Exploring the Persuasive Mechanisms of Virtual Reality Advertising: A Content Analysis

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Abstract

Virtual Reality (VR) is rapidly harnessing current marketing opportunities. Despite, prior understanding about persuasive mechanisms of other virtual ways of delivering advertising messages, there is an absence of knowledge about persuasiveness of advertising messages delivered through VR technology. This paper aims at exploring the persuasive mechanisms of VR advertising. Consequently, this research aims at providing scholars with directions for future research and assist practitioners in their efforts to embrace this novel technology. A qualitative content analysis method has been used by taking over 2086 user generated contents (UGC) corresponding to twelve VR advertisements published on YouTube. Several major persuasive mechanisms applied in VR advertising, namely 1) Persuasion through immersive experience; 2) Persuasion as a function of people's reflections about the content of a message and; 3) Persuasion through emotional engagement have been revealed by content analysis. This extant research aims at VR in marketing by identifying how persuasive mechanism are applied in VR advertisements, thereby supports the claim that VR is impacting future marketing. From a managerial perspective, this research shows that VR advertising is a powerful persuasive tool which impacts consumer perceptions and decision making. Thus, special attention should be drawn in order to inculcate their brands in consumer's minds.

Keywords: *Content analysis, persuasive mechanisms, User-generated content, Virtual Reality, Virtual reality advertising*

1. Introduction

"When Virtual Reality was first introduced, no one could anticipate that it would become such a hype so fast" (Woolard, 2019). Retail is evolving at an accelerated rate due to changes made possible by technologies and evolving consumer behaviour (Grewal, Roggeveen, & Nordfält,

2017). Where the field goes will depend on even newer emerging forces such as virtual reality (Grewal et al., 2017). As stated in the preceding quotation, Virtual Reality (VR) is rapidly harnessing current marketing opportunities. While most firms have a strategy that incorporates Web 2.0 platforms into their marketing mix, practices incorporating VR are not as crystallized (Boyd & Koles, 2019). The arrival and increasing accessibility of VR applications give rise to a new set of opportunities as well as challenges marketers. Commercial VR head mounted devices, such as Google Cardboard are empowering firms to embrace the creative potential inherent in this cutting-edge technology (Boyd & Koles, 2019). Despite, prior understanding about persuasive mechanisms of other virtual ways of delivering advertising messages, such as advergames (Roettl, Waiguny, & Terlutter, 2016), there is an absence of knowledge about the persuasiveness of advertising messages delivered through VR technology. Thus, the current study examines the persuasive power of VR advertising. Specifically, this study aims at contributing to the existing literature in providing scholars with useful guidelines and measurement tools to study the effects of VR in marketing by identifying the persuasive mechanisms applied in VR advertising. Possessing this understanding will be useful for marketing practitioners to successfully implement and evaluate persuasive mechanisms through VR technology to promote their brands more effectively in this fiercely competitive marketplace.

In the following sections, literature on the applications of VR in marketing and VR in advertising will be reviewed. Next, literature on persuasion along with its principles and mechanisms to analyse the persuasive mechanisms of VR advertisements will be discussed. The paper then presents the research methodology used to study the key premise of this study concluding with implications of the findings and avenues for future research.

2. Literature review

2.1. Virtual Reality (VR)

Virtual Reality; VR is a form of computer-generated scenario that immerses users in a three-dimensional authentic experience (Berg & Vance, 2017). Through VR technology, users can feel real life experience of being in another place beyond the information made available by the computer, such as in a retail store, a restaurant or a tourist destination etc. (Deng, Unnava, & Lee, 2019). Prior research shows that the product/brand stimuli can be formed from consumers' experiences in VR (Bigné, Llinares, & Torrecilla, 2016; Yeh, Wang, Li, & Lin, 2017). VR conveys a sense of telepresence in terms of vividness and interactivity, and the medium communicated is rich in information as well as enjoyment to consumers (Biocca, 1992; Lee & Oh, 2007). A recent research report reveals that the global VR market is expected to reach 62.1

billion USD by 2027 (Grand view research, 2020). Therefore, VR applications can be considered as an effective marketing tool.

