EMPIRICAL RESEARCH ON EXPOSURE TO ADVERTISING CHANNELS AND FORMATS BASED ON PERSONALITY TRAITS MEASURED BY THE BIG FIVE

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ABSTRACT

Introduction: The study of personality through the Big Five is relatively recent and has still been applied in marketing and advertising research with restraint. However, several empirical studies show its great usefulness in analyzing consumers. **Methodology:** In a first phase, a bibliographic analysis is carried out to explore how personality traits operate in a cognity way while processing data and stimuli, advertising personalization and brand affinity. In a second, empirical phase, the degree of exposure and attention given by consumers to different advertising media and formats is shown. It is based on an effective sample of 492 individuals. **Results:** The results show that there are traits that favor exposure to different formats and others that do not favor exposure from a Pearson correlation analysis using the SPSS program. Novel findings are achieved in the investigations conducted to date. **Discussion:** The results are in line with other research, although most previous studies focus more on message and brand affinity. **Conclusions:** Extraversion and openness to experience positively correlate with a high affinity for all media and advertising formats. Responsibility is shown as a trait that does not develop a generalized affinity with all the media and formats analyzed but still maintains a propensity towards a significant number of them. Finally, agreeableness and neuroticism show very limited affinities which is aligned with previous research, especially in the case of neuroticism.

Keywords:

Big Five; cognition; consumer; advertising formats; advertising media.

1. INTRODUCTION

The Big Five theory, also known as the Big Five Personality Trait Model, is widely accepted as a comprehensive theoretical framework for understanding human personality. According to Mulyanegara et al. (2009) and Wilt and Revelle (2015), personality theory provides insight into people's emotions, behaviour, thoughts, and desires. This model, developed from psychometric research, describes personality through five main dimensions: extraversion, openness to experience, agreeableness, conscientiousness and neuroticism (McCrae & Costa, 1987). These traits emerge from factor analyses of adjectives and descriptions that people use to characterize themselves and others, establishing itself as a solid paradigm in personality psychology (Goldberg, 1993).

The model finds its roots in previous psycholexical approaches and taxonomies developed by researchers such as Allport and Odbert (1936), who identified a vast set of personality description terms in everyday language. These dimensions have shown high cross-cultural consistency and they are used not only to describe individual differences, but also to predict behavioral patterns in different settings (John *et al.*, 2008). After several proposals of taxonomies, it is that of McCrae and Costa that achieves a high consensus and acceptance (Teer Laak, 1996; Pérez-García & Bermúdez Moreno, 2012; Novikova, 2013; Dandannavar *et al.*, 2021). In addition, it is significant to consider that the method is scientific because it uses factor analysis, not free interpretation. (Romero, 2005; Pedrero, 2007).

Each of the Big Five traits focuses on specific aspects of personality:

1. Extraversion: it represents social energy, i.e., enthusiasm and the tendency to seek interaction with other people. Extraverted people tend to be assertive, sociable, affectionate and optimistic, while introverted people prefer quieter and less stimulating environments, are more distant and reserved (Teer Laak, 1996; Sanchez & Ledesma, 2007).
2. Openness to experience: This trait is associated with creativity and curiosity, as well as a willingness to embrace novel perspectives and experiences. On the positive side, they tend to be open-minded and experimental, while on the negative side, they tend to be traditional and dogmatic (Sánchez & Ledesma, 2007).
3. Agreeableness: It is related, in its positive aspect, to cooperation, empathy and trust in others. Those who are highly agreeable tend to be altruistic and friendly, whereas those who are less friendly tend to be competitive, selfish and critical of others. (Sanchez & Ledesma, 2007; Kurenkova, 2016).
4. Conscientiousness: this trait is linked to planned, persevering and reliable behaviors in its positive values, also with ambition and obedience to rules. On the negative side it implies laziness, laziness, quitfulness and hedonism (Teer Laak, 1996; Sanchez & Ledesma, 2007; Mulyanegara *et al.,* 2009).
5. Neuroticism or emotional stability: This variable measures emotional stability in the face of experiences, as well as intensity. A high score indicates a tendency to experience negative emotions such as anxiety and depression, as well as insecurity, hostility, emotional sensitivity and vulnerability to stress. In contrast, low scores are expressed through a cold, analytical, impassive, cautious and rational character. (Teer Laak, 1996; Sanchez & Robles, 2013; Gonzalez, 2024).

