

**MASTER
MANAGEMENT**

**What is “fake” in news advertising
cosmetics? The impact of fake news
on consumers’ intention to purchase
and positive word-of-mouth**

Eduarda Filipa Barbosa da Costa

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Eduarda Filipa Barbosa da Costa

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Ana Pinto Lima, PhD

Luísa Helena Pinto, PhD

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Abstract

Social media has facilitated the spread of fake news, as anyone can create true or false content. Consequently, the phenomenon has been studied by several researchers, who have concluded that fake news can negatively affect brands and consumers. As a result of its prominent presence on social media, the cosmetics industry has been a target of fake news. Nevertheless, little is known about the effects of fake news on the intention to purchase and positively recommend cosmetics products. To address this gap, this dissertation examines the impact of multiple fake news features (i.e., news truthfulness and source credibility) on consumers' behavioural intentions (i.e., purchase intention and positive word-of-mouth intention) as well as understands which consumers' traits (i.e., consumer innovativeness and novelty seeking) most stimulate the intent to purchase and positive word-of-mouth (WOM) of cosmetics products. This quantitative study employs a between-subjects experimental design measuring consumers' reactions to a fictitious webpage containing a cosmetics product underneath the news advertisement. Hereby, news truthfulness and source credibility did not reveal a significant impact on consumers' intentions. Instead, consumer innovativeness and novelty seeking were identified as the main drivers of these intentions, while the education level was found to exert a negative impact. The findings contribute to the literature on the relationship between fake news, consumer traits, and intentions in the cosmetics context. Nowadays, there is a widespread distrust of cosmetics advertisements, as they often include exaggerated claims that result in a general lack of trust in brand communication, particularly among more educated consumers. As consumers become more reliant on their inherent personality traits rather than advertisements when making purchasing decisions, marketers are witnessing a shift in their power towards consumers. The findings also have managerial implications for marketers, brand managers and policymakers, given that such current challenge requires the attention of various stakeholders.

Keywords: fake news, cosmetics, purchase intention, positive WOM intention, consumer marketing, marketing, advertising

JEL-codes: M31, M370

Resumo

As redes sociais facilitaram a disseminação de *fake news*, pois qualquer pessoa pode criar conteúdo verdadeiro ou falso. Consequentemente, o fenómeno tem sido estudado por vários investigadores, que concluíram que as *fake news* podem afetar negativamente as marcas e os consumidores. Como resultado da sua presença proeminente nas redes sociais, a indústria cosmética tem sido alvo de *fake news*. Contudo, pouco se sabe sobre os efeitos das *fake news* na intenção de comprar e recomendar positivamente produtos cosméticos. Para colmatar esta lacuna, esta dissertação examina o impacto de múltiplas características de *fake news* (ou seja, a veracidade da notícia e a credibilidade da fonte) nas intenções comportamentais dos consumidores (ou seja, intenção de compra e intenção de recomendar positivamente), bem como compreende quais as características dos consumidores (ou seja, inovação e busca por novidades) mais estimulam a intenção de comprar e recomendar positivamente produtos cosméticos. Este estudo quantitativo baseado num *design* experimental entre sujeitos avalia as reações dos consumidores a uma página fictícia que contém um produto cosmético abaixo do anúncio publicitário. Assim, a veracidade da notícia e a credibilidade da fonte não revelaram um impacto significativo nas intenções dos consumidores. Em vez disso, a inovação e a procura de novidades por parte dos consumidores foram os principais impulsionadores destas intenções, enquanto o nível de educação exerceu um impacto negativo. Os resultados contribuem para a literatura sobre a relação entre *fake news*, características e intenções do consumidor no contexto cosmético. Atualmente, existe uma desconfiança generalizada relativamente à publicidade sobre cosméticos, visto que sistematicamente contém afirmações exageradas, resultando numa falta de confiança na comunicação da marca, especialmente entre os consumidores mais instruídos. Conforme os consumidores valorizam mais os seus traços de personalidade comparativamente à publicidade, os profissionais de marketing deverão reconhecer aquilo que incentiva o comportamento dos consumidores. As conclusões têm implicações de gestão para profissionais de marketing, gestores de marca e decisores políticos, uma vez que este desafio requer a atenção de vários intervenientes.

Palavras-chave: *fake news*, cosméticos, intenção de compra, intenção de recomendar positivamente, marketing de consumidor, marketing, publicidade

Códigos JEL: M31, M370

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1. Introduction

Social media has been increasingly used to access and share information, witnessing an worldwide average daily social media usage of 151 minutes recorded in 2023 (Dixon, 2023). This phenomenon is emphasised in younger generations, which makes them more exposed to fake news (Watson, 2022). Simultaneously, there is a rising easiness of spreading fake news since anyone can create and publish content, be it true or false (DuBois et al., 2011). Indeed, although more than 50% of european adults get news and current affairs on social media, almost 65% consider it the least trusted news source (Watson, 2023).

According to Domenico et al. (2021), fake news represents an increasingly impactful problem for consumers and brands. By introducing and spreading false beliefs, fake news can mislead and confuse prior knowledge and experience of brands, negatively impacting consumers' attitudes. This can result in significant confusion, for instance, about important health issues (Domenico et al., 2021). For firms, fake news can damage their reputations (Berthon & Pitt, 2018) and financials (Joyce et al., 2021), representing declines in share prices and sales (Sharif et al., 2022).

Regarding cosmetics, special consideration must be taken since this beauty products impact consumers' health (Cosmetics Europe, 2023a) and this market accounted for €88 billion in retail sales price in Europe in 2022 (Cosmetics Europe, 2023a). In addition, the cosmetics industry relies mainly on social media (Duh, 2021; Petruzzi, 2023a) despite its products being one of the most targeted by fake news (Alnazzawi et al., 2022). Therefore, since social media plays a significant role in consumers purchasing behaviour (Petruzzi, 2022a; Shah et al., 2019), fake news can have unpleasant effects when consumers believe that a specific malicious product has positive consequences (Rao, 2021).

Marketing and consumer behaviour need to be studied more in connection with fake news (Visentin et al., 2019). There is still room to research behavioural impacts and attitudinal changes (Domenico et al., 2021), primarily in terms of cosmetics. Most studies have focused on natural personal care products, focusing on stimulus associated with the beneficial and sustainable characteristics of organic products (Kumar et al., 2021; Matic & Puh, 2016), generally disregarding the influence of fake news. This is the gap addressed by the present study, which aims to determine the characteristics of fake news that impact the purchase intention and the positive word-of-mouth (WOM) intention and to understand which

consumers' traits most stimulate the intent to purchase and positive WOM of cosmetics products.

As such, the following research questions are proposed:

(Q1) *Which fake news features are most relevant in predicting consumers' purchase intention of cosmetics and positive WOM intention?*

(Q2) *Which consumers' traits are most relevant in predicting consumers' purchase intention of cosmetics and positive WOM intention?*

This quantitative study uses an experimental between-subjects factorial design that measures consumers' responses to a fictitious webpage containing a news story and a cosmetics product. To this end, news truthfulness (not truthful news vs truthful news) and source credibility (low source credibility vs high source credibility) were manipulated to appraise respondents' reactions toward the news and the source. First, a preliminary study took place to select the main study's experimental stimuli and refine the measurement scales for the research key constructs. Then the resulting experimental study was used and a questionnaire-based survey was distributed to a convenience sample of adult Portuguese consumers, especially from generations Y and Z, aged between 18 and 35 (Prelog & Bakić-Tomić, 2020). These individuals were targeted because they are the primary users of social networking sites (Watson, 2022) and, as a result, those who purchase cosmetics more frequently (Chevalier, 2022; Kunst, 2019a).

The present study contributes to the literature in several ways. Firstly, by extending the existing literature on fake news and consumer behaviour, it makes a unique contribution to the interconnection of these themes with intentional behaviours regarding cosmetics. Secondly, by conducting a pioneering experimental study in this area as an extension of pre-validated models, it enhances the existing knowledge about cosmetics advertisement.

This investigation provides valuable insights for brands to navigate the challenges they face in the current social media landscape (Talwar et al., 2019), where fake news proliferate and consumers share behaviours. It is intended to provide marketers and brand managers with sufficient information to navigate the demanding consumer sphere, establish long-term trust, and forward brand loyalty.

This document is organised into six sections. In addition to this introduction, this dissertation includes a literature review of the most relevant concepts and an overview of what has been studied on these topics. Next, based on the relevant literature, the following chapter proposes a theoretical model and the resulting hypotheses, followed by the research

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methodology and presentation of the research findings. Finally, the document culminates with a discussion of the results, and key contributions and limitations of the study, and suggestions for future research, including the main conclusions.

2. Literature Review

2.1. Fake News Conceptualization

The phenomenon of fake news, which is “*the deliberate presentation of (typically) false or misleading claims as news, where the claims are misleading by design*” (Gelfert, 2018, p. 84), is not recent. However, it has only received researchers’ attention since 2012, when the first two papers on this topic were published (Lewandowsky et al., 2012; Polage, 2012). Some breakthrough political events, such as the 2016 US Presidential elections and the Brexit referendum, have increased academic attention to the phenomenon (Allcott & Gentzkow, 2017; Bastos & Mercea, 2017). Since then, according to Domenico et al. (2021), most of the studies are from psychology, information technology and politics, with marketing one of the less studied disciplines. Furthermore, the themes that have received more focus have been the dissemination process of fake news and its spreading channel features. However, the outcomes of fake news at the consumer level are still to be explored (Domenico et al., 2021).

There are varied definitions for fake news (Table 1, but the term still needs to be clarified and better defined (Domenico et al., 2021). Given the focus of this dissertation on fake news propagated on social media, more specifically on social networking sites (SNS), usually known as Web-based platforms that grant users the chance to create profiles and interact with each other (Boyd & Ellison, 2007), the conceptualization of fake news from Gelfert (2018) is herein adopted: “*fake news is the deliberate presentation of (typically) false or misleading claims as news, where the claims are misleading by design (which refers to) systemic features of the design of the sources and channels by which fake news propagates and, thereby, manipulates the audience’s (pre-existing) cognitive processes*” (p. 84).

Table 1: Conceptualization of Fake News (*Adapted from Domenico et al. (2021)*).

Definition	Author
All kinds of false stories or news that are mainly published and distributed on the Internet to purposely mislead, befool or lure readers for financial, political or other gains.	Zhang and Ghorbani (2020)
Disinformation that includes all forms of false, inaccurate or misleading information designed, presented and promoted to intentionally cause public harm or for profit (e.g., commercial click-bait).	Martens et al. (2018)

Definition	Author
Deliberate presentation of typically false or misleading claims as news, where these are misleading by systemic features of the design of the sources and channels by which fake news propagates and manipulates the audience's pre-existing cognitive processes.	Gelfert (2018)
Manufactured news stories that are presented as legitimate sources and disseminated on social media to mislead people for ideological and/or financial gain.	Lazer et al. (2018)
Communicated brand claims designed to intentionally conceal or deceive consumers.	Berthon and Pitt (2018)
Fake news was systematised in six methods previously studied: satire, parody, fabrication, manipulation, propaganda, and advertising.	Tandoc et al. (2018)
Intentionally manufactured articles to mislead that can be proven as false.	Özgöbek and Gulla (2017)
Intentionally false headlines and stories written and published on a website that is designed to resemble a real news site and is spread via social media.	Rochlin (2017)
News stories that aim to describe real-life events often try to copy traditional media coverage practices. Yet, its perpetrators know it is significantly false, and is spread with the two goals of being widely retransmitted and misleading at least some of its audience.	Rini (2017)
Intentionally and verifiably, wrong or false news is produced to earn money and/or promote ideologies.	Allcott and Gentzkow (2017)

Multiple endeavours to define the term resulted in two recurrent domains: facticity and intention (Tandoc et al., 2018). According to the authors, *facticity* refers to the extent to which news is based on facts, varying from low to high. On the other hand, the *intention* to deceive encompasses the misleading purpose of the news, driven by financial, political or ideological reasons (Tandoc et al., 2018).

Although fake news may affect business and marketing (Domenico et al., 2021), the concept also includes advertisement as a typology of untruthful information with monetary incentives to deceive (Tandoc et al., 2018). Some scholars even argue that branding communication, to some extent, can be considered a form of fake news (Berthon et al., 2020),

as marketing has challenged the distinction between facts and fiction (Berthon & Pitt, 2018; Rahmanian, 2023).