2.2. VR in Marketing

The application of VR in marketing is favourable. Previous studies show that VR technologies empower marketing practitioner's potential promoting their products and services. VR enables consumers to learn about products thoroughly by providing advanced interactivity and high quality images (Suh & Lee, 2005). Through high media richness, VR can generate compelling feelings of telepresence (Klein, 2003). Compared to traditional website, VR-style websites tend to increase consumers' knowledge of the product, subsequently leads to more favourable attitudes and purchase intentions (Suh & Lee, 2005). VR technology facilitates practitioners to design websites that simulate experiential consumption, such as museum visits, travel and tourism (Deng et al., 2019).

The adoption of VR technologies is promoting economic growth and creating new opportunities (Grewal et al., 2017). As these technologies evolve, they influence marketing and business decisions. While video-sharing websites such as YouTube and Facebook have successively launched support for 360-degree videos, many VR head-mounted displays are now available at affordable prices. For example, the Google Cardboard is a VR platform developed by Google to be used with a head mount for a smartphone. A recent trade report revealed that by February 2017, Google had sold 10 million cardboard headsets with Samsung occupying the second place with 5 million devices (George, 2018). In Q3 2017, VR headsets total sales topped 1 million for the first time (George, 2018). They allow consumers to enjoy immersive videos on their personal devices. Hence, the level of immersion of which an audience receives from VR content offers brands to create innovative and cutting-edge VR marketing campaigns (Grewal et al., 2017).

2.3. VR in Advertising

Despite the advances in digital marketing, consumers have become less responsive to online advertising in general. For example, it was reported that millennials or digital natives do not prefer online pop-up advertisements (Smith, 2011). Thus, marketers targeting this new generation could embrace innovative marketing communication methods such as VR since VR technology has the best potential to engage the audience in immersive experiences (George, 2018). Nevertheless, there is a lack of scholarly work that attempted understanding the effectiveness of VR in marketing communications. Loureiro, Guerreiro, Eloy, Langaro, & Panchapakesan (2019) call for future studies revealing the state-of-the-art of research on VR. More specifically, they report a shortage of academic literature on the applications of VR

relevant to marketing. For example, how VR technology can enhance consumers' sensory perceptions during online shopping (Grewal et al., 2017). This paper aims at identifying how persuasive mechanisms are applied in VR advertising and consequently provide scholars with directions for future research and assist practitioners in their efforts to embrace this novel technology.

2.4. Persuasion

Persuasion, a fundamental aspect of human communication stands as the theoretical foundation for this study. Persuasion refers to the power of persons to alter attitudes and behaviour through information (Petty & Cacioppo, 1986a). The cognitive response model defines persuasion as a function of people's reflections and cognitive responses about the content of a message (Meyers-Levy & Malaviya, 1999). Generally, persuasion involves changing person's mental states, usually as precursors to behavioural change (O'keefe, 2002). Prior researchers have depicted how persuasion involves a change in attitude (understood as a person's general evaluation of a product) which involves a change in a valence (both positive and negative) of the evaluation (O'keefe, 2002). Predominantly, the persuasive task ought to ensure that positive attitudes are activated at the right time, for example while watching TV or during shopping.

Two other mental states of potential persuasion targets are normative considerations (various kinds of beliefs about norms) and self-efficacy or the person's perception of his or her ability to perform the behaviour is another mental state that might be implicated in persuasion (O'keefe, 2002). Further, when persuaders intend to such mental states, ultimately behavioural change occurs. Past research focusing on persuasion in communications have revealed some captivating findings. For instance, Wright & Bogost (2007) explore the unique persuasive power of videogames. Similarly, Roettl et al. (2016) examine the persuasive mechanisms in advergames (online games that incorporate marketing contents). They revealed that advergames in general apply six persuasive mechanisms, for example how persuasive mechanisms of the message autonomy were applied in advergames (Roettl et al., 2016). Nevertheless, there is an inadequate understanding about persuasiveness of advertising messages delivered through VR technology. As stated, the current study builds upon these empirical findings supporting persuasion in communications to examine the persuasive power of VR advertisements.

