (Figure 1):

*Figure 1. Conceptual Model*



## **4. METHODOLOGY**

In the present chapter, the research methodology is thoroughly explained. A quantitative research method was utilized to study the seven hypotheses with the latter intent of fulfilling the objective of this study.

### **4.1 SAMPLE**

For this research, it was only considered Portuguese respondents that are at least 18 years old that use Facebook, Instagram, or LinkedIn. Additionally, to go further in the survey, they had to have a mobile smartphone phone and had been targeted with mobile ads, such as SMS, in-app or push notifications in the last month. Respondents that did pass these two screening questions were excluded from the sample.

### **4.2 DATA COLLECTION PROCEDURES**

To evaluate the viability and comprehension of the questions in the survey, its format and response time (Dalmoro et al., 2019), a convenience sample of 30 respondents (Coelho et al., 2022). That met the criteria of the population completed a qualitative pre-test of the questionnaire between 1<sup>st</sup> June and 5<sup>th</sup> June. Following the feedback from the pre-test, some changes such as the inclusion of screening questions and the order of two questions, were made. The final version occurred between 6<sup>th</sup> June and 26<sup>th</sup> June.

To perform this survey, the Qualtrics platform was employed and then the survey was shared through Facebook, Instagram and LinkedIn following the suggested procedures by Archambault and Grudin (2012).

There were a total of 289 valid responses to the three-week-long poll. A random sampling technique was used to gather observations free of any bias in order to examine the study model that was previously proposed. Shared on Facebook, Instagram, and LinkedIn were the survey results.

The questionnaire was developed from the adaptation of the scales presented in different current literature according to the constructs. The final version of the construct-based measurement scales, questions and references is shown in Appendix 1.

#### **4.2.1. Data analysis**

The analysis of the collected responses was undertaken using a quantitative research method through a statistical tool, the SmartPLS program. It used descriptive statistics (Ringle et al., 2014) to test the model and validate its hypotheses.

In SmartPLS, the first step to evaluate the results is to examine the measurement values (Hair et al., 2019). Firstly, the Cronbach's Alpha was employed to assess the internal consistency of the constructs. To conduct the stated reliability analysis, the threshold of .7 for the Cronbach's Alpha was employed to measure internal consistency (Hair et al., 2019). Secondly, Variance Inflation Factor was used to evaluate collinearity between the indicators. Ideally, the values should be close to 3 or lower (Hair et al., 2017a). Thirdly, the Average Variance Extracted is used to understand if the construct explains at least x% of the variance of its items. Therefore, a value of 0.50 or higher is considered acceptable. Lastly, Heterotrait-monotrait ratio was also taken into consideration in order to confirm the discriminant validity of the constructs. According to Henseler et al. (2015), when the constructs are more distinct, an HTMT value below 0.85 or 0.90 is suggested. Bootstrapping was applied to test whether this value was different from 1.00.

# 5. RESULTS AND DISCUSSION

## 5.1 SAMPLE CHARACTERIZATION

During the data collection period, 353 responses to the online survey were gathered. Of these, when asked about the weather that had a smartphone or if they were targeted with mobile ads, 18% did not have one or the other. These responses were excluded from the sample since they answered “No” to the second or third screening questions, resulting in a valid sample of 289 participants.

*Table 1: Sample Characterization*

| Sample Characteristics (289) |                    |     |
|------------------------------|--------------------|-----|
| <b>Gender</b>                | Female             | 63% |
|                              | Male               | 37% |
|                              | Prefer not to say  | 0%  |
| <b>Age</b>                   | 18 – 30 years old  | 60% |
|                              | 31 – 45 years old  | 33% |
|                              | 46 – 60 years old  | 7%  |
|                              | Above 60 years old | 0%  |
| <b>Occupation</b>            | Student            | 25% |
|                              | Working-student    | 35% |
|                              | Employee           | 34% |
|                              | Self-employed      | 6%  |
|                              | Unemployed         | 0%  |
|                              | Retired            | 0%  |

## 5.2 MODEL’S CONSISTENCY AND VALIDITY

In this case, as presented in Table 2, the conditions are met. The Cronbach’s Alpha values are .912 for “Brand Trust”.

To test the convergent validity, it is necessary to meet the requirement of the AVE. In this study, this indicator is fulfilled having the range of .641 for “Brand Trust”, as shown in the table 2.