Fake news advertisement will be considered during this experiment, given that selective or misleading claims are designed to delude consumers into making decisions, such as purchasing announced products (Rao, 2021), thereby exposing consumers, especially those less informed, to claims that are hard to verify (Rao & Wang, 2017). The cosmetics industry is used given its economic and social importance. Cosmetics products have played various and important roles in human history, from religious practices to people’s health (Draelos, 2000). Today, cosmetics belong to a science-driven and highly innovative sector that deeply invests in R&D (Cosmetics Europe, 2023b) to meet ever-increasing consumer expectations for new, better, and safer products (Cosmetics Europe, 2023b).

2.2. The Effect of Fake News on Behavioural Intentions

Multiple studies have shown that specific features of fake news (Table 2) significantly impact behavioural intention (Sharif et al., 2022; Visentin et al., 2019). Indeed, Sharif et al. (2022) even suggest that these variables represent a novel approach to operationalise the term. This research will examine two behavioural intentions: *purchase intention*, described as the likelihood of buying a product or service (Wu et al., 2011), and *positive word-of-mouth (WOM) intention*, which is the intention to recommend a product or service to others (Brüggen et al., 2011).

Table 2: Features of Fake News.

Features of Fake News	
News Truthfulness	<p>News truthfulness refers to the authenticity or falsity of the news or content provided (Sharif et al., 2022), and it considers the objective and the communication process used by the source or publisher (Lazer et al., 2018). In this study, news truthfulness will be defined as the actual truthfulness of the shared content (Visentin et al., 2019).</p> <p>Visentin et al. (2019) found that the truthfulness of the news leads individuals to perceive it as more credible instinctively. Therefore, news truthfulness depends on how objectively readers can assess the content’s truthfulness (Visentin et al., 2019).</p>

Features of Fake News

News Credibility

The definition of news credibility in fake news is adapted from the journalism field, being associated with the individual perception that one has regarding the correctness of the content read (Appelman & Sundar, 2015; Oyedeggi, 2010).

The credibility of the news depends on the content's perceived accuracy, authenticity, and believability (Appelman & Sundar, 2015).

Source Credibility

Source credibility is related with the extent to which a reader believes in the content communicated in the source (Sharif et al., 2022; Visentin et al., 2019).

When readers become aware of the falsity of the news, they tend to consider the source unreliable and misleading, but also incompetent, benevolent and dishonest (Torres et al., 2018).

First impressions are detrimental cues that readers use to judge the credibility of a source, more specifically, the first few seconds of users interaction with a source may determine their perception of credibility (Faiola et al., 2011; Lowry et al., 2014).

Credibility assessments vary according to reputable sources and institutional names (Flanagin & Metzger, 2000), as well as website attributes and design, namely color settings, logos, content depth and site complexity (Faiola et al., 2011; Flanagin & Metzger, 2007).

Currently, and up to our knowledge, only one experimental study has attempted to link fake news with consumer behavioural intentions (Visentin et al., 2019). Although the authors did not discover any direct effect from news truthfulness to behavioural intentions, either in terms of purchase intentions or to spread positive word-of-mouth, it was identified a causal path by which people's perceptions of a news story's credibility affect the perceived credibility of the source, leading to changes in brand trust. This, in turn, impacts brand attitudes, ultimately translating into behavioural intentions toward the brand (Visentin et al., 2019).

More recently, Sharif et al. (2022) contributed to the research about the combined effect of news truthfulness, news credibility and source credibility on consumer behavioural intentions. Findings indicated that *news truthfulness*, news credibility, and *source credibility* significantly impact purchase intention and positive WOM intention (Sharif et al., 2022).

News credibility is also perceived as truthfulness (Visentin et al., 2019). Thus, since this concept depends on individual's beliefs and not specifically on material aspects of the news (Appelman & Sundar, 2015), it is not manipulated in this study – only measured through a scale (see more in Appendix E).

Consequently, it is possible to hypothesise:

H1: News truthfulness is positively associated with cosmetics' (a) purchase intention and (b) positive WOM intention.

H2: Source credibility is positively associated with cosmetics' (a) purchase intention and (b) positive WOM intention.

2.3. Determinants of Cosmetics Behavioural Intentions

Certain personality traits can explain behavioural intentions towards cosmetics, as shown in Table 3.

Table 3: Determinants of Cosmetics Behavioural Intentions.

Determinants	
Consumer Innovativeness	Consumer innovativeness is a personality trait that fosters the desire for new and different experiences. It explains some consumers' adoption of new ideas earlier than their peers (Yildirim et al., 2021; Zhang & Hou, 2017).
Novelty Seeking	The novelty-seeking concept relates to the desire to explore new product information (Manning et al., 1995).

Many authors suggested that *consumer innovativeness* affects purchase intention in different settings, specifically new products (Al-Jundi et al., 2019) and fashion products (Nirmala & Dewi, 2011). Particularly, in the cosmetics setting, the findings are similar (Yildirim et al., 2021). However, there needs to be more research regarding the link between consumer innovativeness and positive WOM intention. According to Milaković et al. (2020), consumers tend to engage more in WOM activity when they are more innovative. This includes both spreading and seeking information. Also, consumer innovators spread information more enthusiastically as they enjoy sharing their experiences with others. Thus, consumer innovativeness is positively linked with WOM intention (Milaković et al., 2020).

Hence, the resulting hypothesis is anticipated:

H3: Consumer innovativeness is positively associated with cosmetics' (a) purchase intention and (b) positive WOM intention.

Moreover, in recent studies, *novelty seeking* was found to have a significant effect on the purchase intention of cosmetics (Yildirim et al., 2021), and fruits with novel shapes (Rodriguez et al., 2017) as well as in the repurchase intention in the omnichannel retailing (Kim et al., 2020). On the other hand, the impact of novelty seeking on positive WOM intention has yet to be examined, resulting in a gap that this study attends by proposing the following hypothesis:

H4: Novelty seeking is positively associated with cosmetics' (a) purchase intention and (b) positive WOM intention.

Additionally, research in the cosmetics industry has suggested that demographic characteristics may influence behavioural intentions (Kishore et al., 2022; Kumar et al., 2021; Matic & Puh, 2016; Ngah et al., 2021; Pudaruth et al., 2015; Tengli & Srinivasan, 2022). However, there is inconsistency in the findings regarding the significant impact of age, gender, education, and income levels on purchase intention and positive WOM intention. Therefore, no hypothesis is proposed but these variables will be included as control variables.

2.4. Research Gaps and Justification for the Study

Prior findings have provided the basis to consider the potential impact of *news truthfulness*, and *source credibility* as two key features of fake news that can impact consumers' behavioural intentions, such as *purchase intention* and *positive WOM intention* (Sharif et al., 2022; Visentin et al., 2019). This study examines these predictions in the cosmetics context, also considering consumers' characteristics, such as *consumer innovativeness* and *novelty seeking*, known as determinants of consumers' behavioural intentions (Yildirim et al., 2021).

Although Yildirim et al. (2021) have researched the determinants of cosmetics purchase intentions, there needs to be evidence supporting the relationships between those determinants and the positive WOM intention, a research gap that this dissertation also addresses.

Despite the existing evidence on the effect of fake news on consumer behaviour (Sharif et al., 2022; Visentin et al., 2019), and the knowledge that certain individuals' traits are linked to intentional behaviours about cosmetics (Yildirim et al., 2021), an interconnection between these domains is missing. In other words, making it difficult to understand the effects of fake news on intentional behaviours in the cosmetics context, an association that this study also addresses (Appendix A summarises the relevant findings and gaps from similar papers).

Studying the impact of fake news on consumer behaviour, particularly in the cosmetics industry, is crucial in modern society. Fake news has been spread to deceive or manipulate individuals deliberately (Domenico et al., 2021). As a regular aspect of consumers' daily life, the cosmetics business is particularly susceptible to fake news consequences (Alnazzawi et al., 2022; Cosmetics Europe, 2023a). Therefore, recognising its effect on consumers, brands, and marketers is critical (Domenico et al., 2021). Consumers are directly influenced by cosmetics-related fake news, as their choices and perceptions may be shaped by fabricated information (Rao, 2021; Rao & Wang, 2017). For example, if consumers trust false claims made about the benefits of inferior products, undesirable consequences for their health and well-being may occur (Domenico et al., 2021; Rao, 2021). For brands, the association with fake news can harm their image (Berthon & Pitt, 2018) and financial performance (Joyce, 2021; Rao & Wang, 2017; Sharif et al., 2022). Thus, it is essential to investigate the effects of fake news on consumer behaviour in the cosmetics context to support brand managers effectively navigate the challenges posed (Talwar et al., 2019).

In sum, this study is designed to understand the impact that each fake news feature (i.e., *news truthfulness* and *source credibility* as independent variables) has on consumers' behavioural intentions, respectively in (i) *purchase intention* and (ii) *positive WOM intention* (i.e., the two main dependent variables). Furthermore, consumers' characteristics, such as their self-rated innovativeness and novelty seeking, which were found to be relevant determinants of cosmetics' purchase intention (Yildirim et al., 2021) will be considered.

Therefore, this investigation addresses the following research questions:

(Q1) *Which fake news features are most relevant in predicting consumers' purchase intention of cosmetics and positive WOM intention?*

(Q2) *Which consumers' traits are most relevant in predicting consumers' purchase intention of cosmetics and positive WOM intention?*

2.5. Research Model and Hypotheses

Following the literature review and seeking to better explain the purpose of this investigation, a research model is proposed as shown in Figure 1.

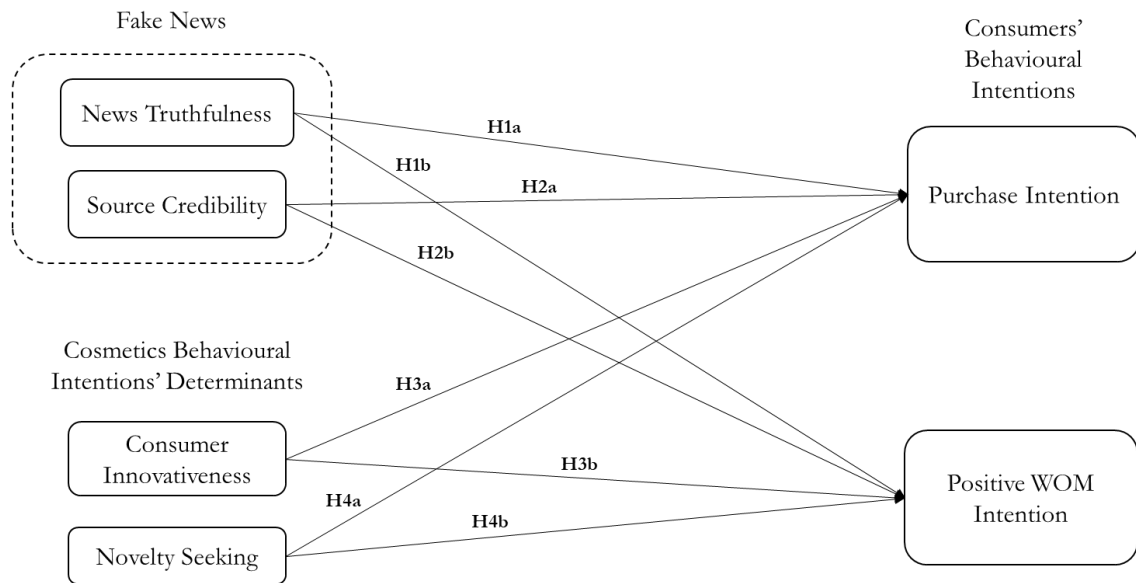


Figure 1: Research Model.

To address the research gaps discussed earlier, it is possible to formulate several research hypotheses, which are organised and presented below (Table 4).

Table 4: Research Hypotheses.

Hypotheses	Description	Previous studies
H1	News truthfulness is positively associated with cosmetics' (a) purchase intention and (b) positive WOM intention.	Sharif et al. (2022); Visentin et al. (2019)
H2	Source credibility is positively associated with cosmetics' (a) purchase intention and (b) positive WOM intention.	
H3	Consumer innovativeness is positively associated with cosmetics' (a) purchase intention and (b) positive WOM intention.	Yildirim et al. (2021)
H4	Novelty seeking is positively associated with cosmetics' (a) purchase intention and (b) positive WOM intention.	

3. Methodology

3.1. Methodological Approach

Previous research has delved into how fake news affects consumer behaviour and intentions across various industries and contexts (see Appendix B for an overview of methodologies from similar studies). However, most have applied a quantitative methodology based on a cross-sectional design that collected data by questionnaires (Kumar et al., 2021; Sharif et al., 2022; Yildirim et al., 2021). Survey-based approaches rely on self-reported perceptions, which can be subjective and prone to biases such as social desirability or recall errors (Clarke et al., 2008; Patten, 2016). Thus, the methodology could not consist of directly asking participants about their perceptions of fake news and its perceived impact on their behavioural intentions.