2.5. The Persuasive Principles and Mechanisms

The notion of persuasion has been a widely researched phenomenon. Thus, the paper first reviews several major persuasion theories namely, the elaboration likelihood model of

persuasion, integrative framework of advertising persuasion and emotional persuasion to recognize best possible analytical tools in identifying persuasive mechanisms applied in VR advertisements.

The dual-process models of persuasion, in particular the elaboration likelihood model of persuasion (ELM) (Petty & Cacioppo, 1986b) suggests that recipients of a persuasive communication may either elaborate the content of the message (central route to persuasion) or rely on simple cues that are unrelated to the message's content (peripheral route to persuasion) (Bless, Bohner, Schwarz, & Strack, 1990). If the central route to persuasion is proceeded, the resulting attitude would change, which is a function of the recipient's cognitive response to the message. Particularly, more thoughts that come to mind that support the position advocated in the message, the more pronounced the attitude change will be (Bless et al., 1990).

On the other hand, Meyers-Levy & Malaviya (1999) developed an integrative framework of advertising persuasion delineating three alternative strategies: experiential processing strategy, heuristic processing strategy and systematic processing strategy that people may use processing persuasive combinations and forming judgments. The experiential processing strategy suggests that, ad recipients are likely to address unexpected sensations generated from the process of processing the advertisement. In contrast, when a heuristic strategy is employed, people are likely to process messages selectively based on contextual cues. When a systematic processing occurs, people form highly favourable judgments, provided they engage in ample or adequate item which is specific and relational message processing that enables them to identify the actual uniqueness of product features.

Moreover, emotions can motivate and persuade consumers (Andrade & Cohen, 2007). Previous research has documented the wide array of emotions both positive and negative that can be evoked by ads (Griskevicius, Shiota, & Neufeld, 2010; Lau-Gesk & Meyers-Levy, 2009; Mackie & Worth, 1991). For example, Griskevicius et al. (2010) show positive emotions of anticipatory enthusiasm, amusement, and attachment love tended to facilitate greater acceptance of weak persuasive messages, while the positive emotions of awe and nurturant love reduced persuasion by weak messages. Conversely, negative emotions, such as sadness impact persuasive message processing (Mitchell, Brown, Morris-Villagran, & Villagran, 2001). This paper adheres to aforementioned persuasion principles and mechanisms as analytical tools in identifying persuasive characteristics of VR advertisements.

3. Method

This extant research adopted a qualitative or inductive content analysis process as a method of analysing written and visual communication messages to study how user's felt or experienced persuasiveness in VR advertisements. Content analysis has a long history of use in communication, journalism, social sciences, psychology and business, and during the last few decades its use has elucidated a steady growth (Elo & Kyngäs, 2008). In particular, qualitative content analysis is to explore language for the purpose of classifying large amounts of text into an efficient number of categories that represent similar meanings (Hsieh & Shannon, 2005). Therefore, content analysis was selected as the method because it provides a well-accepted objective and systematic scientific process for analysing communication (Boyd Thomas et al., 2007).

Given the limited existing theory and research on persuasiveness of VR advertisements in particular, the paper adopted one of the three distinct approaches to qualitative content analysis: conventional content analysis approach (Hsieh & Shannon, 2005). Subsequently, codes which were derived from the data were defined during the data analysis. The authors also viewed the advert using Google cardboard to further ensure the rigour in data analysis and interpretation. Exemplary verbatim quotes from the user generated contents (UGC) were drawn from the data to be incorporated into the interpretation presented in the findings. The trustworthiness of the content analysis was ensured by choosing the most reliable video-sharing platform, choosing best informants and adopting a purposive sampling criterion to select VR advertisements

3.1. Sample Selection

Amongst few open source video-sharing platforms support for 360- degree videos, specially Facebook and YouTube, this paper used YouTube because it has over 2 billion users-almost one third of the internet (You Tube,2020). VR advertisements were purposely selected based on their popularity which was determined by the number of viewers. Accordingly, twelve videos with highest number of viewers were selected for the analysis. For example, while *Discover the 360° world that inspired Filled Cupcake Flavoured Oreo Cookies* had the highest no of viewers (4,280,710), *DP World Caucedo Corporate Video had the least number of viewers* (14,172). However, *Google Earth VR -bringing the whole wide world to virtual reality* had the highest user generated comments (1284). All together 1690 user generated contents pertaining to 10 VR advertisements were selected for analysis. Table 1 illustrates the summary of information pertaining to the selected VR advertisements selected in this study.