Table 2: Reliability Analysis

| Scale                  | Cronbach's Alpha | AVE  |
|------------------------|------------------|------|
| Brand Trust            | .912             | .641 |
| Mobile Marketing       | .812             | .704 |
| Multichannel Marketing | .907             | .597 |
| OOH Marketing          | .888             | .814 |
| Privacy Concerns       | .777             | .630 |

The last requirement to confirm the discriminant validity is confirming the HTMT is lower than 0.9. This requirement is also met as shown in Table 3, here this indicator range from .424 to .813.

Table 3: HTMT Analysis

| Heterotrait-Monotrait (HTMT) |       |       |       |       |    |
|------------------------------|-------|-------|-------|-------|----|
|                              | BT    | MM    | MT    | OOH   | PC |
| BT                           |       |       |       |       |    |
| MM                           | 0.743 |       |       |       |    |
| MT                           | 0.750 | 0.813 |       |       |    |
| OOH                          | 0.517 | 0.424 | 0.760 |       |    |
| PC                           | 0.751 | 0.678 | 0.613 | 0,693 |    |

Through the SmartPLS program it was also validated the Collinearity Statistics though the inner VIF. All the values were between the range of 1,123 and 1,960, which are acceptable.

### 5.3 STRUCTURAL MODEL

The path weighting scheme was employed to evaluate the proposed model as suggested by Hair et al. (2014). To get the t statistics and p-values, a basic bootstrapping of 5.000 samples was performed. This approach was chosen since the generalizability of the results would be more important as the sample size grew larger. The results are shown below on the table 4.

*Table 4: Hypothesis Validation*

| <b>Hypothesis Validation</b>  |          |
|---|----------|
| <b>H1a:</b> Mobile Marketing has a negative impact on Privacy Concerns.       | Accepted |
| <b>H1b:</b> Mobile marketing by itself has a negative impact on brand trust.  | Accepted |
| <b>H2a:</b> OOH Marketing has a positive impact on Privacy Concerns.          | Accepted |
| <b>H2b:</b> OOH marketing by itself has a positive impact on brand trust.     | Accepted |
| <b>H3a:</b> Multichannel Marketing has a negative impact on Privacy Concerns. | Accepted |
| <b>H3b:</b> Privacy Concerns have a negative impact on Brand Trust.           | Accepted |
| <b>H4:</b> Multichannel Marketing has a positive impact on brand trust.       | Accepted |

The first hypothesis states “H1a: Mobile Marketing has a negative impact on Privacy Concerns”. Indeed, this negative relation is proven (= -.111). This result is aligned with Gana and Koce (2016) since it validates the theory that consumers consider their devices as personal communication and prefer to be able to control it fully rather than engage with organizations. In relation to Mobile Marketing, we also have the H1b hypothesis – “H1b: Mobile marketing by itself has a negative impact on brand trust” which is also validated in this test with a significance level of 10% (= -.203). This result is aligned with the theory of Jansen et al. (2013) and Gana and Koce (2016) that suggested that building trust with consumer becomes vital to improve the acceptance and usage of this type of marketing.

The following two hypothesis regarding OOH are both accepted in this model. “H2a: OOH Marketing has a positive impact on Privacy Concerns”, with a significance level of 5%, proved its positive relation with a result of ( $=.506$ ). Following the rational of Chen (2021), OOH, by relying on anonymized location data and consumer movement or researches, reduces the possible privacy concerns that may occur. The results show us that, on the contrary to Mobile Marketing, OOH provides a safe environment where customers do not feel their information is at risk (OAAA, 2016). Regarding Brand Trust, the hypothesis – “H2b: OOH marketing by itself has a positive impact on brand trust”, with the same significance level, had a positive result of ( $=.459$ ). Validating the scarce literature on the subject, Bowen and Bowen (2015) proved that offline channels tend to generate a more trustworthy environment among customers. This result positively contributes to current literature since it presents the direct relation with out-of-home specifically.