To test the hypotheses, this study applies a quasi-experimental design. Using an experimental study to detect the effects of fake news on purchase intention and positive WOM intention provides a more accurate assessment, as it allows the manipulation of variables and isolates causal relationships in a controlled environment (Webster & Sell, 2014). Visentin et al. (2019) successfully employed fictitious websites in an experimental design to use the same approach, so a quasi-experimental between-subjects design was deemed adequate.

As a result, this research uses fictitious webpages containing news advertising a particular cosmetics product, which is displayed in the footer, to assess whether respondents perceive the truthfulness of the news and credibility of the source and how that influences their behavioural intentions, either in terms of purchase intention or positive WOM intention, regarding the advertised cosmetics product.

3.2. Research Design

This study employs an experimental between-subjects factorial design (Cooper & Schindler, 2014), whereby participants were randomly assigned to one of four conditions: 2 (not truthful news vs truthful news) x 2 (low source credibility vs high source credibility). Two independent variables are used concerning news truthfulness and source credibility. The webpages design drew inspiration from Visentin et al. (2019), except that in this study, all

news stories were created to advertise a hypothetical cosmetics product and evaluate respondents' (a) purchase intention and (b) positive WOM intention towards the product.

The experimental conditions are summarised in Table 5, consistent with the four websites randomly sorted.

Table 5: Experimental Conditions.

Condition	News Truthfulness	Source Credibility
A	Not Truthful News	Low Source Credibility
B		High Source Credibility
C	Truthful News	Low Source Credibility
D		High Source Credibility

3.3. Stimulus Materials and Pre-test

The fictional websites designed by Visentin et al. (2019) were adapted to create the webpages for the four experimental conditions of this study (see Appendix C for details). Beyond fabricating fictitious news stories about a hypothetical cosmetics product, the adaptations made were mainly to update the webpage to the Portuguese personal care industry context by changing: (1) the website header – from “News | Sport | Weather | Shop | Earth | Travel | More” to “Notícias | Moda | Beleza | Saúde | Revista | Procurar”, (2) the logo of the sources - from "BBC" vs “BuzzFeed” to "Farmácias Portuguesas" vs "Flash!" and (3) the advertisement – from a real world-famous automotive brand ad to an imaginary hydrating facial cream picture.

The website included three main sections, specifically (1) an area on the top of the page where the logo of the source was displayed, thus manipulating the source credibility (“Farmácias Portuguesas" vs "Flash!"); (2) a central area with the news story containing the headline and the body of the news, manipulating the news truthfulness (neutral and factual information vs fabricated and embellished information); and (3) the advertised cosmetics product image, which appeared in the bottom of the page, below the news, and was kept constant in the four conditions.

In the first webpage section, source credibility was manipulated by selecting *Farmácias Portuguesas* as the high-credibility source and *Flash!* as the low-credibility source. *Farmácias Portuguesas* was chosen due to its reputation and institutional name, which endorses its credibility (Flanagin & Metzger, 2000). In opposition, *Flash!* is generally known as a

sensationalist gossip newspaper with deteriorated credibility (Rahmanian, 2023). Besides, two versions of the logos - with the original colours and in black-and-white edition - were initially tested to assess if the colours would affect the assessment of the sources' source site. The coloured version was used.

In the second section of the webpage, the truthfulness of the news was manipulated by creating a false news story based on an existing news story about a similar product, in this case, the Cetaphil Moisturizing Cream. The real advertisement included the following expressions: "*o creme nutre a pele desde o primeiro dia*", "*repara a barreira em apenas 1 semana*" and "*hidrata durante 48 horas*". To fabricate the false news story, the effects and results were exaggerated - as commonly observed in fake news advertisements (Berthon et al., 2020) - by altering the previous phrases by, respectively, "*o creme nutre a pele desde o primeiro minuto*", "*repara a barreira em apenas 1 dia*" and "*hidrata durante 72 horas*", to suggest even faster and more long-lasting effects than the original news story.

To further enhance the distinction between true and false news stories, well-known industry claims that focus on the cosmetic benefits of the product were added in an embellished format. Embellished claims, such as "*melhorar a textura da pele*" and "*torna a pele mais lisa e uniforme*", were exclusively featured in fake news stories, while the truthful news stories did not contain such statements.

An additional test was included to explore the potential impact of price on the perceived truthfulness of the news. In the false news stories, the price reduction was exaggerated to make the product more appealing, creating doubt about the authenticity of the advertisement. For example, the fake news story stated that "*o preço deste produto é 80% inferior a outros cosméticos com características semelhantes*", while, in the truthful news stories, the price was aligned with other similar products in the market, stating that "*o preço deste produto é similar a outros cosméticos com características semelhantes*".

The last section of the webpage included a picture of a facial hydrating cream. This choice was based on the importance that skincare holds in the European cosmetics market (Petruzzi, 2022b, 2023b), particularly in the facial category (Petruzzi, 2023c), where moisturising cream is the second most popular product (Grand View Research, 2022; Petruzzi, 2023d). To avoid any other potential bias elicited by the selected image, it was used an image of a generic, non-branded product. The facial hydrating cream depicted was gender-neutral, as the idea was to promote a clean and inclusive approach to skincare.

At the bottom of the webpage, similarly to Visentin et al. (2019), social media icons were displayed along with the share function to increase the realism of the materials.

Afterwards, to guarantee an adequate manipulation of the independent variables (Cooper & Schindler, 2014) and verify if it was noticed, safeguarding the realism of the websites, a pre-test of the materials was conducted with 38 respondents, mainly students. Participants were asked to evaluate the adequacy of the webpage's structure and layout and to assess the truthfulness of the news story. This preliminary test confirmed that most participants noticed the manipulated stimuli, with some expressing suspicion regarding the news truthfulness of the fabricated news stories and the transparency of the respective sources. Meaningful conclusions were drawn from this pre-test to select the experimental stimuli that properly manipulated the independent variables and induced maximum realism.

Regarding the variable of source credibility, the pre-test confirmed that *Farmácias Portuguesas* was associated with high source credibility, while *Flash!* was associated with low source credibility. Interestingly, the colour of the logos also influenced people's perceptions. Keeping the colour of the logos had a more positive impact than using black-and-white versions. The black-and-white logos were easily overlooked; thus, the source's credibility was also affected. In other words, the black-and-white version of the *Farmácias Portuguesas* logo did not convey its high credibility as expected, and the same applied to the *Flash!* logo, which did not emphasise its lack of credibility as strongly, so the original-coloured logos were used.

Concerning news truthfulness, the pre-test indicated that the exaggerated and false claims helped distinguish the false from the truth stories. The variable of price also contributed to the perception of news truthfulness. When the news story was true, including the price factor made it appear more truthful, whereas the opposite was observed for false stories.

As a result, four versions of the experimental stimuli were selected: (A) Not Truthful News (exaggerated claims with reduced price factor) + Not Credible Source (*Flash!* original logo); (B) Not Truthful News (exaggerated claims with reduced price factor) + Credible Source (*Farmácias Portuguesas* original logo), (C) Truthful News (original news story with regular price factor) + Not Credible Source (*Flash!* original logo), and (D) Truthful News (original news story with regular price factor) + Credible Source (*Farmácias Portuguesas* original logo). The pre-test suggested that these versions successfully manipulated the independent variables and induced maximum realism for the subsequent experimental phases.

3.4. Measures

To determine how each fake news feature (i.e., news truthfulness and source credibility) impacts consumers' behavioural intentions, respectively, (i) purchase intention and (ii) positive WOM intention, the measures employed in this study have been sourced from prior research studies and validated scales (see Appendix E for additional details).

Purchase Intention. It was adapted from the original three-item scale from Yildirim et al. (2021). Respondents were asked to rate, on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree), the degree to which they intended to purchase the new cosmetics product mentioned in the news story. The items include: “*Estou a ponderar comprar este novo produto cosmético*”; “*É muito provável que eu compre este novo produto cosmético*” and “*Vou comprar este novo produto cosmético*”. The internal consistency of this scale (Cronbach Alpha) was 0.942, which denotes a high internal consistency, comparable with the original (0.921) from Yildirim et al. (2021).

Positive WOM Intention. It was adapted from the original four-item scale from Visentin et al. (2019). Participants were asked to rate on a four-point Likert scale (1 = strongly disagree; 4 = strongly agree), the degree to which they intended to positively speak about the advertised product. Some items are: “*É provável que eu partilhe com outras pessoas informação positiva sobre o produto apresentado*” and “*É provável que eu recomende a outras pessoas o produto apresentado*”. The internal consistency of this scale (Cronbach Alpha) was 0.957, representing a high internal consistency, similar to the original (0.97) from Visentin et al. (2019).

News Credibility (also defined as News Perceived Truthfulness). It was adapted from the original three-item scale from Visentin et al. (2019). Readers were asked to rate, on a seven-point Likert scale (1 = describes very poorly; 7 = describes very well), to what extent the following adjectives describe the content they have read: “*Preciso*”; “*Autêntico*” and “*Credível*”. The internal consistency of this scale (Cronbach Alpha) was 0.810, which adequately compares to the original (0.97) from Visentin et al. (2019).

Source Credibility. It was adapted from the original six-items scale from Visentin et al. (2019). Readers were asked to rate, on a seven-point Semantic Differential scale, to what extent the news source they have read is, along with others: “*Totalmente Confiável/Totalmente Não Confiável*”; “*Totalmente De Qualidade/Totalmente Sem Qualidade*” and “*Totalmente Imparcial/Totalmente Parcial*”. The internal consistency of this scale (Cronbach Alpha) was 0.889, which is sufficiently close to the original (0.94) from Visentin et al. (2019).

Consumer Innovativeness. It was adapted from the original three-item scale from Yildirim et al. (2021). Respondents were asked to rate their perceived level of innovativeness, on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). The sample items are: “*Gosto de experimentar produtos cosméticos novos e diferentes*” and “*Experimento novos produtos cosméticos antes dos meus amigos*”. The internal consistency of this scale (Cronbach Alpha) was 0.844, comparable with the original (0.817) from Yildirim et al. (2021).

Novelty Seeking. It was adapted from the original seven-item scale from Yildirim et al. (2021). Participants were asked to rate their perceived level of novelty seeking, on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). Some items include: “*Tento conhecer novos produtos cosméticos frequentemente*”; and “*Prefiro ir a lugares onde vou aprender sobre novos produtos cosméticos*”. The internal consistency of this scale (Cronbach Alpha) was 0.925, representing a high internal consistency, equivalent to the original (0.921) from Yildirim et al. (2021).

Control variables.

To control for potential confounding effects (Wulff et al., 2023), all participants were questioned about their age, gender, education, current occupation, and household income. Additionally, subjects were asked whether they were accustomed to using and purchasing facial cream, as well as their frequency of use of social media. Age was computed in years. Gender was dummy-coded (0 = female; 1 = male), as well as education (0 = No HE; 1 = HE – Higher Education (HE)), household income (0 = equal or lower than local minimum wage (10.640€/yearly, gross, 2023); 1 = higher than local minimum wage), and current occupation (0 = not working; 1 = working). The same applies to the use of facial cream and the use of social media (0 = no use; 1 = regular use, for both) and purchase of facial cream (0 = no-buy; 1 = regular buy).

3.5. Data Collection Procedures and Sample

The cross-sectional survey was administered in Portuguese via Qualtrics (see Appendix D). A convenient sample of Portuguese adult consumers (i.e., people older than 18 holding the Portuguese citizenship) were target, and data were collected between April and June. Conducting the survey online facilitated data collection and randomising responses, reducing the risk of common method variance (Podsakoff et al., 2003). The total number of responses received was 822, of which 492 (59.85%) were valid and used for this study. Participants were primarily approached through social media platforms such as

Instagram, Facebook, WhatsApp, LinkedIn, and institutional email, with an invitation to participate in a study on social media content and consumer behaviour. Subjects were randomly assigned to one of the four experimental conditions/webpages after consent. Readers were asked to read and analyse the news story carefully and answer questions about the advertised cosmetics product. The aim was to evaluate their (a) purchase intention and (b) positive WOM intention, as well as their impressions of the news perceived truthfulness and source credibility. The questionnaire also inquired about the participants' consumer innovativeness and novelty seeking. Then, questions were included to control for any confounding effects related to the use and purchase of facial cream or the use of social media (Wulff et al., 2023). Before completion, manipulation checks were performed to determine whether readers detected any manipulations and accurately recalled the information presented in the stimulus materials (Wulff et al., 2023). Lastly, readers were asked to provide demographic information, to characterise the sample, and provide open feedback.

