# Modelling Online Advertising Design Quality Influences on Millennial Consumer Attitudes in South Africa

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# Modelling Online Advertising Design Quality Influences on Millennial Consumer Attitudes in South Africa

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## ABSTRACT

Millennials' advanced knowledge and exposure to product experiences, and irrelevant placement of online advertising has led to an increase of online advertising avoidance. However, effective online advertising design may assist in establishing more positive sentiments towards digital forms of marketing communication. The study used the visual rhetoric theory as the theoretical basis to examine millennial consumer attitudes. The main research aims were to propose an online advertising design quality model, and to ascertain the influence of online advertising design quality on millennial consumer attitudes. The study employed a quantitative research design via an empirical online survey. Online advertising design quality has resulted in a positive effect on relevant information, value, disruptive online placement and timing, personalization and price consciousness, a negative influence on privacy concern and distrust, and ad irritation across various online platforms. This study heightens the importance of design elements and the visual aesthetics of online advertising.

## Keywords

Online advertising design quality, online platforms, millennials, consumer attitudes, South Africa.

## INTRODUCTION

Design has always been a problem-solving process, which involves the capacity to be logical and analytical, and relates to human needs in a technological world. Design thinking has become relevant in the formation of marketing strategies and advertising tools, especially in a fast-paced world in which unstable economies are struck by unpredictable factors (Cankurtaran & Beverland, 2020). Agencies, advertisers, marketers and brands using various online platforms (e.g., websites, social media, mobile apps, etc.) endeavour to design marketing communication (MC) strategies to effectively engage with consumers (Florenthal, 2019; Odoom, 2022; Yousaf et al., 2020), especially in the midst of online advertising avoidance (OAA) (Cummins, 2021; Hossain, 2018; Tefertiller, 2020).

Online advertising uses the internet to deliver promotional ads to online users and consumers. Various methods are employed, such as website advertising, email marketing, social media promotions, search

engine advertising, mobile apps/advertising and display advertising, among others. Online advertising is one of the largest businesses on the internet. It is expected to continue to grow due to the proliferation of the internet, social media, and advances in mobile communication (Hlabanoon, 2021; Le & Wang, 2020; Oumlil & Balloun, 2019). Hlabanoon (2021) has revealed that South African advertising spending was estimated to be worth ZAR42 billion. Online/digital was the fourth largest South African medium but is predicted to exceed TV advertising by 2023 (Guttmann, 2019; Hlabanoon, 2021). However, despite the huge growth in online advertising, research in Africa lags behind the rest of world (Duffett, 2020a).

Consumers can personalize interfaces and have preferences of ad types they engage with on various platforms. Users understand and have access to ad-blocking software, clearing cookies and caches, skipping online videos, or may simply ignore any online advertising that impedes their goals. This phenomenon is known as the OAA that was explored in brand advertising, social media and commerce, location-based advertising, sponsored posts, video advertising, and various other media (Abro et al., 2020; Aiolfi et al., 2021; Bang et al., 2019; Li et al., 2020). OAA presents a problem to online advertisers in developing and designing ads in order to effectively reach online millennial users (Abbasi et al. 2021; Cummins, 2021; Hossain, 2018; Kaspar et al., 2019). However, Galati et al. (2016); Jeon and Jeong (2017); Shaouf et al. (2016); and Tsao et al. (2016) suggest that the more effective the design quality of online advertising, the more likely consumers would be to pay attention and develop favourable predispositions towards it. Consequently, this study seeks to address this gap in research by considering the influence of online advertising design quality on a number of antecedents highlighted in the models below.

A number of models and theories have been utilized, and frequently integrated, to research and explore online advertising. Liu et al. (2012) adapted Katz and Blumler's (1974) uses and gratifications (U&G) theory and Ducoffe's (1996) web advertising model (WAM) to examine mobile advertising. Le and Wang (2020) used Fishbein and Ajzen's (1975) theory of reasoned action (TRA), Ajzen's (1985, 1991) theory of planned behavior (TPB), Venkatesh et al.'s (2003) unified theory of acceptance and use of technology model UTAUTM and the U&G theory to consider mobile location-based advertising. Florenthal (2019) integrated the Davis's (1989) technology acceptance model (TAM) and U&G frameworks to analyze social media brand engagement and behavior. Duffett (2015a, 2015b, 2015c, 2016, 2017a, 2017b, 2020a, 2020b) and Duffett et al. (2019a, 2019b, 2020) extensively explored various online advertising platforms via the hierarchy-of effects model (HEM) (Lavidge & Steiner, 1961). Belanche et al. (2017) reports that further research is needed on online/social media advertising that could be considered via the TPB and TAM. A majority of recent OAA-related studies (Abro et al., 2020; Bandara et al., 2020; Belanche et al., 2019; Huang, 2019; Li et al., 2020; Mattke et al., 2021; Morimoto, 2020; Youn & Shin, 2019) use elements from Cho and Cheon's (2004) online advertising avoidance model (OAAM) and/or Baek and Morimoto's (2012) personalized advertising avoidance model (PAAM). However, none of the aforementioned studies considered online advertising design quality's influence on the different antecedents.

Visual rhetoric theory considers the meaning that is derived from the use and arrangement of persuasive communication design elements such as pictures and text. The objective of visual rhetoric theory is to use design elements to visually influence the predispositions of the target audience (Danesi, 2017; Holiday et al., 2018). Hence, this study primarily utilized visual rhetoric theory as the theoretical underpinning, but also drew from the other above-mentioned models constructs, to consider online advertising design quality's influence on relevant information (informativeness), disruptive online placement and timing, skepticism, privacy concern and distrust, price consciousness, ad irritation, personalization, and value. These cognitive and affective constructs are supported by a number of recent

studies, namely Abbasi et al. (2021); Arora and Agarwal (2019); Aiolfi et al. (2021); Bang et al. (2019); Boerman et al. (2017); Dong (2019); Dwivedi et al. (2020); Karamchandani et al. (2021); Lee et al. (2017); Leong et al. (2020); Mattke et al. (2021); Morimoto (2020); and Wang and Genç (2019), who suggest that different constructs ought to be used to consider online advertising and/or design quality. As a consequence, visual rhetoric theory was used to support development of this study's online advertising design quality model, since millennials' evaluation of online advertising design quality results in either positive or negative cognitive and affective attitudes towards online advertising.

Furthermore, Abbasi et al. (2021); Bandara et al. (2020); Belanche et al. (2020a, 2020b); Karamchandani et al. (2021); Le and Wang (2020); Leong et al. (2020); and Li et al. (2020) indicate that additional research is necessary to assess consumer attitudes regarding online advertising in other countries (especially in developing economies), which may display divergent cultures. A majority of the aforementioned studies were conducted in developed economies (mainly located in Europe and the US). Belanche et al. (2020a, 2020b) maintain that online advertising should not only be assessed via student samples, so that the findings can be more extensively generalized. Le and Wang (2020); Muñoz-Leiva et al. (2018); and Romão et al. (2019) argue that larger sample sizes are necessary to investigate online advertising. Furthermore, a number of inquiries suggest that further research should investigate the effect of the design quality of online advertising on consumer attitudes (Galati et al., 2016; Georgakopoulou, 2021; Jeon & Jeong 2017; Martinez et al., 2020; Shaouf et al. 2016; Tsao et al. 2016). Hence, this study sought to address these research gaps by including a broad mix of millennials (e.g., working professionals, blue-collar workers, unemployed individuals and students), employed a large sample size (over 3,400 respondents), and was conducted in an African developing economy to propose online advertising design quality influences on millennial consumer attitudes via the development of a new online advertising design quality model.

## LITERATURE AND HYPOTHESES

### Online Platforms, Design Quality and Advertising

Online platforms have evolved drastically due to the Web 2.0 generation and the use of multiple devices, as well as play a crucial role in bringing consumers and businesses together. Online platforms exist for communication, but they have also evolved into e-commerce channels (Stokes, 2017). Several elements of e-commerce and/or online communication were explored on different online platforms, for example shopping websites (Geng et al., 2020; Lim et al., 2016), shopping spaces in social media (Romão et al., 2019), online games (Abbasi et al., 2021), mobile apps and advertising (Wang & Genç, 2019; Le & Wang, 2020, Ngubelanga & Duffett, 2021) and video platforms (Duffett et al., 2020; Duffett, 2022; Sebastian et al., 2021). Stokes (2017) explains that online advertising consists of techniques such as emails, social media, and websites, which can be viewed on various devices, such as desktops, laptops, tablets, and smartphones. The communication channels that online advertisers utilize should be adapted to the culture and understanding of the demographics they are targeting.