Table 1: VR Advertisements Selected in The Study

No	VR Advert Title	ULR	Brand	Product/ service category	No of viewers	No of comments
1	Discover the 360° world that inspired Filled Cupcake Flavored Oreo Cookies	https://www.youtube.com/watch?v=ENau7AkayN8	Oreo	Sweet snack food	4,280,710	271
2	Google Earth VR — bringing the whole wide world to virtual reality	https://www.youtube.com/watch?time_continue=1&v=SCrkZOx5Q1M	Google earth	Tourism	2,662,170	1284
3	TERREX Mountain Project 2018	Adidas TERREX	https://www.youtube.com/watch?v=IGeoJ66Nrn4&t=1s	Adidas	Shoes	911,908	33
4	The Displaced	360 VR Video |- The New York Times	https://www.youtube.com/watch?v=ecavbpCuvkI	New York Times	Journalism	411,468	57
5	Take a virtual reality journey into the future of spaceflight	https://www.youtube.com/watch?v=Iz8og_hcpzE	CNN	Media and Journalism	216,600	230
6	Virtual Hike: Moraine Lake Banff National Park, Alberta	https://www.youtube.com/watch?v=seWRWp7HKUo	Tall Sky Walker	Hiking	211,190	100
7	360° video drive in the Mercedes-Benz SL along the Californian coastline	https://www.youtube.com/watch?v=sifStSFzApw&list=PLoORtgsuktfloL6ToxG3A_IlJvtt5JVJq	Mercedes-Benz	Luxury cars	296,741	48
8	Boursin® Sensorium 360 Virtual Reality Experience	https://www.youtube.com/watch?v=XRik3h5M-qU&t=18s	Boursin	Brand of Gournay cheese	263,729	28
9	Experience the TOMS Virtual Giving Trip	https://www.youtube.com/watch?v=jz5vQs9iXCs&t=59s	Toms	Shoes	124,706	16

10	The Topshop Virtual Reality Experience AW14	https://www.youtube.com/watch?v=lUal_Lrhec0	Topshop	Fashion and lifestyle	109,241	5
11	Coca Cola Virtual Reality for Christmas	https://www.youtube.com/watch?v=bTbfPALVQgs	Coca Cola	Soft Drinks	44,319	12
12	DP World Caucedo Corporate Video	https://www.youtube.com/watch?v=KR871yMJhOY&t=4s	DP World Caucedo	Logistics	14,172	2

Source: YouTube

4. Findings and Discussion

The findings of the content analysis revealed key major persuasive mechanisms applied in VR advertising: 1) Persuasion through immersive experience; 2) Persuasion as a function of people's reflections about the content of a message and; 3) Persuasion through emotional engagement.

4.1. Persuasion through Immersive Experience

The first theme emerged in the analysis is the persuasive effects of immersion in VR advertising. It is apparent that people respond realistically to virtual situations and events even though these are not real. They seem to enjoy this unique experience that they can immerse themselves in. Referring to the immersive experience offered by Google Earth, one respondent said: *Wow! Exploring the earth in VR! (Ad2)*. It was clearly evident that VR advertising creates a different context for their audience to experience including the statements such as *"Am I tripping! Am moving the screen? What is this witchcraft?" (Ad1). OMG I CAN TELEPORT (Ad5)*.