To determine the a priori sample size for this investigation, GPower software was used, considering the desired effect size and power level. For this research, an effect size of 0.05 was selected, which aligns with the expected small effect size of fake news (de Saint Laurent et al., 2022). Furthermore, we established a significance level (alpha) of 0.05, a 95% confidence interval, and a standard statistical power level of 0.95. Based on these factors, GPower suggested an appropriate sample size of 402 participants.

Table 6 illustrates the characteristics of the sample per experimental condition.

Responses are well-balanced across all experimental conditions ($N = 123$). In terms of gender, the majority of the sample identifies as female (72.8%), which was anticipated, as women tend to represent the largest revenue share in the cosmetics market (Grand View Research, 2022; Kunst, 2019b; Nitesh et al., 2021). Participants were generally young ($M = 25.97$, $SD = 7.84$, with a minimum of 18 years and a maximum of 60 years old), with a high level of education (77%), currently employed (55%) and earning above the minimum wage (64.8%). Most of the sample uses (82.5%) and purchases (77.8%) facial cream and regularly engages with social media (97%). On average, participants displayed a reasonable degree of consumer innovativeness (CI) and novelty seeking (NS) since the average for the overall sample ($M(CI) = 2.64$, $M(NS) = 2.70$) surpasses the midpoint (2.5) of the 1-5 rating scales for these traits.

Table 6: Sample Composition by Experimental Condition.

Experimental Condition	N	Gender		Age		Education		Current Occupation (working)	Income (> min wage)	Use of Facial Cream	Purchase of Facial Cream	Use of Social Media	Consumer Innovativeness		Novelty Seeking	
		Female	Male	M	SD	< HE	HE						M	SD	M	SD
A (No NT x Low SC)	123	74,80%	24,40%	24,65	6,69	26,00%	74,00%	56,10%	68,30%	83,70%	81,30%	99,20%	2,65	1,01	2,68	1,10
B (No NT x High SC)	123	69,90%	30,10%	25,09	6,30	16,30%	83,70%	57,70%	61,00%	79,70%	74,80%	96,70%	2,68	1,09	2,72	1,06
C (NT x Low SC)	123	74,00%	25,20%	27,17	8,94	21,10%	78,90%	52,80%	65,90%	82,10%	78,00%	94,30%	2,70	1,11	2,76	1,11
D (NT; High SC)	123	72,40%	26,80%	26,98	8,84	28,50%	71,50%	54,50%	64,20%	84,60%	77,20%	98,40%	2,51	1,12	2,63	1,16
Overall Sample	492	72,80%	26,60%	25,97	7,84	23,00%	77,00%	55,30%	64,80%	82,50%	77,80%	97,20%	2,64	1,08	2,70	1,10

Notes. NT - News Truthfulness, SC - Source Credibility, HE - Higher Education, Current Occupation - dummy coded (0) not working (1) working, Income - dummy coded (0) equal or lower than local minimum wage (10.640€/yearly, gross, 2023) (1) higher than local minimum wage, Use of Facial Cream - dummy coded (0) no use (1) regular use, Purchase of Facial Cream - dummy coded (0) no-buy (1) regular buy. M = Mean, SD = Standard Deviation.

3.6. Manipulation Checks

Previously to the demographical questions, participants went through a manipulation check to ensure that the information presented in the news story was detected and accurately recalled to guarantee a proper manipulation of the independent variables (Cooper & Schindler, 2014).

Therefore, respondents evaluated to what degree they agreed with each statement, through a 7-point Likert scale ranging from (1) *discordo totalmente* to (7) *concordo totalmente*. For that, the following statements were included: 1 - *A notícia foi publicada no site da Flash!* (The news was published on the *Flash!* website); 2 - *A notícia foi publicada no site das Farmácias Portuguesas* (The news was published on the Farmácias Portuguesas website); 3 - *O creme mencionado na notícia melhora a textura da pele* (The cream mentioned in the news improves skin texture); 4 - *O creme mencionado na notícia nutre a pele desde o primeiro minuto* (The cream mentioned in the news nourishes the skin from the first minute); 5 - *O creme mencionado na notícia nutre a pele desde o primeiro dia* (The cream mentioned in the news nourishes the skin from the first day); 6 - *O creme mencionado na notícia ajuda a reparar a barreira de hidratação da pele em apenas 1 dia* (The cream mentioned in the news helps repair the skin's moisture barrier in just 1 day); 7 - *O creme mencionado na notícia ajuda a reparar a barreira de hidratação da pele em apenas 1 semana* (The cream mentioned in the news helps repair the skin's moisture barrier in just 1 week); 8 - *O creme mencionado na notícia torna a pele mais lisa e uniforme* (The cream mentioned in the news makes the skin smoother and more even); 9 - *O creme mencionado na notícia hidrata durante 72 horas* (The cream mentioned in the news moisturizes for 72 hours); 10 - *O creme mencionado na notícia hidrata durante 48 horas* (The cream mentioned in the news moisturizes for 48 hours); 11 - *O creme mencionado na notícia está à venda por um preço 80% inferior a outros cosméticos com características semelhantes* (The cream mentioned in the news is on sale for a price 80% lower than other cosmetics with similar characteristics); 12 - *O creme mencionado na notícia está à venda por um preço similar a outros cosméticos com características semelhantes* (The cream mentioned in the news is on sale at a price similar to other cosmetics with similar characteristics); 13 - *A notícia inclui uma fotografia de um creme facial hidratante* (The news story includes a picture of a moisturizing facial cream).

Based on the statistical tests conducted (ANOVA), the experimental manipulation was not entirely effective. Although participants showed distinct perceptions regarding the

source credibility, they failed to recognize the "lack of truthfulness" in the fake news versions, indicating that the news truthfulness variable was not successfully manipulated.

Regarding the levels of source credibility associated with the two sources, results confirm that the high-credibility source (i.e., *Farmácias Portuguesas*) was perceived by individuals as significantly more credible than the low-credibility source (i.e., *Flash!*), providing support for this variable experimental manipulation.

However, the manipulation of news truthfulness did not produce a significant difference in participants' ratings, suggesting that the manipulation might not have been as effective in influencing their perceptions of news truthfulness. According to the findings, the respondents perceived true and untrue information as equally plausible. Notably, one item needed to be clarified among the participants. Those who were exposed to untruthful news were more certain that they had read the statement "the cream nourishes the skin from the first day" (present in the truthful news) rather than "from the first minute" (present in the untruthful news), even though they had seen the latter statement. This inconsistency exposes a significant obstacle in effectively manipulating perceived truthfulness and highlights the need for further investigation and refinement in future research.

4. Results

4.1. Sample Differences by Experimental Condition

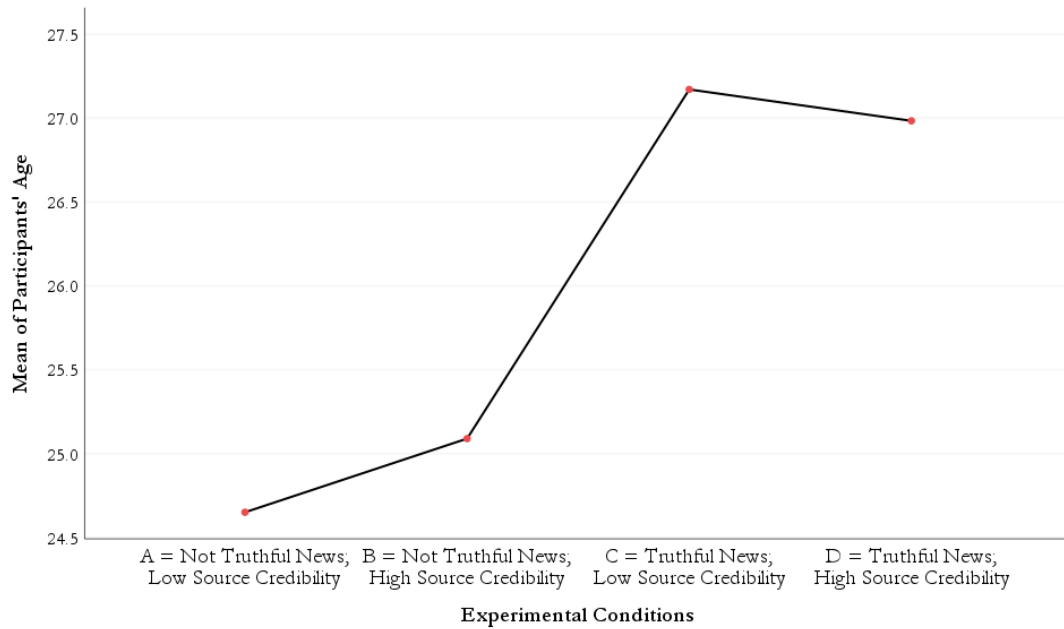
Respondents were randomly allocated to one of the four experimental conditions. Thus, Chi-square Test of Independence (for categorical variables) and several one-way analyses of variance (ANOVA – for numerical variables) were computed to determine sample demographic differences across the conditions.

The data exhibited in Table 7 indicates that there were no significant differences between the conditions for respondents' gender, education, current occupation, income, use and purchase of facial cream, use of social media, consumer innovativeness, and novelty seeking among the four groups ($p > .05$). This confirms that the sample was evenly dispersed across the experimental conditions (Wulff et al., 2023). However, one exception was the participants' age ($p = .018$). Plot 1 displays the variations between each experimental group, revealing that respondents from condition C have a significantly higher average age than those from conditions A and B. As a result, this factor was controlled in the following data analysis.

Table 7: Test Results for Differences Between Experimental Conditions.

Demographics' Variables	F or χ^2	Sig.
Age	3.373*	.018
Gender	2.112	.909
Education	6.100	.107
Current Occupation	.658	.883
Income	1.524	.677
Use of Facial Cream	1.184	.757
Purchase of Facial Cream	1.544	.672
Use of Social Media	6.176	.103
Consumer Innovativeness	.754	.520
Novelty Seeking	.312	.817

Notes: Significant at $*p < .05$



Plot 1: Mean Plot of Participants' Age.

4.2. Scales Validity and Reliability

Before conducting hypotheses testing, multiple Exploratory Factor Analysis (EFA) were performed to verify the suitability of the scales used (Appendix F for details). Overall, the scales used had high internal consistency, with the minimum Cronbach alpha obtained being 0.810, indicating good internal consistency (Pestana & Gageiro, 2003). Thus, the results confirmed that the measures used in this research were appropriate and consistent with those used in previous studies (Visentin et al., 2019; Yildirim et al., 2021). Table 8 provides a summary of each measure's description.

Table 8: Descriptive of the Confirmatory Factor Analysis.

Measure	N Items in this study	Adapted from	Original Cronbach Alpha	M	SD	Obtained Cronbach Alpha
Purchase Intention	3	Yildirim et al. (2021)	0,921	2,32	1,12	0,942
Positive WOM Intention	4	Visentin et al. (2019)	0,97	2,05	0,90	0,957
Consumer Innovativeness	3	Yildirim et al. (2021)	0,817	2,64	1,08	0,844
Novelty Seeking	7	Yildirim et al. (2021)	0,921	2,70	1,10	0,925
News Credibility	3	Visentin et al. (2019)	0,97	3,90	1,43	0,810
Source Credibility	6	Visentin et al. (2019)	0,94	3,69	1,30	0,889

Notes. M = Mean, SD = Standard Deviation.

4.3. Descriptive Analysis

The descriptive statistics for the dependent variables per experimental condition are presented in Table 9. Based on the results, participants had a relatively low intention to purchase the advertised cosmetics product, with a mean score below the mid-point on a scale of 1 to 5. However, they did express a generally positive WOM intention, with mean scores slightly above the mid-point on a scale of 1 to 4, except for in condition C (truthful news x low source credibility). Overall, participants' behavioural intentions were not very strong, regardless of which condition they were assigned to.

Table 9: Descriptive Statistics for the Dependent Variables per Experimental Condition.

Dependent variables	News Truthfulness (0 = No)				News Truthfulness (1 = Yes)			
	Low Source Credibility		High Source Credibility		Low Source Credibility		High Source Credibility	
	M	SD	M	SD	M	SD	M	SD
Purchase Intention	2,34	1,14	2,43	1,16	2,24	1,1	2,27	1,09
Positive WOM Intention	2,08	0,88	2,11	0,95	1,95	0,87	2,06	0,91

Notes. M = Mean, SD = Standard Deviation.

4.4. Correlation Analysis

Spearman's correlation coefficients were computed to assess the correlation among the study variables (Table 10).