The Big Five not only describes personality, but also provides a predictive framework that explains how people process information and respond to different types of stimuli. It relates to cognitive behaviour and how people process information. "As shown in Table 1, personality is described by emotional, cognitive, and behavioral elements that are idiosyncratic. Each dimension consists of a set of correlated traits, represented as bipolar traits (e.g. worrying versus calm)" (Mulyanegara *et al.*, 2009, p. 238).

For example, several empirical studies have shown that openness to experience is associated with greater receptivity to innovative ideas and creative content, while responsibility correlates with a strong preference for organized and reliable information, as well as with the adoption of organized behavioral patterns (González Llamas, 2024; Winter *et al.,* 2021). Similarly, neuroticism can significantly influence how risks are perceived and how susceptible one is to persuasive messages related to safety or emotional well-being (Kurenkova, 2016).

In this sense, as Wilt and Revelle (2015) expressed, addressing cognitive processes refers to how mental contents develop and how people process information and stimuli. According to the authors, these processes include attention, problem solving, belief frameworks, evaluations, expectation generation, reality interpretation, and representation constructs.

This is essential because, as Langston and Sykes (1997) point out, the Big Five personality theory has focused more on creating statistical descriptions of people based on traits than on exploring their behavioral implications or "underlying processes." To dispel doubts in this regard, Langston and Sykes (1997) conducted two research studies to determine the coherence between personality traits and people's beliefs about themselves and society. They found that self-perception was closely related to one's view of society. In other words, personality traits reveal people's cognitive approach and how they interpret themselves and social reality. This is highly relevant to reality in general, as well as to the fields of marketing and advertising, as various authors have demonstrated. For example, Lin (2010) found in his research that people choose brands that align with their personality. In other words, people's self-concept and their approach to others influence their preferences and behaviors.

Eck and Gebauer (2022) have explored and delved into the relationship that people establish with the sociocultural norm from the personality traits measured with the Big Five, in three investigations, with a total sample of 7,404 participants. Significant results include the finding that extraversion, agreeableness, and responsibility are positively linked to social norms because they lead to better adaptation. In contrast, high openness to experience tends to encourage free thinking and rethinking of norms, resulting in poorer adaptation to normatively rigid environments. Furthermore, Eck and Gebauer (2022) found that high cognitive responsibility is associated with rational thought patterns, while high openness to experience is associated with cognition independent of social frameworks.

Following Wilt and Revelle (2015), the Big Five provides insight into people's desires, such as what they want to obtain or avoid, how they develop goals and objectives, and which situations and objects they avoid. The authors define desire as broader than motivation because desire fully integrates an emotional charge into behavior. Good

examples can be found in Big Five research on consumption, such as that of Mulyanegara et al. (2009), who found that people with different Big Five traits tend to choose different clothing brands. Another example is that of Chaturvedi et al. (2020), who showed that personality traits influence whether people prefer organic food.

Although the Big Five has been extensively used in clinical, social and organizational psychology, its application in the field of marketing and advertising is more recent. Current research highlights that knowing the personality profiles of consumers allows the development of personalized and more effective communication strategies (Grochowska *et al.,* 2024) .