The perception is created by different stimuli such as VR system in images, sound and touch. This includes statements such as: *"One of the most incredible VR experiences I've ever had. I spent hours exploring the planet. The overall design, the UI, the ambient sounds, the music are all great. It really showed me the world from a brand-new perspective" (Ad2)*. Briefly, this suggests that people are likely to attend the sensation or feeling that was generated from processing of VR advertising. Furthermore, there are some evidences to support that the powerful immersive experience of VR advertisements leads a long way towards increasing consumer's purchase intention. For example, this VR advertisement has increased this

particular consumer's intention to purchase Oreos: *"I love this ad, I've never seen an ad like this before. It makes me just want to buy Oreos" (Ad1).* Nevertheless, some comments reflected the lack of technological support to facilitate the immersive experience. For example: *"I would like to show this at school for 300+ students, but they cannot all have VR glasses" (Ad 4).* Similarly, there were comments about the video quality: *"I do not see a cardboard icon to watch video someone help me" (Ad 7).*

4.2. Persuasion as a Function of People's Reflections about the Content of a Message

Persuasion as a function of people's reflection about the content of a message is the second theme focused in the study. The majority of statements suggest that VR is an effective way of delivering the content of a particular marketing message. This includes statements such as*: "Absolutely epic work. This is a brilliant example of how to use technology to bring the viewer directly into the video (Ad 4). Incredible 360° video showing the potential of food commercials with Virtual Reality Headsets. Must see (Ad 8).* More specifically, the UGC of the VR advertisements revealed that VR advertising can certainly elaborate the content of the message being delivered. This supports the principles of ELM (Petty & Cacioppo, 1986b). In particular, richness of the content of the message includes the comments such as: *"I think this will increase tourism! You will discover places you never thought of visiting before, and want to go there!" (Ad2).* For example, the quote *"Some Terrex shoes are made to fail on the front outside part, AX2 was a great model without that issue" (Ad3)* suggested a successful new innovative product by the globally well-known footwear brand Adidas. After watching the advertisement, viewers seek other product related information such as country- of- origin of the product: *"Great initiate. Where were the shoes made? In Peru? (Ad9)".* However, some viewers were not persuaded by certain content of the message being delivered. For example, the quote *"Very beautiful place. Seeing your logo though is extremely distracting. I feel that if you are good enough people will follow and don't need to see your name and logo constantly looming!".*

Moreover, some comments suggest that viewers rely on simple cues (peripheral route to persuasion) (Bless et al., 1990) that are unrelated to the message's content such as background music, location, equipments used etc. For example, despite the famous fast- fashion brand's attempt to create a VR fashion show, this particular viewer was keener about the music artist of the video: *"does anyone know the name and artist of the music used in this video? Unable to find on Shazam" (Ad8). What equipment was used to shoot this in 360? Great capture to your ad (Ad9).* Similar statements include: *"Which camera did you use to shoot this? Just amazing" (Ad7). "How did u do that, pause the video and look for a stand, but there is no*

stand for the camera, is it a drone or what?? (Ad7). Similarly, some questioned about the place where the shooting took place: *"Where were all those places???" (Ad3)*.

4.3. Persuasion through Emotional Engagement

Persuasion through emotional engagement is the third major theme discussed in the analysis. The user-generated contents of the VR ads revealed that VR advertising creates an unforgettable experience, resulting a much deeper level emotional engagement with the consumer. VR ads appear to increase a satisfied consumers' positive emotional engagement, for example, happiness, enthusiasm, amusement or love with the brand. Comments expressing this include: *"Omg I'm a fan of Oreo... I love Oreos... I love the video... thanks for this video... I love you Oreos (Ad1)*. This empirical finding supports the prior literature findings on the effect of positive affect on persuasion processing, particularly to facilitate heuristic-based processing (Griskevicius et al., 2010; Lau-Gesk & Meyers-Levy, 2009; Mackie & Worth, 1991).

Many brands use sadness as a powerful emotion in their advertising to deliver a sense of empathy or compassion. The current study also provides empirical support for this notion within the context of VR advertising. The majority of UGC revealed that stirring a feeling of sadness can compel people to act. Comments supporting this include: *"Absolutely epic work. This is a brilliant example of how to use technology to bring the viewer directly into the video, virtual reality will change the world" (Ad4)*. Another viewer stated: *"I have only cried twice watching a movie or a video. And this almost made me cry. Very powerful (Ad4)*. These findings provide some insights on the existing knowledge about the persuasive impact of empathy-based messages (Shen, 2010) by delineating the role of empathy in persuasive communication via VR. For instance, a viewer posted an empathetic statement with respect to US shoe brand, TOMS. The intention was to help communities in need through their TOMS giving programme: *"A classic line from the video which we should all consider when we look at those in need or terrible events around the world " when you look into the eyes of a stranger here at home or abroad on the other side of the world it's really hard not to see yourself". A job well done guys!" (Ad7)*. More specifically, these affective and cognitive components in empathy suggest that recipients affect and cognition will be similar to those of the characters in the messages, which means unintended effects would be reduced or avoided; consequently, with better persuasion (Shen, 2010).

Furthermore, use of nostalgia in VR advertising is considered to be highly effective and persuasive in the current research. Nostalgia is the sentimental yearning for an experience, product, or service from the past (Baker & Kennedy, 1994). Comments expressing VR technology can evoke positive personal nostalgia: "Thanks *Google for making this? An amazing experience and a great way to relive memories in life" (Ad2)*, "*Powerful. "I would*

get to be a child again" (Ad 4) and *"It's like 2005 overly warm commercials all over again"* *(Ad 5). "That's amazing how you guys done this video, now I feel like a big kid on Christmas Wow!" (Ad 1).* These comments clearly reflect VR advertisement's ability to evoke viewers' emotional state in which they yearn for an idealized or sanitized version of an earlier time period.

5. Conclusion

The current research immerses evolving literature on VR in marketing. Although VR is undoubtedly one of the most innovative technologies of this decade, it is a slowly growing mainstream. Given this background, the current research provides an initial attempt to identify how persuasive mechanism is applied in VR advertisements, thereby supports the claim that VR impacts on future marketing. More specifically, the paper reports three persuasiveness mechanisms of VR advertising. First, immersive experience in VR advertising. Unlike traditional methods of advertising, users can be transported to places and interact with products/services as if they experience them in actual reality through this immersive and interactive method. Second, the research shows that VR is an effective way of delivering the content of the marketing message. Third, the paper shows that VR advertising promotes deeper level of emotions which is a key factor of consumer's engagement with a brand. From a managerial perspective, this research shows that VR advertising acquires an increasing attention from consumers and it has the potential to impact every aspect of a business in the near future. Thus, marketers should make better use of this opportunity to inculcate their brands in consumer's minds.

References

Andrade, Eduardo B., & Cohen, Joel B. (2007). On the Consumption of Negative Feelings. *Journal of Consumer Research, 34*(3), 283-300.

Baker, S.M. and Kennedy, P.F. (1994), "Death by nostalgia: a diagnosis of context- specific cases", Advances in Consumer Research, Vol.21. No. 1, pp. 169-74.

Berg, L., & Vance, J. (2017). Industry use of virtual reality in product design and manufacturing: a survey. *Virtual Reality, 21*(1), 1-17.

Bigné, E., Llinares, C., & Torrecilla, C. (2016). Elapsed time on first buying triggers brand choices within a category: A virtual reality-based study. *Journal of Business Research, 69*(4), 1423-1427.

Biocca, F. (1992). Communication Within Virtual Reality: Creating a Space for Research. *Journal of Communication, 42*(4), 5-22.

Bless, H., Bohner, G., Schwarz, N., & Strack, F. (1990). Mood and Persuasion:A Cognitive Response Analysis. *Personality and Social Psychology Bulletin, 16*(2), 331-345.

Boyd, D. E., & Koles, B. (2019). Virtual reality and its impact on B2B marketing: A value-in-use perspective. *Journal of Business Research, 100*, 590-598.

Boyd Thomas, J., Okleshen Peters, C., & Tolson, H. (2007). An exploratory investigation of the virtual community MySpace. com: What are consumers saying about fashion? *Journal of Fashion Marketing and Management: An International Journal, 11*(4), 587-603.

Deng, X., Unnava, H. R., & Lee, H. (2019). "Too true to be good?" when virtual reality decreases interest in actual reality. *Journal of Business Research, 100*, 561-570.

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of advanced nursing, 62*(1), 107-115.