The elements of advertising design quality are important, especially regarding how these speak to the consumer via symbols, text or colors. Researchers have articulated the relevance, importance and benefits of online advertising and its strategies in the digital age (Cummins, 2021; Dwivedi et al., 2020; Guttmann, 2019). Jeon and Jeong (2017) affirm that personalization and aesthetics are important predictors of digital MC platform design quality, which result in an increase in customer satisfaction. Shaouf et al. (2016) posit that online advertising design quality has a positive effect on consumer advertising attitudes. However, online advertising has also come under threat in the form of avoidance

due to negative attitudes, experience and feelings of annoyance, irritation, and privacy concerns (Abbasi et al., 2021; Aiolfi et al., 2021; Bandara et al., 2020; Hossain, 2018; Wang & Genç, 2019; Morimoto, 2020). However, the design and visual elements of advertising remain important elements of online MC, where the effective design quality of online advertising may result in more favourable predispositions among consumers (Galati et al., 2016; Georgakopoulou, 2021; Idemudia, 2016; Jeon & Jeong 2017; Kaspar et al., 2019; Martinez et al., 2020; Resnick & Albert, 2016; Shaouf et al. 2016; Tsao et al. 2016). To build on prior research, this study investigates the design quality of online advertising influences on millennial consumer attitudes.

## Millennials

Millennials are defined as people being born between in the early 1980s up until the turn of the century and represent more than a quarter of the global population (Fry, 2020). This generation has surpassed the number of Baby Boomers as the largest living adult generational cohort. The millennial generation is prominent online and lives a lifestyle of technological ubiquity (Oumlil & Balloun, 2019; Ngubelanga & Duffett, 2021; Grouse et al., 2022). This cohort is an early adopter of any new applications and technology that appears on the retail market (Oumlil & Balloun, 2019). Millennials have been known to increasingly OAA attitudes and behaviours when it comes to advertising engagement on various platforms such as social media, websites and mobile advertising (Abbasi et al. 2021; Arora & Agarwal, 2019; Belanche et al., 2019; Dong, 2019; Tran, 2019; Wang & Genç, 2019).

The conundrum is that millennials generally disdain advertising, as the generation that is most subject to it. Millennials experience ad irritation in various contexts: they feel that online advertising is not as personalized; suggest that online advertising should be better designed according to their preferences; fear that their private information will be shared with third parties; and even expect a negative experience if they had to engage with online advertising (Cummins, 2021; Dong, 2019; Hossain, 2018; Li et al., 2017; Mattke et al., 2018; Seyedghorban et al., 2016; Shin & Lin, 2016). This type of behaviour, in the context of the phenomena of OAA, elevates the motivation, importance and relevance of this research. Hence, this study considers millennials attitudes in terms of the influence of online advertising design quality in a bid to find ways to reduce OAA sentiment.

## THEORETICAL STRUCTURE AND HYPOTHESES

Visual rhetoric theory reveals that visual advertising design elements (e.g., pictures) are easily processed (consciously and unconsciously) by consumers without learned processing strategies or cognitive engagement (Scott, 1994), and so exposure to good quality online advertising designs can favourably affect consumer attitudes (Cyr et al., 2009; Shaouf et al., 2016). Visual rhetoric theory was previously applied to traditional media (e.g., print and broadcast) advertising, but is now commonly used to analyze digital platform communication and visual design elements (Danesi, 2017). Martinez et al. (2020) used visual rhetoric theory to examine the effect of visual design of digital MC platforms on consumer attitudes and found that it had a positive influence on cognitive and affective attitudes among Generation Z and millennials. Dwivedi et al. (2020) confirmed that the visual design of online advertising positively or negatively affects consumer cognitive and affective responses. In this study, the online advertising design quality model was developed via the visual rhetoric theory and cognitive and affective attitudinal constructs derived from research based on Baek and Morimoto's (2012) PAAM; Cho and Cheon's (2004) OAAM; Ducoffe's (1996) WAM; and Ganguly et al.'s (2010) models.

The design elements and aesthetics of advertising have always been an important component of the digital marketing process (Dwivedi et al., 2020; Georgakopoulou, 2021; Idemudia, 2016; Kaspar et al.,

2019; Martinez et al., 2020; Mattke et al., 2021; Negm & Tantawi, 2015; Resnick & Albert, 2016). The structuring and selection of creative elements in adverts can be defined as advertising design. In a technically advanced society, design is a problem-solving process that needs to be logical and analytical in the way that relates to human needs. The declining click-through rates and consumers' tendency to avoid banner advertising (banner blindness) led advertisers to include other advertising formats in their campaigns, such as pop-ups, interstitials, and animated advertisements. However, these formats may also trigger negative consumer responses since their vivid patterns lead to stronger avoidance behaviour (Aiolfi et al., 2021; Li et al., 2017; Liu et al., 2018; Morimoto. 2020). The design of advertisements attracts and affects the appearance of relevance in terms of millennial trends, visual, fashion and culture, where the attention of users are arrested and maintained through the quality of visual content (Dong. 2019; Ganguly et al., 2010; Martinez et al., 2020; Resnick & Albert, 2016). Several recent investigations considered various online MC platforms and posit that different aspects of design quality have positive and/or negative effects on cognitive and/or affective consumer attitudes (Dong. 2019; Dwivedi et al., 2020; Galati et al., 2016; Jeon and Jeong, 2017; Martinez et al., 2020; Mattke et al., 2021; Shaouf et al., 2016). Hence, a number of hypotheses will be used to postulate the elements of an online advertising design quality model, which assesses the effect of online advertising design quality on various millennial cognitive and/or affective attitudinal responses.

## Relevant Information

The way that content is constructed and designed in online advertising influences whether consumers choose to engage with it or not. A reason why users engage with online advertising is often due to the relevance of the content, whereas the design of the advertisements attracts the users and their preference of ad content by matching the users' needs. The design quality of the content contributes to the delivery of information about a product or service, where consumers may view ads negatively on various online platforms when these do not include sufficient or compelling information (Mohd Thas Thaker et al., 2020; Najib et al., 2016; Wu et al., 2019). Galati et al. (2016); Jeon and Jeong (2017); and Tsao et al. (2016) affirm that relevant (quality) information was an important element of design quality. However, Mattke et al. (2021) revealed that online advertising design quality factors had a positive effect on perceived informativeness and online advertising acceptance. Therefore, it is hypothesized that:

H1. Online advertising design quality has a positive effect on relevant information of online advertising among millennials.

## Value

Millennials engage with online ads that present value to them. Value can be seen in various forms through the visual cues and text in terms of what the consumer will receive from the brand. The design of the offerings also depends on the format this takes and platform it appears on in order to be context specific. Value can be understood as monetary return, acknowledgement of online advertising engagement, mentions between brand and consumer, brand sales, community building between brands and community, opinion-sharing in brand community, etc. (Kim & Han, 2014; Murillo et al., 2016). Several researchers found that the correct placement, frequency, and relevance of online advertising add value for millennials (Abbasi et al., 2021; Arora & Agarwal, 2019; Murillo et al., 2016). However, Tsao et al. (2016) found that digital MC platform design quality had a positive effect on the perceived value and ecommerce. Hence, it is hypothesized:

H2. Online advertising design quality has a positive effect on value of online advertising among millennials.

## Disruptive Online Placement and Timing

The placement of online advertising is important in how online users experience or are influenced to engage. Researchers believe that the online placement of various types of ads on the different media such as websites or social media affect whether users will engage with it or not (Cho & Cheon, 2004; Bang & Lee, 2016). Along with placement, the time of online advertising is also important. Online placements are pivotal for media such as banners in the format of sidebar ads, message stream ads, pop-ups, etc. on websites and other platforms such as social media, online games, etc. (Mei et al., 2018; Van den Broeck et al., 2018). However, Karamchandani et al. (2021) found that the value of online advertising was positively influenced by good location placement and timing. These unwanted and clutter-causing and disruptive online adverts have contributed greatly to the growing phenomena of OAA (Huang, 2019; Li et al., 2017; Seyedghorban et al., 2016) largely due to disruptive placement and/or design quality (Dong, 2019; Dwivedi et al., 2020; Mattke et al., 2021). Thus, it is hypothesized that:

H3. Online advertising design quality has a negative effect on disruptive online placement and timing of online advertising among millennials.