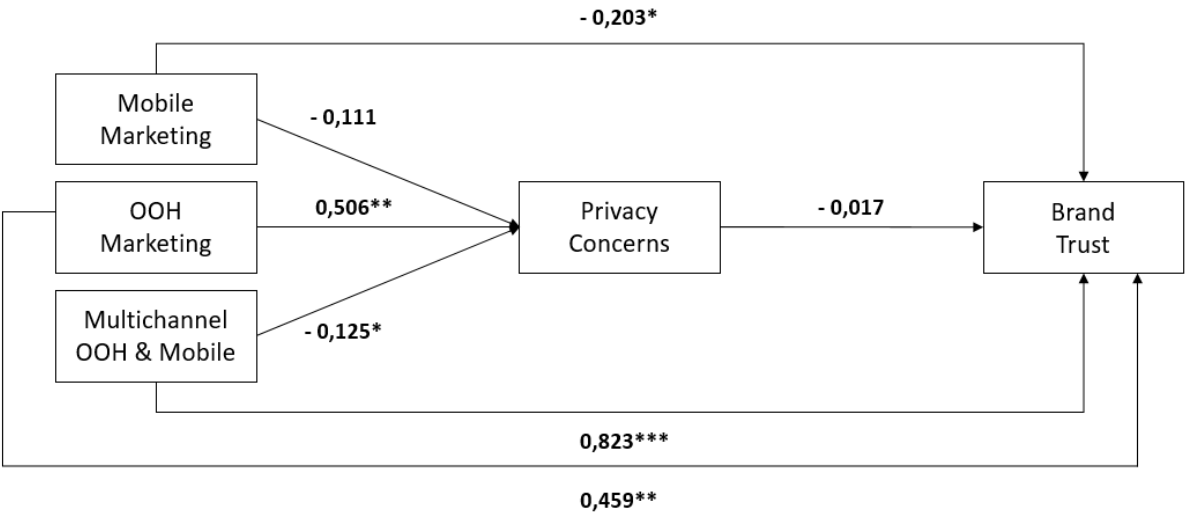
The hypothesis related to Multichannel Marketing – OOH and Mobile – were both accepted as well. Regarding “H3a: Multichannel Marketing has a negative impact on Privacy Concerns”, it was proposed a negative relation which was proven with a significance level of 10% ( $= -.125$ ). This result is aligned with Moreira et al. (2022) in their study about multichannel interaction in health services. They proved that there are security issues concerning the multichannel interaction. The result in this study goes further and shows that although we are mixing a channel that does not have, apparently, privacy concerns, with one that has, it can also enlighten some issues since this bridge adds risk of compromising data integrity and security (Krafft et al., 2017). The “H3b: Multichannel Marketing has a positive impact on Brand Trust”, with a significance level of 1% showed the biggest positive relation between in the model ( $=.823$ ). According to Hahn and Kim (2009), in their study on the effect of offline brand trust and perceived internet confidence, consumers trust in an offline channel is a significant predictor to trust in an online store. However, this result only proved that the trust was consequently transferred from one channel to other. According to Kwon and Lennon (2009), a multichannel approach makes customers see the same message across different platforms, which leads to the development of trust and loyalty, which is in line with the results presented in this study.



Lastly, the fourth hypothesis “H4: Privacy Concerns have a negative impact on Brand Trust” is also accepted ( $=-.017$ ). Krafft et al. (2017) in their study on permission marketing and privacy concerns, presented evidence of the negative impact of privacy concerns had on trust building programs and loyalty. This result validates this theory by showing that when a consumer feels that his/her information is not secure, (s)he tends to trust less on a brand.

The Coefficient of Determination ( $R^2$ ) determines how well a statistical model predicts a certain outcome, being the outcome the model’s dependent variable (Oliver et al., 2010). In this case, we have two dependent variables: Privacy Concerns with  $R^2=64,9\%$  and Brand Trust with  $R^2=65,9\%$  as presented on figure 2. The level of  $R^2$  depends on the study field, and since this is a study on multichannel marketing, the results can be considered substantial (Henseler et al. 2009).

Figure 2. Structural Model Results



Note:  $*p<0,1$ ;  $**p<0,05$ ;  $***p<0,01$

## **6. CONCLUSIONS**

To the best of the writer's knowledge, this is the first study that sought to explore how brand trust is influenced by a cross-media approach that includes mobile and out-of-home marketing while also taking privacy issues into account. In fact, the seven hypotheses put forth to address the earlier research concerns are supported by the findings of the current dissertation.