It has been observed that certain demographic factors are intercorrelated with each other. Specifically, gender had a negative correlation with the use and purchase of facial cream (respectively ($r = -0.447, p < .01$ and $r = -0.438, p < .01$), consumer innovativeness ($r = -0.321, p < .01$), and novelty seeking ($r = -0.361, p < .01$), indicating that female respondents tend to use and purchase more facial cream and identify as more innovative and novelty-seeking. On the other hand, the age of respondents had a positive correlation with their current occupation ($r = 0.565, p < .01$) and a negative correlation with the use of social media ($r = -0.139, p < .01$), indicating that older participants are more employed and engage less with social media. Besides, education had a positive correlation with household income ($r = 0.134, p < .01$) and the use of social media ($r = 0.110, p < .05$), suggesting that more educated respondents tend to earn more and engage more with social media.

Table 10: Descriptives and Correlations among Study Variables.

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Respondents' Demographics</i>																
1. Gender (1 = male)	-	-		0,008	-0.321**	-0.361**	0,061	0,021	-0,046	-0.447**	-0.438**	-0,059	-0,008	0,035	-0.144**	-0.158**
2. Age	25,97	7,84			-0,006	-0,004	0,023	0.565**	-0,008	0,035	0,061	-,139**	0,081	0,039	-0,079	-0.136**
3. Consumer Innovativeness	2,64	1,08				0.803**	-0,061	0,035	-0,007	0.326**	0.394**	0,070	-0,023	-0,039	0.441**	0.411**
4. Consumer Novelty Seeking	2,70	1,10					-0,069	0,033	0,002	0.312**	0.374**	,112*	-0,007	-0,020	0.420**	0.413**
5. Education (1= HE)	-	-						-0,034	0.134**	0,029	0,011	,110*	-0,043	0,014	-0.114**	-0.150**
6. Occupation (1 = working)	-	-							-0,080	0,027	0,081	-0,056	-0,033	0,016	-0,053	-0,088
7. Income (1 > min wage)	-	-								0,031	0,068	0,002	0,004	-0,047	-0,083	-0,074
8. Use of Facial Cream (1 = yes)	-	-									0.773**	,114*	0,021	-0,011	0.117**	0.131**
9. Purchase of Facial Cream (1 = yes)	-	-										,115*	-0,005	-0,044	0.157**	0.158**
10. Use of Social Media (1 = yes)	-	-											-0,049	0,024	0,021	0,067
<i>Criterion</i>																
11. News Truthfulness (1 = yes)	-	-												0,000	-0,054	-0,046
12. Source Credibility (1 = yes)	-	-													0,022	0,024
<i>Dependent Variables</i>																
13. Purchase Intention	2,32	1,12														0.780**
14. Positive WOM Intention	2,05	0,90														

Notes. Two-tailed Spearman correlations. Significant at * $p < .05$; ** $p < .01$. $n = 492$. $M = Mean$, $SD = Standard Deviation$.

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Additionally, subjects who use facial cream more often are also more likely to purchase it frequently ($r = 0.773, p < .01$) and engaging more with social media ($r = 0.114, p < .05$). Likewise, purchase of facial cream was positively correlated with the use of social media ($r = 0.115, p < .05$).

Regarding the determinants of cosmetics behavioural intentions, consumer innovativeness was positively correlated with novelty seeking ($r = 0.803, p < .01$) and the use ($r = 0.326, p < .01$) and purchase of facial cream ($r = 0.394, p < .01$), suggesting that innovative consumers tend to be more novelty-seeking and more frequent users and buyers of facial creams. Similarly, novelty seeking was positively correlated with the use ($r = 0.312, p < .01$) and purchase of facial cream ($r = 0.374, p < .01$) and the use of social media ($r = 0.112, p < .05$).

Although there is no correlation between demographic variables and the independent variables (i.e., news truthfulness, and source credibility), there are some correlations with the dependent variables (i.e., purchase intention and positive WOM intention). In particular, gender was negatively correlated with purchase intention ($r = -0.144, p < .01$) and positive WOM intention ($r = -0.158, p < .01$), indicating that female participants demonstrated higher behavioural intentions regarding the advertised cosmetics product. Also, older respondents tend to manifest lower behavioural intentions, but more significantly regarding positive WOM intention ($r = -0.136, p < .01$). Similarly, more educated people portrayed lower intentions, both to purchase ($r = -0.114, p < .01$) and to spread positive WOM ($r = -0.150, p < .01$). On the other hand, use and purchase of facial cream had a positive correlation with purchase intention ($r = 0.117, p < .01$; $r = 0.157, p < .01$, respectively) and positive WOM intention ($r = 0.131, p < .01$; $r = 0.158, p < .01$, respectively). Likewise, both consumer innovativeness and novelty seeking were positively correlated with purchase intention ($r = 0.441, p < .01$; $r = 0.420, p < .01$, respectively) and positive WOM intention ($r = 0.411, p < .01$; $r = 0.413, p < .01$, respectively).

Furthermore, news truthfulness and source credibility (i.e., the independent variables) were neither intercorrelated nor correlated with any dependent variable. However, even if not statistically significant, news truthfulness tends to be negatively related to purchase intention ($r = -0.054, p > .05$) and positive WOM intention ($r = -0.046, p > .05$), indicating that untruthful news elicit higher behavioural intentions in the participants. On the other hand, although not statistically significant, source credibility was positively related to

purchase intention ($r = 0.022$, $p > .05$) and positive WOM intention ($r = 0.024$, $p > .05$), suggesting that more credible sources evoke more behavioural intentions.

Finally, purchase intention and positive WOM intention (i.e., the study's dependent variables) were positively intercorrelated ($r = 0.780$, $p < .01$), implying that participants who intended to purchase the advertised cosmetics product were more likely to spread positive WOM about it.

4.5. Hypotheses Testing

To test the proposed hypotheses, multiple linear regression analysis was conducted (Table 11). To account for any potential confounding effects of the respondents' characteristics (Wulff et al., 2023), demographic variables such as gender, age, education, and use and purchase of facial cream were included as covariates in step 1. In step 2, consumer innovativeness and novelty seeking were added, and in step 3, the independent variables were introduced to the model.

Influence of respondents' education

In general, the results (Table 11) establish that respondents' education negatively affected their behavioural intentions, indicating that more educated participants tend to exhibit lower purchase intention ($\beta = -0.124$, $p < .01$) and especially lower positive WOM intention ($\beta = -0.171$, $p < .01$).

Effect of News Truthfulness – Hypothesis 1

Hypothesis 1 predicted that news truthfulness would be positively associated with consumers' cosmetics' behavioural intentions, namely (a) purchase intention and (b) positive WOM intention. However, regression results (Table 11) revealed that, even if not statistically significant, news truthfulness tends to be negatively associated with purchasing intention ($\beta = -0.050$, $p > .05$) and positive WOM intention ($\beta = -0.065$, $p > .05$), suggesting that untruthful news elicit the most behavioural intentions in the participants. These associations were also consistent with the above-described results from the correlation analysis (Table 10). Therefore, hypothesis 1 was not supported.

Table 11: Multiple Regressions of Hypothesized Relationships between Independent and Dependent Variables.

Predictors	Purchase Intention			Positive WOM Intention		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Intercept	3.139***	1.521***	1.516***	3.048***	1.869***	1.858***
<i>Step 1 - Demographics</i>						
Gender (1 = male)	-0.086	0.005	0.005	-0.093	-0.007	-0.008
Age	-0.060	-0.020	-0.014	-0.112*	-0.076	-0.070
Education (1= HE)	-0.124**	-0.091*	-0.093*	-0.171***	-0.141***	-0.139***
Use of facial cream (1 = yes)	-0.029	-0.033	-0.032	0.004	0.002	0.000
Purchase of facial cream (1 = yes)	0.158*	0.000	0.000	0.122	-0.016	-0.015
<i>Step 2 - Cosmetics' Behavioural Intentions Determinants</i>						
Consumer Innovativeness		0.324***	0.323***		0.222**	0.225**
Novelty Seeking		0.175*	0.176**		0.224**	0.225**
<i>Step 3 - Independent Variables</i>						
News truthfulness (A)			-0.050			-0.065
Source credibility (B)			0.043			0.026
A x B			0.000			0.046
<i>Overall F</i>	5.249***	20.697***	14.745***	7.199***	18.461***	13.222***
<i>R²</i>	0,05	0,23	0,24	0,07	0,21	0,22
<i>Adjusted R²</i>	0,04	0,22	0,22	0,06	0,20	0,20
<i>Change in R²</i>	0,05	0,18	0,00	0,07	0,14	0,01

Notes. Gender (0 = Female; 1 = Male), Education (0 = No HE, 1 = HE), Use and Purchase of Facial cream (0 = No, 1 = Yes).

Significant at: * $p < .05$, ** $p < .01$, *** $p < .001$, standardized β coefficients are reported for each step and after Z-score transformation.

Effect of Source Credibility – Hypothesis 2

Hypothesis 2 expected that source credibility would be positively associated with consumers' behavioural intentions towards cosmetics, such as (a) purchase intention and (b) positive WOM intention. Actually, upon analysing the regression results (Table 11), it was found that, although not significant statistically, there was a positive correlation between source credibility and purchase intention ($\beta = 0.043$, $p > .05$) as well as positive WOM intention ($\beta = 0.026$, $p > .05$). This implies that credible sources tend to generate more behavioural intentions, which aligns with the findings from the correlation analysis (Table 10). Nevertheless, since the results were not statistically significant, hypothesis 2 was not supported.

Effects of interaction between news truthfulness and source credibility

The interaction between news truthfulness and source credibility does not significantly impact either purchase intention ($\beta = 0.000$, $p > .05$) or positive WOM intention ($\beta = 0.046$, $p > .05$). Therefore, the relationship between news truthfulness and purchase intention, as well as the relationship between source credibility and purchase intention, are not interdependent or impactful. In simpler terms, the effect of news truthfulness on purchase intention and the effect of source credibility on purchase intention are separate and unrelated. This is also true for positive WOM intention.

Effects of Consumer Innovativeness – Hypothesis 3

Hypothesis 3 anticipated that consumer innovativeness would be positively associated with cosmetics' behavioural intentions about (a) purchase intention and (b) positive WOM intention. The outcomes from Table 11 support the hypothesis for both measures, indicating that respondents with higher levels of innovativeness tend to exhibit higher purchase intention ($\beta = 0.324$, $p < .001$) and positive WOM intention ($\beta = 0.222$, $p < .01$), thus supporting hypothesis 3.

Effects of Novelty Seeking – Hypothesis 4

Hypothesis 4 predicted that novelty seeking would be positively associated with consumers' behavioural intentions concerning cosmetics, specifically (a) purchase intention and (b) positive WOM intention. Indeed, the findings presented in Table 11 provide evidence to support the hypothesis regarding both measures. It suggests that individuals with higher

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levels of novelty seeking were likely to have a greater purchase intention ($\beta = 0.175, p < .05$) and positive WOM intention ($\beta = 0.224, p < .01$), supporting hypothesis 4.

Ultimately, the hypothesis testing results have been summarized in Figure 2.

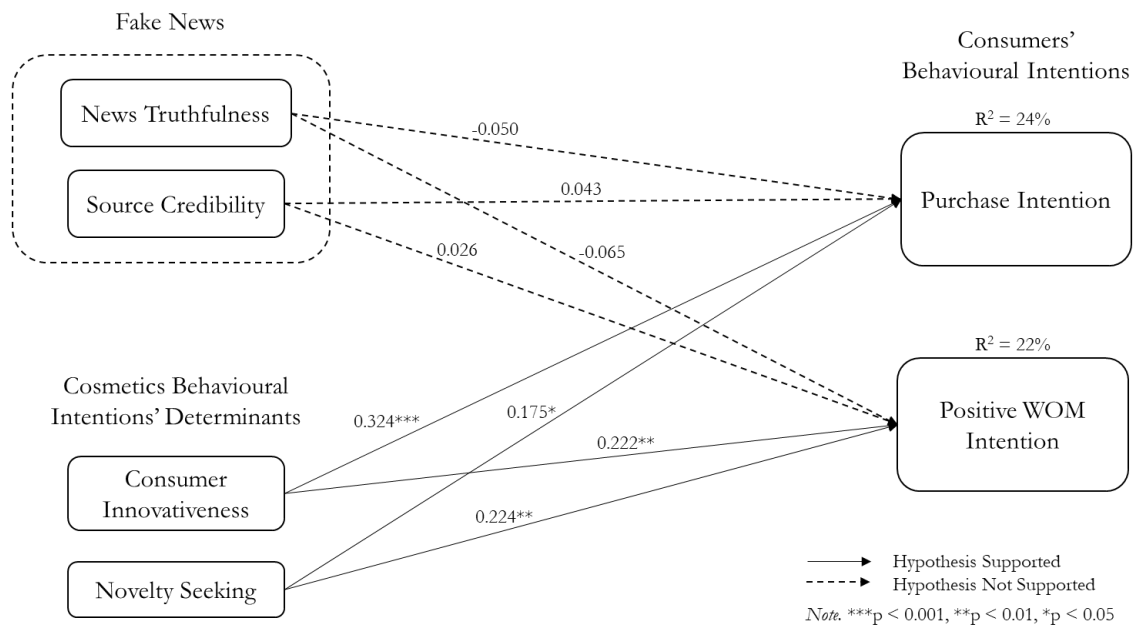


Figure 2: Hypotheses Testing Results.

5. Discussion

The purpose of this research was to examine how different aspects of fake news (i.e., news truthfulness and source credibility) impacted consumers' behavioural intentions towards cosmetics, including (a) purchase intention and (b) positive WOM intention. Also, factors such as consumer innovativeness and novelty seeking were considered.

To achieve this, the following research questions were addressed:

(Q1) Which fake news features are most relevant in predicting consumers' purchase intention of cosmetics and positive WOM intention?

(Q2) Which consumers' traits are most relevant in predicting consumers' purchase intention of cosmetics and positive WOM intention?

Accordingly, this investigation employed a between-subjects experimental design to test four hypotheses, summarising the main results in Table 12.

Table 12: Overall Results from the Hypotheses Testing.

Hypotheses	Description	Results
H1	News truthfulness is positively associated with cosmetics' (a) purchase intention and (b) positive WOM intention.	Not Supported
H2	Source credibility is positively associated with cosmetics' (a) purchase intention and (b) positive WOM intention.	Not Supported
H3	Consumer innovativeness is positively associated with cosmetics' (a) purchase intention and (b) positive WOM intention.	Supported
H4	Novelty seeking is positively associated with cosmetics' (a) purchase intention and (b) positive WOM intention.	Supported

Unexpectedly, the results do not support the effects of the fake news features (i.e., news truthfulness and source credibility) on consumers' behavioural intentions towards cosmetics (Q1) since neither of the associated hypotheses were supported. The impact of news truthfulness on purchase intention and positive WOM intention (H1) was not significant, which is consistent with previous research by Visentin et al. (2019), who found that news truthfulness did not perform a direct effect on behavioural intentions toward the advertised brand. However, the findings contradict a subsequent quantitative study by Sharif

et al. (2022), which found a significant direct effect. The unsuccessful manipulation of news truthfulness could explain these results, as participants could not distinguish fake news from the original advertisement. Moreover, although respondents could distinguish source credibility, the successful manipulation did not result in a significant relationship between source credibility and behavioural intentions (H2). This opposes to previous studies where source credibility significantly affected intentions, either directly (Sharif et al., 2022) or indirectly through a mediation chain (Visentin et al., 2019).

Fake news features were not found to predict consumer behaviour towards the advertised cosmetics product. Yet, consumers' traits such as innovativeness and novelty seeking, significantly influenced both the intention to purchase and to spread positive WOM, as confirmed by the corresponding hypotheses (H3 and H4). This is aligned with prior research (Yildirim et al., 2021) and suggests that open-minded individuals with a strong desire for new and unique products and experiences are more likely to express positive intentions towards novel products, such as cosmetics.

Finally, this study has uncovered that education appears to be a significant negative predictor of consumers' behavioural intentions, as participants who were more educated showed lower purchase and positive WOM intentions. This is surprising, given that no previous study had found this relationship and, thus, it could be a topic of interest for future research.

5.1. Limitations and Further Research

Ultimately, acknowledging the limitations of this study is essential to address them in future research. Firstly, using a convenience sample of adult Portuguese consumers may compromise the findings' representativeness and generalisability to other countries or contexts. Secondly, although the experimental design proved to be the most suitable approach, it still has inherent disadvantages related to the artificial nature of the fabricated webpages. While the materials were deemed realistic, the manipulation of news truthfulness and source credibility was difficult, which might have led the respondents to answer consistently with the researcher request. After all, all respondents showed an average level of behavioural intent, despite the conditions, which might reflect their "intend to be nice".

Future research should refine the manipulation techniques and explore additional factors influencing consumers' responses to fake news and their behavioural intentions towards cosmetics. Specifically, the pre-test material used for manipulating news truthfulness

should be further refined and assessed to ensure more effective manipulation. Moreover, participants in the online experiment had only one opportunity to read and evaluate the randomly assigned webpage, which was pointed out as a potential limitation. Future research could investigate the impact of allowing respondents to revisit the website to see how their perceptions of fake news features and intentions towards the advertised product could change.

Furthermore, this study focused specifically on a hydrating facial cream, and the findings may not directly apply to other types of cosmetics or industries. Products considered more risky or controversial, such as weight-loss, anti-ageing, hair growth, or skin lightening products, may present different consumer dynamics and stimulate more scepticism. Therefore, future research could examine these cosmetics categories or comparably innovative industries to understand if the results can be generalisable.

Lastly, future studies could include additional independent variables in the model, such as potential antecedents of behavioural intentions, namely perceived benefits and perceived risks of the product (Kumar et al., 2021), or investigate the relationships between news truthfulness and source credibility with other dependent variables, such as the actual purchasing and WOM behaviour. Further exploration into the negative impact of education on consumer behavioural intentions and the replication of this study in other countries or contexts with particular sociodemographic characteristics is also suggested.

5.2. Theoretical Implications

The present study contributes to the existing literature in several meaningful ways. Firstly, it extends the understanding of the interconnection between fake news and consumer behaviour in the context of cosmetics, representing a unique addition to this field. Specifically, it represents the first attempt at designing an experimental study that applies fake news in the form of advertisements, allowing for the manipulation of news truthfulness within the sphere of fake news advertising. Although the hypotheses about the effects of fake news were not supported, the study provides valuable insights and materials for future improvement and replication. Additionally, it explores the combination of consumer innovativeness and novelty seeking with positive WOM intention, which has been neglected and is highly significant in understanding consumer intentions related to cosmetics.

Secondly, this research provides a new cultural standpoint by examining these relationships from the perspective of a specific country. This expands on previous studies as

the socioeconomic context, the consumer culture and the education levels differ across regions, which could affect consumers' expectations, sensitivity, and judgment of the fake news advertisement. Moreover, it adds relevance by translating measurement scales into Portuguese for the first time, enhancing accessibility and applicability of the research in Portuguese-speaking contexts.

Thirdly, this study underlines that fake news does not significantly influence consumers' intention to purchase or positively recommend cosmetics products. Cosmetics advertisements are often perceived as deceitful, making it challenging for readers to distinguish between accurate and fabricated news, even in sources that are supposed to be dependable. Instead, this research suggests that consumers' intrinsic characteristics, such as innovativeness and novelty seeking, play a crucial role in their intentions. This indicates a lack of trust among consumers towards brand communications, due to a general scepticism towards exaggerated claims. Therefore, advertisement needs to be more tailored and focused on consumers with such inherent characteristics.

Fourthly, a novel discovery has been revealed by this investigation. Surprisingly, there is a negative association between education level and consumers' intentions, particularly regarding the spread of positive WOM about cosmetics products. Consumers with higher levels of education tend to use social media more often and are, therefore, exposed to false and exaggerated claims more frequently. However, their ability to recognise and distrust these claims is significant, resulting in lower intentions to purchase and recommend these products. This shift in power from marketers to consumers means that consumers now rely more on their own preferences than on advertisements when making purchasing decisions. As a result, consumers have become more capable of analysing and choosing the brands and products they use. This unexpected outcome challenges previous assumptions, as no prior study has identified a significant relationship between these variables, especially in the synthetic cosmetics context, which provides an opportunity for further research.

Finally, this dissertation extends the understanding of advertising in the cosmetics industry by considering regular cosmetics products, which have been relatively neglected in previous studies that predominantly focus on natural or organic personal care products due to their associated benefits (Kumar et al., 2021; Matic & Puh, 2016). Hence, a new facial cream with hydrating purposes is conceived, providing a special perspective on cosmetics offerings.

5.3. Managerial Implications

In general, these contributions enhance the current understanding of the cosmetics industry and hold implications for marketers or brand managers, and policymakers, providing valuable insights on the complex interaction between fake news, consumer traits, and intentional behaviours.

Marketers must adapt their strategies to resonate with their target audience in the cosmetics industry by considering the nuances of news truthfulness, individual consumer characteristics, and educational levels. To achieve this, the communication focus must be shifted towards authenticity, transparency, and proactive receptivity to consumer feedback. This approach should enable them to navigate the ever-changing consumer landscape, establish long-term trust, and brand loyalty.

Primarily, marketers should be aware that fake news advertisement is not a significant determinant in the behavioural intentions regarding cosmetics. While this study represents one of the pioneering attempts to experimentally examine the connection between fake news and advertising, it highlights a growing trend of consumer scepticism towards news and advertisements, particularly in cosmetics. Therefore, marketing strategies should focus on authenticity and transparency instead of solely relying on source credibility. Clear and verifiable information should be shared to foster trust, and it is of utmost importance to diligently verify the truthfulness of marketing messages. Consistency in brand messaging is also crucial, not only in the brand communication but also in their partnerships with social media influencers or celebrities, for example. As a result, this research serves as a reminder rather than an encouragement for marketers to engage in misleading communication about their products in packaging or news content.

Another important practical implication is the confirmation that consumers who exhibit higher levels of innovativeness and novelty-seeking are ideal targets for cosmetics brands (Yildirim et al., 2021). Marketers can leverage this information by designing targeted strategies and campaigns that emphasise message customisation and individualisation to appeal to these consumer segments, thereby enhancing their purchase and positive WOM intentions. Additionally, being open to feedback from innovative and novelty-seeking customers is valuable for adjusting products and strategies to evolving preferences, as these consumers are likely to share their opinions and expectations.

For brand managers, comprehending the motives behind the lower intentions of highly educated consumers can be valuable in devising approaches to motivate. Moreover,

tailoring marketing strategies to reach the most educated and sceptical audience frequenting social media is imperative. This audience demands compelling, authentic and informative content that incorporates their feedback and meets their exacting standards.

In addition, as cosmetics-related brands are particularly vulnerable to fake news, marketers can leverage this unique research on synthetic cosmetics, which currently dominate the cosmetics market, to develop innovative strategies and advertising campaigns that convey the products' advantages in a genuine and transparent way. Thus, promoting and distinguishing these products in the fiercely competitive cosmetics industry to cultivate consumer trust and successful brand management.

Lastly, policymakers play a crucial role safeguarding consumers from fake news that can lead them to use harmful or less beneficial products. With the internet being a highly unregulated platform (Malik, 2018), policymakers must prioritise consumer protection by implementing measures to combat the dissemination of fake news. Policymakers can use the findings from this research to create regulations and guidelines that foster transparency and accountability in advertising and information sharing processes. By doing so, consumers can have access to accurate and reliable information about cosmetics products, empowering them to make well-informed decisions based on trustworthy sources.

6. Conclusion

This dissertation extended preliminary research and pre-validated models to explore the impact that various fake news features, such as news truthfulness and source credibility, have on consumers' behavioural intentions, namely purchase intention and positive WOM intention applied to the cosmetics context. Similarly, the investigation sought to understand which consumers' traits, particularly consumer innovativeness and novelty seeking, most stimulate these intentions regarding cosmetics.

Previous research has indicated that news truthfulness and source credibility positively influence consumer behaviour. However, this study has found that fake news in cosmetics advertisement does not significantly impact consumers' intentions. As anticipated, the findings emphasise the importance of consumer innovativeness and novelty seeking, as these personality traits strongly predict purchase and positive WOM intentions towards the advertised facial cream. Additionally, this study also found a negative effect of education level on consumers' behaviour, as more educated respondents displayed lower intentions towards the cosmetics product.

This study contributes to the literature and various stakeholders. Consumers often find cosmetics advertisements misleading and struggle to distinguish between true and false information, even from reliable sources. This scepticism is stimulated by recurring embellished claims, which results in a general lack of trust in brand communication. As a result, fake news advertisement does not have a significant impact on consumers' intentions towards cosmetics. Instead, being innovative and open to experiencing new products are more significant factors in shaping intentions. In addition, highly educated individuals are more discerning and less likely to trust brand communications that feature exaggerated claims on social media. To navigate this landscape, marketers and brand managers should prioritise authenticity, transparency, and responsiveness to consumer feedback while cultivating trust and brand loyalty. Policy makers should establish clear rules and standards to promote transparency and accountability in advertising and information sharing on the unregulated internet, thus safeguarding consumers.