## Skepticism

From a MC perspective, skepticism refers to the tendency towards a disbelief of the claims made by advertising (Raziq et al., 2018). As a consequence, consumers respond to advertising less, and have more of an emotional than informational reaction when encountering it (Raziq et al., 2018). Skepticism could prevent millennials from engaging with the ad on its respective medium, for example social media (Demir, 2018), and adversely influence consumer attitudes (Raziq et al., 2018; Tran, 2017). The design and attributes of the online advertising contribute to its credibility, a reduction in skepticism, relevance and influences users' behavior and attitudes towards the service or product (Harms, 2019; Verstraten, 2015). Additionally, creativity, design of content, relevant visual stimuli, and good design quality of online advertising increase the brand's credibility and reduce skepticism compared to generic advertising (Abbasi et al., 2021; Hussain et al., 2020; Karamchandani et al., 2021; Mattke et al., 2021; Nyilasy et al., 2013). However, Dong (2019) identified that there was skepticism in terms of personalized online advertising designs among millennials. In this regard, it is hypothesized that:

H4. Online advertising design quality has a negative effect on skepticism of online advertising among millennials.

## Privacy Concern and Distrust

Online users have become more nervous and concerned about the privacy of their personal or online information. Users are required to share certain personal data information in order to perform online purchasing and receive future relevant online advertising tailored to their preferences but has resulted in a phenomenon known as the "privacy paradox". Consumers expect to receive tailored ads, yet do not want personalized data breached or shared with third parties (Aguirre et al., 2016; Cummins, 2021; Morimoto, 2020; Pentina et al., 2016). Research also refers to "privacy fatigue", which suggests that good and applicable design can contribute to consumers' agreeableness to disclose personal data for the improvement of ad relevance (Tang et al., 2020). Trust is established through peer-generated content or reviews, an authentically transparent brand, and delivering what a brand offers (Leong et al., 2020). Once consumers receive online advertising irrelevant to them, they feel that trust has been broken, which results in distrust (Aguirre et al., 2015; Kaspar et al., 2019). Cebi (2013) and Jeon and Jeong (2017) postulated that privacy and distrust issues were important antecedents of the design quality of the

digital MC platform. Mattke et al. (2021) suggested that the design of online (mobile) advertising reduced privacy concern and concerns over trust. Galati et al. (2016) found that the design quality of digital MC platforms is important in order to increase consumer trust, but Aiolfi et al. (2021) reported that privacy concerns resulted in the avoidance of digital advertising and increased distrust. Dong (2019) showed that privacy concerns and distrust sentiment toward personalized online advertising designs among millennials. Therefore, it is hypothesized that:

H5. Online advertising design quality has a negative effect on privacy concern and distrust of online advertising among millennials.

## Personalization

Personalization is defined as a modification, strategic design, and adaptation of content in order to fit the personal characteristics and preferences, communication styles, and interests of a consumer (Bol et al., 2018). The concept of customization also contributes to the design of personalized online advertising in order to make it more engaging, targeted and relevant to its audiences (Kaspar et al., 2019). Personalization has been an important factor of designing engaging online advertising but has lately become more of a controversial practice. Several studies reported a negative reaction to personalized online advertising, such as increased concern for privacy, feelings of vulnerability, perceived intrusiveness, and negative reaction (Aguirre et al., 2015; Aiolfi et al., 2021; Bleier & Eisenbeiss, 2015; Cummins, 2021; Georgakopoulou, 2021; Karamchandani et al., 2021). However, research has also found that personally relevant online advertising inspired positive consumer attitudes (Abbasi et al., 2021; Aiolfi et al., 2021; Arora & Agarwal, 2019; Galati et al., 2016; Kaspar et al., 2019; Tran, 2017; Tsao et al. 2016). Jeon and Jeong (2017) agree that the design quality of online MC resulted in favorable customer attitudes due to personalization. Hence, it is hypothesized that:

H6. Online advertising design quality has a positive effect on the personalization of online advertising among millennials.

## Ad Irritation

Researchers have concluded that online consumers can experience discomfort when viewing online advertising and feel that there is too much clutter, become irritated, and form negative attitudes towards online advertising (Cho & Cheon, 2004; Hossain, 2018; Li et al., 2017; Najib et al., 2016; Seyedghorban et al., 2016). A number of studies also found that users avoid online advertising that causes irritation and may employ OAA behavior (Arora & Agarwal, 2019; Wang & Genç 2019). Mattke et al. (2021) suggest that the online advertising design could reduce ad irritation concerns. Dong (2019) has revealed that personalized online advertising designs, which lack congruency, relevance, and accuracy, were often perceived as irritating, and more negatively perceived, leading to an increase in advertising avoidance. Abbasi et al. (2021) showed that ad irritation was negatively associated with the online advertising value and could be overcome by designing high quality informative ads. Thus, it is hypothesized that:

H7. Online advertising design quality has a negative effect on ad irritation of online advertising among millennials.

## Price Consciousness

Several studies have examined users' attitudes towards price consciousness when it comes to online advertising in terms of consumer behaviour (Bozkurt & Gligor, 2019; Rashmi, 2015). While users focus on the price and quality, they also show consideration for how the price appears in the ad, as a useful

entity in consumer decision-making. The rise of the COVID-19 pandemic has also altered consumers' attitude towards online spending, which challenges advertisers about the affordability of their brands, pricing, and value (Pantano et al., 2020). Gauzente and Roy (2012) have indicated that low price conscious consumers were more likely to pay attention to commercial online MC than consumers with high price conscious tendencies. As a consequence, they recommended that online advertisers carefully consider their advertising design and creative strategies. Rezaei (2015) found a positive relationship between informatively designed online (and traditional) advertising and price consciousness. Carroni et al. (2019) confirm a positive association between informative online advertising designs and price that consumers were willing to pay. Therefore, it is hypothesized that:

H8. Online advertising design quality has a positive effect on price consciousness of online advertising among millennials.

## Figure 1

*Online Advertising Design Quality Model*
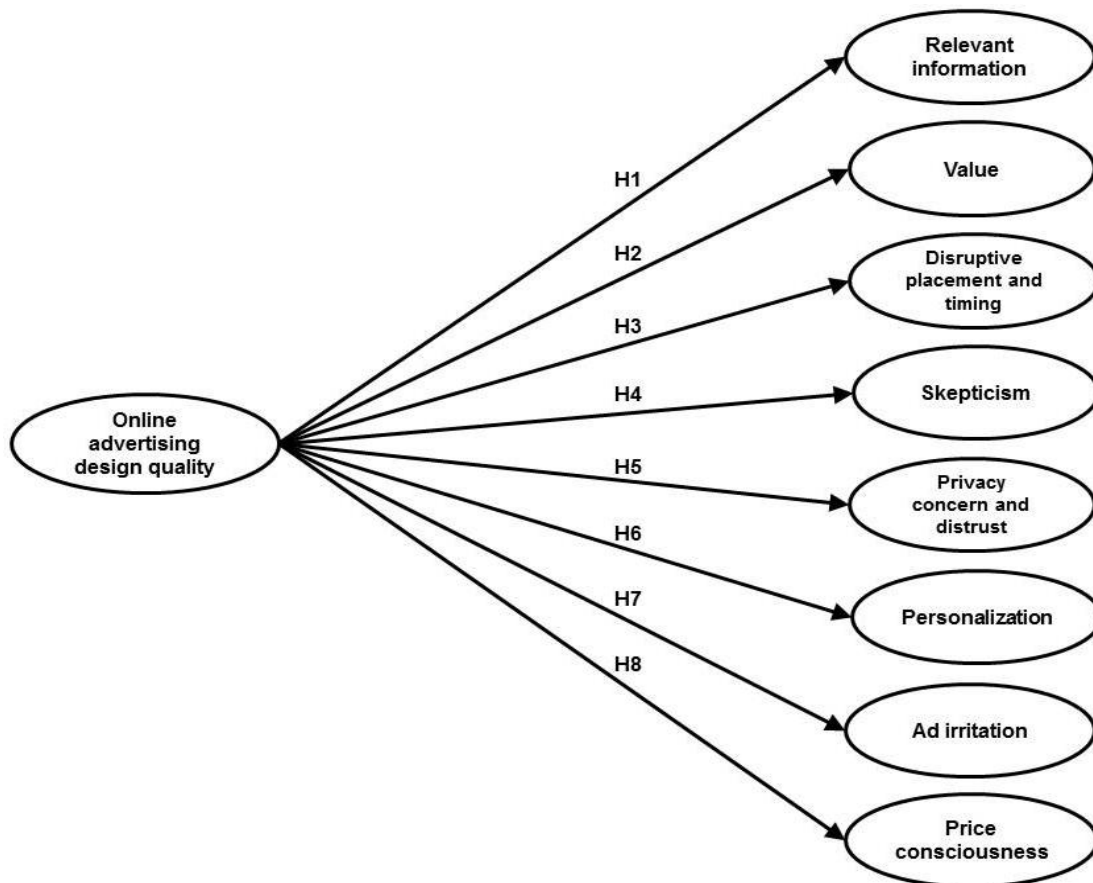
## METHODOLOGY