The presented research model validates the relationship between each channel and “privacy concerns” which is explained by this model in 64,9%. In addition to that, it also validates the relationship between all four previous constructs with brand trust” in 65.9%. This means that this model has a strong predictive influence regarding what impacts privacy concerns and brand trust.

The results indicate that the combination of mobile and out of home marketing have a greater positive influence than an approach of only one channel. Regarding privacy concerns, results show that mobile and a multichannel approach have a negative influence in this KPI on the contrary to the positive relation that it has with OOH. However, PC negatively affects the brand trust perceived by the consumer. Furthermore, the conclusion is that brands can greatly benefit from integrating a multichannel approach in their marketing strategy. This research also showed that multichannel marketing provides the opportunity to approach the customer more than one time, providing better results in their campaign and allowing them to go further in the purchasing funnel.

### **5.1 THEORETICAL IMPLICATIONS**

The analysis conducted in this paper contributes to the literature in three main ways. Firstly, it expands on the existing knowledge of OOH, since it is one of the least studied media, by analysing this strategy regarding two important marketing KPIs (Page et al., 2018; Chen, 2021).

Secondly, it contributes to current literature by providing insights on the combination of offline and online channels as well as these two channels individually. Normally, this combination is analyzed, however with the boom of digital, these strategies have focused on online channels rather than also considering an offline channel such as OOH (Kumar et al., 2017; Pandya, 2021).

Lastly, the present thesis adds to literature an additional analysis on the effect that these channels have on brand trust (Amani & Zhioua, 2015; Portal et al., 2019) and privacy concerns (Alavinassab & Kamal, 2015). It also analysis the relation of these channels directly with brand trust and provided insights on the comparison of a single and a multichannel approach (Hahn & Kim, 2009).

## **5.2 MANAGERIAL IMPLICATIONS**

The present dissertation offers marketers valuable insights concerning the impact of aligning a multichannel strategy in brand trust. These indicators also evaluate the impact of privacy concerns and show marketers the impact between a single platform strategy such as mobile and OOH and a multichannel one.

Furthermore, the findings of this study prove the relevance that privacy concerns have on customer decision and how that consequently affects brand trust. It showed that privacy concerns will not decrease with the multichannel approach since customer information has to be transferred from one channel to another. Therefore, marketers should focus on keeping it secure, transparent, and always make sure that the customer does not feel like the strategy is evading their privacy unexpectedly.

In this way, retailers should consider employing the combination of channels such as OOH and mobile where one is the trigger in creating interest and awareness and the other one delivers a platform where the customers can deeper its interest and go down in the purchasing funnel. This will lead the brand to build trustworthy relationships with the customer.

### **5.3 LIMITATIONS AND FUTURE RESEARCH**

Concerning limitations, the research undertaken has a few worth mentioning. Firstly, by asking participants if they are targeted with mobile and if they have a smartphone, there was a loss of several valid answers. In this way, studies in the future should consider employing other methods of analysis, like experiments. For instance, future research studying mobile marketing could conduct an experimental study where participants receive a real message or push notification from a brand and where they see their actions on the digital platform and record them to withdraw conclusions.

Additionally, a constraint of the online survey is that it took place at one specific moment in time. The issue with this is that it does not measure how a customer reacts when faced with the targeted ads (mobile or OOH) in the moments of occurrence. In this investigation, respondents had to imagine being in the situation, rather than action instinctively. In this way, upcoming studies could measure these customer responses over time to capture more accurately customers' opinions regarding their experience in the moment where they best remember its details.

Moreover, this model only tested two channels, and the conclusions can change if other channels within the online and offline environment are considered. Therefore, future research about this topic could add other channels to the analysis such as social media marketing, television and so on. This constraint also refers to the KPIs being analysed. In marketing, there are many measures that can be considered to have a significant impact in the consumer and this dissertation only approach some.

The last limitation is the fact that all the data was collected within Portuguese respondents. Having point of views from different perspectives and realities would enrich the investigation especially where OOH is more developed, such as London or USA. In Portugal is not yet the case and that might have limited their approach and acceptance towards channel of marketing.