In this sense, personalizing advertising messages based on the Big Five personality traits has proven to be a powerful digital advertising tool. Hirsh et al. (2012) demonstrated through their research that people respond better to messages tailored to their predominant personality traits and are less interested in and appreciative of messages that are not. Similarly, Winter et al. (2021) found that people high in openness respond positively to messages emphasizing creativity and innovation, while those high in agreeableness prefer ads highlighting altruistic and collaborative values. Additionally, a greater affinity for messages that highlight the reliability of well-established, socially responsible brands has been associated with responsibility (Grochowska et al., 2024). Thus, as Wilt and Revelle (2015) have suggested, people perceive and interpret reality through the lens of their personality traits. From these traits, they develop expectations that align with their interests, which is essential in the advertising process.

Personality traits also influence the preference for certain formats or advertising channels. For example, extraversion is linked to a greater affinity towards social platforms such as TikTok or YouTube, while responsibility may correlate with a preference for traditional media such as print or television (González Llamas, 2024) as will be seen in the results of the research presented below.

Despite the identified advantages and potential of the Big Five application to marketing and advertising, the reality as shown by Mulyanegara *et al.* (2009), Basso *et al.* (2015) and Chaturvedi *et al.* (2020) marketing does not understand the Big Five approach and does not assume it as a valid method to analyze the consumer.

Despite its advantages, the application of the Big Five in marketing has certain limitations. The accuracy of segmentation depends on the quality of the data and the analytical tools used. In addition, the use of psychographic profiling raises ethical concerns, such as consumer privacy and the risk of manipulation (Winter *et al.*, 2021). These issues underscore the need for a balanced approach that combines advertising effectiveness with respect for users' rights.

2. OBJECTIVES

This research is structured from the following objectives:

a) To explore the relationship between Big Five personality traits and consumers' statement on the attention they give and the consumption they attribute to advertising channels and formats.
b) To establish the cognitive values of personality traits in relation to advertising media and formats.
c) To empirically determine whether different personality traits measured by the Big Five are associated with different patterns of consumption and affinity with advertising formats and media.
d) To determine the effectiveness of advertising media and formats based on their connection with the Big Five personality traits.
e) To explore possible future lines of research on the consumption of advertising media and formats.

3. METHODOLOGY

This research applied two methodologies simultaneously: one qualitative and the other quantitative and empirical.

Phases of the research

1. Firstly, a bibliographic/documentary and secondary sources research has been carried out on the Big Five theory, its application in different areas of psychology, marketing and advertising, the cognitive implications inherent in measuring the Big Five personality traits and the analysis of brand affinity from the Big Five.

2. In parallel, the analysis of a quantitative empirical research in the Spanish advertising market, formats and advertising media has been developed.

Sample of the empirical research

A survey was conducted with 500 people, but the final research sample size was reduced to 492. During the analysis phase, eight questionnaires were excluded because they provided an extreme level of distortion.

Fifty percent of the sample was female and 50% male, all of them in the age range between 35 and 55 years. This age range was chosen because it is considered to be the optimal commercial age. The surveys were applied within the private panel of Estudio Silvia Roca, SL. Due to its wide range of efficacy and extensive sample size, this modality was chosen because it facilitates social diversity and obtaining representative samples. Additionally, it is a professionalized panel, meaning participation is voluntary and encouraged, resulting in a quicker response time.

The research collected people's age and declared gender, but only as a filter to ensure that the sample was designed to be broadly representative. The same occurred with income level, collecting only people from the broad middle class. This was so because the idea was to prove or disprove the possibilities of the traits beyond sociodemographic conditioning.

Research instruments

Two digital questionnaires were conducted. The total application time for both questionnaires was approximately 25 minutes.

The initial questionnaire was a version of the Spanish Big Five Questionnaire (B.F.Q.), designed by VipScan, a company specializing in Big Five personality analysis. It is called the VipScan-BFC. This questionnaire includes 12 items per trait, including distortion, for a total of 72 items. Each trait has a scale from 1 to 4 that determines the degree to which the respondent agrees or disagrees with the item. The approximate duration is 13 minutes. The choice of the VipScan-BFC responds to two basic issues: its empirical reliability has been demonstrated through years of administering the questionnaire, and it can be decoded using software that facilitates and speeds up the analytical process.

The second test evaluated consumption attribution and behavior in relation to free-to-air television channels and video-on-demand (VOD) platforms available in Spain, as well as television content and advertising media. Consumption attribution was measured on a scale from 1 to 8, where 1 indicated "no consumption" and 8 indicated "very frequent consumption." The test took approximately 10 minutes to complete.

The tests were conducted in a set order, beginning with the VipScan-BFC, followed by the consumption test. Each individual was assigned a random alphanumeric key to identify their questionnaires and allow them to be merged and anonymized from the data collection.

This research only presents the results of the attribution of advertising exposure and the attention given to media and formats. Participants were asked, "To what degree do you see and pay attention to the following types of advertising media?" The types of advertising media and formats were then presented in a table with a scale from 1 to 8.

Analysis procedure

After collecting the results, it was necessary to integrate the two questionnaires according to their anonymized registration keys in an Excel file. After excluding eight questionnaires that produced highly distorted results, a Pearson correlation analysis was performed using the SPSS program. A significance probability of 95% was used. The degree of significance deemed relevant is 0.05 or less. Furthermore, according to the final sample of 492 people and a confidence level of 95%, the margin of error for the survey was 4.31%.

This research had the approval of the URJC Research Ethics Committee, with internal registration number: 090120240192024.

4. DISCUSSION

First of all, the results of the empirical research will be presented in a table, in which the correlations between the different advertising formats and media and the different personality traits can be seen. Subsequently, the results will be analyzed trait by trait, and the section will end with a discussion.

First and foremost, a general overview reveals differences in the various traits. There are different attitudinal and cognitive responses. Two traits show a strong correlation: open-mindedness and extraversion at its positive extreme. These traits affirm exposure to and attention to all advertising formats and media. Positive responsibility is selective but also positively correlates with many variables. Finally, neuroticism barely correlates, and when it does, it is with the negative pole. Agreeableness also shows a moderate degree of correlation.

Table 1. *Correlations between personality traits and exposure to, and attention paid to, advertising formats and media.*

		Cuts TV advertising	Product placement	YouTube ads	Instagram Stories	TIK TOK	Youtubers Influencers
OPENNESS	Pearson correlation	,174**	,214**	,249**	,201**	,133**	,143**
	Sig. (bilateral)	,000	,000	,000	,000	,005	,002
AGREEABLENESS	Pearson correlation	,105*	,108*	,124**	,086	,049	,011
	Sig. (bilateral)	,020	,016	,006	,062	,298	,814
EXTRAVERSION	Pearson correlation	,158**	,184**	,208**	,193**	,197**	,165**
	Sig. (bilateral)	,000	,000	,000	,000	,000	,000
NEUROTICISM	Pearson correlation	-,040	-,061	-,112*	-,063	,030	,023
	Sig. (bilateral)	,376	,180	,013	,174	,528	,614
CONSCIENTIOUSNESS	Pearson correlation	,152**	,200**	,184**	,110*	,047	,017
	Sig. (bilateral)	,001	,000	,000	,018	,316	,716

		billboards and marquees	Radio	Spotify	General RRSS	Digital Press	paper press
OPENNESS	Pearson correlation	,220**	,196**	,186**	,217**	,248**	,210**
	Sig. (bilateral)	,000	,000	,000	,000	,000	,000
AGREEABLENESS	Pearson correlation	,113*	,120**	,070	,079	,126**	,095*
	Sig. (bilateral)	,012	,008	,137	,082	,005	,036
EXTRAVERSION	Pearson correlation	,173**	,205**	,183**	,186**	,232**	,251**

NEUROTICISM	Sig. (bilateral)	,000	,000	,000	,000	,000	,000
	Pearson correlation	-,030	-,059	-,025	-,046	-,091*	-,081
	Sig. (bilateral)	,502	,196	,591	,305	,044	,073
CONSCIENTIOUSNESS	Pearson correlation	,116**	,173**	,104*	,091*	,181**	,148**
	Sig. (bilateral)	,010	,000	,026	,044	,000	,001

		Google advertising	Online games advertising	mobile tablet games	SMS email	mailbox / letter
OPENNESS	Pearson correlation	,241**	,210**	,176**	,225**	,231**
	Sig. (bilateral)	,000	,000	,000	,000	,000
AGREEABLENESS	Pearson correlation	,106*	,050	,052	,141**	,177**
	Sig. (bilateral)	,019	,281	,261	,002	,000
EXTRAVERSION	Pearson correlation	,218**	,193**	,169**	,216**	,211**
	Sig. (bilateral)	,000	,000	,000	,000	,000
NEUROTICISM	Pearson correlation	-,068	-,010	-,074	-,060	-,107*
	Sig. (bilateral)	,130	,832	,109	,182	,018
CONSCIENTIOUSNESS	Pearson correlation	,153**	,056	,062	,205**	,199**
	Sig. (bilateral)	,001	,228	,181	,000	,000

Source: Elaborated by the authors.

First, extraversion is characterized by sociability, assertiveness, and seeking external stimulation. This trait shows strong correlations with all media and advertising formats. Those with this trait have a considerable emotional load, which leads them to be exposed to all media and formats with a high level of attention. For example, this trait is strongly linked to digital and social platforms that enable active interaction and dynamic content. Extroverted people, for instance, have positive relationships with TikTok and YouTube. These platforms encourage participation and connection with other users through their visual and social nature of the content. According to Furnham and Cheng (2024), extroverts are optimistic and supportive of their broader social network.

These findings are consistent with previous research. Wilt and Revelle (2015) note that extroverts seek out environments that reinforce their social identity and provide opportunities for active interaction. Grochowska et al. (2024) also support this idea, identifying that this segment positively values advertisements aligned with their sense of belonging and that reinforce their social connections. Additionally, research by Anastasiei and Dospinescu (2018) shows that extroverts are highly likely to generate positive word-of-mouth for like-minded brands. Given their character, it is to be expected that this positive word-of-mouth is also very intense within their social network.

In addition, extroverts tend to show a strong affinity for Spotify, a platform that combines entertainment and customizable options, allowing them to enjoy shared or integrated experiences in their social life. It also highlights a significant positive relationship with Google advertising, which is perceived as highly relevant and aligned with the individual interests of this group.

In general, extroverts not only seek exposure to various advertising formats, but also actively engage with them, especially in the digital environment, maximizing their effectiveness, as demonstrated by Anastasiei and Dospinescu (2018) in their analysis of digital word-of-mouth. This reinforces the importance of designing strategies that integrate interactive and social elements to capture their attention and foster their engagement with brands.

Introverts show no correlations. It is a segment that as defined by Furnham and Cheng (2024) are "trustworthy, honest and stable". They are also people who avoid great exposure. González Llamas (2024) already proved that introverts recognized that they were less exposed to the different television channels, and did not correlate with any of them. In addition, due to their own way of being, more withdrawn, it is very likely that they have a low tolerance to advertising exposure in general.

Second, the results of open-mindedness are discussed. Given that this trait is characterized by curiosity, a search for novelty and difference, and a great affinity for aesthetics, it is reasonable to conclude that it leads to a greater tendency to pay attention to advertising. Advertising always looks for ways to stand out, and a taste for aesthetics is a common theme in many advertisements. Furthermore, advertisements change the environment, making it different. Thus, it is reasonable to assume that people with high levels of openness are more receptive. It is important to note that this research does not focus on the persuasive effect of ads; rather, it focuses on whether people are aware of their exposure to and attention to different advertising media. In other words, the research is in the initial stages of the persuasive process: attention is given, and awareness of perception and processing is established. The final results are beyond the scope of this research. As Furnham and Cheng (2024) recognize, high openness to experience indicates a curious, experimental type of person with a great capacity for learning. With their open and receptive attitude, they view advertising as another source. Moschis and Moore (1982) demonstrated advertising's ability to generate social learning in the short and long term, and the highly open-minded segment is much more receptive to this learning. This is consistent with Grochowska et al.'s (2024) research, which found that, in general, people with high openness tend to value advertisements more.

Taking into account that people with low open-mindedness tend to be traditional and cognitively rigid, it makes sense that they would avoid anything that disturbs their "order" and space. They may have a tendency to avoid things, so there is no correlation. With this segment, it is quite possible that the advertising brand is very influential and considered familiar and their own. Additionally, the message may fit with their mental frameworks. This segment tends to reinforce their reality rather than change it, which is the opposite of people with a high level of open-mindedness.

Third, responsibility is addressed. This trait, defined by organization, self-control, and achievement orientation, shows positive relationships with various reliable, structured

advertising formats and media. This trait shows high positive correlations with traditional and digital formats perceived as organized, serious, and relevant. For example, a strong affinity is observed for radio, a medium that conveys consistency and predictability—key values for responsible individuals. This preference also extends to digital newspapers, which are recognized for providing clear, organized information. The choice of headline and time of consumption depend on the subject.

Similarly, people with high levels of responsibility have a positive relationship with Google's highly personalized advertising, which offers user-specific content. In addition, they stand out in their affinity towards SMS mail, a direct format that delivers structured and relevant messages in an effective way.

These results align with previous studies, such as McCrae and Costa (1987), who highlight that responsible individuals prefer structured and trustworthy environments. In addition, Mulyanegara *et al*. (2009) highlight that this segment responds favorably to clear messages that emphasize product quality and are proposed as highly trustworthy. The preference for these formats suggests that decision makers value media that respect their time and prioritize the quality of the information being presented.

In general, this segment shows selective but positive behavior towards advertising formats that provide utility and structure, making it an ideal target audience for strategies that prioritize clarity, conscientiousness and trust. Moreover, this segment has an added advantage: they themselves are very structured in their habits, so their affinity with the media entails a long-term link: if the medium is in their habits, it will be difficult for them to abandon it. Along these lines, when analyzing the Spanish television market from the Big Five, González Llamas (2024) observed that the responsible subjects correlated positively with TVE's *La 1*. This channel is characterized by having little advertising, as well as formal and extensive news programs. In other words, it is a channel with predictable programming and serious, relevant content, far from sensationalism.

Fourth, there is agreeableness. Although it maintains a high number of correlations, it is worth noting that it only correlates strongly with YouTube ads, radio, the digital press, text messages/emails, and mailings. In other words, it correlates strongly with situations where one cannot "avoid" them. Interestingly, there is no correlation on Instagram or TikTok. Given that it is a very friendly, affectionate, and trusting segment, one might expect advertising to reach them more in affective environments, but it is actually the opposite. They focus on content from their friends and the people they follow and avoid advertising.

Advertising on TV during commercial breaks, product placement, billboards, bus shelters, print media, and Google reach them, but the correlation is low. They pay less attention and only expose themselves to what is necessary. In other words, advertising reaches them "somewhat" in well-known and regular spaces, but they do not actively search for it, even though it is very present. In fact, commercial breaks on television are predictable and easily avoidable. It should be noted that this profile is more humanistic than materialistic. Therefore, advertising itself may not be an attractive stimulus and may depend heavily on proximity to content. Grochowska et al. (2024) found in their research that this segment is receptive to advertising from well-known brands with which they have an existing bond, consistent with their inherent affection.

After all, the segment does show a strong correlation with YouTube, radio, digital press, SMS/email and mass mailing/letter. These media are highly personal. On YouTube, for example, content is self-selected, often micro content or personal lists of content and ads are often unpredictable. Advertising benefits from the link to the content. Something similar happens with radio and digital press. SMS/email and mass mailing/letters are forms of advertising that are directly integrated into people's lives, making them more interesting.