### Sample and Collection of Data

The study made use of a quantitative approach and used an online survey to collect the data. Multistage sampling was used to take a cross-section of the research population. Firstly, the online questionnaire link was sent to South African millennials (aged 18 - 35 years old) employed at companies, universities and community groups by means of WhatsApp, Facebook, short message services (SMS), and emails via an online data collection tool called Foureyes. Secondly, the millennials were requested to forward the online questionnaire link to other millennials in South Africa. The Foureyes system collected 3,534 online surveys, but after cleaning the data, only 3,430 were usable. Ethical approval for the study was obtained from Cape Peninsula University of Technology's Ethics Committee.

### Research Measures

The online questionnaire was divided into three sections and used closed-ended questions to collect data on the South African millennial usage characteristics (refer to Table 1), demographic characteristics (refer to Table 1), and the online advertising attitude responses (refer to Table 2). The online advertising attitude constructs used a five-point Likert scale to assess millennial attitudes, which included the following constructs (that were adopted and adapted from other studies): relevant information (Ducoffe, 1996; Duffett, 2017b), value (Ducoffe, 1996; Liu et al., 2012), disruptive online placement and timing (Cho & Cheon, 2004), skepticism (Baek & Morimoto, 2012; Liu et al., 2012; Yang et al., 2013), privacy concern, and distrust (Baek & Morimoto, 2012; Ganguly et al., 2010; Nyheim et al., 2015), personalization (Baek & Morimoto, 2012; Nyheim et al., 2015), ad irritation (Ducoffe, 1996; Yang et al., 2013), price consciousness (Bozkurt & Gligor, 2019; Lichtenstein et al., 1993), and design quality of the advertisement (Aladwani, 2006, Cyr et al., 2010; Ganguly et al., 2010; Smith et al., 2008). The design quality construct considered the online advertising in terms of attractiveness, understanding, navigation, access links and noteworthiness. The online survey data was analyzed via SPSS (version 25) and Amos (version 23).

## RESULTS

### Descriptive Statistics

A summary of the sample's online platform and advertising usage characteristics include: social media and websites were the most popular online platform; mobile phones were largely used to engage with online platforms; a majority of millennials sometimes and often engaged in online advertising, whereas over four out of ten sometimes shared online advertising; and a majority spent one half to three hours on online platforms every day. A summary of the demographic characteristics of the millennial sample: a majority were female; nearly half were 22 - 25-year-olds; almost three-quarters were single; more than six out of ten had completed a matric diploma or certificate; more than half were unemployed; a majority were from the Black population group; and a vast majority earned less than ZAR6,400 per month. South Africa's official unemployment rate was 35.3% in 2021. However, the unemployment rate was 46.6% based on the expanded definition, which includes those discouraged from seeking employment, and 65.5% among the youth in 2021 (Stoddard, 2022). Hence, the unemployment rate of this study's sample (55.6%) represents a relatively accurate reflection of South African millennials. A vast majority (84%) of the South African population does not have the opportunity to improve their education after school, which is typical of developing economies, and also reflected by the demographic characteristics of this study. The average monthly income has fallen to ZAR6,358 per capita, which was

also depicted by this study's sample. However, despite the weak socioeconomic status indicators, South Africans spend one of highest amounts of time online in the world (nine hours); mobile connections stand at nearly two per person; over half have adopted e-commerce; a third have adopted m-commerce; more than half use banking apps; and the social media growth rate was nearly 20% (Kemp, 2021). South African millennials are well known for their conspicuous and prolific online and digital activities (Ngubelanga & Duffett, 2021), which is evident by their online platform and advertising usage characteristics (refer to Table 1).

**Table 1**

*Online Platform and Advertising Usage and Demographic Characteristics*

| Online platform usage characteristics | Categories | *n* | *%* |
|---|---|---|---|
| Preferred online platform | Social media | 1,662 | 48.5 |
| | Websites | 1,400 | 40.8 |
| | Shopping networks | 58 | 1.7 |
| | Video | 54 | 1.6 |
| | Animation | 9 | 0.3 |
| | Web banners/pop-ups | 7 | 0.2 |
| | Subscriptions | 29 | 0.8 |
| | Apps you install | 10 | 0.3 |
| | Games | 63 | 1.8 |
| | Shopping blogs | 36 | 1.0 |
| | Recommended to you when browsing | 15 | 0.4 |
| | Other | 87 | 2.5 |
| Preferred devices | PC | 205 | 6.0 |
| | Laptop | 335 | 9.8 |
| | Tablet | 379 | 11.0 |
| | Mobile phones | 2,511 | 73.2 |
| Advertising engagement | Rarely | 353 | 10.3 |
| | Sometimes | 1,058 | 30.8 |
| | Often | 1,151 | 33.6 |
| | Always | 868 | 25.3 |
| Advertising sharing | Rarely | 757 | 22.1 |
| | Sometimes | 1,486 | 43.3 |
| | Often | 731 | 21.3 |
| | Always | 456 | 13.3 |
| Hours spent per day on online platforms | ≤ 1/2 hour | 57 | 1.7 |
| | 1/2 - 1 hour | 1,365 | 39.8 |
| | 2 hours | 733 | 21.4 |
| | 3 hours | 523 | 15.2 |
| | 4 hours | 328 | 9.6 |
| | ≥ 5 hours | 424 | 12.4 |
| Gender | Male | 1,236 | 36.0 |
| | Female | 2,194 | 64.0 |
| Age | 18 - 21 years | 643 | 18.7 |
| | 22 - 25 years | 1,526 | 44.5 |
| | 26 - 29 years | 750 | 21.9 |
| | 30 - 33 years | 511 | 14.9 |
| Marital status | Married | 570 | 16.6 |
| | Living together | 205 | 6.0 |

| Online platform usage characteristics | Categories | *n* | % |
|---|---|---|---|
| | Single | 2,538 | 74.0 |
| | Widower/widow | 27 | 0.8 |
| | Separated | 30 | 0.9 |
| | Divorced | 60 | 1.7 |
| Education | Grade 8 - 11 | 116 | 3.4 |
| | Grade 12 | 91 | 2.7 |
| | Completed grade 12 | 2,153 | 62.8 |
| | Post matric/diploma or certificate | 1,036 | 30.2 |
| | Degree | 7 | 0.2 |
| | Postgraduate degree | 27 | 0.8 |
| Employment | Employed (full-time) | 521 | 15.2 |
| | Student / employed (part-time) | 890 | 25.9 |
| | Self-employed | 88 | 2.6 |
| | Unemployed | 1,907 | 55.6 |
| | Housewife | 19 | 0.6 |
| | Other | 5 | 0.1 |
| Population group | Black | 2,154 | 62.8 |
| | Mixed Ancestry | 921 | 26.9 |
| | Indian/Asian | 209 | 6.1 |
| | White | 138 | 4.0 |
| | Other | 8 | 0.2 |
| Monthly Income | Less than ZAR800 | 1,116 | 32.5 |
| | ZAR801 - 3,200 | 796 | 23.2 |
| | ZAR3,201 - 6,400 | 1,034 | 30.1 |
| | ZAR6,401 - 12,800 | 433 | 12.6 |
| | ZAR12,801 - 25,600 | 38 | 1.1 |
| | ZAR25,601 - 51,200 | 5 | 0.1 |
| | ZAR51,201 - 102,400 | 3 | 0.1 |
| | ZAR102,401-– 204,800 | 2 | 0.1 |
| | ZAR204,801+ | 3 | 0.1 |

## Measurement Model

The factor analysis yielded nine factors with eigenvalues of greater than one, which accounted for variance of 16.148%, 12.976%, 7.165%, 4.809%, 4.000%, 2.938%, 2.908%, 2.589%, and 2.459% respectively. The factors sum accounted for 55.992% of the variance, which reveals a good correlation. The Kaiser-Meyer-Olkin measure displayed excellent sampling adequacy, viz. 0.918. The correlation matrix factorability was considered through a Sphericity Test (Bartlett), which was acceptable at $p < .001$.