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Appendixes

Appendix A – Literature Review of Similar Studies

Author(s)	Country	Main Aim	Relevant Findings	Relevant Limitations/GAP	Methodology
Kumar et al. (2021)	India	<p>(1) How are openness to change, perceived benefits, and perceived risks associated with purchase intentions towards natural personal care products?</p> <p>(2) How are purchase intentions and system trust associated with the propensity of believing and acting on fake news?</p> <p>(3) How does brand trust moderate the association of intentions with its antecedents and consequents?</p>	<p>Purchase intentions are associated with the propensity of believing and acting on fake news, meaning that consumers who intend to buy and consume natural/organic personal care products in the immediate future will be susceptible to negative news received about the any brand selling such products without verifying its authenticity.</p> <p>Findings suggested that consumers with positive purchase intentions will be vulnerable to the negative news they are exposed to, which will cause their disengagement with the brand.</p>	<p>This study considers the stimulus and benefits/risks related with the consumption of organic personal care products. Also, purchase intention is tested as an antecedent of the propensity of believing and acting on fake news. Therefore, the impact that fake news has on purchase intentions is not addressed.</p>	Quantitative
Visentin et al. (2019)	Italy	<p>Examine potential impact of fake news on adjacent brand ads: whether the visual association of an ad with adjacent fake news leads to a credibility spillover - from the article/source to the (car dealer) brand</p>	<p>The news objective truthfulness exerts no direct effect on behavioural intentions toward the brand (i.e., intention to purchase, and spread word-of mouth). However, there is a chain of effects whereby the impact of fake news (news truthfulness) on behavioural intentions is fully mediated by people's perceptions of the news' credibility, which affected the perceived credibility of the sources, which then influenced brand trust, which finally translated into brand attitudes.</p>	<p>The effects of news truthfulness, and source credibility on purchase intention and positive WOM intention were only studied through the mediation chain.</p>	Between-subjects experimental design

Sharif et al. (2022)	Pakistan	How fake news can cause an impact on consumer behavioural intentions in today's era when fake news is prevalent and common.	<p>News truthfulness, news credibility and source credibility are proposed as the operational definition of fake news.</p> <p>The study tested their combined effect on purchase intention and positive WOM intention and found that each has a significant impact on purchase intention and WOM.</p>	No specific industry/context was given to test the hypotheses. The sample (70 respondents) was limited to members from a university. Measurement scales were not available.	Quantitative
Yildirim et al. (2021)	Turkey	Examine the role of consumer innovativeness, novelty seeking, and trustworthiness in willingness to pay and purchase intention for brands and products in the cosmetics and personal care products context.	Consumer innovativeness and novelty seeking both have a statistically significant positive impact on purchase intention.	<p>The sample was limited to consumers older than 18 years old, who use cosmetics/personal care products in Turkey.</p> <p>Willingness to pay and purchase intention were studied. However, different dependent variables (such as WOM) could be examined.</p>	Quantitative

Appendix B – Methodology of Similar Studies

Author(s)	Country	Industry/Context	Methodology	Data Collection	Sample Size	Key Informant	Statistical Analysis	Measurement Scales
Kumar et al. (2021)	India	Natural personal care products	Quantitative	Questionnaire	390	consumers	Covariance-based structural equation modelling (CB-SEM)	5-point Likert scale: openness to change perceived benefits perceived risks purchase intentions system trust brand trust propensity of believing and acting on fake news
Visentin et al. (2019)	Italy	Car Dealers	Between-subjects experimental design	(a) Preliminary study: mock-up news webpage + questionnaire (b) Main study: mock-up news webpage + questionnaire	(a) 248 (b) 400	(a) participants from groups on social media (b) participants from Prolific	Logistic regression model ANOVA Mediation analysis (Process macro for SPSS)	3, 4 & 6-point Likert scale: news credibility (3) source credibility (6) brand trust (4) brand attitude (3) deception detection self-efficacy (3) intention to visit the dealer (3) word-of-mouth (4) purchase intention (3)
Sharif et al. (2022)	Pakistan	Social Media and SNS (Social Networking Sites)	Quantitative	Questionnaire	70	faculty, staff and students of COMSATS University Islamabad	Partial least square – structural equation modelling (PLS-SEM)	X
Yildirim et al. (2021)	Turkey	Cosmetics and personal care products	Quantitative	Questionnaire	407	consumers	Structural equation modelling	5-point Likert scale: consumer innovativeness novelty seeking trustworthiness purchase intention willingness to pay

Appendix C – Experimental Conditions

Experimental Condition A (Not Truthful News | Low Source Credibility)

FLASH!

NOTÍCIAS

MODA

BELEZA

SAÚDE

REVISTA

PROCURAR



Novo creme facial hidratante melhora a textura da pele e proporciona uma hidratação intensa e duradoura comprovada

Novo creme facial hidratante melhora a textura da pele, nutre-a desde o primeiro minuto e ajuda a reparar a barreira de hidratação natural da pele em apenas 1 dia, para um alívio imediato e duradouro. Está clinicamente comprovado que este creme nutritivo torna a pele mais lisa e uniforme, hidrata durante 72 horas e restaura completamente a barreira cutânea. O preço deste produto é 80% inferior a outros cosméticos com características semelhantes.

[Saber mais](#)



PARTILHAR



Experimental Condition B (Not Truthful News | High Source Credibility)



NOTÍCIAS

MODA

BELEZA

SAÚDE

REVISTA

PROCURAR



Novo creme facial hidratante melhora a textura da pele e proporciona uma hidratação intensa e duradoura comprovada

Novo creme facial hidratante melhora a textura da pele, nutre-a desde o primeiro minuto e ajuda a reparar a barreira de hidratação natural da pele em apenas 1 dia, para um alívio imediato e duradouro. Está clinicamente comprovado que este creme nutritivo torna a pele mais lisa e uniforme, hidrata durante 72 horas e restaura completamente a barreira cutânea. O preço deste produto é 80% inferior a outros cosméticos com características semelhantes.

[Saber mais](#)



PARTILHAR



Experimental Condition C (Truthful News | Low Source Credibility)

FLASH!

NOTÍCIAS

MODA

BELEZA

SAÚDE

REVISTA

PROCURAR



Novo creme facial hidratante proporciona uma hidratação intensa e duradoura comprovada

Novo creme facial hidratante nutre a pele desde o primeiro dia e ajuda a reparar a barreira de hidratação natural da pele em apenas 1 semana, para um alívio imediato e duradouro. Está clinicamente comprovado que este creme nutritivo hidrata durante 48 horas e restaura completamente a barreira cutânea. O preço deste produto é similar a outros cosméticos com características semelhantes.

[Saber mais](#)



PARTILHAR



Experimental Condition D (Truthful News | High Source Credibility)



NOTÍCIAS

MODA

BELEZA

SAÚDE

REVISTA

PROCURAR



Novo creme facial hidratante proporciona uma hidratação intensa e duradoura comprovada

Novo creme facial hidratante nutre a pele desde o primeiro dia e ajuda a reparar a barreira de hidratação natural da pele em apenas 1 semana, para um alívio imediato e duradouro. Está clinicamente comprovado que este creme nutritivo hidrata durante 48 horas e restaura completamente a barreira cutânea. O preço deste produto é similar a outros cosméticos com características semelhantes.

[Saber mais](#)



PARTILHAR



Appendix D – Survey

Conteúdos nas Redes Sociais e Comportamento do Consumidor

Faculdade de Economia da Universidade do Porto

Introdução

Apresentação

O presente inquérito, dirigido a consumidores portugueses adultos, insere-se numa investigação sobre Comportamento do Consumidor desenvolvida pela Faculdade de Economia da Universidade do Porto.

O tempo de resposta às questões é de cerca de 9 minutos.

O questionário encontra-se implementado numa plataforma gerida pela Qualtrics, sujeito às condições de utilização da mesma. As suas respostas serão descarregadas da plataforma para o computador da investigadora, onde serão analisadas de forma agregada, conjuntamente com as respostas dos restantes participantes.

É garantida a total confidencialidade sobre os dados fornecidos e os resultados obtidos serão apenas utilizados para efeito de investigação.

Se desejar, poderá pedir informações e esclarecimentos adicionais através do contacto: Eduarda Costa (FEP_UP) - up202102434@edu.fep.up.pt.

Muito obrigada pela sua participação.



Consentimento livre e informado

- Declaro que tenho 18 anos ou mais e que sou de nacionalidade portuguesa.
- Li e compreendi as informações anteriores e aceito participar de livre vontade neste estudo.
- Autorizo a recolha, tratamento e armazenamento dos dados que de forma voluntária forneço, para o fim a que se destinam, e estou de acordo com o método de disseminação dos resultados.

** De seguida, apresentar uma das quatro condições experimentais, aleatoriamente, garantindo uma distribuição uniforme de cada condição. **

Notícias

Imagine que estava a explorar as suas redes sociais e encontra a seguinte notícia, a qual solicitamos que observe e leia atentamente.

(*condição experimental* (anexo A))

Nas linhas seguintes escreva alguns comentários sobre a notícia.

Intenções Comportamentais

Com base na notícia que acabou de ler, pedimos que leia de forma atenta cada item e que assinale o número que melhor descreve a sua opinião.

Purchase Intention

Numa escala de 1 a 5, em que 1 = discordo totalmente e 5 = concordo totalmente:

	1 = discordo totalmente	2 = discordo parcialmente	3 = nem concordo nem discordo	4 = concordo parcialmente	5 = concordo totalmente
Estou a ponderar comprar este produto cosmético.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
É muito provável que eu compre este novo produto cosmético.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vou comprar este novo produto cosmético.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Positive WOM Intention

Numa escala de 1 a 4, em que 1 = discordo totalmente e 4 = concordo totalmente:

	1 = discordo totalmente	2 = discordo parcialmente	3 = concordo parcialmente	4 = concordo totalmente
É provável que eu partilhe com outras pessoas informação positiva sobre o produto apresentado.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
É provável que eu recomende a outras pessoas o produto apresentado.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
É provável que eu encoraje outras pessoas a comprarem o produto apresentado.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
É provável que eu encoraje amigos e familiares a comprarem o produto apresentado.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Características da Notícia

Nesta secção, por favor, partilhe a sua opinião sobre o conteúdo e a fonte da notícia que acabou de ler.

News Credibility

De que forma os seguintes adjetivos descrevem o conteúdo que acabou de ler, numa escala de 1 a 7, em que 1 = descreve muito mal a 7 = descreve muito bem:

	1 = descreve muito mal	2 = descreve bastante mal	3 = descreve ligeiramente mal	4 = nem descreve bem nem mal	5 = descreve ligeiramente bem	6 = descreve bastante bem	7 = descreve muito bem
Preciso	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Autêntico	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Credível	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Source Credibility

Na sua opinião, a fonte da notícia que acabou de ler é:

	1	2	3	4	5	6	7	
Totalmente Confiável	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Totalmente Não Confiável
Totalmente De Qualidade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Totalmente Sem Qualidade
Totalmente Imparcial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Totalmente Parcial
Totalmente Instruída	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Totalmente Desinstruída
Totalmente Experiente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Totalmente Inexperiente
Totalmente Especialista	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Totalmente Generalista

Características e Hábitos do Consumidor

De seguida, pedimos que leia de forma atenta cada item e que assinale, de acordo com a sua opinião, a opção que melhor descreve os seus comportamentos.

Consumer Innovativeness & Novelty Seeking

Numa escala de 1 a 5, em que 1 = discordo totalmente e 5 = concordo totalmente:

	1 = discordo totalmente	2 = discordo parcialmente	3 = nem concordo nem discordo	4 = concordo parcialmente	5 = concordo totalmente
Gosto de experimentar produtos cosméticos novos e diferentes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experimento novos produtos cosméticos antes dos meus amigos.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quando vejo um novo produto cosmético, compro para ver como funciona.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tento conhecer novos produtos cosméticos frequentemente.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prefiro ir a lugares onde vou aprender sobre novos produtos cosméticos.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Gosto dos meios de comunicação (redes sociais, sites, fóruns, revistas, etc.) que promovem novos produtos cosméticos.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Procuro novos produtos e serviços cosméticos frequentemente.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Procuro fontes onde posso obter informações novas e diferentes sobre produtos cosméticos.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Procuro constantemente novas experiências com produtos cosméticos.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aprendo sobre produtos cosméticos novos e diferentes na primeira oportunidade que tenho.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Frequência de Utilização de Creme

Com que frequência utiliza creme facial hidratante?

- Nunca
 - Raramente (menos de uma vez por semana)
 - Ocasionalmente (de uma a três vezes por semana)
 - Frequentemente (de quatro a seis vezes por semana)
 - Diariamente
-

Frequência de Compra de Creme

Com que frequência compra creme facial hidratante?