Finally, addressing the neurosis segment, which has shown few correlations, is necessary. It has shown three low correlations, and with the trait being negative, it indicates low neuroticism. It is important to note that research in marketing and advertising generally determines that neurosis has little influence. Along these lines, Grochowska et al. (2024) note in their research that neuroticism does not affect the perception of advertisements to which the sample is exposed, contrary to what happens with the other Big Five traits. Furthermore, Anastasiei and Dospinescu's (2018) study found that people high in neuroticism exhibit high digital word-of-mouth activity. The authors suggest that this occurs because people high in neuroticism, who are distrustful and prone to negativity, engage in digital word-of-mouth marketing when a product or brand exceeds their initial expectations and provides a positive experience. In this case, a positivity that favors recommendation is activated, but their general tendency is to expect disappointment.

That is to say, high neurotics have the distrust and expectation of frustration of essence, so it is logical that they disbelieve and avoid advertising. Their loyalty to products is based on their own experience.

Low neurotics are self-interested, selfish, critical and disbelieving people, so it is normal that they tend to avoid advertising. However, they show three positive (but low) correlations: YouTube, digital press and mass mailing / letter. With YouTube it can be understood by the great ability to choose content suitable for them and that it has an environment that makes it difficult to avoid advertising. In addition, Google, with YouTube as with its search engines, tries to adapt advertising to the interests of users, so the possibility of finding advertising consistent with oneself is high. With the digital press it is possibly a similar mechanism. Not so much with mass mailing, but it is true that much of the advertising received by letter also connects with people's areas of interest.

In short, consumer analysis using the Big Five allows for the detection of differences in attitudes, behaviors, and affinities associated with media exposure and formats. Moreover, as Hirsh et al. (2012) and Grochowska et al. (2024) have shown, the Big Five also indicates affinity for different messages, providing personalized messages that target the motivations that activate them.

Some limitations are evident, particularly in media and formats that do not discriminate as much as YouTube ads and digital press. However, YouTube offers a wide variety of content and attempts to customize advertisements based on audience interests. Similarly, digital press is chosen, so it is reasonable to expect that some of its advertising will also connect better with different interests.

As for the method of data collection, the use of an incentivized panel could generate certain biases, either due to social desirability or to the effect of the incentive itself. In

relation to the first possible source of bias, it was already indicated in the methodological section that eight questionnaires were excluded due to extremely high levels of distortion. Furthermore, the extensive validation of the Big Five model in its self-report mode - the most common form of application - allows us to argue that this type of bias should not affect the participants of a panel more than the rest of the general population.

Regarding the possible influence of the incentive, it is pertinent to refer to the study by Larson and Sachau (2009), who also worked with an incentivized panel. One of their objectives was to test whether there were differences in the perception of products depending on the level of incentive received (high, medium or low, compared to market research standards). Among their conclusions, the authors pointed out that "the incentive received (high, medium, low) did affect product perception, but did not interact with personality variables" (González Llamas, 2024, p. 12). Furthermore, they assert that the most effective means of applying the Big Five model for marketing purposes is through incentivized panels, especially large ones.

5. CONCLUSIONS

The results of this research underline the relevance of the Big Five model as a theoretical framework for understanding how personality traits influence attention and perception towards different advertising formats and media. The correlations found allow highlighting specific patterns that link each trait with particular preferences, providing unique insights for the design of personalized advertising strategies.

Thus, traits such as open-mindedness and extroversion correlate with all media and formats, i.e. they are two highly receptive segments. The former because of their search for novelty and the latter because of their great social energy. In addition, they are associated with a greater affinity towards the TikTok platform and Youtubers/Influencers or online games, showing a greater tolerance for what is unpredictable and different.

Traits such as agreeableness and responsibility favor traditional, trustworthy formats such as radio and digital press. While highly friendly people seek familiar, personalized content, responsible people prefer structured, formal media with serious content. Conversely, as seen in other research, people with high neuroticism have little influence on advertising exposure and evaluation. Low neurotics show a great affinity only for highly customizable formats adapted to their specific needs.

The Big Five approach in neuromarketing therefore allows for a deeper and more segmented understanding of the audience. Personalizing campaigns based on these traits increases their relevance and effectiveness by connecting with consumers on an emotional level. It is well known that, for communication to be effective, it must not only contain a relevant message, but also be transmitted through a channel that is appropriate and effective for the receiver. This research shows that, for example, if you want to reach extroverted audiences, there is a wide variety of channels available. However, due to their tendency to express themselves, socialize and get excited, it is essential that the communication integrates social networks that optimize its reach and impact. Particularly relevant in this regard is the research by Balakrishnan *et al.* (2019), which identifies high extraverts as potential digital "haters" due to their marked inclination to give opinions on all types of content, as well as that of Anastasiei and Dospinescu (2018), who recognize them as great prescribers. While multiple channels can reach this profile, digital channels are undoubtedly the ones that best optimize results.

In contrast, people with a high level of neuroticism tend to avoid both messages (Grochowska *et al.,* 2024) and channels, as evidenced by this research. This does not imply that communication should not be directed towards this segment, as it is still necessary to make products and their values known. However, this is a profile that requires tangible products to a high degree. Therefore, the communication effort should be concentrated at the point of sale, which is the environment closest to the products.

In short, this research shows that, based on the Big Five model, it is possible to optimize the media plan, adjusting communications to the most relevant channels for each individual according to their personality traits.

The findings of this research reinforce the idea that the personality traits of the Big Five model significantly influence attention and perception towards different advertising formats. By contextualizing these results within the existing literature, it underscores the importance of designing advertising strategies that consider the unique preferences and behaviors of each personality segment, thus maximizing the effectiveness of advertising campaigns.

Taking into account the findings of this research, as well as those of the authors analyzed, it can be hypothesized that personality traits in the persuasive process of advertising act in at least 4 phases:

1. Exposure/receptivity. As demonstrated in this research and that of González Llamas (2024), personality traits can facilitate or hinder exposure to media and advertising.
2. Attention: Likewise, not all traits favor attention to advertising equally after exposure.
3. Identification/Emotional Connection: For this step, reference is made to the following research: Wilt and Revelle (2015) on the tendency of traits to generate environments that align with self-perception; Mulyanegara et al. (2009) on how traits generate product affinities; Marbach et al. (2016) on how traits activate emotions and motivations that connect individuals with products and brands; González Llamas (2024) on the differential connection between free-to-air television offers and personality traits In this phase, subjects filter based on whether the offer is for them or if they are interested.
4. Persuasion: In this phase, research by Hirsh et al. (2012) and Grochowska et al. (2024) shows that traits determine affinity for customized messages.

Taken together, the findings of this study reinforce the importance of personalizing advertising strategies based on consumers' personality traits. Understanding these differences allows not only to maximize the effectiveness of campaigns, but also to improve the consumer experience by delivering more relevant and personalized messages. Furthermore, it is evident that attention and perception, as the first steps in the persuasive process, are profoundly influenced by the individual characteristics of consumers, which opens new opportunities for future research in this field.

Limitations are observed in this research, such as reaching low extraverts and low open-mindedness. These are considered to be two different problems. High extraversion and

high open-mindedness are used in advertising as reference identities, so from this generalization it can be assumed that advertising excludes numerous population segments in its proposal of identities. In addition, introverts show an added difficulty, according to this research and that of González Llamas (2024). The detachment of this segment from exposure to the media in general is demonstrated, which is consistent with their more intimate and reserved attitude.

Looking to the future, given the predominance of two traits that determine affinity towards the media and advertising formats in the research results, it seems advisable to carry out analyses from multi-trait segmentations rather than from the traits individually. Along these lines, it would be wise to follow the approach of Xu et al. (2022), which has been scarcely developed by other authors to date. This approach involves working with broad typologies of subjects that combine several Big Five traits to achieve more precise results, since most people exhibit more than one trait that influences their personality.

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