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## APPENDICES

### Appendix 1

| Construct | Questions  | References  |
|-----------|--|---|
| <b>MB</b> | <ol style="list-style-type: none"> <li>1. Do you have a mobile device?</li> <li>2. Have you been targeted with mobile marketing ads in the last month (SMS, in-app, push notifications)?</li> <li>3. I am targeted with too many mobile ads</li> <li>4. I consider relevant the mobile ads I am targeted with.</li> <li>5. I consider most mobile ads to be annoying</li> <li>6. I would tend to delete or ignore most text messages from companies</li> </ol>   | <p>Basheer and Ibrahim (2010)</p> <p>Watson et al. (2013)</p> |
| <b>OM</b> | <ol style="list-style-type: none"> <li>1. I am targeted with too many OOH ads</li> <li>2. I consider relevant the OOH ads I am targeted with</li> <li>3. I consider most OOH ads to be annoying</li> <li>4. I would tend to ignore most out of home campaigns</li> </ol>   | <p>Basheer and Ibrahim (2010)</p>                             |
| <b>MM</b> | <ol style="list-style-type: none"> <li>1. I consider annoying being targeted across different channels</li> <li>2. Viewing different ads of a brand across different channels, influences my purchasing decision</li> </ol>  | <p>John et al. (2017)</p>                                     |
| <b>PC</b> | <ol style="list-style-type: none"> <li>1. I am concerned about the privacy of my data in a mobile/offline environment</li> <li>2. I am sensitive about giving out information regarding my preferences</li> <li>3. I am concerned about sharing my location information</li> <li>4. I am concerned about sharing my financial information while purchasing via mobile</li> <li>5. The information this channel provided is always updated</li> <li>6. I am concerned about the privacy of my data when I scan a QR Code in an OOH advertising campaign</li> <li>7. I am concerned about sharing my financial information when I encounter an Out of Home campaign with link to a mobile purchasing platform</li> <li>8. The fact that I am being targeted in these two channels make my privacy concerns decrease</li> </ol> | <p>Kim (2016)</p> <p>Cheah et al. (2022)</p>                  |

|                  |  |                    |
|------------------|--|--------------------|
| <p><b>BT</b></p> | <ol style="list-style-type: none"> <li>1. Mobile Advertising strategies influence my brand trust</li> <li>2. The fact that a brand has a mobile online presence, influences my trust towards the brand</li> <li>3. Out of Home advertising strategies influence my brand trust</li> <li>4. The fact that a brand has a presence in the offline channel, influences my trust towards the brand</li> <li>5. Out of Home and mobile advertising strategies connected influence my brand trust</li> <li>6. The fact that a brand has a presence in the online and offline channel, influences my trust towards the brand</li> <li>7. The trust more in a brand that advertises through multiple channels, than a brand that only is present in one</li> <li>8. If I saw an Out-of-Home add that transferred me to the mobile environment, I would trust more the information presented.</li> </ol> | <p>Chen (2021)</p> |
|------------------|--|--------------------|

## **SURVEY SCRIPT**

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### **Start of Block: Introduction**

This survey is being conducted within the scope of the master's dissertation and aims to analyse the impact of offline and online marketing.

Your participation in this survey is voluntary and does not involve any risk. You are free to withdraw at any time, however, your answers are very important for the development of this study, they are anonymous and will only be used for academic purposes.

It takes about 7 min to complete.

**Q1** I declare that I am 18 years of age or older and that I agree to participate in this study.

- Yes, I agree
  - No, I do not agree
- 

**Q2** Before proceeding, please respond to the following questions:

Do you have a smartphone device?

- Yes, I do (1)
  - No, I do not (2)
- 

**Q3** Have you been targeted with mobile marketing ads in the last month (SMS, in-app, push notifications)?

- Yes, I am
- No, I am not

### **End of Block: Introduction**

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### **Start of Block: Mobile Marketing**

**Q4 Definition of Mobile Marketing:**

*Marketing channels that allows marketers to create and deliver highly personalized mobile targeting content via SMS, in-app or even push notifications based on real-time customer context such as location, time, and environment, among others.*

Bearing in mind the previous definition, answer the following questions about mobile marketing.