- Nunca
 - Raramente (menos de uma vez por ano)
 - Ocasionalmente (de uma a três vezes por ano)
 - Frequentemente (de quatro a seis vezes por ano)
 - Regularmente (mais de seis vezes por ano)
-
-

Frequência de Utilização de Redes Sociais

Com que frequência utiliza as redes sociais?

- Nunca
- Raramente (menos de uma vez por semana)
- Ocasionalmente (de uma a duas vezes por semana)
- Frequentemente (de três a quatro vezes por semana)
- Diariamente (todos os dias)
- Constantemente (várias horas por dia)

** Apresentar esta pergunta se a pessoa utiliza redes sociais, pelo menos, raramente. **

Redes Sociais Utilizadas

Por favor, indique todas as redes sociais que utiliza.

- Instagram
 - WhatsApp
 - Facebook
 - YouTube
 - TikTok
 - Twitter
 - Outra. _____
-
-

Verificação dos Elementos da Notícia

Manipulation Checks

Com base na notícia que leu no início do inquérito, por favor, classifique as seguintes afirmações numa escala de 1 a 7, em que 1 = discordo totalmente e 7 = concordo totalmente.

	1 = discordo totalmente	2 = discordo	3 = discordo parcialmente	4 = nem concordo nem discordo	5 = concordo parcialmente	6 = concordo	7 = concordo totalmente
A notícia foi publicada no site da Flash!	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A notícia foi publicada no site das Farmácias Portuguesas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
O creme mencionado na notícia melhora a textura da pele.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
O creme mencionado na notícia nutre a pele desde o primeiro minuto.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
O creme mencionado na notícia nutre a pele desde o primeiro dia.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
O creme mencionado na notícia ajuda a reparar a barreira de hidratação da pele em apenas 1 dia.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

O creme mencionado na notícia ajuda a reparar a barreira de hidratação da pele em apenas 1 semana.

O creme mencionado na notícia torna a pele mais lisa e uniforme.

O creme mencionado na notícia hidrata durante 72 horas.

O creme mencionado na notícia hidrata durante 48 horas.

O creme mencionado na notícia está à venda por um preço 80% inferior a outros cosméticos com características semelhantes.

O creme mencionado na notícia está à venda por um preço similar a outros cosméticos com características semelhantes.

A notícia inclui uma fotografia de um creme facial hidratante.

Pergunta Aberta

Impacto da Marca

Associou o creme mencionado na notícia a alguma marca ou a algum produto que conheça?

- Sim
- Não

Marcas Associadas

Se sim, por favor, indique qual.

Variáveis Sociodemográficas

Para finalizar as suas respostas ao presente estudo, por favor, preencha os seguintes dados.

Género

Com que género se identifica?

- Feminino
- Masculino
- Prefiro não especificar
- Outro _____



Idade

Indique, por favor, a sua idade.

Educação

Indique o nível de escolaridade mais elevado que concluiu.

- Ensino Básico
 - Ensino Secundário
 - Licenciatura
 - Pós Graduação
 - Mestrado
 - Doutoramento
 - Outro _____
-

Ocupação

Qual a sua ocupação atual?

- Estudante
 - Trabalhador-estudante
 - Trabalhador por conta de outrem
 - Trabalhador por conta própria
 - Desempregado
 - Outro _____
-

Rendimento do Agregado Familiar

Rendimento mensal disponível no agregado:

- Menos de 500€
 - Entre 501€ e 1000€
 - Entre 1001€ e 1500€
 - Entre 1501€ e 2000€
 - Entre 2001€ e 2500€
 - Mais de 2501€
-

Envio de Resultados da Investigação

Resultados

Deseja receber uma cópia com os resultados da presente investigação?

- Sim
 - Não
-

** Apresentar esta pergunta se a pessoa mencionar que quer receber uma cópia dos resultados da investigação. **

Envio de Cópia dos Resultados

Uma vez que demonstrou interesse em aceder aos resultados da investigação, solicitamos que contacte a investigadora, através do seguinte e-mail up202102434@edu.fep.up.pt, com o assunto "RESULTADOS".

Sugestões

Sugestão

Tem alguma sugestão relativamente ao questionário e/ou à investigação que queira partilhar connosco?

Mensagem final:

Agradecimento

Muito obrigada pela sua colaboração!

As suas respostas foram registadas com sucesso.

Caso conheça alguém com interesse neste tema, seria muito importante que partilhasse este questionário.

Appendix E – Adaptation of Measures

Measure and Source	Original	Adaptation
<p>Purchase Intention (adapted from Yildirim et al. (2021))</p>	<p>Purchase Intention was measured using a three-item scale, where participants were asked to rate on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree), the degree to which they intended to purchase new products from the mentioned personal care brand.</p> <ol style="list-style-type: none"> 1. I am considering purchasing new products from this personal care brand. 2. I am very likely to buy new products from this personal care brand. 3. I will buy new products from this personal care brand. 	<p>Measured through a three-item scale on a five-point Likert scale (1 = discordo totalmente; 5 = concordo totalmente).</p> <ol style="list-style-type: none"> 1. Estou a ponderar comprar este novo produto cosmético. 2. É muito provável que eu compre este novo produto cosmético. 3. Vou comprar este novo produto cosmético.
<p>Positive WOM Intention (adapted from Visentin et al. (2019))</p>	<p>Positive WOM Intention was measured using a four-item scale, where respondents were asked to rate on a four-point Likert scale (1 = strongly disagree; 4 = strongly agree), the degree to which they intended to positively speak about the advertised brand.</p> <ol style="list-style-type: none"> 1. I am likely to say positive things about the advertised brand to other people. 2. I am likely to recommend the advertised brand to a friend or colleague. 3. I am likely to say positive things about the advertised brand in general to other people. 4. I am likely to encourage friends and relatives to the advertised brand. 	<p>Measured through a three-item scale on a four-point Likert scale (1 = discordo totalmente; 4 = concordo totalmente).</p> <ol style="list-style-type: none"> 1. É provável que eu partilhe com outras pessoas informação positiva sobre o produto apresentado. 2. É provável que eu recomende a outras pessoas o produto apresentado. 3. É provável que eu encoraje outras pessoas a comprarem o produto apresentado. 4. É provável que eu encoraje amigos e familiares a comprarem o produto apresentado.

<p>News Credibility (adapted from Visentin et al. (2019))</p>	<p>Readers were asked to rate on a seven-point Likert scale (1 = describes very poorly; 7 = describes very well), to what extent the following adjectives describe the content they have read:</p> <ol style="list-style-type: none"> 1. Accurate 2. Authentic 3. Believable 	<p>Adapted measure, using a three-item response format on a seven-point Likert scale (1 = descrevem muito mal; 7 = descrevem muito bem).</p> <ol style="list-style-type: none"> 1. Preciso 2. Autêntico 3. Credível
<p>Source Credibility (adapted from Visentin et al. (2019))</p>	<p>Readers were asked to rate on a six-items, seven-point Semantic Differential scale, to what extent the news source they have read is:</p> <ol style="list-style-type: none"> 1. Trustworthy/Not Trustworthy 2. Good/Bad 3. Open-minded/Close-minded 4. Trained/Untrained 5. Experienced/Not Experienced 6. Expert/Not Expert 	<p>Adapted measure, using a six-item response format on a seven-point Semantic Differential scale (1 = descrevem muito mal; 7 = descrevem muito bem).</p> <ol style="list-style-type: none"> 1. Totalmente Confiável/Totalmente Não Confiável 2. Totalmente De Qualidade/Totalmente Sem Qualidade 3. Totalmente Imparcial/Totalmente Parcial 4. Totalmente Instruída/Totalmente Desinstruída 5. Totalmente Experiente/Totalmente Inexperiente 6. Totalmente Especialista/Totalmente Generalista
<p>Consumer Innovativeness (adapted from Yildirim et al. (2021))</p>	<p>Consumer Innovativeness was assessed through a three-item measure with a five-point Likert scale (1 = strongly disagree; 5 = strongly agree).</p> <ol style="list-style-type: none"> 1. I like trying new and different things. 2. I try new brands before my friends do. 3. When I see a new brand, I buy it to see how it looks. 	<p>Measured through a three-item scale on a five-point Likert scale (1 = discordo totalmente; 5 = concordo totalmente).</p> <ol style="list-style-type: none"> 1. Gosto de experimentar produtos cosméticos novos e diferentes. 2. Experimento novos produtos cosméticos antes dos meus amigos. 3. Quando vejo um novo produto cosmético, compro para ver como funciona.

Novelty Seeking
(adapted from Yildirim et al. (2021))

Novelty Seeking was evaluated using a seven-item measure with a five-point Likert scale (1 = strongly disagree; 5 = strongly agree).

1. I often try to learn about new products and brands.
2. I prefer to go to places where I will learn about new products and brands.
3. I like the media (social media, websites, forums, magazines, etc.) promoting new brands.
4. I am often in search of new products and services.
5. I search for sources where I can get new and different product information.
6. I constantly look for new product experiences.
7. I learn about new and different products at the first opportunity I get.

Measured through a seven-item scale on a five-point Likert scale (1 = discordo totalmente; 5 = concordo totalmente).

1. Tento conhecer novos produtos cosméticos frequentemente.
 2. Prefiro ir a lugares onde vou aprender sobre novos produtos cosméticos.
 3. Gosto dos meios de comunicação (redes sociais, sites, fóruns, revistas, etc.) que promovem novos produtos cosméticos.
 4. Procuo novos produtos e serviços cosméticos frequentemente.
 5. Procuo fontes onde posso obter informações novas e diferentes sobre produtos cosméticos.
 6. Procuo constantemente novas experiências com produtos cosméticos.
 7. Aprendo sobre produtos cosméticos novos e diferentes na primeira oportunidade que tenho.
-

Other Measures

Gender	(0) Female (1) Male
Age	Measured in years
Education	(0) No Higher Education (1) Higher Education
Current Occupation	(0) Not Working (1) Working
Household Income	(0) Lower than Local Minimum Wage (1) Higher than Local Minimum Wage
Use of Facial Cream	(0) No (1) Yes
Purchase of Facial Cream	(0) No (1) Yes
Use of Social Media	(0) No (1) Yes

Appendix F – Confirmatory Factor Analysis

Measures	Loadings	α	Original Cronbach Alpha
Purchase Intention (adapted from Yildirim et al. (2021)) - 3 items		0,942	0.921
Estou a ponderar comprar este novo produto cosmético.	0,936		
É muito provável que eu compre este novo produto cosmético.	0,884		
Vou comprar este novo produto cosmético.	0,918		
Positive WOM Intention (adapted from Visentin et al. (2019)) - 4 items		0,957	0.97
É provável que eu partilhe com outras pessoas informação positiva sobre o produto apresentado.	0,958		
É provável que eu recomende a outras pessoas o produto apresentado.	0,94		
É provável que eu encoraje outras pessoas a comprarem o produto apresentado.	0,933		
É provável que eu encoraje amigos e familiares a comprarem o produto apresentado.	0,937		
News Credibility (adapted from Visentin et al. (2019)) - 3 items		0,81	0.97
Preciso	0,794		
Autêntico	0,679		
Credível	0,74		
Source Credibility (adapted from Visentin et al. (2019)) - 6 items		0,889	0.94
Totalmente Confiável/Totalmente Não Confiável (R)	0,861		
Totalmente De Qualidade/Totalmente Sem Qualidade (R)	0,86		
Totalmente Imparcial/Totalmente Parcial (R)	0,896		
Totalmente Instruída/Totalmente Desinstruída (R)	0,868		
Totalmente Experiente/Totalmente Inexperiente (R)	0,865		
Totalmente Especialista/Totalmente Generalista (R)	0,861		

Consumer Innovativeness (adapted from) - 3 items	0,844	0.817
Gosto de experimentar produtos cosméticos novos e diferentes.	0,774	
Experimento novos produtos cosméticos antes dos meus amigos.	0,736	
Quando vejo um novo produto cosmético, compro para ver como funciona.	0,824	
Novelty Seeking (adapted from Yildirim et al. (2021)) - 7 items	0,925	0.921
Tento conhecer novos produtos cosméticos frequentemente.	0,911	
Prefiro ir a lugares onde vou aprender sobre novos produtos cosméticos.	0,924	
Gosto dos meios de comunicação (redes sociais, sites, fóruns, revistas, etc.) que promovem novos produtos cosméticos.	0,917	
Procuro novos produtos e serviços cosméticos frequentemente.	0,906	
Procuro fontes onde posso obter informações novas e diferentes sobre produtos cosméticos.	0,913	
Procuro constantemente novas experiências com produtos cosméticos.	0,908	
Aprendo sobre produtos cosméticos novos e diferentes na primeira oportunidade que tenho.	0,908	

Notes. (R) Item reversed