## Table 2

*Online Advertising Construct Reliability and Convergent Validity Measures*

| Constructs | *M* | *SD* | Factor loadings | AVE | CR | Cronbach α |
|---|---|---|---|---|---|---|
| Relevant information | | | | | | |
| Online ad information assists in receiving the right message about the product/service | 4.17 | 0.665 | 0.780 | 0.522 | 0.843 | 0.787 |

| Constructs | M | SD | Factor loadings | AVE | CR | Cronbach α |
|---|---|---|---|---|---|---|
| Online ads facilitate the understanding of new product/service information | 4.10 | 0.644 | 0.818 | | | |
| Online ads provide useful information on products/services | 3.99 | 0.760 | 0.749 | | | |
| Online ads are effective in helping to better understand the information on products/services | 4.18 | 0.694 | 0.671 | | | |
| Online ads provide relevant to the content I'm viewing | 4.02 | 0.726 | 0.568 | | | |
| Value | | | | | | |
| Online ads are important | 4.23 | 0.719 | 0.802 | 0.544 | 0.876 | 0.841 |
| Online ads are valuable | 4.11 | 0.732 | 0.852 | | | |
| Online ads are useful | 4.11 | 0.770 | 0.783 | | | |
| Online ads are effective | 3.97 | 0.792 | 0.685 | | | |
| Online ads work together with me to produce offerings that better suit me | 3.99 | 0.749 | 0.659 | | | |
| Online ads interact with me to design offerings that meet my needs | 3.93 | 0.790 | 0.614 | | | |
| Disruptive online placement and timing | | | | | | |
| I expect online ads to disrupt the reception of desired content | 2.90 | 1.092 | 0.830 | 0.598 | 0.879 | 0.829 |
| I expect online ads to intrude on my search for information | 2.88 | 1.145 | 0.861 | | | |
| I expect online ads to disrupt viewing of content | 3.09 | 1.103 | 0.872 | | | |
| I expect online ads are excessive | 2.62 | 1.086 | 0.715 | | | |
| I expect online ads are invasive | 3.58 | 1.061 | 0.536 | | | |
| Skepticism | | | | | | |
| Online ads present a different picture from the actual product or the service | 2.79 | 1.018 | 0.596 | 0.550 | 0.894 | 0.858 |
| I feel that online ads are exaggerated | 3.06 | 0.990 | 0.715 | | | |
| I feel that online ads are not objective | 3.27 | 0.909 | 0.764 | | | |
| I feel that online ads are not believable | 3.38 | 0.915 | 0.850 | | | |
| I feel that online ads are not convincing | 3.47 | 0.918 | 0.768 | | | |
| I feel that online ads are misleading | 3.38 | 0.947 | 0.752 | | | |
| I feel that online ads are not credible | 3.39 | 0.892 | 0.725 | | | |
| Privacy concern and distrust | | | | | | |
| I am concerned about the potential misuse of personal data | 2.19 | 0.931 | 0.807 | 0.519 | 0.808 | 0.728 |
| I fear that my information has not been stored safely | 2.69 | 1.061 | 0.677 | | | |
| I feel uncomfortable when my data is shared without permission | 1.94 | 0.970 | 0.818 | | | |
| I feel my personal information given for transaction on my POP will be compromised to a third party | 2.60 | 0.998 | 0.546 | | | |

| Constructs | M | SD | Factor loadings | AVE | CR | Cronbach α |
|---|---|---|---|---|---|---|
| **Personalization** | | | | | | |
| I would be prepared to spend time providing my personal details (a user profile) to make online advertising to better match my needs | 3.72 | 0.925 | 0.773 | 0.516 | 0.809 | 0.727 |
| I think that personalized online advertising enables me to order products that are tailor-made for me | 3.69 | 0.850 | 0.729 | | | |
| This personalized online advertising makes me feel that I am a unique customer | 3.77 | 0.841 | 0.730 | | | |
| I prefer ads that are adjusted to my preferences | 3.82 | 0.790 | 0.636 | | | |
| **Ad irritation** | | | | | | |
| I feel that online ads are irritating | 3.30 | 1.003 | 0.811 | 0.552 | 0.894 | 0.858 |
| I feel that online ads are deceptive | 3.21 | 0.928 | 0.775 | | | |
| I feel that online ads are annoying | 3.39 | 0.981 | 0.847 | | | |
| I feel that online ads are intrusive | 3.16 | 0.961 | 0.822 | | | |
| I feel that online ads are everywhere | 2.18 | 0.906 | 0.537 | | | |
| I find that most online ads are messy | 3.13 | 1.011 | 0.707 | | | |
| I am often irritated by unwanted pop-ups in most online ads | 2.48 | 1.081 | 0.650 | | | |
| **Price consciousness** | | | | | | |
| I get better value for my money in brands advertised online than in unadvertised brands | 3.49 | 0.936 | 0.588 | 0.500 | 0.832 | 0.752 |
| I click on the online ad that has the best value for money | 3.68 | 0.913 | 0.802 | | | |
| I compare the price-offer with all other aspects of the brand or product on the online ad | 3.81 | 0.833 | 0.746 | | | |
| I will click on the online ad if the price-offer is advantageous to my budget | 3.91 | 0.848 | 0.706 | | | |
| I usually buy online when products or services are on sale | 3.30 | 1.081 | 0.675 | | | |
| **Online advertising design quality** | | | | | | |
| The design of the online ad must be attractive | 4.37 | 0.702 | 0.811 | 0.641 | 0.898 | 0.844 |
| The design of the online ad must be easy to understand | 4.43 | 0.671 | 0.879 | | | |
| The design of the online ad must be easy to navigate | 4.32 | 0.723 | 0.869 | | | |
| The design of the online ad must not access links I do not expect | 4.08 | 0.883 | 0.625 | | | |
| The design of the online ad must be good quality | 4.38 | 0.657 | 0.793 | | | |

*Note.* AVE = average variance extracted; CR = composite reliability.

Cronbach's α ranged from 0.727 - 0.858 and the composite reliability (CR) scores ranged from 0.808 - 0.898, thereby displaying acceptable to good internal consistencies (refer to Table 2). The factor loadings of the online advertising constructs ranged from 0.536 - 0.879, and average variance extracted

(AVE) ranged from 0.500 - 0.641, which met or exceeded the prescribed minimum level of 0.5 and were therefore indicative of convergent validity (refer to Table 2). Discriminant validity was assessed by utilizing the square root AVE for each construct, which was larger than the correlations between the constructs, thereby reflecting discriminant validity (refer to Table 3).

**Table 3**

*Online Advertising Construct Component Correlation Matrix*

| Constructs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| Skepticism | **0.742** | | | | | | | | |
| Ad irritation | 0.592 | **0.743** | | | | | | | |
| Value | 0.216 | 0.209 | **0.737** | | | | | | |
| Online advertising design quality | 0.088 | -0.055 | 0.323 | **0.801** | | | | | |
| Disruptive online placement and timing | 0.079 | -0.056 | -0.131 | 0.058 | **0.773** | | | | |
| Relevant information | 0.114 | 0.090 | 0.547 | 0.334 | -0.056 | **0.723** | | | |
| Price consciousness | 0.013 | -0.011 | 0.291 | 0.328 | -0.068 | 0.277 | **0.707** | | |
| Personalization | 0.171 | 0.164 | 0.376 | 0.357 | -0.167 | 0.300 | 0.426 | **0.719** | |
| Privacy concern and distrust | 0.337 | 0.453 | 0.015 | -0.263 | -0.112 | -0.052 | -0.140 | -0.064 | **0.721** |

*Note.* The diagonal includes the square root of the AVE (average variance extracted) values (bolded) and the off-diagonal values include the correlations between the variables

The structural equation modelling (SEM) goodness-of-fit statistics resulted in a good overall measurement model fit: ($\chi^2/df$ = 1.844; root-mean-square error of approximation = 0.016; normed fit index = 0.980; goodness-of-fit index = 0.983; comparative fit index = 0.990; Tucker-Lewis index = 0.985; and standardized root-mean-square residual = 0.029. A common method bias test was utilized to compare the unconstrained common method factor (CMF) model to the constrained common CMF model. The $\chi^2$ test between the aforementioned CMF models resulted in a significant difference at $p <$ .001. Hence, unconstrained CMF model was retained due to the shared variance. The Cook's distance test revealed that no respondent displayed irregular tendencies; therefore, the full sample was kept. The attitude scales were evaluated through a multi-collinearity test to consider if the measures were overly correlated. The online advertising construct tolerance were greater than 0.1 and the variation inflation factors less than 3, which shows that there was not unnecessary correlation between the attitude scales.

## Hypotheses Testing

The path coefficients ascertained that design quality of online advertising had a significant positive effect on relevant information ($\beta$ = 0.428, $t$ = 28.104, $p <$ .001), value ($\beta$ = 0.448, $t$ = 30.550, $p <$ .001), personalization ($\beta$ = 0.432, $t$ = 33.900, $p <$ .001) and price consciousness ($\beta$ = 0.422, $t$ = 28.090, $p <$ .001) attitudinal measures among millennials owing to their preferred online platform. Conversely, the design quality of online advertising resulted in a negative association with privacy concern and distrust ($\beta$ = -0.348, $t$ = -24.816, $p <$ .001) and ad irritation ($\beta$ = -0.165, $t$ = -10.504, $p <$ .001) among millennials due to their preferred online platform. As a consequence, H1, H2, H5, H6, H7, and H8 were supported. However, disruptive online placement and timing ($\beta$ = 0.168, $t$ = 10.100, $p <$ .001) displayed a

significant positive effect, and skepticism ($\beta =0.009$, $t = 0.518$, $p >.001$) showed no significant difference due to the design quality of online advertising, so H3 and H4 were not supported (refer to Table 4 and Figure 2). Additionally, the design quality of online advertising explained 20.6% of relevant information's variance, 26.4% of value, 4.9% of disruptive online placement and timing, 6.7% of skepticism, 32.6% of privacy concern and distrust, 44.3% of personalization, 15.3% of ad irritation, and 22.6% of price consciousness.

**Table 4**

*Hypotheses*

| Hypotheses | Significance | Support |
|---|---|---|
| H1: Online advertising design quality →Relevant information | $p < .001$ | Yes |
| H2: Online advertising design quality →Value | $p < .001$ | Yes |
| H3: Online advertising design quality → Disruptive online placement and timing | $p < .001$ | No |
| H4: Online advertising design quality →Skepticism | - | No |
| H5: Online advertising design quality →Privacy concern and distrust | $p < .001$ | Yes |
| H6: Online advertising design quality →Personalization | $p < .001$ | Yes |
| H7: Online advertising design quality →Ad irritation | $p < .001$ | Yes |
| H8: Online advertising design quality →Price consciousness | $p < .001$ | Yes |

**Figure 2**

*Online Advertising Design Quality Model SEM Analysis*
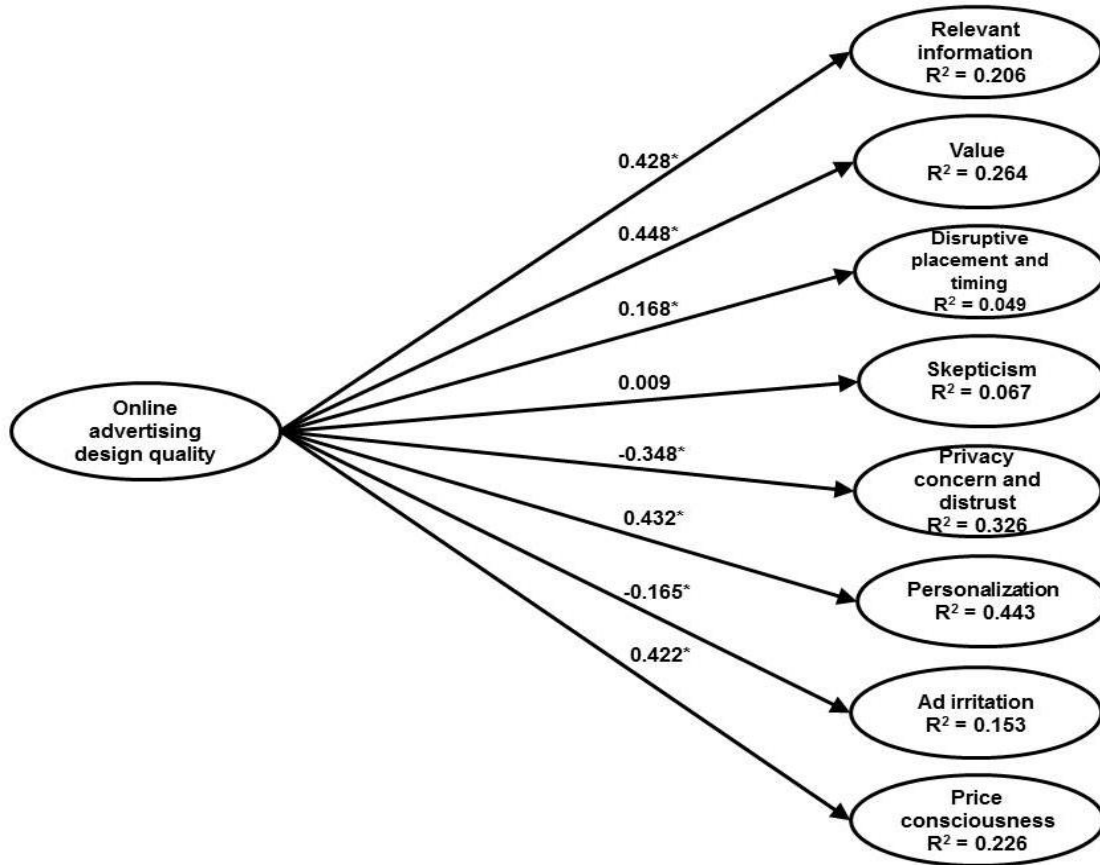


*\* p < .001*

## DISCUSSION

The study found that the design quality of online advertising had a positive effect on relevant information among millennials. Online users identify with visual and textual aspects of online advertising, looking to find their preferences and sense of self. If the information is designed in a way that is informative, engaging, and relevant, then millennials will engage with it (Murillo et al., 2016; Najib et al., 2016). The significance of these factors complements previous research by demonstrating the importance for online advertisers in terms of the design quality and composition of online advertising (Galati et al., 2016; Jeon & Jeong, 2017; Tsao et al., 2016). Furthermore, a recent paper agrees that online advertising design quality favourably influences the acceptance of informative online advertising (Mattke et al., 2021).

The research determined that the design quality of online advertising had a positive effect on value among millennials. This study builds on prior investigation, since several researchers agree that informativeness and entertainment adds value to online advertising (Kim & Han, 2014; Murillo et al., 2016), but makes an important contribution in terms of online advertising design quality. Additionally, an investigation confirms that online MC design quality favorable influences the perceived value of consumers (Tsao et al., 2016).

The inquiry revealed that the design quality of online advertising had a positive effect on disruptive online placement and timing among millennials. Hence, this study showed that online advertising design quality did not result in a reduction of disruptive online placement and timing issues. Consequently, it appears that, despite the South African millennials' positive sentiment towards design quality, it was insufficient to reduce their negative predisposition toward the disruptive nature of the placement and timing of online advertising. Online advertising interrupt millennials' online activities, which is one of the main reasons why they really dislike this form of advertising (Cummins, 2021; Dong, 2019; Hossain, 2018; Li et al., 2017; Mattke et al., 2018). As a result, it is unsurprising that no matter how good the design quality, they will still exhibit negative sentiment toward the intrusive nature of online advertising. The placement and timing of online advertising is important in an online understanding of millennial likes, preferences, best browsing times of day, and frequency of online advertising. Mei et al. (2018) explored the style of web pages and found that the selection of advertisements needed to fit the website layout and content and be inserted in a non-intrusive style. The different advertising elements should have color consistency and not break from the web page style. The placement should be casual, natural, and subtle (Liu et al., 2015). Furthermore, researchers agreed that incorrect placement also appears as ad clutter and may bring about feelings of irritation (Bang & Lee, 2016; Cho & Cheon, 2004). So, this study justifies prior research, but also includes important online advertising design quality factors. Timing was revealed as a factor of major importance when advertisements and videos were designed to work together to invite engagement. Users are irritated when the timing of advertising was off and were likely to initiate blocking behaviours (Tramèr et al., 2019), which correlates with the findings of this study. An inquiry also confirms that good location placement and timing increase the value online advertising (Karamchandani et al., 2021), which can be facilitated by apt design quality (Dwivedi et al., 2020; Mattke et al., 2021), but did not consider millennials express dislike of the intrusive nature of online advertising.

The investigation showed that the design quality of online advertising did not have a significant effect on skepticism among millennials. Additionally, this study revealed that South African millennials displayed high levels of skepticism toward online advertisements (evident by the mean values in Table 2), which is consistent with the findings of a number of other international studies (Demir, 2018; Dong, 2019; Raziq et al., 2018; Tran, 2017). Conversely, this study also showed that South African millennials exhibited very positive attitudinal responses in terms of online advertising design quality (also evident by the high means values in Table 2), which was found to reduce skepticism in other international studies (Abbasi et al., 2021; Hussain et al., 2020; Karamchandani et al., 2021; Mattke et al., 2021). Hence, it could be surmised that design quality neutralizes millennials' skepticism sentiments toward online advertising from an African developing economy perspective, but not at a sufficient level to reduce their skepticism. However, if millennials felt skeptical, they would practice avoidance behaviors through skipping, ignoring, and blocking online advertising. Dong (2019) confirms that personalized online advertising designs resulted in some skepticism and credibility concerns among millennials, but that these concerns were not enough to stop them from using the online advertising platforms, which supports the findings of this study.

The study indicated that the design quality of online advertising had a negative effect on privacy concern and distrust among millennials (i.e., reduced privacy concern and distrust concerns). The way in which millennials information is distributed and applied is a concern and is being served advertisements that are irrelevant or irritating, which result in OAA (Aiolfi et al., 2021; Morimoto, 2020; Tang et al., 2015), but Dong (2019) asserts that this was insufficient to prevent millennial from utilizing online advertising platforms. This study affirms that effective online advertising design quality, which provides relevant information and optimal personalization, resulted in a decrease in privacy concern and distrust issues on

various online platforms. This was supported by several other investigations, which suggested that apt online advertising design quality reduced privacy concern and distrust (Cebi, 2013; Galati et al., 2016; Jeon & Jeong, 2017; Mattke et al., 2021).

The research determined that the design quality of online advertising had a positive effect on personalization among millennials. Design factors help to overcome an increase amount of advertising saturation, instead of visuals that are unrelated to the user. Personally relevant online advertising inspired positive attitudes, purchase intention, credibility, and decreased banner blindness (Abbasi et al., 2021; Aiolfi et al., 2021; Arora & Agarwal, 2019; Galati et al., 2016; Kaspar et al., 2019; Tran, 2017; Tsao et al. 2016). The challenge for advertisers is that improved personalization means improved security of users' personal data. However, another inquiry agreed that online MC design quality resulted in positive customer attitudes owing to personalization (Jeon & Jeong, 2017).

The inquiry suggested that the design quality of online advertising had a negative effect on ad irritation among millennials (i.e. reduced ad irritation). Several studies agreed that good design quality, relevant content and personalized online advertising resulted in more positive perceptions regarding ad irritation (Gotter, 2019; Morimoto, 2020; Negm & Tantawi, 2015), and so this research also adds the body of knowledge from an African developing economy perspective. Other studies agree that ad irritation concerns could be reduced by appropriate online advertising design quality (Abbasi et al., 2021; Mattke et al., 2021).

The investigation confirmed that the design quality of online advertising had a positive effect on price consciousness among millennials. Millennials are extremely price conscious and are largely attracted by ads that are designed with a price incentive or are otherwise special in some way. They are aware that price and quality ought to match but are also loyal to brands they love (Duffett & Foster, 2018; Teixeira, 2014). A carefully crafted online advertising design could entice price conscious consumers to pay attention to online MC content (Carroni et al., 2019; Gauzente & Roy, 2012; Rezaei, 2015). Hence, this inquiry makes an important contribution by affirming that online advertising design favourably influences price consciousness.

## IMPLICATIONS AND CONCLUSION

### Practical Implications

The study argues that attractive and compelling design quality components need to be applied to the online advertising strategies in order for products and services to appeal to the respective audience. In the design of these online advertising strategies, media can be strengthened stylistically to provide relevant images and a concise layout design of the online platform. A key requirement for engaging online advertising is the aesthetic and stylistic applications that are more than ordinary or kitsch. The message and visual ought to be cohesive, since these both contribute to conveying a single message. While the visual concentrates on how to convey the message, the duration, placement, quality of content and other mediating variables for attracting and retaining consumers in real-time channels are also important.

Millennial attitudes were positive when the online advertising design quality accentuated relevant information. Hence, organizations should include relevant information that was up-to-date, authentic, native, accurate, unambiguous, personalized, promoted sharing, and included details about the price (deals and specials), availability, product, promotions, and other aspects related to the product to stimulate positive attitude responses among millennials.

The design quality of online advertising resulted in a favorable effect on disruptive online placement and timing among South African millennials. As previously mentioned, consumers become irritated when the ads timing is off resulting ad blocking activities (Tramèr et al., 2019). Therefore, the design quality of the online advertising ought to consider and be placed in an interesting, personalized, entertaining, and attractive manner, as well as take into consideration favorable peak days and hours for the timing of such online advertisements.

South African millennials revealed that the design quality of online advertising reduced privacy concern and distrust. Millennials are generally aware that organizations track their viewing patterns and that nothing was private, but are still concerned with privacy policies, even though they wanted to engage in personalized content. Hence, organizations ought to ensure that when designing online advertising, assurance is provided regarding the protection of millennial online privacy in order to reduce distrust.

South African millennial attitudes were positive in terms of the personalization, due to the design quality of online advertising. Hence advertisers should conduct accurate research to establish millennial likes, in order to design online ads that are specifically tailored to their needs and provide unique benefits. However, organizations should take into consideration the privacy-paradox, where although online advertising must be personalized, it must be designed in a way that adds value and not in a way that is deemed "creepy" (Bang et al., 2019; Strycharz et al., 2019). If users feel that their privacy is hindered, this will lead to an increase in OAA (Aiolfi et al., 2021; Cummins, 2021; Aguirre et al., 2016; Baek & Morimoto, 2012; Estrada-Jiménez et al., 2017).

Millennials felt that the online advertising design quality reduced ad irritation, which was especially true for online ads that were relevant, personalized, and native. On the other hand, millennials typically feel that ad clutter could lead to ad irritation, especially when bombarded with messages, unwanted pop-ups, and flashing banners. Hence, organizations should endeavor to create online advertising was personalized and relevant but should not cover the entire screen or create unnecessary clutter as determined by this study.

South African millennials revealed that the design quality of online advertising had a favorable influence on price consciousness. Price consciousness or cost sensitivity has become especially evident in the midst of the COVID-19 pandemic (Pantano et al., 2020). Additionally, a number of South African millennials are unemployed, especially among the youth, so it is logical supposition that they are price conscious due to limited income (Stoddard, 2022). Hence, if the goal of online advertising is to mainly sell products and services, its effectiveness and the value of design quality could be questioned due the limited financial means of young target markets, which is evident among much of the millennial cohort in a developing African economy. However, it is posited that as this cohort's economic circumstances improve, price consciousness ought to diminish, and design quality would increase in importance to assist in differentiated between products other than price. Nonetheless, price consciousness is an important strategic and tactical choice advertisers make when designing online advertising, so organizations design online advertisements in a manner that empathizes price deals and specials offers so as to stimulate engagement and positive behavioral responses. Millennials do also display brand loyalty for certain products and are mindful of the price-quality relationship, since the opportunity to save money might backfire later (Shaddy & Lee, 2020).

Therefore, it is important for online advertisers to recognize that the design interface, including the visual components of an advertisement, must be taken into consideration, along with the technical and interactive elements of online advertising. Millennials are drawn in by the visual aspects first, before they decide to interact with online advertising.

## Theoretical Implications

The study's unique theoretical contributions are confined to the field of the design quality of online advertising, with a specific focus on various online platforms. This study demonstrates that the design quality of online advertising has an influence on millennial attitudes via the development of an online advertising design quality. Hence, visual rhetoric provided the basis for theoretical framework, and the online advertising design quality model was formulated by incorporating constructs from Baek and Morimoto's (2012) PAAM; Cho and Cheon's (2004) OAAM; Ducoffe's (1996) WAM; and Ganguly et al.'s (2010) research. This study builds on these theoretical models in terms of online advertising design quality.

Millennials are exposed to online advertising (via various online platforms), which are designed in a way to influence their attitudes (relevant information, disruptive online placement and timing, privacy concern and distrust, price consciousness, ad irritation, personalization and value towards the featured products and services), which in turn influences their responses (positive or negative) to digital MC. Hence, the unique findings of this study might assist in the improvement of the development/design quality of online advertising, based on these established theoretical models, in a bid to improve potentially negative attitudes towards online advertising among millennials from an African developing economy perspective.

## CONCLUSION

There was an overall positive effect of online advertising design quality on the relevant information, value, disruptive online placement and timing, personalization, and price consciousness constructs among millennials. Online advertising design quality decreased privacy concern and distrust and ad irritation issues, and skepticism resulted in no significant difference. This was specific for factors such as making sure that the design elements were relevant to the content, placed appropriately, and engaging. The formulation and visual aesthetics also play a big role in the message the creative brings across via the design quality of online advertising. Online advertisers and marketers should take more time to understand the preferences of target audience segments and cohorts with research instead of assumptions.

## LIMITATIONS AND FUTURE RESEARCH

The results of this study could be generalized to an extent, in that they can serve numerous areas in design advertising and marketing in South Africa, but cannot be generalized to other cohorts, other countries, or longitudinally. Hence, it is suggested that research be conducted in other countries, among different cohorts and over an extended period of time (instead of cross-sectional research). Further research could also be used to explore additional attitude constructs, and the technological influence of automation and programmatic components in online advertising, which may create avoidance and prevent consumer engagement. Research that links online advertising engagement and experience patterns, along with the effect of the design aspects of antecedents, could also be explored in greater depth.

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**Preferred Online Platform (P.O.P.) Advertising Questionnaire**
Thank you for voluntarily participating in this study on online advertising. The survey will not take longer than 10 minutes to complete and no personal particulars are requested. Responses are confidential and will provide valuable information on online advertising design strategies.

**1. <u>Tick ONE</u> of the following platforms that ENGAGES you the most in online advertising:**
☐ Social media (For example: Facebook, Twitter, etc.)
☐ Websites (For example: Gumtree, GroupOn, Brand sites, Retailers, etc.)
☐ Shopping networks (For example: TakeALot, Amazon, Zando, Loot, Orange, etc.)
☐ Video (YouTube, Vimeo, etc.)
☐ Animations
☐ Web banners
☐ Pop-ups
☐ Subscriptions
☐ Apps you install
☐ Games
☐ Shopping blogs
☐ Recommended to you when browsing
☐ Other_____

**2. Which device do you prefer to use when browsing your Preferred Online Platform (P.O.P.)? <u>Tick ONE</u>**
☐ PC          ☐ Laptop          ☐ Tablet          ☐ Mobile phones

**3. How often do you ENGAGE with advertising on your P.O.P.? <u>Tick ONE</u>**
☐ Rarely          ☐ Sometimes          ☐ Often          ☐ Always

**4. How often do you SHARE advertising on your P.O.P.? <u>Tick ONE</u>**
☐ Rarely          ☐ Sometimes          ☐ Often          ☐ Always

**5. How many hours do you SPEND on your P.O.P. per day? <u>Tick ONE</u>**
☐ ≤ ½ Hour          ☐ ½-1 Hour          ☐ 2 Hours          ☐ 3 Hours          ☐ 4 Hours          ☐ ≥ 5 Hours

**6. Demographic Factors**
6.1. What is your Gender?          ☐ Male          ☐ Female

6.2. Your age (in years)?     ☐ 18-21          ☐ 22-25          ☐ 26-29          ☐ 30-33

6.3. Your marital (marriage) status?     ☐ Married          ☐ Living together          ☐ Single          ☐ Widower/Widow
                                         ☐ Separated          ☐ Divorced

6.4 Your highest level of education?     ☐ Gr. 8-11          ☐ Gr. 12          ☐ Completed Gr. 12
                                         ☐ Post-Matric Diploma/Certificate          ☐ Degree          ☐ Post Grad. Degree

6.5 Your employment status?  ☐ Employed (full-time)     ☐ Student/Employed (part-time)          ☐ Self-employed
                             ☐ Unemployed          ☐ Housewife     ☐ Other:_____

6.6 With which population group do you associate yourself most?  ☐ Black          ☐ Mixed Ancestry  ☐ Indian/Asian
                                                                ☐ White          ☐ Other:_____

6.7 What is the average monthly income (salary, wages, pocket money)?  **Please indicate**

☐ ≤ ZAR800          ☐ ZAR801-3 200          ☐ ZAR3 201-6 400          ☐ ZAR6 401-12 800          ☐ ZAR12 801-25 600

☐ ZAR25 600-51 200          ☐ ZAR51 201-102 400          ☐ ZAR102 401- 204 800          ☐ ZAR204 801+

**7. Please indicate the extent to which you agree/disagree regarding your P.O.P. (Preferred Online Platform) advertising statements: TICK ONE block per statement**

| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| **Relevant Information** | | | | | |
| Online ad information assists in receiving the right message about the product/service | | | | | |
| Online ads facilitate the understanding of new product/service information | | | | | |
| Online ads provide useful information on products/services | | | | | |
| Online ads are effective in helping to better understand the information on products/services | | | | | |
| Online ads provide relevant to the content I'm viewing | | | | | |
| **Value** | | | | | |
| Online ads are important | | | | | |
| Online ads are valuable | | | | | |
| Online ads are useful | | | | | |
| Online ads are effective | | | | | |
| Online ads work together with me to produce offerings that better suit me | | | | | |
| Online ads interact with me to design offerings that meet my needs | | | | | |
| **Disruptive Online Placement and Timing** | | | | | |
| I expect online ads to disrupt the reception of desired content | | | | | |
| I expect online ads to intrude on my search for information | | | | | |
| I expect online ads to disrupt viewing of content | | | | | |
| I expect online ads are excessive | | | | | |
| I expect online ads are invasive | | | | | |
| **Skepticism** | | | | | |
| Online ads present a different picture from the actual product or the service | | | | | |
| I feel that online ads are exaggerated | | | | | |
| I feel that online ads are not objective | | | | | |
| I feel that online ads are not believable | | | | | |
| I feel that online ads are not convincing | | | | | |
| I feel that online ads are misleading | | | | | |
| I feel that online ads are not credible | | | | | |
| **Privacy Concern and Distrust** | | | | | |
| I am concerned about the potential misuse of personal data | | | | | |
| I fear that my information has not been stored safely | | | | | |
| I feel uncomfortable when my data is shared without permission | | | | | |
| I feel my personal information given for transaction on my POP will be compromised to a third | | | | | |
| **Personalization** | | | | | |
| I would be prepared to spend time providing my personal details (a user profile) to make online advertising to better match my needs | | | | | |
| I think that personalized online advertising enables me to order products that are tailor-made for me | | | | | |
| This personalized online advertising makes me feel that I am a unique customer | | | | | |
| I prefer ads that are adjusted to my preferences | | | | | |
| **Ad Irritation** | | | | | |
| I feel that online ads are irritating | | | | | |
| I feel that online ads are deceptive | | | | | |
| I feel that online ads are annoying | | | | | |
| I feel that online ads are intrusive | | | | | |
| I feel that online ads are everywhere | | | | | |
| I find that most online ads are messy | | | | | |
| I am often irritated by unwanted pop-ups in most online ads | | | | | |
| **Price Consciousness** | | | | | |
| I get better value for my money in brands advertised online than in unadvertised brands | | | | | |
| I click on the online ad that has the best value for money | | | | | |
| I compare the price-offer with all other aspects of the brand or product on the online ad | | | | | |
| I will click on the online ad if the price-offer is advantageous to my budget | | | | | |
| I usually buy online when products or services are on sale | | | | | |
| **Online Advertising Design Quality** | | | | | |
| The design of the online ad must be attractive | | | | | |
| The design of the online ad must be easy to understand | | | | | |
| The design of the online ad must be easy to navigate | | | | | |
| The design of the online ad must not access links I do not expect | | | | | |
| The design of the online ad must be good quality | | | | | |

**Thank you for your time!**