George. (2018). The future of advertising in virtual reality. Retrieved fromhttps://www.kivodaily.com/technology/the-future-of-advertising-in-virtual-reality/

Grand View Research. (2020). Virtual Reality Market Growth and Trends. Retrieved from https://www.grandviewresearch.com/press-release/global-virtual-reality-vr-market

Grewal, D., Roggeveen, A. L., & Nordfält, J. (2017). The Future of Retailing. *Journal of Retailing, 93*(1), 1-6.

Griskevicius, V., Shiota, M. N., & Neufeld, S. L. (2010). Influence of different positive emotions on persuasion processing: A functional evolutionary approach. *Emotion, 10*(2), 190.

Hsieh, H.-F., & Shannon, S. E. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research, 15*(9), 1277-1288.

Klein, L. R. (2003). Creating virtual product experiences: The role of telepresence. *Journal of interactive marketing, 17*(1), 41-55.

Lau-Gesk, L., & Meyers-Levy, J. (2009). Emotional Persuasion: When the Valence versus the Resource Demands of Emotions Influence Consumers' Attitudes. *Journal of Consumer Research, 36*(4), 585-599.

Lee, O., & Oh, J.-E. (2007). The impact of virtual reality functions of a hotel website on travel anxiety. *Cyberpsychology & behavior : the impact of the Internet, multimedia and virtual reality on behavior and society, 10*(4), 584.

Loureiro, S. M. C., Guerreiro, J., Eloy, S., Langaro, D., & Panchapakesan, P. (2019). Understanding the use of Virtual Reality in Marketing: A text mining-based review. *Journal of Business Research, 100*, 514-530.

Mackie, D. M., & Worth, L. T. (1991). Feeling good, but not thinking straight: The impact of positive mood on persuasion. In *Emotion and social judgments*. (pp. 201-219). Elmsford, NY, US: Pergamon Press.

Meyers-Levy, J., & Malaviya, P. (1999). Consumers' processing of persuasive advertisements: An integrative framework of persuasion theories. *Journal Of Marketing, 63*, 45-60.

Mitchell, M., Brown, K., Morris-Villagran, M., & Villagran, P. (2001). The effects of anger, sadness and happiness on persuasive message processing: a test of the negative state relief Model. *Communication Monographs, 68*(4), 347-359.

O'keefe, D. J. (2002). Persuasion. *The International Encyclopedia of Communication*.

Petty, R. E., & Cacioppo, J. T. (1986a). The Elaboration Likelihood Model of Persuasion. In *Communication and Persuasion: Central and Peripheral Routes to Attitude Change* (pp. 1-24). New York, NY: Springer New York.

Petty, R. E., & Cacioppo, J. T. (1986b). The elaboration likelihood model of persuasion. In *Communication and persuasion* (pp. 1-24): Springer.

Roettl, J., Waiguny, M., & Terlutter, R. (2016). The persuasive power of advergames: A content analysis focusing on persuasive mechanisms in advergames. *Australasian Marketing Journal (AMJ), 24*(4), 275-287.

Shen, L. (2010). Mitigating Psychological Reactance: The Role of Message-Induced Empathy in Persuasion. *Human Communication Research, 36*(3), 397-422.

Smith, K. T. (2011). Digital marketing strategies that Millennials find appealing, motivating, or just annoying. *Journal of Strategic Marketing, 19*(6), 489-499.

Suh, K.-S., & Lee, Y. E. J. M. Q. (2005). The effects of virtual reality on consumer learning: an empirical investigation. 673-697.

Woolard.S. (2019). How VR Advertising is shaping the future of marketing. Retrieved from http://www.adotas.com/2019/01/vr-advertising-shaping-future-marketing/

Wright, W., & Bogost, I. (2007). *Persuasive games: The expressive power of viedogrames:* Mit Press.

Yeh, C. H., Wang, Y.-S., Li, H. T., & Lin, S. Y. (2017). The effect of information presentation modes on tourists' responses in Internet marketing: the moderating role of emotions. *Journal of Travel & Tourism Marketing, 34*(8), 1018-1032.

Youtube. (2020), You Tube for press. Retrieved from https://www.youtube.com/about/press/