Do you agree with the following statements?

|  | Strongly disagree     | Disagree              | Somewhat disagree     | Neither agree or disagree | Somewhat agree        | Agree                 | Strongly agree        |
|--|-----------------------|-----------------------|-----------------------|---------------------------|-----------------------|-----------------------|-----------------------|
| I am targeted with too many <u>mobile</u> ads                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I consider relevant the <u>mobile</u> ads I am targeted with.      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I consider most <u>mobile</u> ads to be annoying                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would tend to delete or ignore most text messages from campaigns | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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**Q5** Considering privacy concerns in mobile marketing, please answer the following questions.

|  | Strongly disagree     | Disagree              | Somewhat disagree     | Neither agree nor disagree | Somewhat agree        | Agree                 | Strongly agree        |
|--|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| I am concerned about the privacy of my data in a mobile environment            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I am sensitive about giving out information regarding my preferences           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I am concerned about sharing my location information                           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I am concerned about sharing my financial information if I purchase via mobile | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Q7** Considering brand trust, please answer the following questions.

|  | Strongly disagree     | Disagree              | Somewhat disagree     | Neither agree nor disagree | Somewhat agree        | Agree                 | Strongly agree        |
|--|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| <u>Mobile Advertising</u> strategies influence my brand trust                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The fact that a brand has a <u>mobile</u> online presence, influences my trust towards the brand | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

End of Block: Mobile Marketing

Start of Block: Out of Home Marketing



**Q8 Definition of Out of Home Marketing (OOH):**

*OOH marketing refers to all media formats specially created and intended to reach consumer outside the home, such as billboards, buildings, transit or furniture advertising and so on.*

Bearing in mind the previous definition, answer the following questions about mobile marketing.

Do you agree with the following statements?

|  | Strongly disagree     | Disagree              | Somewhat disagree     | Neither agree nor disagree | Somewhat agree        | Agree                 | Strongly agree        |
|--|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| I am targeted with too many <u>OOH</u> ads.                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I consider relevant the <u>OOH</u> ads I am targeted with. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I consider most <u>OOH</u> ads to be annoying              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I would tend to ignore most <u>OOH</u> campaigns           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Q9** Considering privacy concerns in out of home marketing, please answer the following questions.

|   | Strongly disagree     | Disagree              | Somewhat disagree     | Neither agree nor disagree | Somewhat agree        | Agree                 | Strongly agree        |
|---|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| I am concerned about the privacy of my data in an offline environment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Q11** Considering brand trust, please answer the following questions.

|  | Strongly disagree     | Disagree              | Somewhat disagree     | Neither agree nor disagree | Somewhat agree        | Agree                 | Strongly agree        |
|--|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| Out of Home advertising strategies influence my brand trust  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The fact that a brand has a presence in the offline channel, influences my trust towards the brand | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

End of Block: Out of Home Marketing

Start of Block: Multichannel Marketing

**Q12 Definition of Multichannel Marketing:**

*Multichannel Marketing has the objective of getting a user from a point A to a point B by sending a common message through different individual (online and offline) channels.*

Bearing in mind the previous definition, answer the following questions about a multichannel strategy – out of home and mobile marketing.

|   | Strongly disagree     | Disagree              | Somewhat disagree     | Neither agree nor disagree | Somewhat agree        | Agree                 | Strongly agree        |
|---|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| I consider annoying being targeted across different channels                                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Viewing different ads of a brand across different channels, influences my purchasing decision | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Q13** Regarding Privacy Concerns:

|  | Strongly disagree     | Disagree              | Somewhat disagree     | Neither agree nor disagree | Somewhat agree        | Agree                 | Strongly agree        |
|--|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| I am concerned about the privacy of my data when I encounter an OOH advertising campaign and then receive e push notification on my phone about the same product | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I am concerned about sharing my financial information when I encounter an Out of Home campaign with link to a mobile purchasing platform                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The fact that I am being targeted in these two channels make my privacy concerns increase  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Q15** Please answer the following questions with the option you consider most appropriate:

|  | Strongly disagree     | Disagree              | Somewhat disagree     | Neither agree nor disagree | Somewhat agree        | Agree                 | Strongly agree        |
|--|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| <u>Privacy concerns</u><br>negatively influence my trust towards a brand | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Q16** Considering brand trust, please answer the following questions.

|  | Strongly disagree     | Disagree              | Somewhat disagree     | Neither agree nor disagree | Somewhat agree        | Agree                 | Strongly agree        |
|--|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| Out of Home and mobile advertising strategies connected influence my brand trust   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The fact that a brand has a presence in the online and offline channel, influences my trust towards the brand            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The trust more in a brand that advertises through multiple channels, than a brand that only is present in one            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| If I saw an Out-of-Home add that transferred me to the mobile environment, I would trust more the information presented. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |